

LAND MANAGEMENT PLAN

SEPTEMBER 2016



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Prepared for :
TAHOE DONNER ASSOCIATION

11509 Northwoods Boulevard
Truckee, California 96161
Contact: Annie Rosenfeld

Prepared by:
DUDEK
853 Lincoln Way, Suite 208
Auburn, California 95603
Contact: Markus Lang



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Land Management Plan

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ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
ACOE	U.S. Army Corps of Engineers (ACOE)
amsl	above mean sea level
Association (or TDA)	Tahoe Donner Association
Cal-IPC	California Invasive Plant Council
CC&Rs	covenants, conditions, and restrictions
CDFA	California Department of Food and Agriculture
CDFW	California Department of Fish and Wildlife (CDFW)
CEQA	California Environmental Quality Act
CNDDDB	California Natural Diversity Database
CPRR	Central Pacific Railroad
CWA	Clean Water Act
GPS	Global Positioning System
GGRF	Greenhouse Gas Reduction Fund
IPM	integrated pest management
LMP	Land Management Plan
NRCS	Natural Resources Conservation Service
PRC	Public Resources Code
RV	recreational vehicle
RWQCB	Regional Water Quality Control Board
SHPO	State Office of Historic Preservation
TDA (or Association)	Tahoe Donner Association
TMDL	total maximum daily load
TRWC	Truckee River Watershed Council
USDA	U.S. Department of Agriculture
USFS	U.S. Forest Service

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1 INTRODUCTION

1.1 Overview

The Tahoe Donner Association (the Association) Land Management Plan (LMP) is a stewardship plan that provides goals and objectives to manage the Association's lands for conservation, restoration, mitigation, recreation, and member-serving amenities. The LMP applies to all Association-owned and managed lands within the Tahoe Donner subdivision and the Beach Club Marina on Donner Lake (Figures 1 through 3). The LMP will guide future development activities, resource conservation, and management within seven zones: (1) Residential, (2) Residential–Wildlands Interface, (3) Amenities, (4) Greenbelt, (5) Open Area, (6) Stream Corridor, and (7) Ancillary Facilities (Figure 4). The LMP addresses biological resources, water quality, cultural resources, and hazardous areas in the context of existing, surrounding, and future land uses within these seven zones and identifies and prioritizes management activities and land uses by zone.

Consistent with the Association's Strategic Plan Update (TDA 2015a), and in keeping with the Association's mission, the LMP will facilitate a proactive approach to maintaining the health of Tahoe Donner's natural resources and will complement other planning guidance documents adopted by the Association in providing the management and members of Tahoe Donner a reference and guide for effective land management. As a resource for decision-making and longer-term planning the LMP will help guide funding to manage the Association's natural resources.

This LMP incorporates elements of the following planning and regulatory guidance documents:

- TDA Strategic Plan
- TDA Forest Management Plan
- TDA Trails Master Plan
- TDA General Plan 2030
- Nevada County General Plan
- Town of Truckee General Plan
- Town of Truckee Development Code.

1.2 Plan Area Description

The approximately 7,376-acre Tahoe Donner subdivision is located in the northwest part of the Town of Truckee in eastern Nevada County, California, as depicted in Figures 1 and 5). Donner Pass Road and Northwoods Boulevard provide access to the site from the south. State Route 89

Land Management Plan

and Alder Creek Road provide access to the site from the north. The Association also owns a parcel on the east shore of Donner Lake that is used for recreation by Association members.

The Plan Area is generally bounded on the west by Donner Ridge; on the south by Interstate 80 and Donner Pass Road; on the north by Carpenter Valley Road; and on the east by Prosser Hill, Alder Hill, and State Route 89. Downtown Truckee is located approximately 1 mile southeast of the boundary of the subdivision. A mix of private parcels and Tahoe National Forest lands surround the project site; the U.S. Forest Service (USFS) owns and manages parcels to the immediate north, south, east, and west of the project site boundaries (Figure 5).

The majority of the Plan Area lies within the limits of the Town of Truckee while the northwestern portion lies within unincorporated Nevada County (Figure 5). Land use designations and zoning within the Plan Area allow for a variety of uses, including forestry, residential uses, and recreation (Figure 6).

Developed portions of the Plan Area are primarily within the Town of Truckee and include approximately 2,660 acres of private lots owned by members of the Association, utility company property, several private parcels, and 62 miles of paved public roadway. Private lots alone make up approximately 2,358 acres. The portion of the Plan Area within the Town of Truckee's limits includes approximately 1,338 acres of common area (greenbelts within developed area) and other undeveloped land owned by the Association. The Association also holds approximately 402 acres of other property within the Town of Truckee and the developed portion of the subdivision. This land is developed with Association facilities, including the Northwoods Clubhouse facility, the Trout Creek Recreation Center, an 18-hole golf course and driving range, a facilities maintenance complex, a forestry complex, a downhill ski hill, a cross-country/equestrian facility, and a campground. The remaining approximately 3,278 acres of the subdivision is owned by the Association and is undeveloped open space used primarily for recreation; forestry operations, including fuel breaks; and wildlife habitat. This open space land is outside of the Town of Truckee's city limits in unincorporated Nevada County and includes an additional 640 acres north of Euer Valley acquired by the Association in 2016.

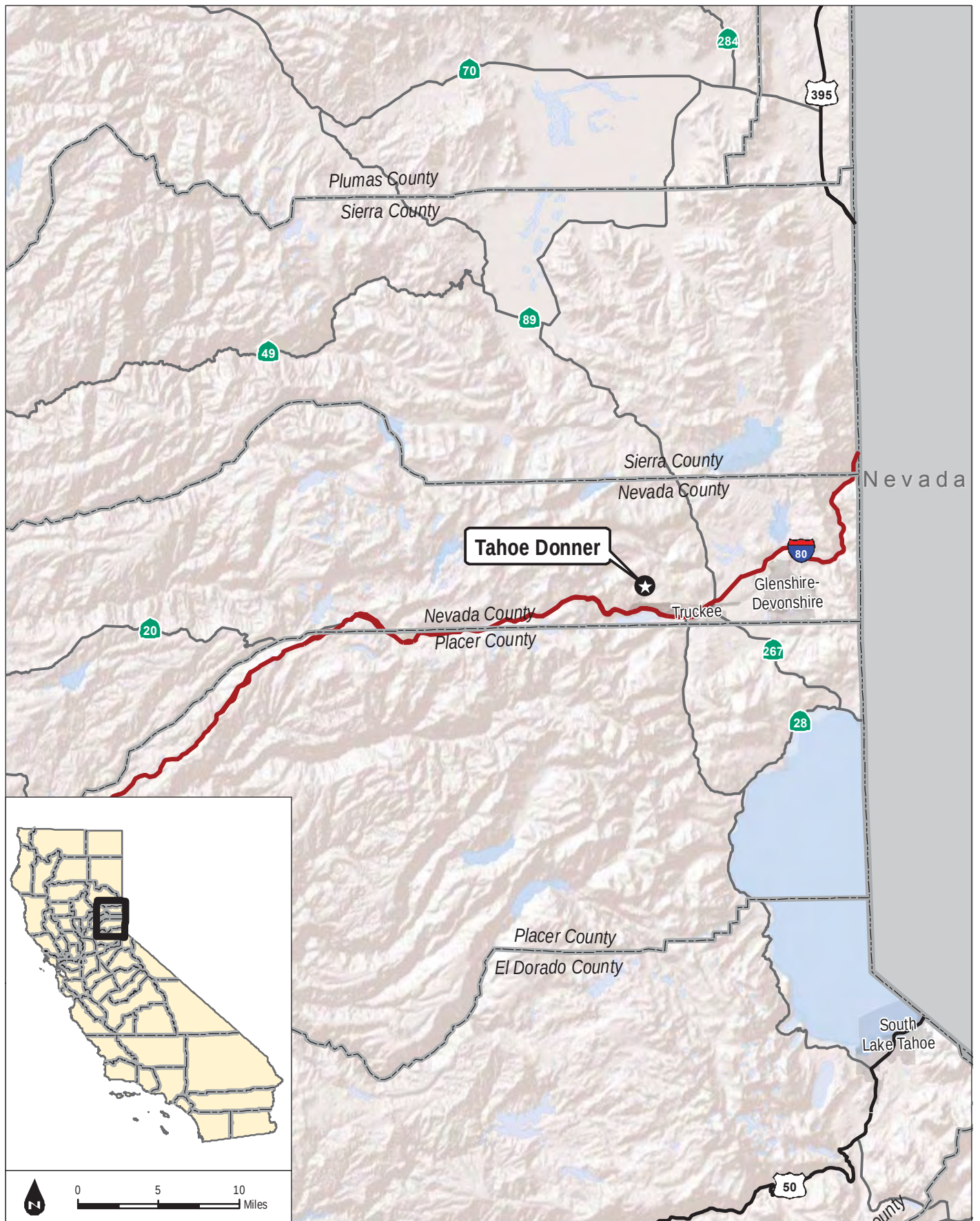
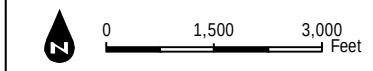
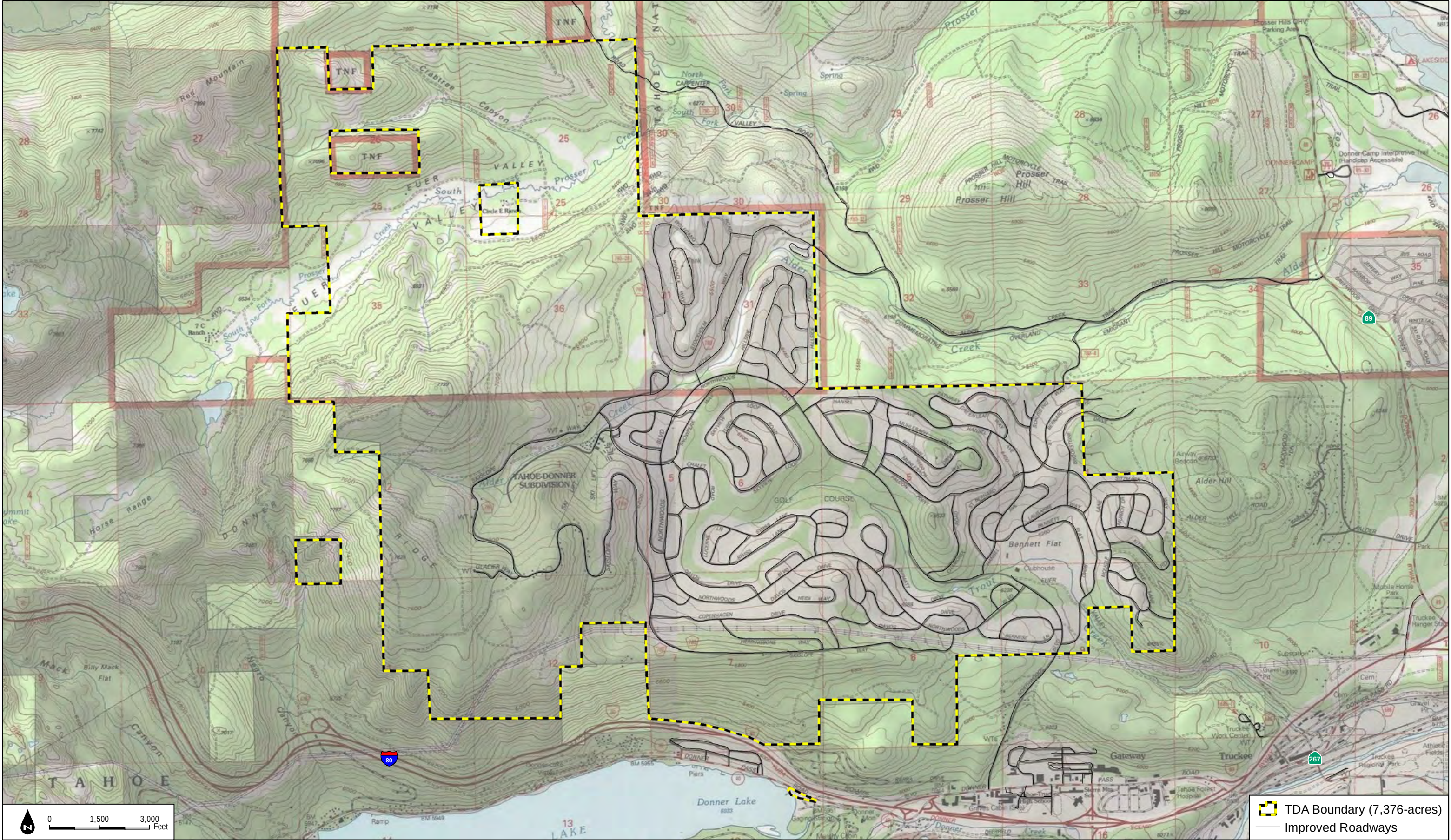


FIGURE 1
Regional Map

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 TDA Boundary (7,376-acres)
 Improved Roadways

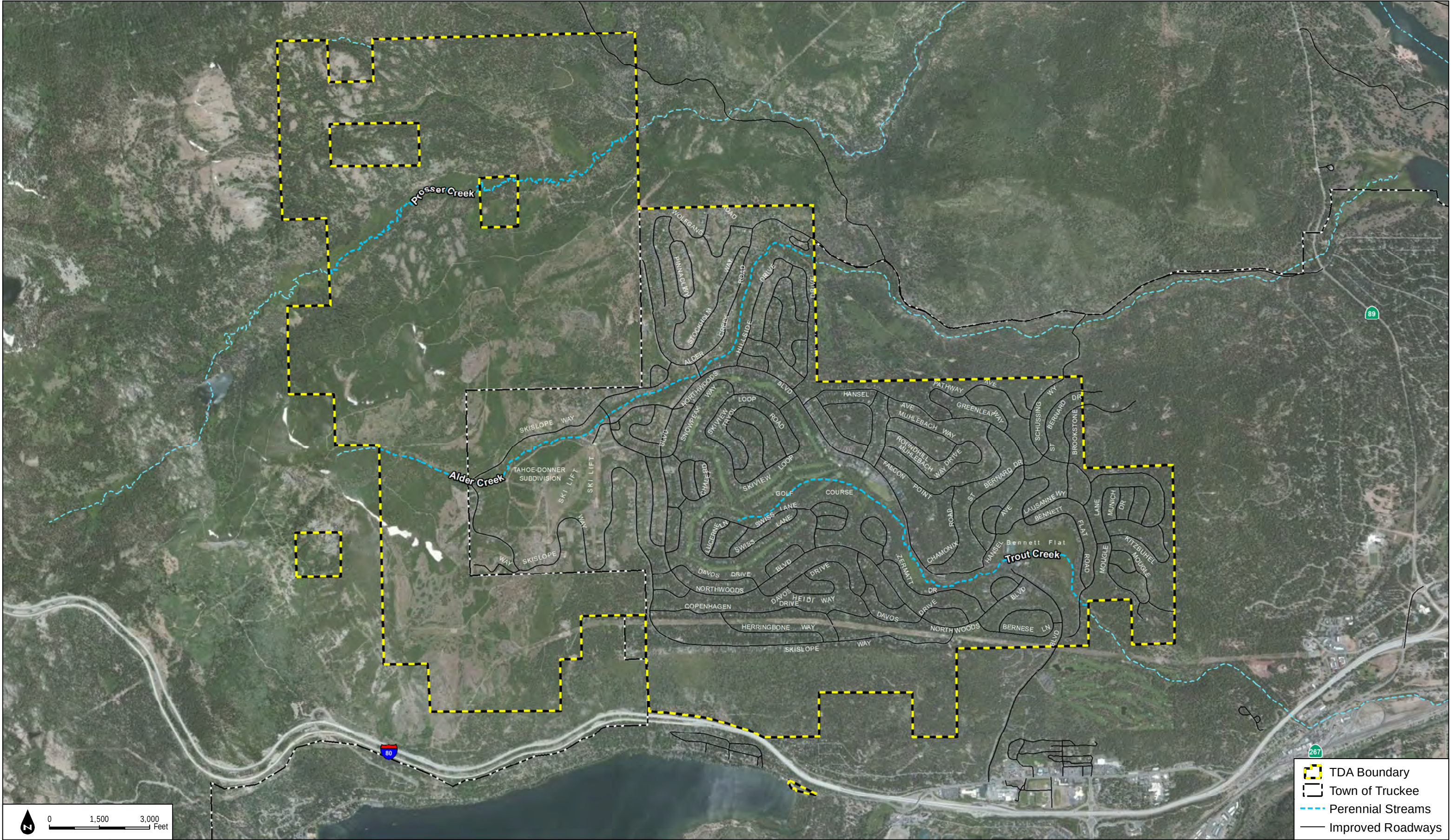
SOURCE: TDA 2015; USGS 7.5-Minute Series Hobart Mills, Independence Lake, Norden, Truckee Quadrangles.

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Tahoe Donner Association Land Management Plan

FIGURE 2
Site and Vicinity Map

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- TDA Boundary
- Town of Truckee
- Perennial Streams
- Improved Roadways

0 1,500 3,000 Feet



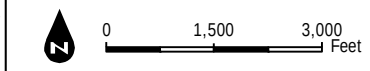
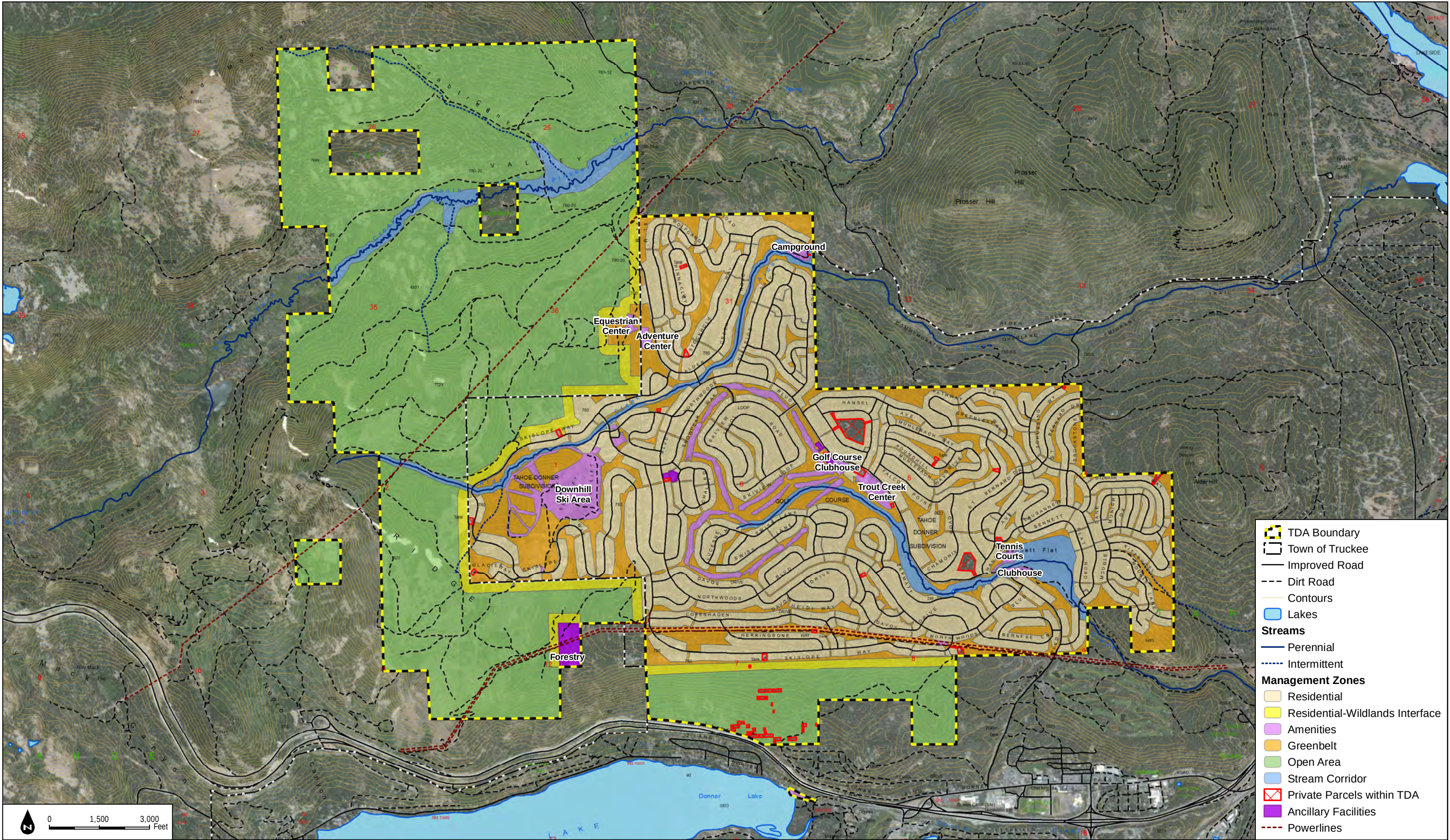
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SOURCE: TDA 2015; USGS NHD 2015; Bing Maps 2016

Tahoe Donner Association Land Management Plan

FIGURE 3
Aerial Overview Map

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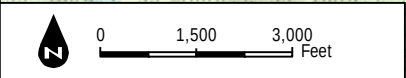
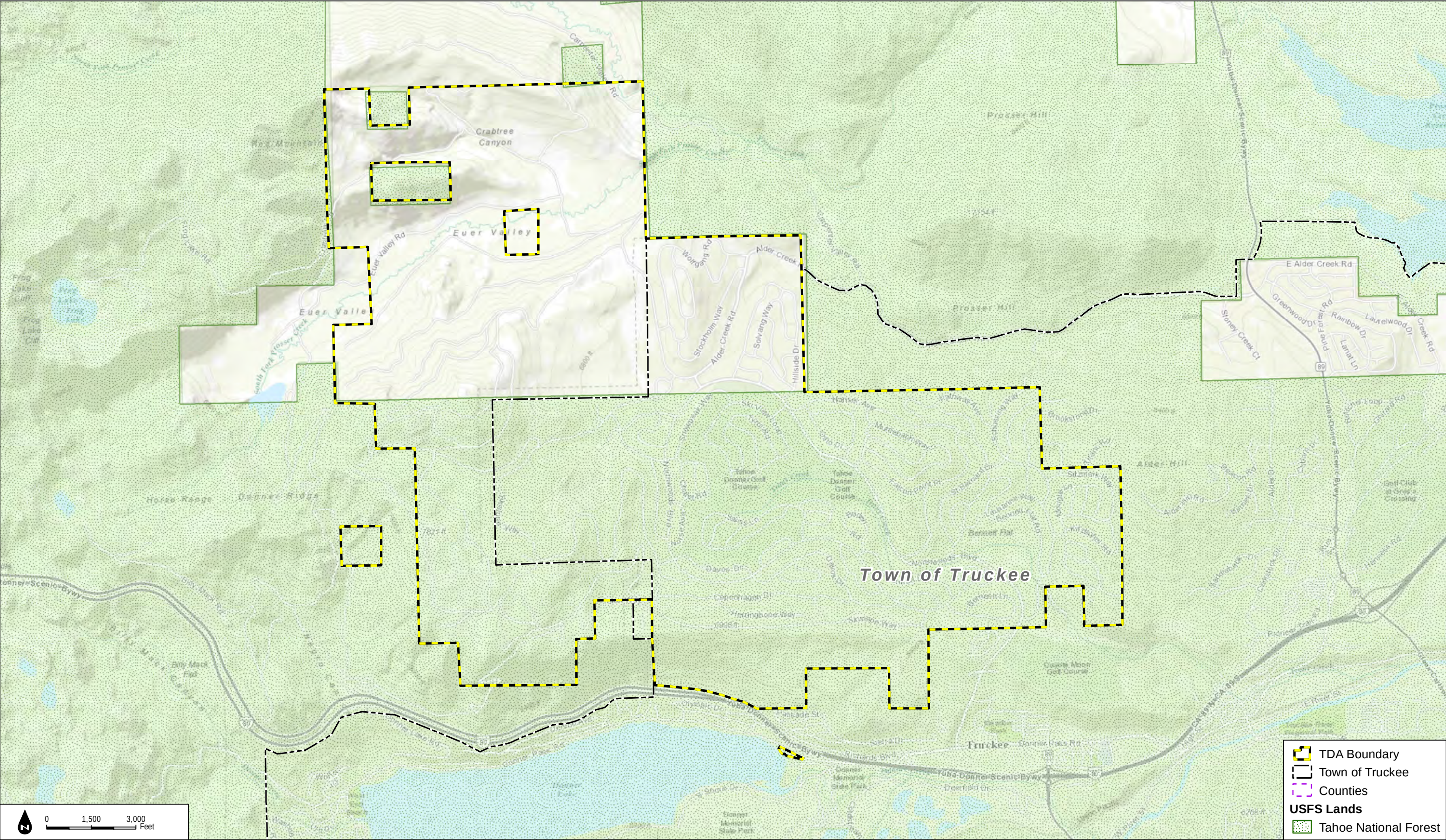
SOURCE: TDA 2015; Bing Maps 2016

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Tahoe Donner Association Land Management Plan

FIGURE 4
Management Zones

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- TDA Boundary
- Town of Truckee
- Counties
- USFS Lands**
- Tahoe National Forest

FIGURE 5
Jurisdictional Boundaries

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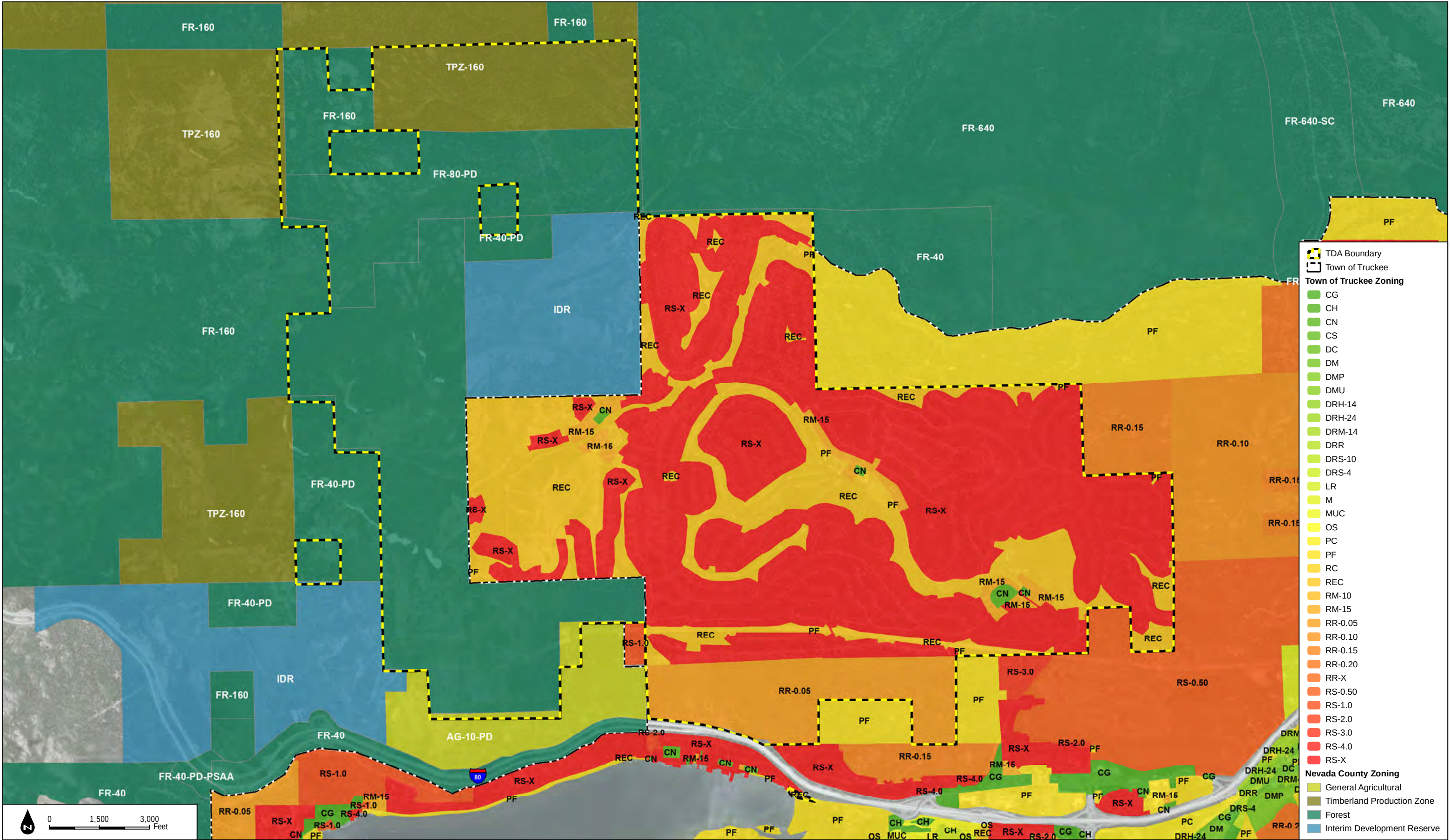


FIGURE 6
Zoning Map

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The Association's undeveloped property is under two different ownership designations: Common Area and Other Association Real Property (Figure 7). Under deed restrictions maintained by the Association, different uses are allowed within each of these designated areas. Lands designated as Common Area are real property owned by the Association and identified for the common use and enjoyment of the owners.

“The Common Areas shall be preserved as open space except where, improved for recreational purposes or other purposes incidental and ancillary to the use of Lots or administration of the Association.” (TDA C&R Article VIII, Section 1(b))(TDA 1992)

Other Association Real Property refers to certain parcels of real property now owned or to be acquired in the future by the Association which are not dedicated as Common Area. According to the Tahoe Donner Association Covenants and Restrictions:

“The use, enjoyment, and development of Other Association Real Property shall be in the sole discretion of the Board of Directors except that:

- a. Such use, enjoyment, and development shall always be at the advantage and in the best interests of the association and its Members...” (TDA C&R Article VIII, Section 4) (TDA 1992)

Common Facilities are owned or leased by the Association and may be located either within the Common Area or Other Association Real Property. This includes the recreation facilities located within the Common Area and maintenance, recreation, and other facilities sited in Common Areas or Other Association Real Property. The Tahoe Donner Association Covenants and Restrictions provide further detail regarding designations and allowed uses of property under Association ownership.

The Association's property includes both built and natural features and provides public and private access to a variety of recreational and natural resources. The Plan Area supports approximately 4,616 acres of open space, including greenbelts within the developed portion of the subdivision and large open areas surrounding the developed areas. These open space areas support timber stands (including managed plantations), creeks, riparian zones, and meadows, and are a valuable recreational resource for this outdoor-oriented community. The Association maintains fuel modification zones and defensible space within undeveloped areas for wildfire protection.

The site lies on the eastern slope of the Sierra Nevada range. Slopes range from flat to 60%, with the majority of the slopes being less than 35%. The site primarily slopes towards the east, though topography is variable across the site. The elevation ranges from approximately 6,200 to 7,825 feet above mean sea level (amsl) (TDA 2012). Drainage from the site is via three primary

Land Management Plan

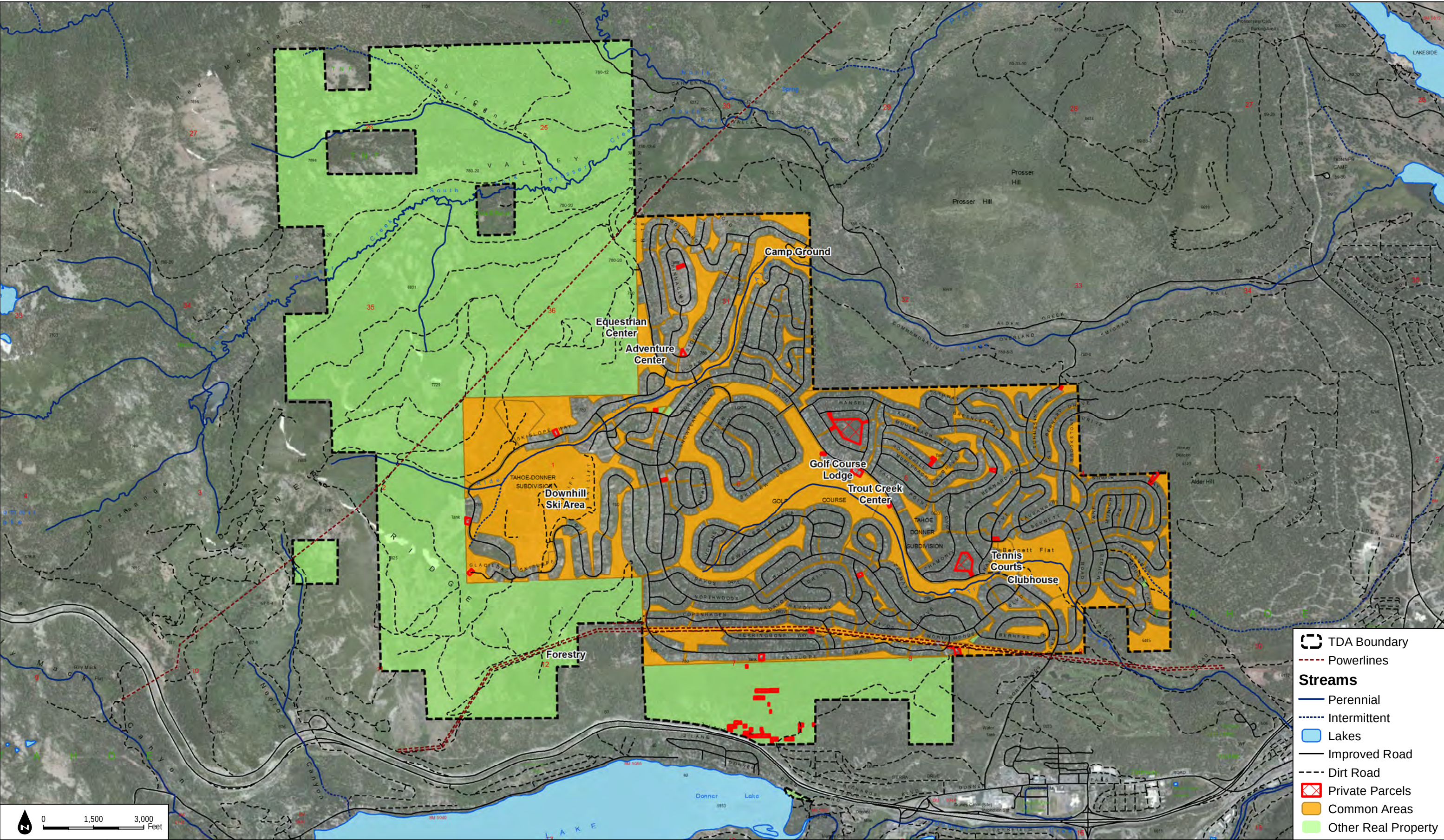
waterways: Alder Creek, South Fork Prosser Creek, and Trout Creek, which are all tributaries of the Truckee River.

The pre-historic use of the site was by the Washoe Tribe; living, hunting, trading, and gathering food, primarily during the mild seasons. The Plan Area was well traveled by Euro-American emigrant parties during the mid-to-late nineteenth century. Historic land uses in the area included ranching/dairy operations and logging related to historical railroad activities and post-fire timber salvage operations.

Natural vegetation communities within the Plan Area include Sierran Mixed Conifer, Montane Chaparral, Montane Riparian, Aspen Grove, and Montane Wet Meadow (Kelly Biological Consulting 2015). The Plan Area is within the watershed of Trout Creek, Alder Creek, and the South Fork of Prosser Creek (Balance Hydrologics 2015). Particularly sensitive habitats in the Plan Area that would be subject to regulation include streams and associated riparian zones and wet meadows.

Special-status plant species that have been observed or have a moderate to high potential to occur in the Plan Area include Davy's sedge (*Carex davyi*), threetipped sagebrush (*Artemisia tripartita*), alder buckthorn (*Rhamnus alnifolia*), Robbin's pondweed (*Potamogeton robbinsii*), three species of moonworts (*Botrychium crenulatum*, *B. lunaria*, and *B. minganense*), broad-nerved hump moss (*Meesia uliginosa*), Donner Pass buckwheat (*Eriogonum umbellatum* var. *torreyanum*), and starved daisy (*Erigeron miser*).

Twenty-six special-status wildlife species have been recorded within the Plan Area or have geographic ranges that overlap with the Plan Area (CNDDDB 2015, as cited in Kelly Biological Consulting 2015). Of those 26 species, 2 are considered present and extant, 4 have a high potential to occur, and 4 have a moderate potential to occur in the Plan Area. Trout, Prosser, and Alder Creeks and their tributaries provide suitable habitat for willow flycatcher (*Empidonax traillii*, State Endangered), yellow warbler (*Setophaga petechia*, Species of Special Concern (SSC)), Sierra Nevada snowshoe hare (*Lepus americanus tahoensis*, CDFW SSC), Sierra Nevada mountain beaver (*Aplodontia rufa californica*, CDFW SSC), and Lahontan cutthroat trout (*Oncorhynchus clarkii henshawi*, Federal Threatened). Roosting habitat for Townsend's big-eared bat (*Corynorhinus townsendii*, State Candidate), northern goshawk (*Accipiter gentilis*), rufus hummingbird (*Selasphorus rufus*), white-headed woodpecker (*Picoides albolarvatus*), and olive-sided flycatcher (*Contopus cooperi*) exists in the Plan Area. Sierra Nevada red fox (*Vulpes vulpes necator*, State Threatened) and Sierra Nevada yellow-legged frog (*Rana sierrae*, Federal Endangered, State Threatened) have historically occurred in the region (Kelly Biological Consulting 2015).



SOURCE: Bing Maps (Accessed 2016), TDA (2015), PADUS (2008)

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Tahoe Donner Association Land Management Plan

FIGURE 7
Property Designations

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2 GOALS AND OBJECTIVES

The following goals and objectives have been developed for this LMP based on input from the Association, including staff, a working group, and stakeholders. Measures to implement the goals and objectives are identified in Sections 7 through 11 of the LMP.

- **Goal 1.** Provide policies and a plan to manage Association lands, where appropriate, for sustainability, conservation, restoration, mitigation, recreation, and member-serving amenities.
 - **Objective 1.** Identify and prioritize management activities and land uses by zone.
 - **Objective 2.** Guide future development activities, resource conservation, and management within the following zones: Residential, Residential–Wildlands Interface, Amenities, Greenbelt, Open Area, Stream Corridor, and Ancillary Facilities.
 - **Objective 3.** Ensure that allowable land uses remain compatible with the long-term conservation, improvement and management of sensitive biological resources, water quality, cultural resources, and hazardous areas.
 - **Objective 4.** Design and monitor drainage facilities such that direct and indirect impacts to biological and water quality resources are minimized.
 - **Objective 5.** Ensure compatibility with covenants, conditions, and restrictions (CC&Rs) and other Tahoe Donner guiding documents (i.e., create a partnership for management and stewardship).
 - **Objective 6.** Foundation for educating the membership on the role of the board, management, and committees specific to this topic.
 - **Objective 7.** Working document utilized during planning processes.
 - **Objective 8.** Represent membership input throughout the process.
- **Goal 2.** Conserve and manage natural and cultural resources within Tahoe Donner for the use and benefit of Tahoe Donner members and the greater Truckee community and to protect and enhance the natural environment in and around Tahoe Donner.
 - **Objective 1.** Manage biological resources, water quality, cultural resources, and hazardous areas, in the context of existing, surrounding, and future land uses within the management zones.
 - **Objective 2.** Design and monitor transition areas between approved development and open areas, such that edge effects and encroachment are minimized.
 - **Objective 3.** Maintain or increase riparian functions and values of South Fork Prosser Creek, Alder Creek, Trout Creek, and associated tributaries.

Land Management Plan

- **Objective 4.** Maintain or enhance wildlife and habitat corridors.
- **Objective 5.** Conserve endangered species' habitats within open space.
- **Objective 6.** Provide monitoring and maintenance, adaptive management techniques, project prioritization protocols, and recommend funding sources for mitigation components.

3 ENVIRONMENTAL SETTING

3.1 Natural Setting

The Plan Area lies on the eastern slope of the Sierra Nevada range. Slopes range from flat to 60%, though the majority of slopes are less than 35%. The site generally slopes toward the east and south, though the topography varies throughout the site. Elevation ranges from approximately 6,200 to 7,825 feet amsl (TDA 2012).

Habitats within the Plan Area are representative of those typically found in the Tahoe region and provide both upland and riparian habitats for a variety of native plant and wildlife species, including several special-status species. Vegetation communities present on site include Sierran Mixed Conifer, Montane Chaparral, Montane Riparian, Aspen Grove, and Montane Wet Meadow (Kelly Biological Consulting 2015). Riparian habitats are primarily associated with three perennial creeks—Trout Creek, Alder Creek, and the South Fork of Prosser Creek—in addition to a number of intermittent and ephemeral drainages within the Plan Area (Balance Hydrologics 2015).

3.2 Existing Land Uses

Developed Setting

Tahoe Donner consists of approximately 7,376 acres, with over 4,600 acres of open space including over 1,300 acres of common area interspersed among the private residences in the subdivision. The Association includes approximately 6,500 residential units and over 25,000 individual members (TDA 2014). On-site facilities include an administrative office, a clubhouse, a downhill ski area, a cross-country/equestrian facility, a recreation center, a tennis center, pool facilities, a driving range, an 18-hole golf course, a campground, a Beach Club Marina, a trail system, and a forestry facility. A map of the Association's developed amenities is provided in Figure 8.

Residential Development

The approximately 6,500 residential units within the Association include multifamily units as well as single-family homes. Residences are located in the central and eastern portions of the Plan Area, within the Town of Truckee. CC&Rs prohibit perimeter fencing of properties to preserve an open and natural setting within the subdivision.

Land Management Plan

On-Site Facilities

The Northwoods Clubhouse, pool, and tennis courts are located just north of the eastern-most portion of the Northwoods Boulevard loop. Trout Creek Recreation Center (a fitness and spa facility), the 18-hole Tahoe Donner golf course, and the driving range are more centrally located in the Plan Area near the intersection of Northwoods Boulevard and Julian Avenue. Tahoe Donner Campground, which provides both tent and recreational vehicle (RV) sites, is located in the northern portion of the Plan Area on the banks of Alder Creek (TDA 2015c). The Tahoe Donner Downhill Ski Area occupies an open area off of Snowpeak Way and operates during winter months. The Northwoods pool and tennis courts and Trout Creek Recreation Center are Tahoe Donner private amenities. The golf course, driving range, campground, and ski area are open to the public.

The Alder Creek Adventure Center, which includes BikeWorks, Cross Country Ski Area, and the Equestrian Center, is located on the west side of Alder Creek Road near the intersection of Alder Creek Road and Wolfgang Road. These facilities serve members and guests and are open to the public. Parking is provided on site for these facilities and provides access to trails in open space areas, including Euer Valley and Hawk's Peak. The Equestrian Center offers trail rides, pony rides, private lessons, horsemanship boarding, and special events. The Alder Creek Adventure Center offers cross-country skiing facilities during winter and mountain biking facilities during summer months. Over 100 kilometers of Nordic ski trails traverse the northwestern portion of the Plan Area, including Euer Valley.

In summer months, 60 miles of trails and fire roads are available in Tahoe Donner's open space areas, including 18.2 miles of singletrack trails and 41.8 miles of fire roads. The trail system is a quasi-public facility that is open to Tahoe Donner members and their guests. Public who use the trail system are encouraged to donate money to support trail maintenance and construction. Trail users include equestrians, hikers, and mountain bikers. Additional information regarding existing and planned trails can be found in the 2013 Tahoe Donner Trails Master Plan (TDA 2013) and the 2015 Tahoe Donner Trails 5-Year Implementation Plan (TDA 2015d). Summer trails exist on the 640-acre property acquired by the Association in 2016. Future updates to the Association's trails planning documents will include this property.

Other on-site member and support facilities include the private boat and trailer parking facility at the west end of Skislope Way, the maintenance yard on Northwoods Boulevard, the Forestry facility accessed from Skislope Way, and the golf course maintenance and golf cart storage barn just north of The Lodge Restaurant.

TAHOE DONNERSM



- 1 NORTHWOODS CLUBHOUSE** PRIVATE
 Bocce ball, archery, horseshoes, volleyball, pool/water slide, playground
 11509 Northwoods Blvd.
 p 530-587-9400
 e info@tahoedonner.com

RECREATION INFORMATION HUT PRIVATE
 11509 Northwoods Blvd.
 p 530-582-9646
 e recreation@tahoedonner.com

PIZZA ON THE HILL PUBLIC
 11509 Northwoods Blvd.
 p 530-582-9669

TENNIS PRIVATE
 11509 Northwoods Blvd.
 p 530-587-9474
 e tennis@tahoedonner.com
- 2 TROUT CREEK RECREATION CENTER** PRIVATE
 12790 Northwoods Blvd.
 p 530-587-9437
 e troutcreek@tahoedonner.com

DRIVING RANGE PUBLIC
 12790 Northwoods Blvd.
 p 530-587-9443
- 3 THE LODGE RESTAURANT & PUB** PUBLIC
 12850 Northwoods Blvd.
 p 530-587-9455

TAHOE DONNER GOLF COURSE PUBLIC
 12850 Northwoods Blvd.
 p 530-587-9440
 e golf@tahoedonner.com
- 4 TAHOE DONNER CAMPGROUND** PUBLIC
 13813 Alder Creek Road
 p 530-587-9462
 e campground@tahoedonner.com
- 5 ALDER CREEK ADVENTURE CENTER**
 15275 Alder Creek Road
 *Ever Valley trail access and parking

EQUESTRIAN CENTER PUBLIC
 p 530-587-9470
 e equestrian@tahoedonner.com

BIKEWORKS PUBLIC
 p 530-582-9694
 e bikeworks@tahoedonner.com
- 6 DAY CAMPS AT DOWNHILL SKI AREA** PRIVATE
 11603 Snowpeak Way
 p 530-587-9493
 e daycamps@tahoedonner.com
- 7 BEACH CLUB MARINA** PRIVATE
 12915 Donner Pass Road
 p 530-587-9460
 e marina@tahoedonner.com

Looking for a map of the extensive trail system in Tahoe Donner?
 Visit tahoedonner.com/trails

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Beach Club Marina

The Association owns an approximately 2.5-acre parcel on the eastern shore of Donner Lake, the Tahoe Donner Beach Club Beach Club Marina that operates as a private Beach Club Marina and beach facility. A boat launch ramp, sandy beach and dock, changing rooms, recreational watercraft rentals and storage, and café are among the facilities. The eastern portion of this parcel provides parking for the facility.

Forest Management and Fuel Modification

The Association's Forestry Department manages Tahoe Donner's forest and vegetation communities. . The Forestry Department implements the property owner forest health and defensible space inspection programs, a free curbside chipping program, and plans, implements, and maintains forestry/fire projects on Association property (TDA 2012). The Forestry Department manages approximately 477 acres of reforestation/fuel breaks, 618 acres of fuel-reduction zones, and 1,338 acres of common area and maintains approximately two-thirds for fuel reduction. Timber stands managed by the Forestry Department on Association lands include plantations of varying age and natural timber stands. Management objectives, stocking, and species makeup varies among forest management units. Staffing includes a full-time forester and assistant forester, and a seasonal staff of two part-time foresters a defensible space compliance inspector, and up to 10 seasonal forestry workers (TDA 2012).

Trails Management

The trail system is managed by the Tahoe Donner Trails Department, which oversees all trail maintenance and improvements including maintenance of fire access roads. The Trails Department consults with the Forestry Department regarding maintenance of fire roads and other work on Association property to ensure consistency with adopted plans and efficiency in accomplishing each department's goals and objectives. Trails Department staffing includes a trails manager, a trails steward and a trails maintenance worker.

3.3 Planned Land Uses

The Association's General Plan identifies a number of projects prioritized for implementation through 2030 (TDA 2014). Prioritized projects include relocating equestrian facilities to a dedicated equestrian campus west of the recently completed Adventure Center and expanding the Trout Creek Recreation Center. The Association's General Plan is currently being updated and may identify new projects, goals and policies for land use and facilities development in Tahoe Donner.

Land Management Plan

The Association's Trails Master Plan (2013) identifies trail construction and improvement projects for the trail system. Based on the 2013 Trails Master Plan, the Association's Trails Department has recommended trail improvements as well as new trail and bridge construction to occur between 2015 and 2020. These recommendations are contained in the Tahoe Donner Trails Five-Year Implementation Plan (TDA 2015d).

The Forestry Department has developed a Forest Management Plan for the Plan Area (TDA 2012). The Forest Management Plan's primary objectives include improving the health of the forest through thinning and harvesting practices that would benefit associated natural habitats, prevent wildfire, and manage noxious weeds.

Other potential projects identified for further analysis and potential implementation through 2030 include expanding the downhill ski lodge, upgrading or replacing the tennis courts, installing a permanent bar in the Lodge Grotto, creating an open space grassy park, expanding the banquet facility at The Lodge, replacing the golf cart barn, adding one to two additional lanes to the lap pool at the Trout Creek Recreation Center, remodeling the kitchen at Pizza on the Hill, and potentially adding another recreation facility (subject to membership vote).

3.4 Surrounding Land Uses

The Plan Area is located on the northwestern border of the Town of Truckee. Unincorporated Nevada County begins in the western portion of the Plan Area and extends to the north and west. Land use and zoning designations surrounding the Plan Area are shown in Table 1.

Table 1
Surrounding Land Use Designations and Zoning

Direction	Nevada County General Plan Designation	Nevada County Zoning Ordinance	Truckee General Plan Designation	Truckee Zoning Ordinance
North	Forest 40 Acre; Forest 160 Acre; Forest 640 Acre	Forest; Timberland Production Zone	Public	Public Facilities
East	—	—	Residential Cluster Average Density 1 Dwelling Unit per 10 Acres; Resource Conservation/Open Space	Rural Residential 1 Dwelling Unit per 7.5 Acres; Rural Residential 1 Dwelling Unit per 10 Acres; Single-Family Residential 1 Dwelling Unit per 2 Acres
South	Rural 10 Acre	General Agricultural	Residential 0.5 Dwelling Unit per Acre; Residential 3-6 Dwelling Units per Acre; Residential Cluster Average Density 1 Dwelling Unit per 10 Acres; Residential 1-2 Dwelling Units per Acre	Single-Family Residential 1 Dwelling Unit per 2 Acres; Public Facilities; General Commercial; Rural Residential 1 Dwelling Unit per 7.5 Acres

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Table 1
Surrounding Land Use Designations and Zoning

Direction	Nevada County General Plan Designation	Nevada County Zoning Ordinance	Truckee General Plan Designation	Truckee Zoning Ordinance
West	Planned Development (Rural 5 Acre (190 Acres); Open Space (512 Acres)); Forest 40 Acre; Forest 160 Acre	Forest; Timberland Production Zone; Interim Development Reserve	—	—

The Plan Area is located immediately north of Interstate 80 and Donner Lake. Other major roadways in the vicinity include State Route 89 and State Route 267. The Union Pacific Railroad runs approximately 1.1 mile south of the Plan Area. Downtown Truckee is located approximately 0.5 mile to the southeast. The Plan Area is approximately 2.65 miles northwest of the Truckee-Tahoe Airport; the eastern portion of the Plan Area is located within Zone E/Height Review Overlay Zone of the Truckee-Tahoe Airport (Foothill Airport Land Use Commission 2004).

There are a number of major hydrologic features within the vicinity of the Plan Area. Donner Lake is located to the south of the Plan Area (as discussed in Section 3.2, the Association maintains a Beach Club Marina on the eastern shore of Donner Lake). Prosser Reservoir is located approximately 3 miles northeast of the Plan Area. The Truckee River is located approximately 2.7 miles to the southeast. The Plan Area is approximately 11.4 miles northwest of Lake Tahoe. Greenbelts are scattered throughout the residential areas, and include riparian areas and trails that support wildlife habitat and recreational use.

The Plan Area is adjacent to private land and the 1,208,993-acre Tahoe National Forest. Approximately 811,740 acres (67%) within the boundaries of the Tahoe National Forest are National Forest System lands. Private individuals, corporations, or other governmental agencies own the other 397,253 acres within the boundaries of the Tahoe National Forest (USFS 2015). Active timber harvesting (within designated Timberland Production Zones) occurs to the north and west of the Plan Area.

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4 LAND MANAGEMENT COMPONENTS DESCRIPTION

Land management components consist of the primary management concerns within the Plan Area. These concerns are driven by the land uses, activities, and resources subject to management by the Association and applicable regulations. Land management components are subject to change as member demand for certain activities or resource values and conditions changes over time. Future updates to this plan should review these components to ensure that they reflect the primary management concerns at the time of the update.

4.1 Recreational Uses

In addition to the recreational uses described below, the Association owns and operates the Northwoods Clubhouse, which includes recreational facilities including a pool and tennis courts, and the Trout Creek Recreation Center, which includes two pools and a fitness and spa facility.

Beach Club Marina

The Tahoe Donner Beach Club Beach Club Marina facility is situated on a 2.5-acre parcel on the eastern shore of Donner Lake. The Association-owned property is operated as a private Beach Club Marina and beach facility and includes a boat launch ramp, sandy beach and dock, changing rooms, recreational watercraft rentals and storage, and a café. The eastern portion of this parcel provides parking for the facility.

Summer Trails

The Association maintains 50 plus miles of multi-use trails that weave together old logging and fire-break roads and single-track trails that traverse the greenbelt areas within the residential streets and Tahoe Donner's open space areas (Figure 9). Several trails traverse perennially and seasonally wet areas, including seeps and springs, streams and associated riparian zones, and meadows. The trails are generally unpaved and include approximately 30 plus miles of single-track and 21 miles of logging and fire-break roads. Single-track trails are used in the summer for non-motorized uses, including horseback riding, mountain biking, and hiking. Wider trails and old roads serve a dual-purpose as access routes for maintenance and operations vehicles and emergency vehicle access. In recent years, the Association has adopted a Trails Master Plan (TDA 2013) and a 5-Year Implementation Plan (TDA 2015d) to guide trail maintenance and development. The trail system is open to members and their guests and public users are encouraged to donate money to support trail maintenance and construction.

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Winter Trails

The winter trail system differs from the summer trail system and provides over 100 kilometers (60 miles) of groomed trails for cross-country skiing. Additional winter trails are designated for snowshoeing, dog-specific use, and fat biking. Winter trail use originates from the Alder Creek Adventure Center located on Alder Creek Road, where ski equipment rentals and lessons may be purchased by members and the public. Nordic center boundaries and trails are controlled and managed with specific operating policies and procedures.

Campground

Tahoe Donner Campground is located off Alder Creek Road along the banks of Alder Creek and offers both tent and RV camping and accessory facilities. The campground is open to the public and offers 45 campsites, including one group site, and operates during the summer.

Downhill Ski Area

During winter months, the Association operates a downhill ski area that offers 120 acres of skiable terrain with 15 runs. The facility is open to the public and operates two chairlifts and three conveyor lifts. The Association has recently added snowmaking capabilities to the facility to supplement natural snow.

Golf Course

The Association operates an 18-hole championship golf course and driving range. The golf course includes fairways situated within the greenbelts between residential neighborhoods and along the upper reaches of Trout Creek. The course is open to the public and operates from late May through October depending on weather and snow conditions.

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4.2 Forestry

The Tahoe Donner Forestry Department manages much of the vegetation within the subdivision to reduce fuel loads and mitigate wildfire risks. The Forestry Department prepared the 2012 Forest Management Plan to guide the department's activities and to qualify for grant agreements and other forest management provisions available through Cal Fire, the Natural Resources Conservation Service (NRCS), USFS, and the American Tree Farm Association. Management objectives identified in the Forest Management Plan include the following:

- Increase the level of vegetation and fuels management to help lessen the effects of a wildfire on the property;
- Increase forest productivity by maintaining a healthy forest and reducing the effects of pests and disease;
- Increase recreational opportunities within open space areas;
- Improve habitat for fish and wildlife throughout the property;
- Manage noxious weeds and promote native species.

The Forest Management Plan prescribes the following actions to achieve the above objectives:

- Increase defensible open space and vegetation and fuels management in additional strategic locations, maintain or improve the open space road system, and continue the program of masticating forest understory. An expanded discussion is provided in Section 4.3.
- Maintain an intensive program of thinning and pruning timber stands and removing or masticating understory brush to reduce competition and promote vigorous stands and reduce the impact of insects and disease found in mixed conifer stands and to improve overall productivity. Intensive forest-management practices, including site preparation and tree planting in harvested or historical burn areas, pre-commercial thinning and pruning, and commercial thinning and vegetation management are used to enhance the long-term productivity of the timber resources on the property. The Forest Management Plan calls for planting a mix of rust-resistant sugar pine (*Pinus lambertiana*), Jeffrey pine (*Pinus jeffreyi*), western white pine (*Pinus monticola*), incense cedar (*Calocedrus decurrens*), red fir (*Abies magnifica*), and white fir (*Abies concolor*) to maintain a diverse, productive, and disease-resistant forest ecosystem.
- Recreational opportunities within open space areas, including hiking, mountain biking, horseback riding, and downhill and cross-country skiing, will be enhanced by addressing erosion issues on trails, maintaining the seasonal road system, managing vegetation in recreational areas, and maintaining aesthetic values. Forest management activities are

planned to be compatible with and to maintain and enhance the recreational uses and guidelines of the Trails Master Plan.

- Create a mixed landscape of modified montane chaparral habitat and unmodified adjacent areas to provide fire defensibility and a diversity of habitat to support a variety of wildlife species, including mammals with larger home ranges or those that migrate seasonally into and out of Tahoe Donner. Addressing erosion issues, maintaining appropriate activity buffers to watercourses, avoiding disturbance in high slope areas, and fuels management methods that promote soil stability are used to avoid sedimentation to watercourses.
- Best management practices and a public information program are employed to manage the spread of populations of noxious weeds. The Forest Management Plan states that the Nevada County Department of Agriculture has treated areas within the subdivision to control noxious weeds and identifies the need for a management plan to address noxious weed species in the Plan Area.

4.3 Defensible Space/Forest Fuels Management

The Tahoe Donner Forestry Department is responsible for planning and implementing vegetation and fuels management projects in the subdivision in order to reduce the risk of wildfire damage. The Forestry Department's strategy consists of creating fuel reduction and forested zones within common areas around homes, southwestern border areas (that receive the majority of danger from fire caused by prevailing winds out of the southwest), and areas along main access routes that provide infrastructure to the subdivision (TDA 2012).

The Forestry Department has created and manages 1,208 acres of re-forestation/fuel break areas located at strategic locations throughout the property, but primarily along the southern border to protect against wildfire driven by prevailing winds. The unimproved road system is continually maintained or improved to provide appropriate access for firefighting. The recently adopted Trails Master Plan and 5-Year Trails Implementation Plan provides guidance for improving roads to maintain access and control erosion and sediment transport to maintain water quality.

Association lands adjacent to development within the subdivision are managed as defensible space/fuel reduction zones with an increased level of vegetation and fuels management. While the Forestry Department is aggressively managing the forest to reduce the occurrence and spread of wildland fire, a continued program is needed, as there are additional possibilities for the creation of fuel-reduction zones.

The Association also maintains a defensible space inspection program that annually inspects 750 properties within the subdivision, helping the owners become compliant with fire-safe standards required under California Public Resources Code (PRC) 4291. Tahoe Donner is recognized as a

Firewise Communities/USA community, participates with the Fire Safe Council of Nevada County, and gives input to USFS projects planned adjacent to the subdivision.

4.4 Water Quality

Regulatory Considerations

Section 404 of the CWA requires a permit from ACOE for any project that would discharge dredged or fill materials into waters of the United States (as defined in the Code of Federal Regulations (33 CFR 328.3 [a]; 40 CFR 230.3 [s])). Section 404 of the CWA is administered by ACOE.

Section 401 of the CWA requires that an applicant for a Section 404 permit first obtain a water quality certification, or a waiver thereof, that the project will not violate applicable state water quality standards. In California, the authority to either grant certification or waive the requirement for certification is delegated by the State Water Resources Control Board (SWRCB) to the nine Regional Water Quality Control Boards. The Plan Area is under the jurisdiction of the Lahontan Regional Water Quality Control Board (RWQCB). A request for certification or waiver is typically provided, but not required to be submitted to the regional concurrent with submitting a Section 404 application with ACOE. No ACOE permit is valid under the CWA unless “certified” by the state.

Additionally, any construction project that disturbs one acre or more of land is required to obtain coverage under an NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (“General Permit”). In order to obtain coverage under the General Permit, the discharger must undertake a risk assessment, develop a Storm Water Pollution Prevention Plan (SWPPP), implement Best Management Practices (BMPs) in accordance with the SWPPP, and comply with monitoring and reporting requirements and other management practices to prevent or reduce pollution.

Porter-Cologne Act - The Porter-Cologne Water Quality Control Act of 1969 authorized the SWRCB to provide comprehensive protection for California’s waters through water allocation and water quality protection. It also established the responsibilities and authorities of the nine RWQCBs, which include preparing water quality control plans for areas in the region, identifying water quality objectives, and issuing NPDES permits and Waste Discharge Requirements (WDRs).

Section 303(d) Listing and TMDL - Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States, which is accomplished by adopting water quality control plans under the Porter-Cologne Act. Section 303(d) of the CWA requires that the SWRCB identify surface water bodies within California that do not meet established

water quality standards. In 1992, the Truckee River was reclassified from intermediate to impaired for excessive sediment and placed on the 303(d) list under the CWA (Amorfini and Holden 2008). In response to the 303(d) listing, the Lahontan Regional Water Quality Control Board (RWQCB) developed a total maximum daily load (TMDL) for sediment for the Truckee River and all subwatersheds to attain sediment-related water quality objectives set for protection of instream aquatic life and beneficial uses (Amorfini and Holden 2008). The total sediment load allocation for the entire Middle Truckee River watershed is set at 40,300 tons per year.

Measures for achieving TMDL standards include implementing and maintaining BMPs for road sand application, ski runs and other disturbed areas, and decommissioning dirt roads and restoring disturbed and unstable legacy sites. Enforcement of water quality control measures is generally through the enforcement of WDRs established in the Basin Plan and enforced as terms and conditions of NPDES permits. The Town of Truckee, which includes portions of Tahoe Donner, is designated by the RWQCB as a regulated Small Municipal Separate Storm Sewer System (MS4) and is under a NPDES general permit for stormwater discharges. Under the terms and conditions of the NPDES general permit, Placer County and the Town have collaboratively developed and implement a storm water management program and water quality monitoring program to reduce pollutants to the maximum extent practicable. The goal of the stormwater quality program is:

- To reduce pollutants in stormwater runoff
- Eliminate non-stormwater discharges
- Lessen the long-term impacts of stormwater discharges from development, business and municipal activities.
- Educate the public about stormwater impacts

The Town of Truckee and Placer County have adopted policies and ordinances to address water quality issues. Measures include but are not limited to water quality requirements for construction, municipal stormwater treatment measures, and education and outreach.

Lahontan Basin Plan Discharge Prohibitions - The Water Board has adopted a Water Quality Control Plan (Basin Plan), which includes regionwide and hydrologic unit/area-specific prohibitions on discharges within the basin plan area. These prohibitions apply to various activities that are considered a threat to water quality or floodplain function. The Basin Plan includes a specific prohibition on discharges within the 100-year floodplain of the Truckee River or any of its tributaries applies to floodplain areas in Tahoe Donner. Certain exemptions to the discharge prohibitions are provided under the Basin Plan for certain classes of projects for which specific findings can be made. Examples of projects that may qualify for an exemption from the floodplain discharge prohibition include restoration projects or projects

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that address water pollution or enhance floodplain values, transportation and essential public services projects (including those that protect health and safety), and public recreation projects that meet certain criteria.

Sections 1600–1607 of the Fish and Game Code - Under Section 1600–1607 of the California Fish and Game Code, CDFW regulates activities that would substantially alter the flow, bed, channel, or bank of streams and lakes. The lateral limits of CDFW’s jurisdiction are defined in the statute as the bed, channel, or bank of any river, stream, or lake designated by CDFW in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit. In practice, CDFW usually determines its lateral limit of jurisdiction to be the top of bank or the outer edge of the riparian vegetation, whichever is farther from the middle of the water body in question. Any project that disturbs land within CDFW’s jurisdiction is required to obtain a Lake and Streambed Alteration Agreement, which typically includes terms and conditions to mitigate impacts.

Tahoe Donner Management

The Association manages water quality by implementing best management practices to address water quality issues specific to each land use within Association lands and as required under project approvals. This includes developed uses including roads, amenities and residential uses, and open space uses including recreation, forestry, and defensible space.

Paved roadways throughout Tahoe Donner are operated and maintained by the Town of Truckee. Stormwater and snowmelt runoff from public roadways discharges without detention or treatment to the roadway shoulder and adjacent natural areas within the subdivision. In several locations runoff is discharged directly from roadways into stream channels or has formed erosion features as a result of concentrated or high-volume flows. Water that is not infiltrated within natural areas generally discharges to natural waterways within Association property. As noted above, runoff from within Tahoe Donner is subject to TMDLs set by the Basin Plan and monitored by the Town of Truckee and Placer County.

Within open space areas, the Tahoe Donner Forestry and Trails departments maintain roads and trails to minimize sediment and erosion, through the installation of rolling dips and other best management practices outlined in the respective department plans or as terms and conditions of project approvals. Roads and trails within Association property are maintained and deficiencies are prioritized for repair (TDA 2012). Mulch is typically used within fuel management areas to stabilize soils and prevent erosion following treatments. The Forestry Department and Nevada County use herbicides to control non-native species. This use is in accordance with standard industry practices and manufacturer guidelines.

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Within the golf course, the course itself acts as a stormwater feature during heavy rain events, detaining floodwaters for a period of time. Herbicides and fertilizers are used within the golf course and other public landscaped areas in accordance with standard industry practices and manufacturer guidelines. The golf course has attained certification from Audubon International as environmentally friendly.

The water used for snowmaking in the downhill ski area is treated and piped domestic water sourced from the Truckee Donner Public Utility District. Melt water runs off or infiltrates naturally along with the natural snowpack. Snow storage areas throughout the subdivision are located where meltwater is contained or on paved surfaces where treatment of runoff water is addressed with a variety of BMPs including containment ponds, underground filtration systems, and bioswales to provides surface filtration and infiltration per the requirements of the Lahontan Water Board in support of Basin Plan goals.

5 RESOURCE COMPONENTS DESCRIPTION

5.1 Biological

The description of biological resources contained in this section relies primarily on information contained in the Biological Constraints Analysis, Tahoe Donner Trails 5-Year Implementation Plan prepared by Kelly Biological Consulting (2015).

5.1.1 Vegetation Communities

The Plan Area consists of a variety of upland and wetland habitats. Each habitat type is described in more detail in the subsections that follow. See Figure 10 for a general vegetation community map.

5.1.1.1 Ruderal Disturbed/Developed

This habitat consists of gravel or bare ground, dirt roads, and developed areas (e.g., landscape plantings, lawns, etc.). With the exception of the developed areas, Ruderal Disturbed habitats are sparsely vegetated with both native and non-native plant species.

5.1.1.2 Sierran Mixed Conifer

Sierran Mixed Conifer habitat includes areas that are similar to the Jeffrey Pine Forest (*Pinus jeffreyi* Forest Alliance) (G4 S4)¹ with Red Fir-White Fir Forest (*Abies magnifica*-*Abies concolor* Forest Alliance) (G5 S4) in the higher elevations. Tree species include Jeffrey pine, red fir, white fir, lodgepole pine (*Pinus contorta*) and sugar pine or western white pine interspersed sporadically. Most of these stands have been thinned within the past 20 years. Periods of logging occurred within and around Tahoe Donner in the early 1900s and again in the late 1950s and early 1960s. Substantial timbered areas were burned during the Donner Ridge Fire of 1960 as

¹ Vegetation communities are assigned a conservation status ranking standardized by the Natural Heritage methodology based on a 1 to 5 scale, ranging from critically imperiled (1) to demonstrably secure (5) (VegCAMP et al. 2013). Status is also assigned at three distinct geographic scales—global (G), national (N), and state/province (S). The global ranking is used here as it is the most relevant to the proposed project. The scale is as follows (NatureServe 2015):

- 1 = Critically imperiled
- 2 = Imperiled
- 3 = Vulnerable
- 4 = Apparently secure
- 5 = Secure

Using this scale, vegetation communities ranked as G1, G2, or G3 on the California Department of Fish and Game (CDFG) September 2010 List of Vegetation Alliances and Associations (or Natural Communities List), are considered special status. Other vegetation communities (designated G4 or G5 or with no designation) may be considered special status if they are used by, or associated with the presence of, special-status wildlife species.

well. The understory is typically made up of snow brush (*Ceanothus velutinus*), green-leaf manzanita (*Arctostaphylos patula*), bitter cherry (*Prunus emarginata*), mountain whitethorn (*Ceanothus cordulatus*), gooseberry (*Ribes roezlii*), and wax current (*Ribes cereum*).

Within the Sierran Mixed Conifer habitat, red fir-dominated stands are found at the higher elevations of the property, generally on the north-facing slopes. Trees associated with red fir forest include mountain hemlock (*Tsuga mertensiana*), western white pine, and white fir. The understory is typically sparse due to lack of sunlight; however, where there are openings in the canopy, snow brush and pinemat manzanita (*Arctostaphylos nevadensis*) are the predominant plant species.

Lodgepole pine stands are found at the intersection of the Sierran Mixed Conifer habitat and the Montane Riparian habitat (discussed in more detail in Section 5.1.1.4). Fir and Jeffrey pine are interspersed within the lodgepole pine in drier locations.

5.1.1.3 Montane Chaparral

This habitat is similar to Tobacco Brush or Snow Brush Chaparral (*Ceanothus velutinus* Shrubland Alliance) and occurs in areas burned by the Donner Ridge Fire, and in other small, sunny patches on all but north-facing slopes. In some portions of the property, red and white fir occur within the thick brush, mostly on north-facing slopes. However, on south-facing slopes, few trees exist within the chaparral. Here, snow brush dominates the landscape with mountain whitethorn, green-leaf manzanita, bitter cherry, pinemat manzanita, huckleberry oak (*Quercus vacciniifolia*), and Sierra chinquapin (*Castanopsis sempervirens*) are the predominant species.

5.1.1.4 Montane Riparian

This habitat is similar to a mixture of Aspen (*Populus tremuloides* Forest Alliance) (G4 S3.2) and various Willow (*Salix* spp.) Shrubland Alliances (G4 S3-4), with a small quantity of Black Cottonwood Forest (*Populus trichocarpa* Forest Alliance) (G5 S3). Montane Riparian habitat is found along Trout Creek, Alder Creek, and the South Fork of Prosser Creek. The dominant tree species there consist of aspen and lodgepole pine. The shrub species include red twig dogwood (*Cornus sericea*), various willow species, and mountain alder (*Alnus tenuifolia*). Herbaceous species here are generally tolerant of the mesic (moist) conditions with a variable hydrologic regime.

5.1.1.5 Aspen Grove

Aspen Grove (Aspen Forest Alliance) is similar to Aspen *Populus tremuloides* Forest Alliance (G4 S3.2) and is found in an area of concentrated springs that feed Alder Creek. The understory includes creeping snowberry (*Symphoricarpos mollis*) and western serviceberry (*Amelanchier alnifolia*), as well as grass and forb species that are tolerant of the mesic or variable hydrologic conditions.

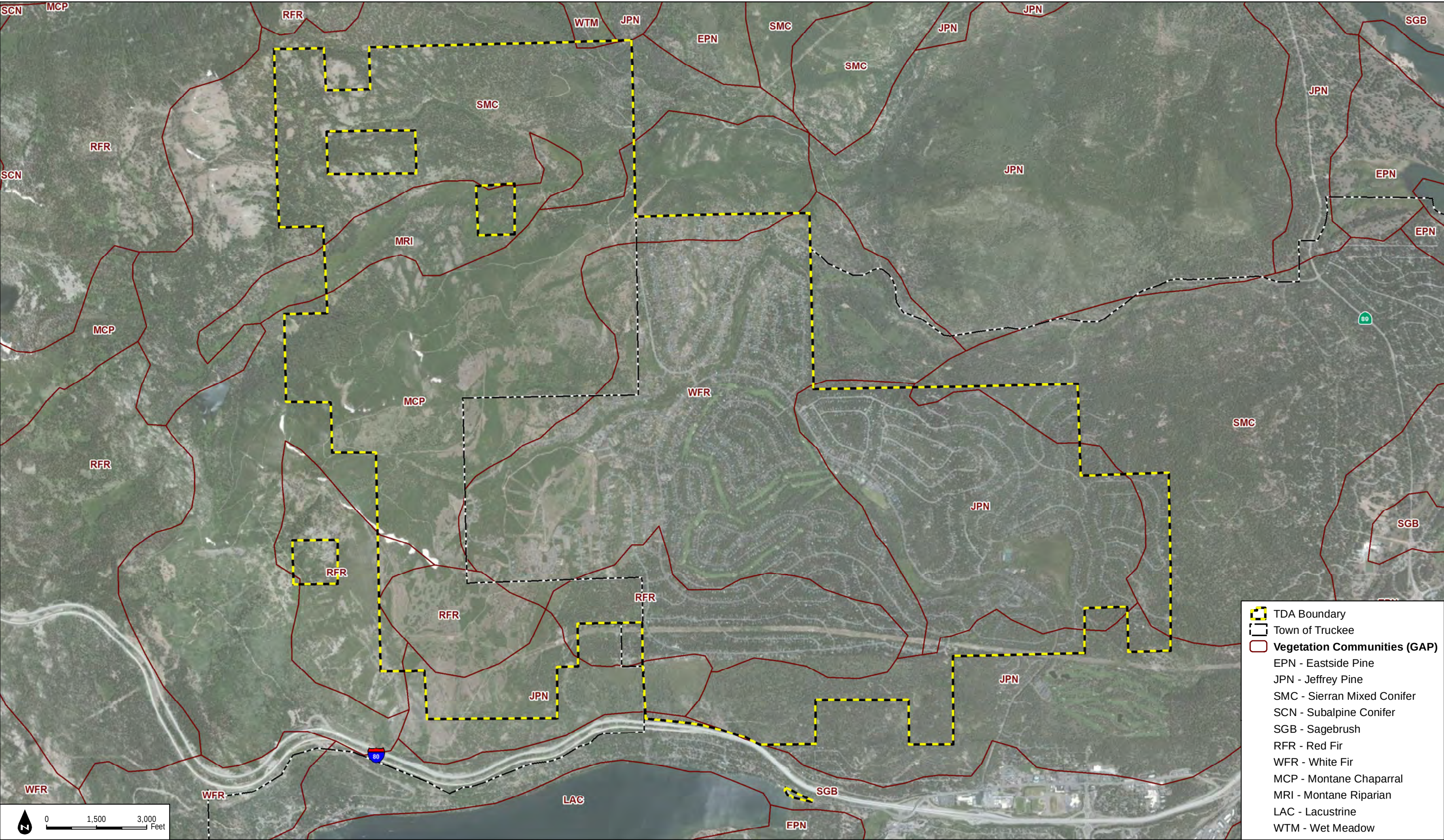


FIGURE 10

Vegetation Community Map

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5.1.1.6 Montane Wet Meadow

Montane Wet Meadow is found in large areas along Trout, Alder, and the South Fork of Prosser Creeks in low-lying flat areas adjacent to the creeks. A variety of plant species occur here, making it a complex mosaic of alliances. The dominant species are sedges (*Carex* spp.), rushes (*Juncus* spp.), and various grasses and forbs. The upper edges transition into adjacent upland habitats.

5.1.2 Waters of the U.S., Wetlands, and Waters of the State

As stated in the Biological Constraints Analysis (Kelly Biological 2015), the creeks, their tributaries, and the adjacent wetlands that exist in the Plan Area could be considered waters of the United States (including wetlands) or waters of the State and could fall within the jurisdiction of the U.S. Army Corps of Engineers (ACOE), California Department of Fish and Wildlife (CDFW) and the RWQCB, in accordance with the federal CWA and California Porter-Cologne Act. The regulatory concerns of these agencies are further discussed in Section 4.4 Water Quality. No delineation of all wetlands on Association property has been performed to date.

Trout, Alder, and the South Fork of Prosser Creeks and their primary tributaries flow through portions of the Plan Area. The headwaters of each creek occur in the western part of their respective watershed and generally flow to the east. They typically consist of an open water drainage channel interspersed with freshwater emergent wetlands and occasional willow, alder, or aspen-dominated wetlands adjacent to the drainage.

5.1.3 Special-Status Plant Species

Special-status plants with the potential to occur in the Plan Area are listed in Table 2. Two species have been observed in the Plan Area and eight have a medium to high potential to occur in the Plan Area. During surveys conducted in 2009 for Tahoe Donner's Forestry Department, Davy's sedge was observed in the Euer Valley on the edge of a meadow under a stand of lodgepole pines. Threetipped sagebrush was observed in the vicinity of the Davy's sedge, in an opening between the meadow and the lodgepole forest (C.S. Ecological Surveys and Assessments 2009). These and other special-status plant species could occur in suitable habitats throughout the subdivision. Meadows and wet areas are sensitive habitats with respect to the potential to support special-status plant species.



Three-tipped sagebrush
Image: Matt Lavin

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Table 2
Special-Status Plant Species with Known or Potential Occurrence
in the Vicinity of Tahoe Donner

Common Name	Scientific Name	Listing Status (Fed/State/CNPS ¹)	Habitat Associations (habitat, type, blooming period, elevational range)	Potential to Occur in Tahoe Donner
<i>Plants</i>				
Davy's sedge	<i>Carex davyi</i>	None/None/1B.3	Subalpine coniferous forest, upper montane coniferous forest. Perennial herb. Blooms May–August/4,500–9,600 feet.	Present. Observed in the Euer Valley during 2009 TDA forestry surveys.
threetip sagebrush	<i>Artemisia tripartita</i> ssp. <i>tripartita</i>	Nne/None/2B.3	Perennial shrub. Upper montane coniferous forest; rocky, volcanic. Blooms August/6,600–7,800 feet.	Present. Observed in the Euer Valley during 2009 TDA forestry surveys.
alder buckthorn	<i>Rhamnus alnifolia</i>	None/None/2B.2	Lower montane coniferous forest. Meadows and seeps, riparian scrub, upper montane coniferous forest. Perennial deciduous shrub. Blooms May–July/4,100–6,390 feet.	Moderate potential to occur. Suitable habitat exists for this species and there are occurrences within 5 miles of the project site.
scalloped moonwort	<i>Botrychium crenulatum</i>	None/None/2B.2	Bogs and fens, lower montane coniferous forest, meadows and seeps, marshes and swamps (freshwater), upper montane coniferous forest. Perennial rhizomatous herb. Blooms June–September/3,804–9,840 feet.	Moderate potential to occur. Suitable habitat exists for this species and there are occurrences within 5 miles of the project site.
common moonwort	<i>Botrychium lunaria</i>	None/None/2B.3	Meadows and seeps, subalpine coniferous forest, upper montane coniferous forest. Perennial rhizomatous herb. Blooms August/5,940–10,200 feet.	Moderate potential to occur. Suitable habitat exists for this species and there are occurrences within 5 miles of the project site.
mingan moonwort	<i>Botrychium minganense</i>	None/None/2B.2	Mesic. Bogs and fens, lower montane coniferous forest, meadows and seeps (edges), upper montane coniferous forest. Perennial rhizomatous herb. Blooms July–September/4,365–6,540 feet.	Moderate potential to occur. Suitable habitat exists for this species and there are occurrences within 5 miles of the project site.

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Table 2
Special-Status Plant Species with Known or Potential Occurrence
in the Vicinity of Tahoe Donner

Common Name	Scientific Name	Listing Status (Fed/State/CNPS ¹)	Habitat Associations (habitat, type, blooming period, elevational range)	Potential to Occur in Tahoe Donner
starved daisy	<i>Erigeron miser</i>	None/None/1B.3	Upper montane coniferous forest (rocky). Perennial herb. Blooms June–October/5,500–7,860 feet.	Moderate potential to occur. Suitable habitat exists for this species in rocky areas.
Donner Pass buckwheat	<i>Eriogonum umbellatum</i> var. <i>torreyanum</i>	None/None/1B.2	Volcanic, rocky. Meadows and seeps, upper montane coniferous forest. Perennial herb. Blooms July–September/5,560–7,860 feet.	High potential to occur. Habitat present. Many populations to the west and found on east slope of Red Mountain above Crabtree Canyon.
broad-nerved hump moss	<i>Meesia uliginosa</i>	None/None/2B.2	Damp soil. Bogs and fens, meadows and seeps, subalpine coniferous forest, upper montane coniferous forest. Moss. Blooms July–October/3,630–8,400 feet.	Moderate potential to occur. Habitat present. May occur in openings in wet meadows and wet areas adjacent to creeks.
Robbin's pondweed	<i>Potamogeton robbinsii</i>	None/None/2B.3	Perennial rhizomatous herb aquatic. Marshes and swamps; deep water, lakes. Occurs in shallow water in Donner Lake. Blooms July–August/4,700–9,900 feet.	Moderate potential to occur. Observed in shallow water in Donner Lake. Shallow open water habitat present.

Notes:

California Native Plant Society California Rare Plant Rank (CRPR; previously known as the California Native Plant Society List)

1A: Plants presumed extirpated in California and either rare or extinct elsewhere

1B: Plants rare, threatened, or endangered in California and elsewhere

2A: Plants presumed extirpated in California, but common elsewhere

2B: Plants rare, threatened, or endangered in California, but more common elsewhere

3: Plants about which we need more information – a review list

4: Plants of limited distribution – a watch list.

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Plants with a medium to high potential to occur in the Plan Area include alder buckthorn, which typically occurs in riparian areas, and Robbin's pondweed, which is found in open water habitats. Four species are associated with wetlands, including three species of moonwort, and broad-nerved hump moss. Two species typically occur in rocky substrates, Donner Pass buckwheat, which occurs on the east slope of Crabtree Canyon, and starved daisy. These and other special-status plant species could occur in suitable habitats throughout the subdivision. Meadows and wet areas and rocky outcrops are particularly sensitive habitats with respect to the potential to support special-status plant species within Association lands.



Alder buckthorn
Image: Czarapata

Sensitive Plant Communities

The only sensitive vegetation community in the vicinity of the Plan Area identified by the California Natural Diversity Database (CNDDB) was a fen at the University of California Field campus at Sagehen approximately 5 miles north of Tahoe Donner (CDFW 2015). This is discussed in more detail in the Biological Constraints Analysis. The wet meadow within the Euer Valley and the other large wet meadows on Association land were not evaluated to determine if they meet criteria to be classified as a fen community. Sensitive plant communities, such as riparian and meadow habitat, are more likely to support special-status plant and animal species that depend on these habitats for cover, foraging, and nesting.



Riparian and meadow habitat in
Euer Valley

Noxious and Invasive Weeds

In California, there are two commonly used references for the status of weed species in the state:

- California Invasive Plant Council (Cal-IPC): Inventory categorizes non-native invasive plants that threaten the state's wildlands.
- California Department of Food and Agriculture (CDFA): Maintains lists of plants that are considered threats to the well-being of the state with a primary focus on agricultural land.

Cal-IPC Inventory's categorization is based on an assessment of the ecological impacts of each plant. As their inventory states "Invasive non-native plants that threaten wildlands are plants that 1) are not native to, yet can spread into, wildland ecosystems, and that also 2) displace native

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species, hybridize with native species, alter biological communities, or alter ecosystem processes” (Cal-IPC 2006). It identifies species as Limited, Moderate, or High risk. Cal-IPC does not have regulatory authority.

CDFA maintains lists of plants that are considered threats to the well-being of the state. A plant is listed if it is found to likely be “troublesome, aggressive, intrusive, detrimental, or destructive to agriculture, silviculture, or important native species, and difficult to control or eradicate” (CDFA 2015). Noxious weeds within the State of California are assigned a rating defined below as:

- A. An organism of known economic or environmental detriment that is either not established in California or present in a limited distribution and is subject to state-enforced action involving eradication, quarantine, containment, rejection, or other holding action.
- B. An organism of known economic or environmental detriment that, if present in California, is known to be in limited distribution. B-rated species are subject to state-endorsed holding action and eradication only to provide for containment and are subject to eradication, containment, suppression, control, or other holding action actions at the discretion of the individual county agricultural commissioner.
- C. An organism of known economic or environmental detriment that is usually widespread in California. If found in the state, they are subject to regulations designed to retard spread or to suppress at the discretion of the individual county agricultural commissioner. There is no state enforced action other than providing for pest cleanliness.

During 2009 forestry area surveys, three CDFA A-rated noxious weeds—musk thistle (*Carduus nutans*, Cal-IPC Moderate), Scotch thistle (*Onopordum acanthium*, Cal-IPC High), and spotted knapweed (*Centaurea maculosa*, Cal-IPC High)—and three B-rated noxious weeds—Canada thistle (*Cirsium arvense*, Cal-IPC Moderate), heart podded hoarycress (*Cardaria draba*, Cal IPC Moderate), and globe podded hoarycress (*Cardaria pubescens*, Cal-IPC Limited)—were found within the Plan Area (C.S. Ecological Surveys and Assessments 2009). Four C-rated noxious weeds were also found—field bindweed (*Convolvulus arvensis*, Cal-IPC not listed), Russian thistle (*Salsola tragus*, Cal-IPC Limited), Klamath weed (*Hypericum perforatum*, Cal-IPC Moderate), and bull thistle (*Cirsium vulgare*, Cal IPC Moderate) CDFA.

Some weed management in the region is implemented by the Truckee River Watershed Council (TRWC), which has a group of volunteers (the Weed Warriors) who coordinate activities for the prevention and control of invasive weeds in the Truckee River watershed. Their activities focus on the exclusion, detection, containment, and eradication of invasive weeds. They periodically have weed walks and other events in Tahoe Donner. In addition to the weeds described in the paragraph above, the TRWC Weed Warrior Program has records of perennial pepperweed (*Lepidium latifolium*, CDFA B-rated, Cal-IPC High), Russian knapweed (*Acroptilon repens*,

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CDFA B-rated, Cal-IPC Moderate), and diffuse knapweed (*Centaurea diffusa*, CDFA A-rated, Cal-IPC Moderate) (Levine, pers. comm. 2016).

The Nevada-Placer Weed Management Area (WMA) group is also active in planning for prevention and control of noxious weeds in Nevada and Placer Counties. The focus of control and eradication efforts is species designated as noxious weeds by the CDFA and other species that are locally significant as identified by partners in the WMA group, which include local, state, and federal agencies as well as private utilities and other entities with an interest in controlling noxious weeds on land under their management or jurisdictional authority. Tahoe Donner is not currently a signatory to this group's memorandum of understanding and therefore not a partner in the group. WMA group partners cooperate in seeking funding to support the activities of the WMA in accordance with the terms and conditions of the memorandum of understanding.

The Association has implemented measures to reduce the spread of weeds within Tahoe Donner. Specific measures include using only weed-free feed at the Equestrian Center and ensuring that only weed-free gravel and BMP devices are used for projects completed in Tahoe Donner.

5.1.4 Wildlife

Common resident and migratory wildlife species likely to utilize the Plan Area for foraging, breeding, and shelter include raccoon (*Procyon lotor*), porcupine (*Erethizon dorsatum*), bobcat (*Lynx rufus*), coyote (*Canis latrans*), red-tailed hawk (*Buteo jamaicensis*), black bear (*Ursus americanus*), mountain lion (*Puma concolor*) and mule deer (*Odocoileus hemionus*). Avian species are likely to breed in the trees and shrubs, and snags and standing trees that are diseased or partially dead provide important habitat features for many species, especially birds. These microhabitats provide foraging habitat for woodpeckers and nesting and roosting habitat for cavity nesters, including owls, woodpeckers, and bats.



Willow flycatcher

The quality of upland habitat varies throughout the Plan Area. Ruderal Disturbed/Developed areas are of limited importance and mostly serve as movement corridors between more suitable habitat. The Sierran Mixed Conifer Alliance provides foraging, breeding, and cover habitat for several wildlife species. Montane Chaparral supports numerous rodents, deer, and other herbivores, as well as birds. Bitterbrush (*Purshia tridentata*), prevalent in the region, is common in this habitat and is an important browse species for deer. This habitat also provides summer-range foraging areas, escape cover, and fawning habitat for migrating deer that are part of the Loyalton-Truckee Deer Herd (discussed further below).

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Aquatic habitat is typically of high value to wildlife. Montane Riparian habitat is important due to the complexity of the plant community, its structure, and presence of water. These areas provide thermal cover, migration corridors, and diverse nesting and foraging opportunities. The linear pattern of streams and riparian zones maximizes highly productive edge habitat that a wide range of amphibians, reptiles, birds, and mammals utilize.

North American beaver (*Castor canadensis*) is known for building dams along streams that form ponds where upstream areas are inundated. Beavers and dams are present in Trout, Alder, and the South Fork of Prosser Creeks. This is discussed further in the Biological Constraints Analysis (Kelly Biological Consulting 2015). Water backed up by beaver dams has in some places inundated portions of trails and encroached on developed properties.

Brook trout (*Salvelinus fontinalis*) and rainbow trout (*Oncorhynchus mykiss*) inhabit Trout Creek and the South Fork of Prosser Creek, and federally threatened Lahontan cutthroat trout (*Oncorhynchus clarkii henshawi*) can be found in the lower reaches of Prosser Creek. Alder Creek contains brook, rainbow, and brown trout (*Salmo trutta*).

Loyalton-Truckee Deer Herd

The Loyalton-Truckee Deer Herd ranges over portions of Lassen, Plumas, Sierra, Nevada, and Placer Counties in California, and Washoe County in Nevada (CDFW 2016). The range extends generally to State Route 70 on the north and extends southwest over Donner Pass and along the Sierra crest to the southern limits of Placer County. The herd migrates in spring from low elevation winter ranges in Nevada and California into higher elevations of the Sierra Nevada where fawning takes place and the deer remain through the summer. Spring migration occurs from May to June and deer return to winter ranges from mid-October to November. A CDFW study determined that deer from the Sierra Valley subunit of the Loyalton-Truckee Deer Herd summer and fawn in Tahoe Donner and adjacent lands, including around residential areas (CDFW 2016; Kelly 2016). Fawning sites are typically within areas providing a mosaic of wet meadow and riparian habitats that provide good visual screening for protection from predators. While fawning locations vary from year to year depending on weather patterns and site conditions, several areas within Tahoe Donner provide appropriate fawning habitat, including chaparral, riparian, meadow and aspen grove vegetation communities (Kelly 2016). Migration corridors are particularly important in providing for deer movement into and out of Tahoe Donner.

5.1.5 Special-Status Animal Species

Although no federally listed or state-listed wildlife species were observed during the fieldwork, CNDDDB records indicate several occurrences of special-status wildlife in the Plan Area (Figure 11)(CDFW 2015). Twenty-six special-status wildlife species have been recorded within the vicinity or have geographic ranges that overlap with the Plan Area. Of those 26 species, 1 is considered present and extant, 3 have a high potential to occur, and 4 have a moderate potential to occur (Table 3) (Kelly Biological Consulting 2015). Lahontan cutthroat trout are stocked in Prosser Reservoir and are documented to inhabit Prosser Creek above the reservoir. The four species that have a moderate potential to occur in the Plan Area include Townsend's big-eared bat, Sierra Nevada snowshoe hare, northern goshawk, and Sierra Nevada yellow-legged frog. The species with a high potential to occur are willow flycatcher, yellow warbler, and olive-sided flycatcher. Details on the habitat requirements for each can be found in the Biological Constraints Analysis (Kelly Biological Consulting 2015).



Northern goshawk
Image: Kenntner

Proposed critical habitat for Sierra Nevada yellow-legged frog is mapped for a large area west of the subdivision's boundary and extends into a corner of Tahoe Donner at the west end of Euer Valley (Figure 11)(CDFW 2015). As shown in Figure 11, critical habitat for this amphibian is associated with the upper reaches of the south fork of Prosser Creek.

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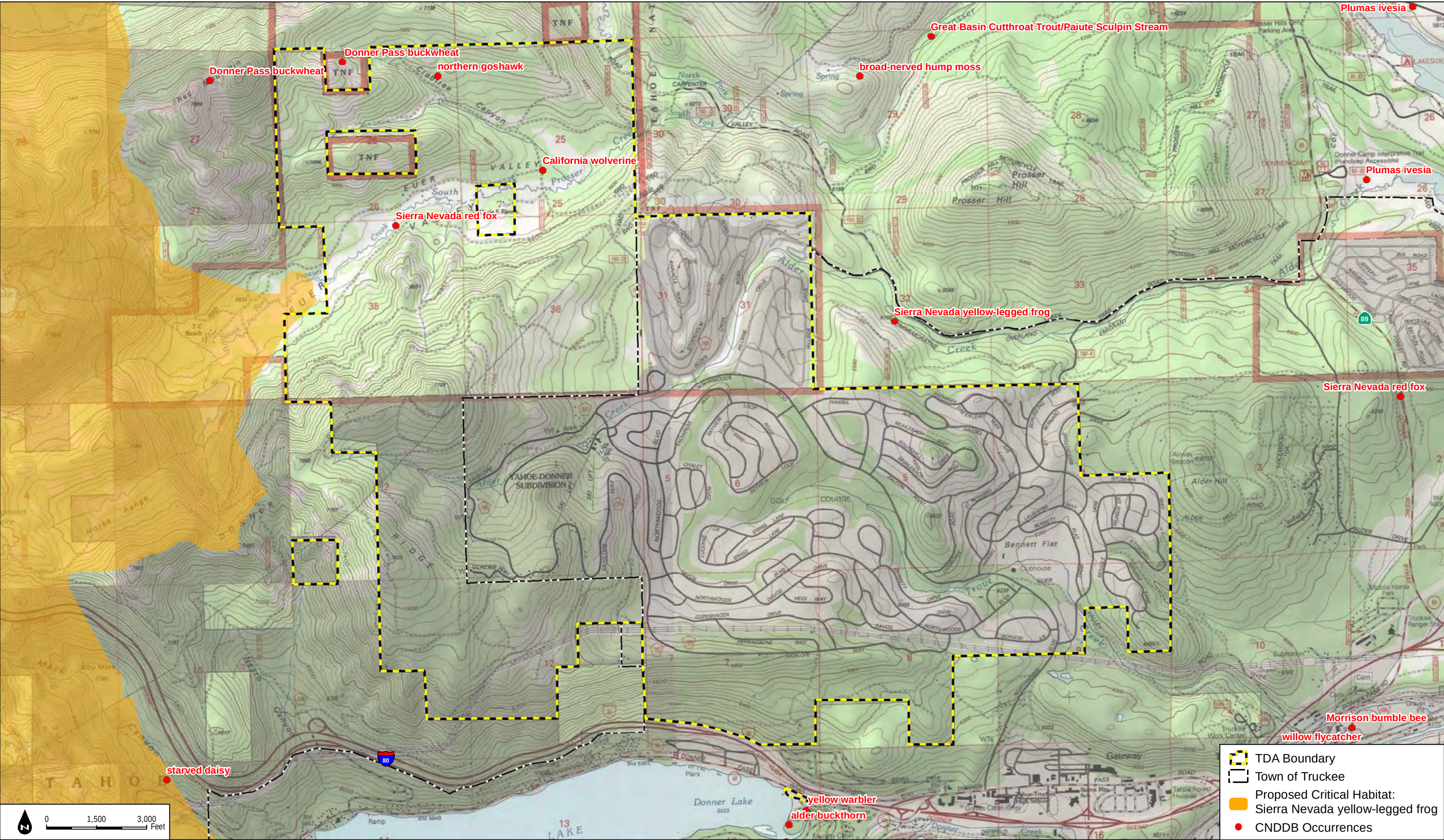
Table 3
Special-Status Wildlife Species with Known or Potential Occurrence in the Vicinity of Tahoe Donner

Common Name	Scientific Name	Listing Status (Federal/State)	Habitat Associations	Potential to Occur in the Plan Area
<i>Fish</i>				
Lahontan cutthroat trout	<i>Oncorhynchus clarkii henshawi</i>	Threatened/None	Historically in all accessible cold waters of the Lahontan Basin in a wide variety of water temperatures and conditions. Cannot tolerate presence of other salmonids. Requires gravel riffles in streams for spawning.	Present. Lahontan cutthroat trout are stocked in Prosser Reservoir and are documented to inhabit Prosser Creek above the reservoir. Alder Creek is also considered to be within the extant range of this species.
<i>Amphibians</i>				
Sierra Nevada yellow-legged frog	<i>Rana sierrae</i>	Endangered/Threatened	Found in sunny riverbanks, meadow streams, and isolated ponds of the High Sierra usually higher than 4,500 feet in elevation. Always encountered within a few feet of water. Tadpoles may require up to 2 years to completely develop.	Moderate potential to occur. Historic occurrences of this species are documented from Prosser and Alder Creeks in the vicinity of the Plan Area. No documented occurrences have been recorded in the vicinity of the Plan Area since 1961. It is unknown whether this species still occurs there in light of documented declines since these occurrences were recorded. No yellow-legged frogs were observed during the site assessment; however, focused surveys were not performed.
<i>Birds</i>				
northern goshawk	<i>Accipiter gentilis</i>	None/SSC	Preferred habitats include dense coniferous and deciduous forests.	Moderate potential to occur. Suitable nesting and foraging habitat exists within 5 miles of the project site and there are occurrences within 5 miles of the project site.
olive-sided flycatcher	<i>Contopus cooperi</i>	None/SSC	Found in conifer forests, burns, clearings. Breeds mostly in coniferous forest of the north and the higher mountains, especially around the edges of open areas including bogs, ponds, and clearings.	High potential to occur in summer. Suitable nesting and foraging habitat exists within 5 miles of the project site and there are occurrences within 5 miles of the project site.

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Table 3
Special-Status Wildlife Species with Known or Potential Occurrence in the Vicinity of Tahoe Donner

Common Name	Scientific Name	Listing Status (Federal/State)	Habitat Associations	Potential to Occur in the Plan Area
willow flycatcher	<i>Empidonax traillii</i>	None/Endangered	Found in bushes, willow thickets, brushy fields, upland groves. Breeds in thickets of deciduous trees and shrubs, especially willows, or along woodland edges. Often near streams or marshes (especially in southern part of range).	High potential to occur. Suitable nesting and foraging habitat exists within 5 miles of the project site and there are occurrences within 5 miles of the project site.
yellow warbler	<i>Setophaga petechia</i>	None/State Species of Concern (SSC)	Associated with riparian habitat, particularly willow and alder thickets in montane areas, and willow cottonwood riparian at lower elevations.	High potential to occur. Suitable nesting and foraging habitat is present in the Plan Area and multiple sightings of this species have been documented in the vicinity of Trails 19 and 20. Potential also exists for this species to occur near Trails 1 and 2.
<i>Mammals</i>				
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	None/SSC, Candidate Threatened	Found throughout most of western North America. Hibernates in caves and mines near entrances. Forages in forested habitats, along open edges.	Moderate potential to occur. Suitable roosting and foraging habitat exists within the project site. Trail Project 3 in the Euer Valley is proposed within approximately 100 feet of two unoccupied historic buildings that could potentially support roosting Townsend's big-eared bats.
Sierra Nevada snowshoe hare	<i>Lepus americanus tahoensis</i>	None/SSC	In California, primarily found in montane riparian habitats with thickets of alders and willows, and in stands of young conifers interspersed with chaparral. The early seral stages of mixed conifer, subalpine conifer, red fir, Jeffrey pine, lodgepole pine, and aspen are likely habitats, primarily along edges, and especially near meadows.	Moderate potential to occur. The Plan Area is within the range of this species and suitable riparian habitat is present along Trail Projects 2, 19 and 20. However, this species was not observed during the site assessment and no recent occurrences have been documented within 5 miles of the Plan Area.



SOURCE: TDA 2015; USFWS 2015; CDFW 2016; USGS 7.5-Minute Series Hobart Mills, Independence Lake, Norden, and Truckee Quadrangles.

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FIGURE 11
Critical Habitat Map

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5.2 Cultural

The information in this section is summarized from a Heritage Resource Inventory Report prepared for the Plan Area by Susan Lindström, Ph.D. (RPA) (Lindström 2015). A more detailed description of cultural resources in the Plan Area can be obtained by reading the inventory report. It should be noted that the inventory report did not include the 640-acre property north of Euer Valley acquired by the Association from the Truckee Donner Land Trust in 2016.

The heritage resource inventory identifies the relative sensitivity of areas within the Plan Area based on the potential presence of cultural resources. The inventory outlines an appropriate approach for identifying specific constraints and how these constraints can be addressed and resolved through a set of protocols implemented as part of agency permitting or incorporated into land management activities. Recommendations for addressing cultural resources constraints are discussed further in Section 6.

As part of the current study, Lindström conducted a search of archaeological records housed at the North Central Information Center at California State University, Sacramento, an adjunct of the State Office of Historic Preservation (SHPO). Details of the results disclosed are available in the Heritage Resource Inventory Report (Lindström 2015). Tahoe Donner falls within the ancestral territory of the Washoe Tribe of Nevada and California and the Washoe Tribal Historic Preservation Officer was contacted in order to incorporate opinions, knowledge, and sentiments regarding the project.

Under the California Environmental Quality Act (CEQA) provisions the PRC was amended (in 1992) with the addition of Section 5024.1, which authorized the establishment of the California Register of Historical Resources. The significance of a heritage resource is typically evaluated in terms of criteria established in the California Register. For the purposes of CEQA (Section 15064.5), a significant heritage resource is one that:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important in our past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- Has yielded, or may be likely to yield, information important in prehistory or history.

In general, CEQA provides protection to “historical resources” and to “archaeological resources” that are “important” and/or “unique.” An “important archaeological resource” must meet one or

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more of the above CEQA criteria. A “unique archaeological resource” must qualify under one of the first three CEQA criteria (PRC 21083.2(g)). Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant. More information about specific protections afforded cultural resources and resource significance criteria can be found in the Heritage Resource Inventory Report (Lindström 2015).

Prehistory

The archaeological signature of the Truckee Basin marks a trend from hunting-based societies in earlier times to populations that were increasingly reliant upon diverse resources by the time of historic contact. The shift in lifeways may be attributed partially to factors involving paleoclimate, a shifting subsistence base, and demographic change. During the late Holocene, populations were on the rise and land use was more diversified, with large sites located near permanent water. Big game hunting was supplemented by intensified seed processing and storage.

Throughout the Late Archaic, which spans about 1,300 years ago to historic contact, see Table 4 below, populations continued to rise, as reflected archaeologically in more intensive use of all parts of the Tahoe Sierra landscape and a greater emphasis on plants, fish, and small game. The bow and arrow (with emphasis on core/flake technology) replaced the atlatl and dart. This period has been associated with the Washoe Indians. It is estimated that the prehistoric Washoe had one of the highest population densities in the western Great Basin, which has been attributed to the bountiful environment in which they lived (Price 1962, p. 2, as cited in Lindström 2015). Historic declines in Washoe population and traditional resource use were caused by disruptions imposed by incoming Euro-American groups.

Table 4
Cultural Chronological Periods

Years Before Present	Epoch	Cultural Phase
< 150	Historic-era	Historic-era
150 - 1,300	Late Holocene	Kings Beach
1,300 - 5,000		Martis
	Middle Holocene	

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Table 4
Cultural Chronological Periods

Years Before Present	Epoch	Cultural Phase
5,000 - 7000	Early Holocene	Spooner
7,000 - 10,000		Tahoe Reach
10,000 - >11,000	Latest Pleistocene	Washoe Lake Phase

The Plan Area falls within the center of Washoe territory, with primary use by the northern Washoe or *Wa She Shu* who wintered in the Truckee Meadows area and spent summers in the Truckee-Tahoe basins and Sierra Valley (Downs 1966; Nevers 1976, as cited in Lindström 2015)(Figure 12). The Washoe regard all “prehistoric” remains and sites within the Tahoe-Truckee basins and environs as associated with their own past. However, use by other neighboring groups is not ruled out (Bloomer and Lindström 2006, p.10, as cited in Lindström 2015). The inventory report indicates that Washoe encampments were reported near Gateway and around Donner Lake and that tributaries to the Truckee River, such as Trout Creek and Alder Creek, were important fisheries and that basalt was quarried nearby in the vicinity of Alder Hill.

Recent History

Emigrant Trail: Some of the first Euro-American visitors to the Truckee area ascended the Truckee River drainage and arrived at its confluence with Donner Creek in mid-November 1844. Hundreds of emigrant trains followed. An alternate route was traveled by later emigrant travelers to avoid the rugged Truckee River Canyon. This alternate route has become known as the Truckee Route of the Emigrant Trail and a branch of this Emigrant Trail is alleged to have passed through Tahoe Donner. This route proceeded up Alder Creek from its intersection with

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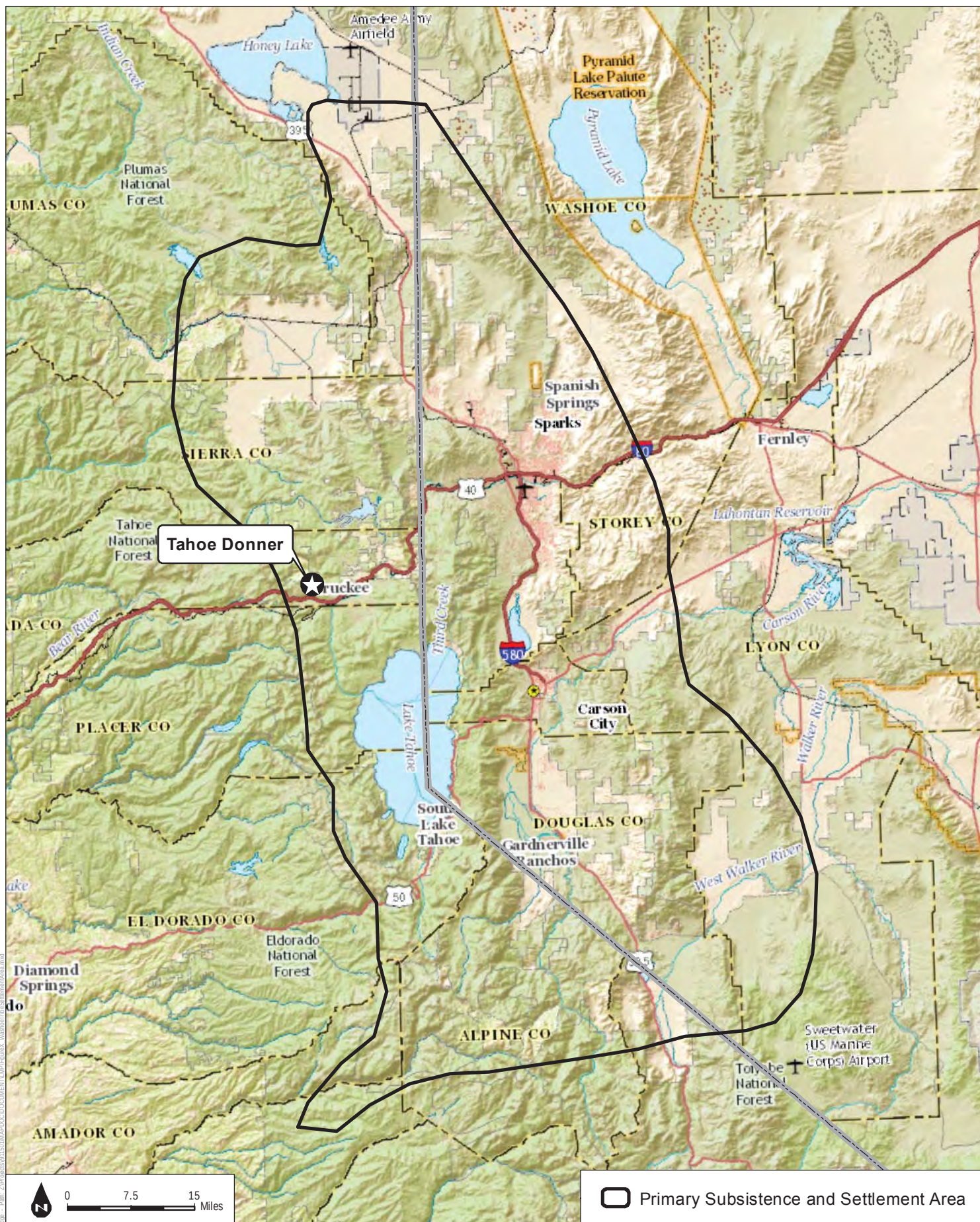
State Route 89 and down the rough alignment of Northwoods Boulevard. While there is some degree of doubt regarding use of this route by emigrants, this route was used during historic logging operations in the vicinity of the subdivision and appeared on maps as early as 1865 (Lindström 2015).

Logging: Logging was first initiated in the Truckee area after the discovery of the Comstock Lode in 1859. After mining activity declined in the late 1860s, a new market for lumber was found in the Central Pacific Railroad (CPRR). As the rails reached Donner Summit in 1866–1867, a number of mills established operations in the Truckee Basin to supply the railroad with cordwood for fuel, lumber for snow shed construction, and ties for the roadbed. Coburn’s Station (Truckee) soon became one of the major lumbering centers. Trees were harvested and logging camps and sawmills are known from within the area of the Tahoe Donner subdivision.

Ranching: Cattle ranching and dairy operations were carried out in the Euer Valley by the Euer family beginning in the late 1860s or early 1870s. With the sale of their 482 acres in Euer Valley to the Association on May 10, 2012, the family ended 140 years of dairying. The last cattle round up was on October 16, 2014 (Huisman, pers. comm. 2015, as cited in Lindström 2015). The family still maintains a 40-acre property in the center of the valley known as the “Circle E Ranch.”

McGlashan Springs: The growing needs of Truckee prompted the establishment of several private water companies. One of the earliest water sources was developed within present-day Gateway as part of the McGlashan water system. The line of the McGlashan water system extended from McGlashan Springs, located within the present-day Tahoe Donner subdivision in the vicinity of Bermgarten Road, eastward along the ridge to the Northside/Town Station above downtown Truckee. The McGlashan Spring domestic water use dates from the incorporation of the McGlashan Water Company in August of 1889. This water, originally piped to Truckee for use in the McGlashan Addition subdivision on High Street, contributed to the Truckee water supply into the 1970s (Lindström 2015).

Development: Prior to the development of the Tahoe Donner subdivision in 1970, three other “paper” subdivisions were established along the steeper southern section of the Tahoe Donner subdivision: the Henry Tract, the Bucknam Tract, and the Sinclair Tract. These housing tracts were never developed.



SOURCE: Washoe Tribe of NV and CA (2013-2014)

FIGURE 12
Washoe Traditional Tribal Lands (Pre-European Contact)

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<https://www.washoetribe.us>

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Today Tahoe Donner subdivision covers approximately 7,000 acres. Justin Dart of Dart Industries acquired the land from Jack Kirby, President of Lakeworld Properties, effective December 1, 1970. At the time, Lakeworld Properties, one of the largest corporations in the California land-development industry, was actively involved in developing the Alta Sierra subdivision near Grass Valley and the Prosser Lakeview Estates subdivision in Truckee. Dart Industries originally began as Walgreen Drugs, as Justin Dart married Ruth Walgreen, whose father founded the drugstore chain. Dart Industries purchased the property in early spring 1970 and obtained county, state, and federal approval for Tahoe Donner subdivision within 11 months. Lots in the subdivision began selling in 1971 (Kirby 2006, as cited in Lindström 2015).

Land Acquisitions: Tahoe Donner has steadily purchased available land to improve recreation opportunities and provide for additional defensible space. In 2002, the Association purchased 200 acres of Euer Valley from the Euer family, and in 2011 completed a second purchase of 435 acres of Euer Valley, which represented the majority of the Euer family's land holdings north of Tahoe Donner. The Euer family retained 40 acres at the center of Euer Valley. In 2010 the Association worked with the Town of Truckee and the Truckee Donner Land Trust to purchase 240 acres of land on the southern border of Tahoe Donner known as the Bucknam Sinclair property. In 2011 the Association purchased the 160-acre McGlashan Springs property from the Truckee Donner Public Utility District and acquired a 20-acre parcel on Teton Way to house Forestry department facilities and provide additional defensible space. A 640-acre property north of Euer Valley and including Crabtree Canyon was purchased by the Association from the Truckee Donner Land Trust in 2016. The 2030 General Plan identifies additional land purchases as a priority as opportunities arise. Property acquired by the Association since 2010 is identified in Figure 13. As additional land is purchased it will be added and mapped in future updates to this Land Management Plan.

5.3 Water Resources

Information in this section is drawn from the hydrologic report prepared for Tahoe Donner (Balance Hydrologics 2015) and the Forest Management Plan prepared by the Tahoe Donner Forestry Department (TDA 2012). Additional detailed information can be found by reviewing these reports.

The Tahoe Donner subdivision is within three primary subwatersheds of the Truckee River. Northern portions of the Plan Area are within the Prosser Creek and Alder Creek Watersheds, both of which drain to Prosser Creek Reservoir before discharging to the Truckee River. Southern portions of the project are within the Trout Creek Watershed, which flows through downtown Truckee before discharging to the Truckee River. Trout Creek, Alder Creek, and the South Fork of Prosser Creek are perennial streams that receive runoff from a number of other intermittent and ephemeral drainages within the Plan Area (Figure 2).

South Fork Prosser Creek

The South Fork of Prosser Creek through the Euer Valley area in Tahoe Donner is a low gradient perennial stream with a wide floodplain and wide meanders and evidence of historical channels. Large cutbanks and associated bank erosion occur where the stream meanders encounter slopes at the edge of Euer Valley. The Euer Valley reach of the creek generally has a low level of beaver activity and relatively sparse riparian vegetation as a result of recent grazing activity. Legacy issues affecting the South Fork of Prosser Creek are primarily associated with ranching and include channelization and watershed modifications associated with road building and cattle grazing. The creek is generally stable yet the system is dynamic and rapid growth and changes in the composition of riparian and meadow vegetation will occur as a result of the recent discontinuation of cattle grazing.

Alder Creek

Alder Creek runs generally parallel to Skislope Way and Alder Creek Road through Tahoe Donner and is a perennial waterway characterized by a low/moderate gradient streambed with a narrow floodplain and little meadow habitat. Beaver activity is high and beaver dams typically impound water in several locations. Recreational trails and access roads exist adjacent to the stream in several locations east of Fjord Road. Legacy disturbances affecting Alder Creek include Alder Creek Road and other nearby roads, residential development (fills on the streambank near Fjord, etc), Tahoe Donner Campground (fills), and effects of historical timber operations. The condition of the waterway is stable and dynamic; beavers, urban runoff, vegetation composition changes, legacy issues continue to act on this perennial stream.

Trout Creek

Trout Creek runs generally west to east through Tahoe Donner from Swiss Lane, then paralleling Northwoods Boulevard to cross under Lausanne Way and run alongside Euer Valley Road toward downtown Truckee. This perennial stream has a variable gradient and exhibits cutbanks and erosion and incised channels as well as narrow floodplain and wide floodplain and meadows and meandering channels (Bennett Flat, Nature Loop, golf course, north of Swiss Lane), Beaver activity is high in the vicinity of the Nature Loop trail. Legacy issues-affecting this stream within Tahoe Donner includes roads, grading and paving and vegetation modification from residential and golf course development (Northwoods Blvd, golf course, Lausanne Way). The stream is condition-stable.



SOURCE: Tahoe Donner Association (2016)

FIGURE 13
Land Acquired Since 2010

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Groundwater and Surface Water Interactions

Springs provide an important source of perennial flow to a number of areas. A few springs on the property were improved prior to 1950 and many of them still provide water for wildlife and domestic use (TDA 2012). Springs are present along the north and south side of Euer Valley and on the south side of the Trout Creek Nature Loop, as well as in other areas, including McGlashan Springs. The locations of springs and seeps tends to correspond with contacts between different volcanic units, and along fault and fracture traces. These springs and seeps support off-stream wetland habitats in several places.

Groundwater recharge is required to maintain the hydrology that supports seep and spring-supported wetlands. At a broad and general scale, groundwater recharge takes place at upper elevations where slopes are low and soils are conducive to rapid infiltration. As described above, glacial deposits along the edges of Euer Valley have formed depressions along the valley margin, allowing for water retention and groundwater recharge.

Beaver Activity and Hydrology

North American beaver are active in the Plan Area, most notably along Trout Creek, but also along Prosser and Alder Creeks. Beaver activity can have a pronounced effect on mountain streams (Woodard 1994, as cited in Balance Hydrologics 2015). Beaver dams can modify the existing riparian structure, raise water tables to re-wet floodplains and restore channel-floodplain connectivity, support hydric plant species, modulate small floods and sediment transport, influence nutrient cycling and water quality, and alter channel patterns. Ongoing beaver activity can also benefit floodplain functionality through the creation and maintenance of floodplain storage and aquatic habitat. Beaver activity can be managed for environmental benefits to the extent that it remains compatible with existing and planned uses. The benefits of beaver activity identified above could be particularly beneficial within the meadows and floodplains in Euer Valley.

While beaver activity has environmental benefits, beaver activities can also flood trails and developed areas, obstruct culverts and drainage infrastructure, and decimate riparian vegetation. Beaver dam removal and long-term management of beaver populations may require relocating beavers, as primary dams can be rapidly reconstructed (Kelly Biological Consulting 2015).

5.4 Hazards

Wildfire

The 2012 Forestry Management Plan includes an objective to increase the level of vegetation and fuels management to help lessen the effects of a wildfire within the Plan Area, including private and

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Association assets. The information in this section is from the 2012 Forest Management Plan (TDA 2012).

In the vicinity of the Plan Area, prevailing winds are out of the southwest, which typically pushes wildland fires in a northeasterly direction. Likely and historic sources of fire ignition are vehicle-associated ignitions from Interstate 80 and ignitions associated with developed areas south of Tahoe Donner. Other potential ignition sources include lightning and ignitions from developed areas and recreational activities within Tahoe Donner.

Historical catastrophic events include the 1960 Donner Ridge Fire, 1977 Flash Fire, 1994 Armstrong Fire, 2003 Donner Fire, and 2007 “80” Fire, which all burned into Tahoe Donner. The Donner Fire and the “80” Fire were slowed by fuel breaks planned and implemented by the Tahoe Donner Forestry Department, which allowed responding firefighting agencies time to stop progress of the fires.

Flood

The Federal Emergency Management Agency (FEMA) mapping shows the approximate location of the 100-year floodplain associated with the South Fork of Prosser Creek in Euer Valley (Figure 14). The mapping shows that portions of Association property in open space areas of Euer Valley are within FEMA Special Flood Hazard Area (SFHA) Zone A. While Zone A designation means the area is subject to inundation by the 1% annual chance flood event (i.e., 100-year flood), no detailed hydraulic analysis has been performed to determine precise base flood elevations (BFE) or flood depths and more detailed mapping and hydraulic analyses would likely result in a correction of the mapped floodplain boundary in this area (Balance Hydrologics 2015). Regardless, the floodplain in the Euer Valley is mapped within an area intended to remain in open space, though portions of the trail system are within the mapped floodplain boundaries.

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Based on a hydrologic study carried out by Balance Hydrologics, other areas within Tahoe Donner that could be subject to inundation during the 100-year flood event include an area along Alder Creek in and around the Tahoe Donner Campground and two areas along Trout Creek; one associated with the wetland complex adjacent to the Nature Loop Trail in open space south of the Trout Creek Recreation Center and another associated with the Bennett Flat meadow (Figure 12). These potential floodplain areas are mapped within open space and could potentially inundate portions of the trail system (Balance Hydrologics 2015). It should be noted that the floodplain assessment done by Balance Hydrologics was focused on Alder Creek and Trout Creek. Other areas subject to inundation during flood events occur within the subdivision in association with tributary streams and should be mapped at a project-specific level. Areas of localized ponding and flooding resulting from stormwater drainage also occur in Tahoe Donner and should be mapped and monitored as funds are available to prioritize efforts to resolve recurring issues and to refine the extent of the Stream Corridor management zone.

Landslides and Avalanche

Geologic hazards present within the Truckee Town limits are primarily associated with seismic activity, and with steep slope areas that may be subject to landslides in conjunction with seismic activity and/or weak soils (Town of Truckee 2015). Slopes within Tahoe Donner range up to 54% and legacy impacts associated with historical uses have modified some areas from a natural condition (Balance Hydrologics 2015). Volcanic deposits dominate the underlying geology of the watershed and are subject to debris flows and other forms of erosion (Balance Hydrologics 2015).

Steeply sloped and disturbed areas would be at greatest risk of landslide or mass soil movement. In addition to potential hazard to life and property from landslide, mass soil movement could result in sediment delivery to waterways affecting water quality and aquatic habitat, and result in loss of forest productivity. The Town of Truckee and Nevada County General Plans contain policies to limit grading impacts in areas of 30% or greater slope. The 2012 Tahoe Donner Forest Management Plan and Trails Master Plan includes a variety of guidance regarding limits on certain forestry activities in high slope areas (TDA 2012).

Potential hazard from snow avalanche is dependent on a variety of conditions, including slope steepness and snow pack stability, which is influenced by a variety of site and weather-specific factors, including directional aspect, wind, temperature, and rate of snowfall. The Town of Truckee Zoning Map Sheet #27 identifies a small area in Tahoe Donner off Tundra Drive as having low and moderate avalanche hazard (Town of Truckee 2015).

Nevada County's Local Hazard Mitigation Plan (2011–2016) maps high avalanche risk areas within and adjacent to Tahoe Donner. High-risk areas are those where avalanches that could damage standard wood-frame structures and/or bury automobiles are expected to occur with a

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probability of 1 chance in 20 per year (Nevada County 2011). While no detailed mapping of avalanche risk is known to have been conducted for the subdivision, available mapping suggests that high-risk areas identified in closest proximity to Tahoe Donner are associated with west-facing slopes off Donner Ridge in the Johnson Canyon area, north-facing slopes on the south side of Euer Valley, and south-facing slopes on the north side of Euer Valley. These areas are all undeveloped open space.

Policies contained in the General Plan for both the Town of Truckee and Nevada County include measures to mitigate avalanche risk associated with proposed development projects. Based on general mapping, avalanche hazard within Tahoe Donner is primarily within open spaces and Cross Country Ski Area and could present potential risks to recreational users venturing into high-risk avalanche areas.

6 MANAGEMENT ZONES

This Plan relies on a zone concept to address the unique management needs of different areas within Tahoe Donner. This section describes each of the seven management zones created by this plan and identifies the land use and management priorities and issues for each zone. Management zones were defined and mapped based on the land uses, activities, and resources within each zone. Each management zone is depicted in Figure 4. Future updates to this plan should include reviewing the mapping and issues identified for each zone to ensure they reflect current conditions. It is noted that compliance with regulations intended to protect sensitive resources is a primary management concern within all management zones.

6.1 Residential

The Residential zone consists of approximately 2,638 acres and includes all of the private parcels that support residential development within Tahoe Donner and several parcels supporting commercial development. This zone is generally in the eastern and central portion of Tahoe Donner and is entirely within the limits of the Town of Truckee. This zone is primarily within conifer forest or montane chaparral vegetation communities that have been modified by development. Tahoe Donner CC&Rs encourage an open forest setting so parcel boundaries are not visually defined by perimeter fencing as is typical in most residential subdivisions. The Greenbelt Zone abuts most of the Residential zone, though Residential-Wildlands Interface, Stream Corridor, and Amenities zones also occur adjacent to this zone. Priority management issues within this zone include the following:

- Defensible space compliance
- Architectural Standards and Covenants compliance
- Maintaining required setbacks especially rear setback to common area as outlined in CC&Rs
- Maintaining no more than maximum lot coverage % (35%) as outlined in CC&Rs
- Minimizing urban activities from a visual and physical standpoint by compliance with CC&Rs
- Erosion and water quality
- Be proponent in Town of Truckee erosion and culvert and drainage maintenance and improvement
- Encouraging river friendly landscaping & general water conservation
- Controlling invasive / non-native weeds
- Maintaining habitat values

6.2 Residential–Wildlands Interface

The Residential-Wildlands Interface zone includes approximately 235 acres between developed areas of Tahoe Donner and undeveloped open space or wildland areas and is 300 feet in width to reflect fuel modification zones required for defensible space purposes. This zone is mapped along the eastern and southern boundaries of the developed portions of the subdivision and is both within and outside the Town of Truckee. Dominant vegetation communities in this zone include conifer forest and montane chaparral that are intensively managed for defensible space and fuel loading. This zone primarily abuts Greenbelt, Open Area, and Residential management zones (this zone abuts private residential parcels in many places). Priority management issues within this zone include the following:

- Fuels treatment and forest management
 - functionality
 - aesthetics of practice
- Aesthetics in relation to private development and recreation areas
- Recreation opportunities and access
- Encroachment of developed uses from private parcels
- Habitat protection and enhancement
- Erosion and water quality
- Invasive weed/non-native weed control

6.3 Amenities

The Amenities zone consists of approximately 208 acres of Association lands made up of parcels that are developed with subdivision amenities, including the downhill ski area, Alder Creek Adventure Center, the Equestrian Center, Tahoe Donner Campground, Trout Creek Recreation Center, Northwoods complex, golf course and driving range, and the Beach Club Marina facility on Donner Lake. The amenities are located in various locations throughout the developed portion of Tahoe Donner and at the east end of Donner Lake. All amenities are within the Town of Truckee except for portions of the Alder Creek Adventure Center and Equestrian Center. The Amenities zone designation denotes areas that are subject to and managed for intensive uses associated with developed facilities. Amenities zones primarily abut Greenbelt, Residential, and Stream Corridor management zones. Priority management issues within the Amenities zone include the following:

- Maintaining, enhancing and/or expanding existing facilities

- Maintaining defensible space/forest health management
- Erosion and water quality
- Controlling invasive / non-native weeds

6.4 Greenbelt

The Greenbelt zone is approximately 890 acres of undeveloped open space interspersed throughout the developed areas of Tahoe Donner. Nearly all of the Greenbelt zone is within the Town of Truckee (a small portion near the Alder Creek Adventure Center is outside of Town limits). Conifer forest and montane chaparral are the most prevalent vegetation communities within the Greenbelt zone. This zone primarily abuts Residential, Residential-Wildland Interface, Stream Corridor, and Amenities zones. Priority management issues within this zone include the following:

- Fuels treatment and forest management
 - functionality
 - aesthetics of practice
- Encroachment of developed uses from private parcels
- Access for passive recreation
- Habitat enhancement and protection
- Erosion and water quality
- Invasive weed/non-native weed control

6.5 Open Area

The Open Area management zone consists of approximately 2,762 acres of open space to the east and south of the developed portions of Tahoe Donner and includes Euer Valley, Hawk's Peak, portions of Donner Ridge, and McGlashan Springs. This zone is used primarily for passive recreation including summer and winter trails and for fuels management and forest health and reforestation projects. The majority of this zone is within Nevada County, though portions of it are within the Town of Truckee. Conifer forest, montane chaparral, meadows, and rock outcrops occur within the Open Area zone. Historical logging roads are interspersed throughout this zone. Adjacent management zones include Residential-Wildland Interface and Stream Corridor. Priority management issues within this zone include the following:

- Maintaining fire access and continuing fuels treatments and forest health management
- Legacy sites and issues, including erosion and water quality concerns resulting from activities carried out in the past, including:

- logging and poorly constructed skid / access roads and landings
- railroad activities
- utility district projects and spoils
- Dart development activities and spoils
- Euer development and spoils
- Tahoe Donner activities.
- activities on neighboring properties
- Support/enhance/maintain recreational opportunities
- Support trails maintenance and development
- Habitat protection
- Habitat restoration where possible (streams and roads)
- Encroachment of developed uses/maintaining open space
- Pollution from past activities
- Watershed health: water quality and erosion
- Controlling invasive / non-native weeds
- Protecting sensitive resources

6.6 Stream Corridor

The Stream Corridor zone consists of approximately 294 acres of land centered around Class III streams within Tahoe Donner, including South Fork Prosser Creek, Alder Creek, and Trout Creek and their associated floodplains. This zone includes a 200-foot wide corridor centered on these creeks and includes FEMA-mapped and inferred floodplains associated with each of the Class III waterways. The Stream Corridor zone is largely undeveloped open space that occurs within the developed portions of Tahoe Donner as well as undeveloped open space both within and outside the Town of Truckee. The dominant vegetation communities are montane riparian and wet meadow. This zone provides important watershed and habitat values and is highly regulated by state and federal agencies. This linear zone follows the course of waterways throughout the subdivision and abuts all zones except for Ancillary Facilities. Priority management issues within this zone include the following:

- Water quality and erosion
- Habitat protection, enhancement, and restoration

- Flooding
- Beaver activity
- Access and maintenance
 - Adjacent roads and trails
 - Road and trail crossings
- Amenity maintenance (golf course)
- Controlling invasive / non-native plant species
- Protecting sensitive resources

Several tributaries to these Class III streams in Tahoe Donner also have associated riparian zones, floodplains, and meadows, but have not been mapped in detail. As such, the Stream Corridor zone should be updated to take in tributary waterways after more detailed mapping of hydrologic features within the subdivision is completed.

6.7 Ancillary Facilities

The Ancillary Facilities zone consists of approximately 23 acres of Association lands that includes parcels used for support facilities. This includes the golf course maintenance facility, Forestry Department facilities and the maintenance yard. Land in this zone is generally developed and subject to intensive uses associated with forestry and maintenance activities. Ancillary Facilities are in various locations throughout the developed portion of Tahoe Donner and are all within the Town of Truckee except for the Forestry facility parcel in the southwest portion of the subdivision. Priority management issues within the Ancillary Facilities zone include the following:

- Maintaining, enhancing and/or expanding existing facilities
- Maintaining defensible space/forest health management
- Aesthetics in relation to private development, roadways, and recreation areas
- Erosion and water quality
- Controlling invasive / non-native weeds

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7 MONITORING AND MANAGEMENT

7.1 Monitoring Activities

Monitoring within Tahoe Donner will vary in intensity and scope in the different Management Zones based on the resources present and the management objectives for each zone. Association management will prepare a monitoring plan to identify a monitoring schedule for each management zone and specific conditions to be monitored. Private parcels within the Association will not be subject to monitoring.

For monitoring across the whole Association property, the Association will obtain aerial photos covering Association property every 5 years and compare them against the previous aerial photos to identify any disturbances, changes, or trends in vegetative cover within the open area or stream corridor. The vegetation map will be spot field-checked as deemed necessary by Association management. Vegetation categories will be identified according to the “List of Vegetation Alliances and Associations” (CDFG 2010). Vegetation mapping will be conducted to the series level, where appropriate.

7.1.1 Residential

Inspection of individual properties will be carried out by the Forestry Department under the property owner forest health and defensible space inspection program. This program inspects 750 properties per year to assist the owners in complying with PRC 4291 fire-safe requirements. The Forestry Department will continue its public information program to help members monitor and appropriately control invasive species on their properties (TDA 2012).

7.1.2 Residential–Wildlands Interface

Residential–Wildlands Interface Management Zones will primarily be monitored for non-native plant species and for fuel load. This will include inspections as described above for residential areas.

Monitoring of a portion of the Residential–Wildlands Interface will occur annually such that all lands in the zone are inspected every 8 years (to coincide with the defensible space inspection program on residential parcels). Monitoring will be focused on encroachment and edge effects from residential lots, including encroachment of structures, landscaping, non-native plants or other encroachment that does not comply with C&Rs, as well as threats to habitat values, water quality, and aesthetic qualities including but not limited to new disturbance areas and erosion. If any of these conditions is detected, the Association will take appropriate corrective actions, as described in Section 7.2. If non-native plant species or other unauthorized encroachment or disturbance are detected, the Association will take appropriate corrective actions, as described in Section 7.2.

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If non-native plant species or exotic animals are detected on site, the Association will take appropriate actions, as described in Section 7.2.

7.1.3 Amenities

Most of the developed amenities in the Tahoe Donner subdivision would not require monitoring. The golf course and downhill ski and cross country ski areas are managed according to their recreational uses and any habitat value is secondary to those uses.

Erosion of the lakeshore at the Beach Club Marina will be monitored annually by taking measurements to the waterline from a fixed datum on the shoreline. Erosion monitoring will be conducted more frequently if erosion begins to threaten structures, or if a lake wind event results in large waves and major scouring. If restoration of the lakeshore is conducted at the Beach Club Marina, the results of the restoration efforts will be monitored.

The campground area will be subject to at least quarterly monitoring for overall conditions including trash, damage to facilities, and adequacy of facilities.

7.1.4 Greenbelt

The Greenbelt zone will be monitored according to a schedule provided in the approved monitoring plan. Monitoring will focus on encroachment and edge effects from residential lots, including encroachment of structures, landscaping, unauthorized trails and vegetation removal, non-native plants, exotic animals or other encroachment that does not comply with C&Rs. This zone will also be monitored for threats to habitat values, water quality, and aesthetic qualities including but not limited to new disturbance areas and erosion. If any of these conditions is detected, the Association will take appropriate corrective actions, as described in Section 7.2.

7.1.5 Open Area

The Open Area zone will be monitored according to a schedule provided by the approved monitoring plan. Monitoring will focus on encroachment and edge effects from residential lots, including encroachment of structures, landscaping, unauthorized trails and vegetation removal, non-native plants, exotic animals or other encroachment that does not comply with C&Rs. This zone will also be monitored for threats to habitat values, water quality, and aesthetic qualities including but not limited to new disturbance areas and erosion. If any of these conditions is detected, the Association will take appropriate corrective actions, as described in Section 7.2.

7.1.6 Ancillary Facilities

No monitoring of ancillary facilities is required beyond that required for operating permits with respective agencies.

7.1.7 Stream Corridor

The Stream Corridor zone will be monitored according to a schedule in the approved monitoring plan. Monitoring will focus on encroachment and edge effects from residential lots, including encroachment of structures, landscaping, non-native plants, or other encroachment that does not comply with C&Rs. If non-native plant species or other unauthorized encroachment are detected, the Association will take appropriate corrective action as described in Section 7.2. Monitoring should note any threats to water quality associated with stormwater runoff, erosion, and degradation within the riparian zone, including erosion features, sediment delivery, unauthorized grading or vegetation removal, failed or ineffective BMPs or other threats to water quality or habitat values. Riparian restoration projects will be monitored for success, including growth of plantings, stability of slopes, persistence of boulders and logs that have been placed within the stream corridor, and other considerations that might be specific to an individual site per the restoration project monitoring plan and any associated permits.

Several tributaries to these Class III streams in Tahoe Donner also have associated riparian zones, floodplains, and meadows, that have not been mapped in detail. As funding allows, additional mapping of hydrologic features should be carried out by a qualified professional and the Stream Corridor zone should be updated as new hydrologic features are defined.

Beaver activity should be noted during monitoring, particularly where activity threatens Association or member assets. Refer to 7.2.2 for options for addressing nuisance beaver activities.

7.2 Maintenance Activities

In general, non-residential zones within the Plan Area will be maintained at the direction of the Association's forester and other Association staff. Maintenance will include controlling invasive weed species and performing weed control and management as necessary to maintain the different management zones in compliance with the objectives. Maintenance will also include removing accumulated trash, repairing broken or damaged fences, gates, locks, signage, and other facilities on at least a quarterly basis. In addition, maintenance shall include controlling plant diseases and animal pests determined by the management

The Forest Management Plan (TDA 2012) describes maintenance activities related to erosion, drainage, road surfaces, fencing and signage, and fire protection/fuel management. The Tahoe

Donner Trails Master Plan (TDA 2013) describes maintenance of the trail system. Therefore, this LMP document does not address weed and pest control for the trails system.

7.2.1 Weed Control

Weeding efforts shall consider the overall goal, which is to promote the persistence of native species and their supporting habitats and forest health and productivity. The Association shall explore collaborative relationships and weed mapping and control activities with the TRWC Weed Warriors program and should evaluate the benefits of becoming a partner in the Nevada-Placer WMA group and signing on to WMA's memorandum of understanding. Both TRWC and the Nevada-Placer WMA group offer guidance and resources that can enhance the weed control efforts of Association staff and volunteers.

Before applying herbicides, Association management shall determine that the proposed herbicide, when applied per the labeled directions, will not directly or indirectly affect other biological resources. The Association should consult a pest control adviser for recommendations on herbicide use, and all herbicides must be applied by a licensed or certified pesticide applicator, as required by law.

All weed control work shall be supervised by a qualified foreman capable of readily distinguishing weeds from native plants. Weed control work shall utilize integrated pest management (IPM) techniques that focus on avoiding and minimizing potential weed invasion problems by minimizing soil disturbance and quickly controlling any new populations of invasive weed species before they spread and colonize. When weed control work is determined to be necessary, staff shall use the least damaging and most selective method(s) available. Weed control work shall be carefully timed to control weeds before they set seed. Weeds should be controlled as early as effectively possible to minimize the amount of biomass produced, using methods that focus on reducing the weed seed bank, the amount of thatch, and weed biomass. Weed control and management should focus on controlling annual weeds seasonally.

Methods used for weed control may include string trimmers, mowers, and/or herbicide treatment, using truck-mounted tank sprayers, backpack sprayers, and wicking or daubing devices. Other methods for weed control and management of plant competition may be applied as part of forest health operations and in accordance with the Forest Management Plan. Maintenance personnel must have a fire extinguisher with them, or in the immediate vicinity, when operating mechanized equipment for weed control.

Selective weeding in areas dominated by native plants shall be performed using non-mechanized hand tools or herbicide daubers/wicks. Weeds may also be controlled by a well-managed, timed, and monitored livestock-grazing regime. Animal grazing shall be in accordance with a grazing

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plan preapproved by CDFW. The grazing plan shall indicate the type of animal(s) used for grazing, the area to be grazed, the grazing time frame, the anticipated time of rotation from area to area, methods proposed to keep livestock out of non-grazing areas, and the proposed monitoring regime. Livestock shall be closely monitored and moved/rotated to prevent overgrazing. Exotic grasses will be grazed before the seed become ripe. Stands of native vegetation shall be adequately protected during grazing operations. If burn permits can be obtained from the necessary agencies, burning may be used as a method of weed control and management within the open space areas. Burning would only be used in open space areas that are strongly dominated (at least 90% weed cover) by non-native grasses and weeds. The proposed burn date, location, and methods would need to be provided in advance to CDFW.

Any large perennial exotic species, including exotic trees, will either be grubbed out and removed, or cut to grade and treated with the appropriate systemic herbicide. Resprouts of exotic species will be controlled quarterly before they get large. The method of control will depend on the situation (i.e., if grubbing exotic species' rootballs would exacerbate erosion or likely damage nearby native plants, rootballs would be cut to grade and stump treated). In general, weeds and exotic species will be controlled using the methods indicated in *Invasive Plants of California's Wildlands* (Bossard et al. 2000), and in accordance with the directives of the California Department of Pesticide Regulation. Association management will closely monitor all maintenance work. Management should be adaptive, and, therefore, maintenance methods are subject to changes and adjustments as deemed necessary by Association staff. Association management shall confirm in writing any changes in methodology.

Controlling Weed Spread

To limit the spread of weed species, ground disturbance for operations and maintenance activities and individual projects should be limited to the minimum required to carry out the project. Any disturbed areas should be re-vegetated using native seed mixes or plantings. Only certified weed-free construction materials should be used within and around disturbed areas. To avoid introducing invasive and noxious weed species, native pine needle wattles or other weed-free wattles should be used in place of straw wattles or straw bales, and erosion control fabric, gravel and other materials should be used instead of materials containing straw.

All vehicles and equipment should be cleaned both before entering and before leaving work sites to limit the import and export of weed propagules. Pine needle wattles made of local material should be used for erosion control; no erosion control materials containing straw should be used on-site. Only native plants and seeds should be used in re-vegetation and the list of proposed species for re-vegetation should be reviewed and approved by a qualified botanist or registered professional forester.

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Areas of ground disturbance outside of floodplains should be mulched with native woodchips and/or pine needles to a depth of two to three inches in order to suppress germination of weed species. To the extent possible, native soil and vegetation removed for construction should be stockpiled and used for topsoil and to re-vegetate the site.

Any invasive weed material removed within the Association's boundaries shall be disposed of in a manner to prevent the spread of weeds. All removed plant materials with potential to propagate noxious weeds (in most cases seeds, but in some cases also rootstock) shall be appropriately contained and disposed of in an appropriate landfill facility or otherwise destroyed to the point of inviability prior to disposal.

Monitoring of non-native plant species should be carried out in collaboration with TRWC and as specified for each zone in Section 7.1. Non-native plant occurrences should be mapped and described as appropriate to guide control efforts and to evaluate changes that have occurred between monitoring cycles.

7.2.2 Pest Control

Pest control should not be required on Association property on a regular basis. However, it is possible that gophers, squirrels, rabbits, beavers, and other animals may need to be at least periodically controlled. In addition, if an herbivore is identified foraging on plants installed during revegetation efforts, and the damage is determined by the Association management to be significant, that herbivore may need to be controlled.

The control methods will be dependent on the species that needs control; however, pest control will utilize IPM techniques. Non-lethal controls, such as exclusionary fencing, rodent traps, fake owls, scarecrows, and reflective silver ties will be emphasized. Plant shelters and gopher cages may be used on new plantings in restoration areas. All control methods will be prescribed in writing by the Association management.

Beaver activity with potential to threaten Association or member assets should be mapped, appropriately documented, and monitored. CDFW should be consulted regarding options for beaver management as soon as issues are identified and control measures shall be carried out in accordance with written direction from agency personnel and the terms and conditions of any permits issued for control purposes. Potential methods of control include installing water passage devices in dam structures, breaching dams, and beaver removal or relocation.

Insect control should not be needed on a regular basis, but may be more likely along in residential-wildlands interface areas, and/or habitat restoration areas where establishing plants are more likely to become stressed and, therefore, predisposed to insect infestation. Although not expected, severe infestations of insects determined by the Association management to be

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detrimental to the survival of a significant number of native plants shall be controlled using the least toxic controls available, including sticky yellow insect strips, non-copper horticultural oils, and biological controls such as ladybugs, damselbugs, green lacewings, and/or minute pirate bugs.

The major insects and diseases affecting Association property are discussed below, with potential management methods to control the pests.

- **Mountain pine beetle (*Dendroctonus ponderosae*):** This beetle can attack and kill lodgepole pine, sugar pine, western white pine, and ponderosa pine (*Pinus ponderosa*). In Tahoe Donner, the primary host is the lodgepole pine tree. The attacks are usually heaviest along the main trunk of the tree, within 3 feet of the ground to the middle of the tree. During endemic infestations, the beetle tends to attack the smaller, weaker trees. Infested trees are recognized by pitch tubes on their trunks and red boring dust in bark crevices and on the ground at the roots – later by decolonization of the foliage. The female creates egg galleries that run up and down the tree, while the young bore perpendicular to the tree. One generation per year is the general rule. Early detection and removal of the infested tree is crucial to stem the tide of the spread of this beetle. The Association will lose a few small pockets of trees to this beetle every year in the lodgepole stands. During drought years, more trees are infected.
- **Fir engraver beetle (*Scolytus ventralis*):** This beetle can attack and kill white and red fir. It attacks pole-sized trees to those at full maturity. Although the fir engraver beetle can kill a tree outright, it generally attacks and kills the top of the tree first. An attack can be recognized by pitch running down the younger or smoother portions of the bark located at the top of the tree. The boring dust is flesh colored and collects in the ridges of the bark. The female creates an egg gallery that runs perpendicular to the grain of the wood, with the young carving up and down the tree. This beetle can have as many as three generations per year. High mortality can occur during prolonged drought periods. Their presence has been confirmed on Association property.
- **Jeffrey pine beetle (*Dendroctonus jeffreyi*):** This beetle only attacks and kills Jeffrey pine trees. This beetle generally attacks mature and over-mature trees that have a retarded growth rate. During epidemics, the beetle attacks groups of up to 20 trees. The attacks are usually heaviest along the main trunk of the tree, within 3 feet of the ground to the middle of the tree. The beetle generally attacks trees greater than 12 inches in diameter. The entrance hole usually occurs in bark crevices, with the initial attack associated with pitch tubes and later by red boring dust. The female creates egg galleries that run up and down the tree with a slight turn at the bottom of the egg gallery, which then proceeds up the tree. One generation per year is the general rule. Early detection and removal of the infested tree is crucial to stem the tide of the spread of this beetle. They should not be a

problem unless the area is experiencing a prolonged drought. They are present on Association property.

- **Red turpentine beetle (*Dendroctonus valens*):** This beetle can attack all pine species. It normally attacks injured, weakened, or dying trees. This beetle usually does not kill trees, but weakens them for attack by other beetles. This beetle creates large reddish pitch tubes located on the lower portion of the bole. The egg galleries are short and irregular in shape running up and down the tree. This beetle will usually appear around construction sites. They are present on Association property.
- **White pine blister rust (*Cronartium ribicola*):** A fungus that attacks the five needle pines, sugar, and western white pine. This fungus is an exotic introduced from Europe. Attacks are recognized by flagging or killing of individual branches or tops of infected trees. Upon closer examination, the dead branches or portions of the bole of the tree may have cankers with dead roughened bark, with margins of yellow to orange spores attached. To complete the life cycle of the fungus, a *Ribes* species (wax current or gooseberry) and a five-needle pine must be present. To control the fungus, either re-forest with rust-resistant seedling or other species of trees, or remove the *Ribes* species. This disease occurs throughout the Association property, where sugar pine and western white pine exist.
- **Lodgepole pine dwarf mistletoe (*Arceuthobium americanum*), true fir dwarf mistletoe (*Arceuthobium abietinum*), and western dwarf mistletoe (*Arceuthobium campylopodum*):** This disease, a true parasite, under severe infections of the host tree, can cause growth loss, wood quality reduction, and in the case of less vigorous examples, tree death. Each species of dwarf mistletoe is tree species specific, with the true fir infecting the red and white fir, lodgepole infecting lodgepole pine, and the western infecting Jeffrey pine. All of the dwarf mistletoes are similar in appearance, with 2.5- to 6-inch-long yellow to olive-green leafless shoots attached to the branches or boles of its host. The only way to manage the dwarf mistletoe is to remove the infected trees and plant a species of tree different than those removed. The dwarf mistletoes appear throughout the Association property in defined pockets.
- **Stalactiform rust (*Peridermium stalactiforme*):** A fungus that attacks lodgepole pine. The infections when young are spindle-shaped swellings on the stems or branches of the tree. When old, they appear as long yellowish pitch-covered areas on the bole of the tree. The bark on the canker surface has sloughed off and the cankers can be up to 25 feet long. Yellow spore pustules form on the edge of active cankers in early summer. This disease will not cause the tree to die, but will reduce the vigor of the tree and could be confused with western gall rust or white pine blister rust. To reduce the occurrence of this fungus, the infected trees should be removed during a thinning operation. The presence of this disease on Association property is confirmed.

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- **Western gall rust (*Peridermium harknessii*)** is a fungus that attacks Jeffrey pine and lodgepole pine. The rust can be recognized by galls on branches or stems that, in time, form large, hard burls that may partially girdle or fully girdle and kill the tree. Yellowish-orange spore pustules appear in the cracks of the galls in the spring of each year. The spores become airborne and infect adjacent trees. The fastest growing trees are more susceptible to the disease. If the fungus is in the branches, the individual branches can be removed to stop the spread. If the rust is in the bole of the tree, the tree should be removed during a thinning operation. Large trees with large burls are a hazard to adjacent homes, as the burl causes a weak area in the tree and should be removed. Within Association property, this disease is in all of the lodgepole stands and in some of the Jeffrey pine.
- **Annosus root rot (*Fomes annosus*):** A fungus that attacks the root system of all conifers. Pine trees infected with the fungus show decreased terminal growth, needle yellowing, and a general decline in health. In non-resinous hosts, it exhibits stain or white stringy rot in the roots. Wind throw of trees infected for some time is common. The disease is spread from root to root of another tree or from freshly cut stumps. When logging or using other equipment in an area infected with the fungus, one needs to be careful not to cause damage to the trees, and those damaged should be removed. Also to stop the spread, the freshly cut stumps can be treated with Sporax. This disease can be found in pockets mostly in the developed areas of the property.

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8 RESPONSIBLE PARTIES

The Association, or a designee, will be responsible for implementing this LMP. The Association, or a designee, will be responsible for the management, monitoring, and reporting measures described in Sections 7 and 9.

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9 ADAPTIVE MANAGEMENT

This section describes the adaptive management program and remedial measures that would be applied across the management zones.

McEachern et al. (2007) provide a description of the concept of adaptive management.

[Adaptive management] is an iterative process of strategy, design, implementation, monitoring, evaluation and adjusting management to maximize conservation success. It evaluates decisions or actions through carefully designed monitoring and proposed subsequent modification to management, threat abatement and monitoring. The modifications are in turn tested with an appropriate, perhaps redesigned, monitoring protocol. At each turn of the cycle, active learning through monitoring and evaluation reduces management uncertainty. Adaptive management is logical, can deal with uncertainty and data gaps, and is similar to the scientific process of hypothesis testing.

Maintenance and remedial actions will be adaptive and based on the monitoring activities described above in Section 7.1 and may include adjusting management techniques and trigger points based on quantitative data collected during long-term monitoring. In general, remedial measures will include implementing maintenance tasks outlined in Section 7.2.

9.1 Restoration and Enhancement Activities

Restoration and enhancement activities will be prioritized and performed as outlined in Section 6. Restoration and enhancement efforts shall be performed in such a manner that the overall habitat is improved, if only by increasing native cover. Habitat or biological resources shall not be negatively impacted directly or indirectly by restoration or enhancement. Therefore, restoration and enhancement projects shall be determined not to negatively affect, either directly or indirectly, habitat and other biological resources on site and shall be reviewed and approved, as required, by agencies with jurisdiction over the affected resources (Nevada County, Town of Truckee, CDFW, etc.).

Restoration and enhancement projects shall utilize only locally indigenous plants appropriate to the habitat being restored or enhanced. Plants and seed shall be from the local region and from similar elevations. Seed shall be tested prior to delivery to ensure it is free of problematic weeds, pests, and disease. Restoration efforts will focus on the use of seed and only include container plants when seed is not available or able to be collected in a reasonable amount of time, or if germination of a particular species from seed is documented as difficult and/or typically requires specific conditions such as fire, scarification, or acidification.

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Habitat restoration sites may be temporarily irrigated to establish native plants and seed. If irrigation is utilized, it shall not alter pre-existing hydrology conditions within the preserve areas and shall be programmed to eliminate runoff. In addition, the system shall be used to establish plants and be scheduled to acclimate them to natural rainfall cycles. Temporary irrigation systems, which will be subject to preapproval by the CDFW, shall be removed after a maximum of 5 years. Temporary erosion control devices may be used during restoration and enhancement work to prevent rills and gullies from forming and associated sedimentation and/or stream turbidity. Erosion control devices may include native, locally indigenous hydroseed mix, fabric silt fences, biodegradable burlap sand bags, or other preapproved devices. Hay and straw bales, wattles, and other devices that often host weed seeds should be avoided. Any disturbed areas should be re-vegetated using native seed mixes or plantings. Only certified weed-free construction materials should be used. To avoid introducing invasive and noxious weed species, native pine needle wattles or other weed-free wattles should be used in place of straw wattles or straw bales, and erosion control fabric, gravel and other materials should be used instead of materials containing straw. All maintenance equipment imported from areas outside Tahoe Donner should be cleaned before and after use to limit the import and export of weed propagules. In areas of known weed infestations equipment should be cleaned prior to moving into other treatment areas.

Habitat restoration and enhancement plans (including restoration plans) shall be prepared by an appropriately qualified multidisciplinary team with experience in the Sierra Nevada region.. All required permits from appropriate regulatory agencies shall be obtained prior to implementation. Restoration and enhancement plans shall include the following information at a minimum:

1. Maps showing the exact location and acreage of the site
2. A description of the restoration project and proposed methodology
3. Project proponent
4. Name of biologist who prepared the plan
5. Map and description of the existing habitat, adjacent habitat, and proposed habitat
6. List of proposed plant and seed species
7. Plant origins
8. Container sizes
9. Species composition
10. Installation schedule
11. Proposed monitoring and maintenance schedule and activities

12. Performance standards.

Seeds shall meet the requirements indicated herein and container plants shall be inspected by the qualified biologist for weeds, disease, and the presence of pests, including Argentine ants, prior to delivery to the site and during delivery. Plants with pests, weeds, or diseases shall be rejected and immediately removed from the site. Mycorrhizal inoculation shall be used in areas where the soil is damaged, at the discretion of the preserve manager.

9.2 Response to Wildfire/Geologic Events

In the event that the lands are damaged in a wildfire or suffers from mass movements (e.g., landslides, slope sloughing, or other geologic events), Association staff shall promptly review the site and determine what action, if any, should be taken.

In general, a burned site will be left to recover naturally from wildfire or geologic events. The native habitat types are well adapted to recover from wildfires unless the fire frequency is artificially increased. The same passive, successional regeneration holds true for mass-movement, landslide, or slope sloughing types of events. Some plant species have evolved and/or adapted to recruit into these types of geologically disturbed areas.

The primary anticipated post-fire management activity involves monitoring the site and controlling annual weeds that may invade burned areas following a fire event, especially when such weeds were not previously present or were present in lower densities. If fire control lines or other forms of bulldozer damage occur, this damage would be repaired and revegetated to pre-burn conditions or better.

More active recovery efforts should also be considered if site conditions and forest health and productivity considerations warrant. This could include salvage operations and reforestation of affected areas. Salvage operations and reforestation should be carried out under the direction of a registered professional forester.

Should a wildfire occur within Association property, the following remedial actions shall be undertaken:

- Association staff will work closely with responding fire agencies to ensure fire response and suppression minimizes impacts to sensitive ecological areas, using existing roads for access where feasible;
- Within 48 hours of a wildfire on Association property, Association staff will inspect the burned area to determine adverse effects occurred to natural resources. The Association will conduct site reconnaissance, sampling, or surveying, as deemed appropriate, and

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prepare a brief disturbance assessment report. Specific issues to be considered in the disturbance assessment report will include, but not be limited to:

- Global Positioning System (GPS) mapping of boundaries and calculation of acreages of land covers burned or disturbed;
 - Qualitative description of ground disturbances specifically created during fire-fighting effort (e.g., access points, fire lines);
 - Damage to irrigation, pumping, fencing or other facilities;
 - Direct mortality of species;
 - Responses to control erosion, invasive plants, and identify needs for repair or replacement of facilities; and
- If necessary, Association staff will initiate erosion control measures where appropriate, and repair structures necessary to secure and maintain the property such as fences and irrigation facilities. Erosion and ash distribution is an expected and naturally occurring event following a wildfire and is part of the ecological cycle. Therefore, erosion control devices, including seeding, straw wattles, and soil tackifiers, should be avoided following a fire event. An exception to this would be fires that occur at a higher than average frequency, which may artificially accelerate erosion processes. This situation is to be evaluated by Association staff. Imminent and unavoidable threats to human health, safety, and welfare represent another exception to this passive management approach in post-fire conditions. Fire frequencies have a tendency to increase at the urban–wildland interface. If the area is subject to a greater than natural fire frequency, the guidelines outlined herein shall be followed to help ensure that the area recovers to a natural state.
 - Preferred erosion control devices to be used include fabric silt fencing, gravel or sand bags (made of biodegradable burlap), straw wattles certified as weed-free (not just free of “USDA [U.S. Department of Agriculture] noxious weeds,” but free of all weeds), and judicious seeding with locally indigenous native species free of weed seed.
 - Seed shall be tested by a certified laboratory and all weed seeds identified by species. The quantity of weed seed shall be indicated in units of quantity of weed seed per pound of native seed, and sorted by size and weight to eliminate weed seeds determined to be noxious or problematic by Association staff.
 - Items that often include problematic noxious or invasive weed seeds should be avoided. These include hay and straw bales, non-certified wattles, and non-native, non-locally indigenous seed species.
 - The Association will set up proper post-fire monitoring protocols for the site in accordance with the monitoring and management approach described in Chapter 7.

- After reviewing the disturbance assessment report, Association management will determine whether habitat restoration is necessary and the degree to which passive or active restoration or reforestation strategies are appropriate.

9.3 Response to Climate Change

Several physical climate change effects are currently occurring in California, including shifts in precipitation patterns (changes in the timing, location, amount, and variability of precipitation), reduction of average annual snowpack and changes in the timing of snowmelt and runoff patterns, and increased average temperature and seasonal shifts that lengthen the growing season. Potential physical and biological effects of those changes include increased number and intensity of winter floods; increased number and length of droughts; more frequent and intense wildfires; changes to natural community composition; more invasive species; and increases in wildlife disease.

Although climate change is reasonably foreseeable, it is not within the scope of the LMP to respond directly to air temperature increases or changes in regional precipitation patterns. Additionally, it will not be possible to determine when a change is the result of climate change or other non-climate factors. Because of the high level of uncertainty of how natural communities and species will respond to changes in temperature, precipitation patterns, or other climate factors, remedial actions to address future climate change would be implemented primarily through monitoring and adaptive management. For remedial efforts related to wildfire, refer to Section 9.2.

9.3.1 Flooding

Should flooding occur that potentially damages or destroys existing habitat within the management zones, or habitat restoration sites, the following actions shall be taken by the Association to deal with the circumstance:

- Within 48 hours of determining that a flood event has caused damage, the Association will begin inspections of the area to determine if adverse effects occurred to species or their habitats within Association property. The Association staff will conduct site reconnaissance, sampling, or surveying, as deemed appropriate by Association management, and prepare a brief disturbance assessment report. Specific issues to be considered in the disturbance assessment report will include, but not be limited to:
 - Direct mortality of species;
 - Damage to habitat restoration sites, including loss of plantings, damage to irrigation equipment, and erosion of graded banks;
 - Long-term flooding of land cover types that result in conversion of the land cover type to open water or freshwater marsh;

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- Erosive forces and materials deposition including sand, gravel, or invasive species (especially floating-type seeds or plants); and
- Non-organic debris (e.g., shopping carts, clothing, vehicles, building materials).
- The Association staff will initiate protective measures where appropriate and repair structures necessary to secure and maintain the affected site, such as fences and irrigation facilities.
- If necessary, the Association will develop other measures that address immediate recovery of the affected site(s). Actions that could include additional remediation measures (e.g., erosion control) or reseeding the area to prevent the establishment of invasive species.
- Within 1 year after the changed circumstance occurs, the Association staff will prepare a disturbance assessment report to determine if natural processes at the affected site(s) are acting to resolve the problem. If not, the Association will develop appropriate response measures to remediate the disturbance.
- After reviewing the disturbance assessment report, Association management will determine whether habitat restoration is necessary. A restoration plan and a reasonable timeframe shall be established.
- The Association will set up proper monitoring protocols for the affected site(s) in accordance with the monitoring and management described in Chapter 7, if habitat restoration is necessary.

9.3.2 Drought

Given that drought is a naturally recurring environmental condition in California, many plants and animals are adapted to natural drought cycles. However, the negative effects of natural drought cycles have been exacerbated by anthropogenic factors including climate change that have disturbed the native California landscape, including increased competition from invasive plant and animal species, habitat conversion, intensive water uses for agriculture and urban development, air and water pollution, and climate change. The natural adaptations and resiliency to drought by the species and their habitats that are present on Association property may not be adequate to respond to drought in the future.

Although there are limited ways to counter the effects of prolonged drought, if adverse effects related to drought are observed, the following actions shall be taken:

- Association staff will use adaptive management of grassy areas to reduce biomass of annual grasses, to help extend wetland ponding by reducing water uptake.

- Association staff will increase monitoring and management of invasive plant species that may have competitive advantages in drought.
- Association staff will provide supplemental water at habitat restoration sites if needed.

9.3.3 Disease

Under historical circumstances, populations in the plan area probably either occurred in equilibrium with disease (i.e., the population was maintained by balance of births and deaths of immigration and emigration) and/or had the resiliency to recover from severe outbreaks. Even if some populations historically experienced local, and occasionally severe, disease-related reductions in numbers or local extirpations, over the long term these impacts probably were not substantial enough to result in extinctions due to adequate suitable habitat and movement corridors to allow repopulations. However, given the current level of habitat fragmentation and environmental stressors related to climate change, unusual outbreaks or introductions of new diseases could adversely, and potentially irreversibly, affect the populations of some species.

Should a disease or vector organism adversely impact a species of management concern, the following actions shall be taken:

- The Association will consult with species experts to help identify potential remediation measures for the disease infestation. The Association will meet with Wildlife Agencies and/or species experts to develop a plan for selection and implementation of the remediation measures.
- The Association will set up proper disease monitoring protocols, in accordance with the monitoring and management described in Chapter 7.

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10 REPORTING

Monitoring reports, as described in Sections 7 and 9, will be provided to the Director of Facilities and Risk Management, who will review and distribute as appropriate within the Association. Each monitoring report should include, but not be limited to the following information:

1. General content: Introduction, management zone, project name, location (mapping necessary?), background, date of evaluation, date of previous evaluation (if any), summary of conclusions and recommendations from previous evaluation (if any).
2. Are management actions consistent with the management zone?
3. Are management and maintenance actions addressing management zone priorities?
4. Are management and maintenance actions consistent with maintenance activities identified by the LMP?
5. Are management actions consistent with the goals and objectives of the LMP?
6. Is the current management strategy effective? Are there unmet needs or new opportunities that can best be met by adapting the management strategy (adaptive management) or by amending or revising the LMP?
7. Are management actions informed by the best available information or are there data gaps or information needs that require additional study to inform future management actions?
8. Are there any significant changes in local, state, or federal regulations that affect management actions?
9. Is there an implementation schedule for the management and maintenance actions being monitored? Is implementation on schedule? Should the schedule be updated to reflect current status or changes in management and maintenance actions?
10. Are management and maintenance actions meeting any performance standards or success criteria established by the LMP or by project-specific monitoring plans?

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11 FUNDING

The Association will provide funds for the management, monitoring, and reporting measures described in Sections 7 through 10. Grant funding opportunities available for habitat management, defensible space and forest health, and conservation of private lands should be evaluated as they are available. Tahoe Donner Forestry has been extremely successful in winning grants for forest health projects on Association lands. Some programs that have provided grant funding or should be investigated for funding in the future include:

- California Forest Improvement Program, California Department of Forestry and Fire Protection
- Forestland Enhancement Program, U.S. Forest Service
- Forest Stewardship Program, U.S. Forest Service
- National Fire Plan/Community Protection Grant, FEMA
- Forest Reserve Funds, Nevada County
- Environmental Quality Incentives Program, Natural Resources Conservation Service
- Cooperative Fire Protection (Emergency Supplemental) Grant, U.S. Forest Service, Administered by California Fire Safe Council
- Greenhouse Gas Reduction Fund (GGRF) Wetlands Restoration for Greenhouse Gas Reduction Grant Program, CDFW
- Sierra Nevada Conservancy Watershed Improvement Program Grants
- National Fish and Wildlife Foundation – Sierra Nevada Meadow Restoration

Other grants may be available by collaborating with non-profits such as the Truckee Donner Land Trust and Truckee River Watershed Council. Grant opportunities are also available and can be researched through the Sierra Nevada Conservancy and Sierra Business Council among other sources.

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