

DONNER LAKE RIM TRAIL MASTER PLAN



**PREPARED BY:
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PURPOSE: To provide an overview of the Donner Lake Rim Trail, update the current status of the Trail, and identify trail sections that are to be constructed. To summarize design standards and goals, provide a rough estimate of labor hours needed, assign a lead partner for construction, and estimate costs for planning and construction.

I. PROJECT OVERVIEW:

The Donner Lake Rim Trail (Rim Trail) was envisioned by the Board of Directors of the Truckee Donner Land Trust (Land Trust) in 1993. The Board wanted to showcase the spectacular backcountry of the Donner Lake basin by building a loop trail for the public to use on the ridges and peaks surrounding the lake. The project was launched in 1995 and is one of the key projects in the Land Trust's portfolio. The trail embodies a major goal of the Land Trust which is to promote public access and appreciation for the region. In addition to championing the project, the Land Trust has made several key land acquisitions specifically to build the trail or protect open spaces within the trail's view shed. The Land Trust Board envisioned having the trail open to hikers, runners, equestrians, mountain bicyclists, and other non-motorized methods of travel compatible with a rugged backcountry trail. The trail has been designed to handle these uses with minimal maintenance requirements. When completed, the trail will total over 23 miles in length, encircling the ridgelines and peaks above Donner Lake. Currently, 11 miles of the trail have been constructed, including two access trails to the actual Rim Trail. The already-constructed segments provide outstanding recreational opportunities, and are an important trail link to the Pacific Crest Trail (PCT), Hole in the Ground trail, and the Tahoe Donner trail network. They provide sweeping vistas of the Sierra Crest, opportunities to view flora and fauna in this section of the Sierra Nevada, and receive very heavy use when free of snow.

In 1995 the Land Trust, the United States Forest Service (USFS), California State Parks, Tahoe Donner Association (TDA), Town of Truckee, and the Truckee Donner Recreation and Parks District entered into a formal Memorandum of Understanding to officially launch the Rim Trail (attached in appendix 10), and set tasks and responsibilities for design, construction, and maintenance. As the partner chiefly responsible for raising funds for the project, the Land Trust has raised over \$250,000 for the project. These funds come from restricted donations, grants, our very successful "Buck for Trails and Open Space" Program, our "Adopt a ¼ Mile" program, and many other partners and individuals. To promote public embrace and ownership of the project, it was decided that the trail would be built, where possible, by volunteers. Countless volunteers have worked steadfastly with hand tools to see the trail become a reality. As the project nears its 20th year, the Land Trust felt the need to update the master plan. Some of the partners involved have changed, as have key members of the board and staff of said partners. In addition, the Land Trust would like to re-create the initial "buzz" that carried the project so far in previous years.

The Trail:

The Rim Trail is comprised of three major sections: the northern portion and the southern portion, which are divided by Donner Lake, and the western portion which parallels the Sierra Crest.

Two thirds of the northern portion is completed, with the trail segments known as the Bucknam Tract and McGlashan Springs are left to be built. These sections of trail are proposed be built on lands owned by the USFS and TDA. The Land Trust proposes to be the design lead, with all design plans approved by the USFS and TDA. Planning is currently underway in these sections, which include coordination with TDA, terrain familiarization, trail corridor selection, GPS documentation, and flagging proposed trail alignment. There is no hard timeline for completion through these sections, but they

represent the next most realistic opportunity for breaking ground in the near future, and completing the northern portion of the Rim Trail.

Also of note in the northern section, the TDLT would like to move a section of the DLRT that currently uses about a mile of the Summit Lake OHV road and replace it with a single track trail that will traverse through Federal property. (shown in appendix 2)

The southern portion passes through Donner Memorial State park via Schallenberger Ridge. It will then connect with Castle Valley Road via Summit Canyon, or via Sugar Bowl, Donner Ski Ranch, and Boreal ski resorts. California State Parks has chosen to be the lead agency responsible for construction of the Rim Trail through State property. Currently, they are developing a park-wide trails master plan; the Rim Trail will be a key component in their trail network. Recently, they have begun the process of scouting potential alignments for the Rim Trail, with a likely route to be developed in 2013. Terrain familiarization and trail corridor options are currently being surveyed on adjacent properties. There are no definitive timelines for completion through these sections.

The western portion is currently a shared alignment with the Pacific Crest Trail. The Land Trust would like to construct a new trail that will allow bicycle use and will showcase Land Trust acquisition in Summit Canyon. This segment is the lowest priority, as there exists connecting routes. Nonetheless, the Land Trust would like to build the new trail as soon as possible.

II. DONNER LAKE RIM TRAIL DESIGN:

As the Rim Trail is intended to be a rugged backcountry, multi-use, non-motorized trail in experience and feel, tread construction standards, associated trail structures, and signage should enhance the stated experience. The trail crosses lands owned or managed by several different agencies and landowners that have their own set of adopted trail standards; it is important that the trail meet each owner/agency's standards while not varying wildly in user-experience. The trail should be intuitive to use, built in a sustainable fashion so as to mitigate any negative impacts from erosion, built to minimize any potential user conflicts, create a positive user experience, and protect surrounding natural resources. It should maintain a balance of focusing use in a particular area while not fostering over-use or abuse in another. When at all possible, the bigger picture should be taken into account when planning to incorporate as much connectivity with other trail networks as possible. The proposed trail will allow for all of the above, pending all necessary environmental and archaeological review.

Tread Construction Standards:

According to State and national guidelines, trail widths will range between 18"- 24" and will maintain an 8 percent average gradient, excluding some short pitch sections, which may exceed that. Rolling contours, grade dips, and grade reversals will be implemented to minimize trail erosion and moderate speed of travel. The trail will be designed to minimize trail user-conflicts and create the best overall experience possible for all users. See appendix 9.

Structures:

Bridges, turnpikes, puncheons, etc., will be as natural as possible and to the specs of the individual agency whose property the trail will travel through while still maintaining the general look and feel of the overall trail.

Trailheads:

Access to the various trail segments will be in the form of improved, but not necessarily paved parking lots with appropriate signage in the spirit of the currently built trailheads.

Signage:

Trail signage will be placed at trailheads and intersections so as to be informative to the user, but not so abundant as to create sign pollution and detract from the natural surroundings. Each landowner or managing agency has their own unique trail sign plan that will likely be the overriding plan for signage on the Rim Trail crossing their respective property. This is to be expected. Currently, the Land Trust uses a mix of “Yosemite” style plasma cut metal signs mounted on 4 foot tall metal posts and 10 foot metal kiosk style signs with laminated, informational metal inserts. Both style signs are meant to rust naturally with age. Other types of signs used are wooden 4” x 4” or 6” x 6” posts with stamped metal directions and logos. See appendix 7.

Donor Recognition:

Donors will be recognized at all major trailheads, on adopted bridges, picnic areas, and on maps. On-the-ground donor recognition will likely only occur on Land Trust property, as the opportunity might not be available on portions of the trail where it traverses State or Federal properties. See appendix 8.

Maintenance:

Maintenance of the trail will be a mixed effort of volunteer hours and paid staff. The Land Trust has the capacity to maintain the entire trail bi-annually, pending approval from the holders of the trail easements. The Land Trust has the expertise and capacity to complete large maintenance tasks caused by extreme weather events like rock slides or avalanches. A core group of volunteers will be trained to complete necessary smaller maintenance tasks. Lastly, the Land Trust has a very successful volunteer maintenance program that has recruited, trained, and used 200-300 volunteers annually for the last 15 years.



III. FUTURE TRAIL SEGMENTS PROPOSED FOR CONSTRUCTION:

To complete the Rim Trail, several new segments of trail are needed on lands both north and south of Donner Lake. In addition to the sections needed to create a loop, another section of trail on the western end of the loop is needed to create a loop trail for multi-use, as bicycles are not allowed on the Pacific Crest Trail. Currently the Rim Trail uses a portion of the PCT as the route.

NORTHERN PORTION

1. Bucknam Tract/McGlashan Springs Segment (shown in appendix 3):

Distance: Approximately 5-6 miles.

Tread: -18"- 24" wide.

-Comprised of native mineral soil and rock.

-8% grade or less with a maximum short pitch grade of 15%.

Construction Time:

-Planning: TBD.

-Permitting: NEPA/CEQA, TBD.

-Brushing: 1 week.

-Tread: 4 weeks.

Labor: 800 person-hours for a 5-person professional trail crew at four weeks.

Can be built in phases; Phase 1 can be from near the existing single track near Glacier Way to the new trailhead at Bermgarten Rd. Phase 2 can be from Bermgarten Rd to the Trout Creek Trailhead on Northwoods.

Total Costs: TBD.

SOUTHERN PORTION

Donner Memorial State Park Segment:

(Schallenberger Ridge (shown in Appendix 4)

Distance: Approximately 6-8 miles depending on route selection.

Tread: -18" – 24" wide.

-Comprised of native mineral soil and rock.

-Target grade of 8% or less with a maximum short pitch grade of 15%.

Construction Time:

-Planning: TBD.

-Permitting: CEQA, TBD.

-Brushing: Three weeks.

-Tread: Six weeks.

Labor: 1,800 person hours for a 5-person professional trail crew at nine weeks.

Building will most likely be handled by State Parks personnel but may use a mix of volunteers and paid staff.

No specific timelines for build out have been defined.

Total Cost: TBD

WESTERN PORTION

(MULTI-USE ALTERNATIVE TO THE PCT)

Below are different alternatives after Schallenberger Ridge to the PCT, which currently prohibits bicycle traffic. Alternative 1 Option would utilize portions of the existing Overland Emigrant Trail, which could drastically reduce build times, but would still have to go through portions of the previously-mentioned ski resorts. Option 2 would run through Boreal, Auburn Ski Club, Donner Ski Ranch, and Sugar Bowl ski resorts possibly benefitting those resorts with increased seasonal visitor traffic and intertwining with an already established bike park at Boreal and Donner Ski Ranch.

1. Mt. Judah (shown as Judah alternative in appendix 5)

Distance: Approximately 2 miles depending on route selection.

Tread: -24" wide.

-Comprised of native mineral soil and rock.

-Target grade of 8% or less with a maximum short pitch grade of 15%.

Construction Time:

-Planning: TBD

-Permitting: NEPA/CEQA, TBD

Brushing: One week.

Tread: Two weeks.

Labor: 800 person hours for a 5-person professional trail crew at three weeks.

Building will most likely be done using a mix of volunteers and paid staff.

No specific timelines for build out have been defined, as this is an optional route.

Total Cost: TBD

2. Ski Resorts Alternative (shown in appendix 6)

Distance: Approximately 5-6 miles depending on route selection.

Tread: -24" wide

-Comprised of native mineral soil and rock.

-Target grade of 8% or less with a maximum short pitch grade of 15%.

Construction Time:

-Planning: TBD

-Permitting: CEQA, TBD

-Brushing: Two weeks

-Tread: Four weeks

Labor: 1,200 person hours for a 5-person professional trail crew at six weeks.

Building will most likely be done by using a mix of volunteers and paid staff.

No specific timelines for build out have been defined, as this is an optional route.

Total Cost: TBD

3. Summit Canyon (shown as Schallenberger Ridge and Summit Canyon in appendix 4)

Distance: Approximately 3 miles.

Tread: -24" wide.

-Comprised of native mineral soil and rock.

-Target grade of 8% or less with a maximum short pitch grade of 15%.

Construction Time:

-Planning: TBD.

-Permitting: CEQA, TBD

-Brushing: One week.

-Tread: Two weeks.

Labor: 800 person hours for a 5-person professional trail crew at three weeks.

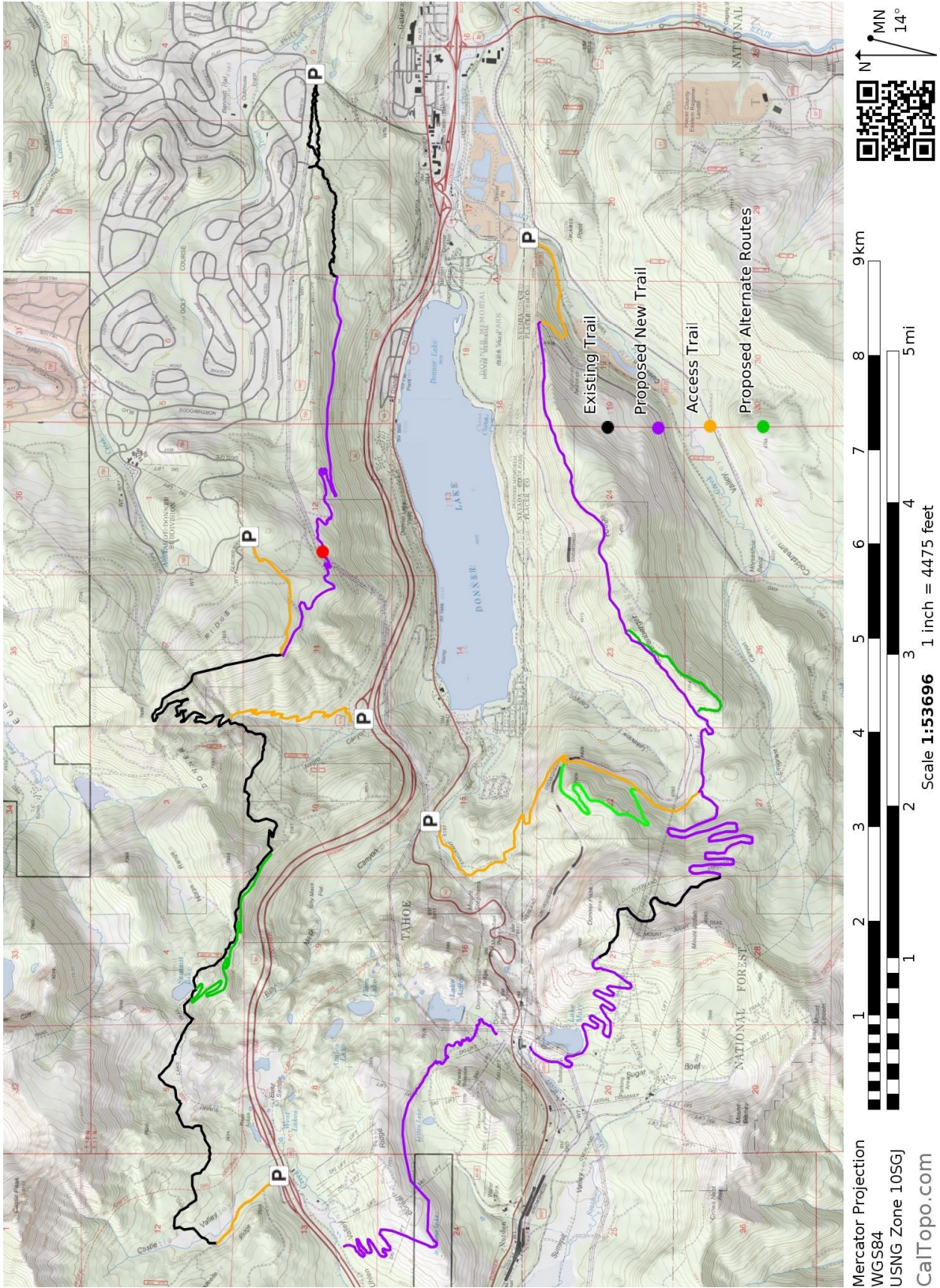
Building will most likely be done by using a mix of volunteers and paid staff.

No specific timelines for build out have been defined, as this is an optional route.

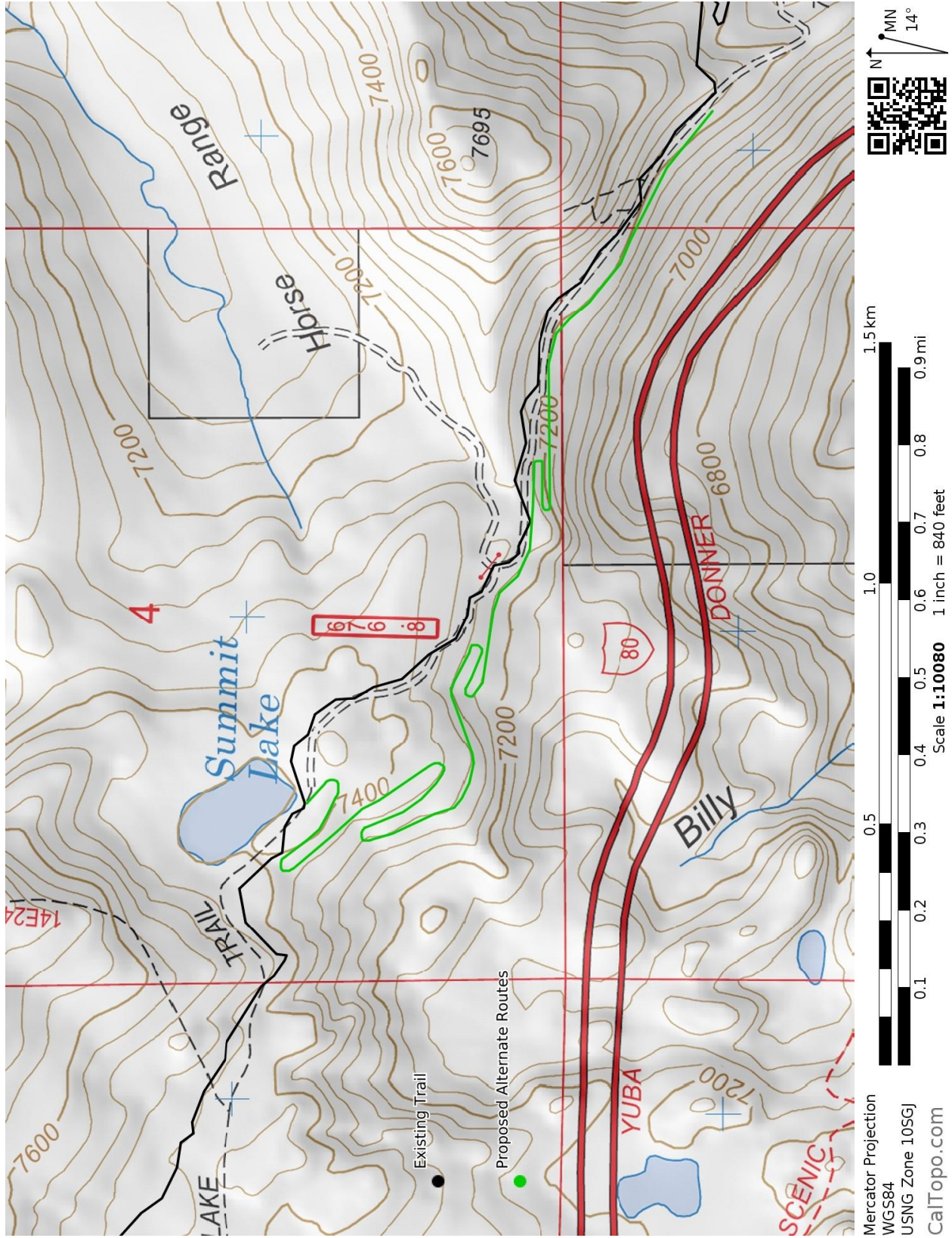
Total Cost: TBD

APPENDICES

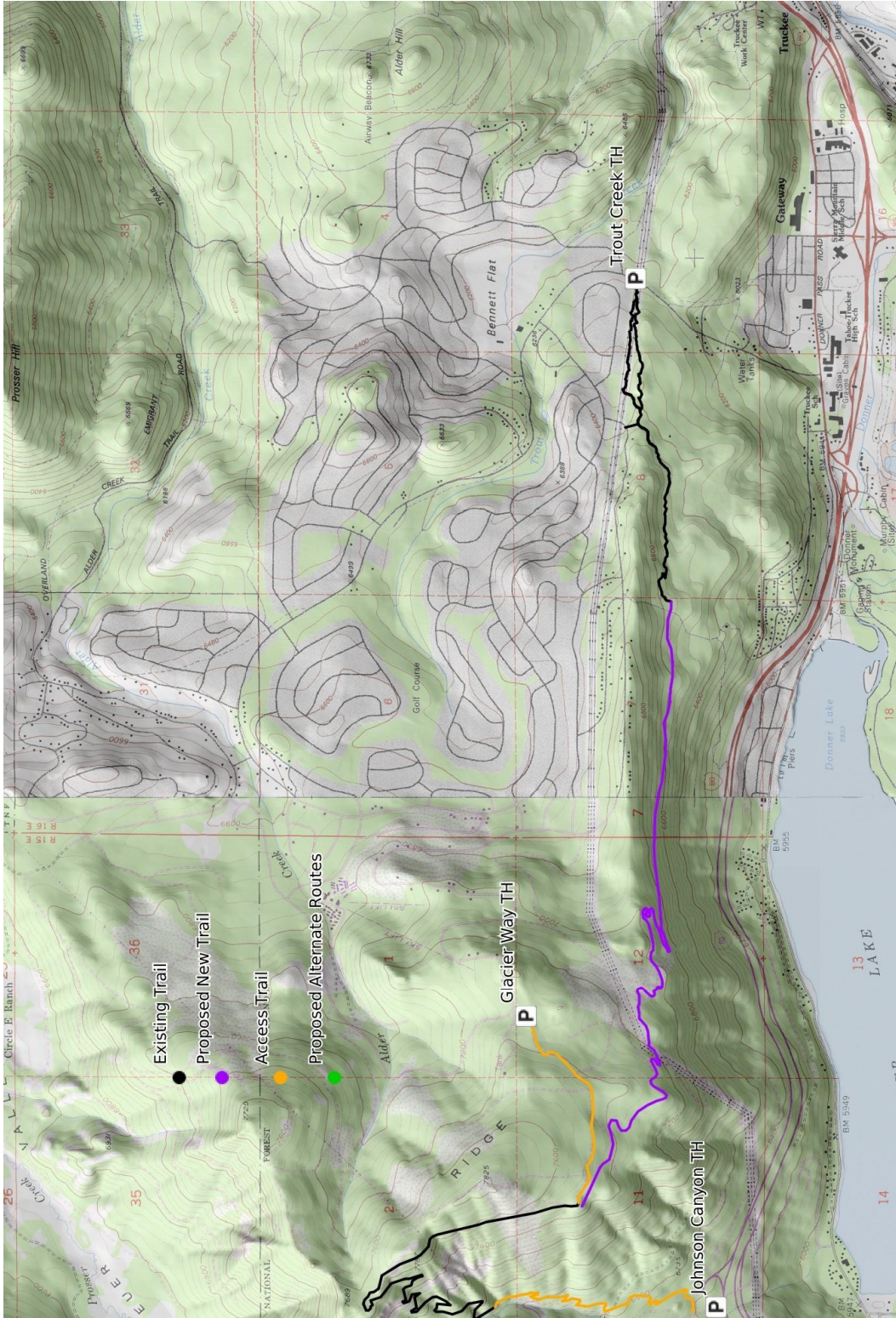
Appendix 1: Project Concept Map



Appendix 2: Summit Lake Alternative



Appendix 3: Northern Portion Bucknam/McGlashan Springs



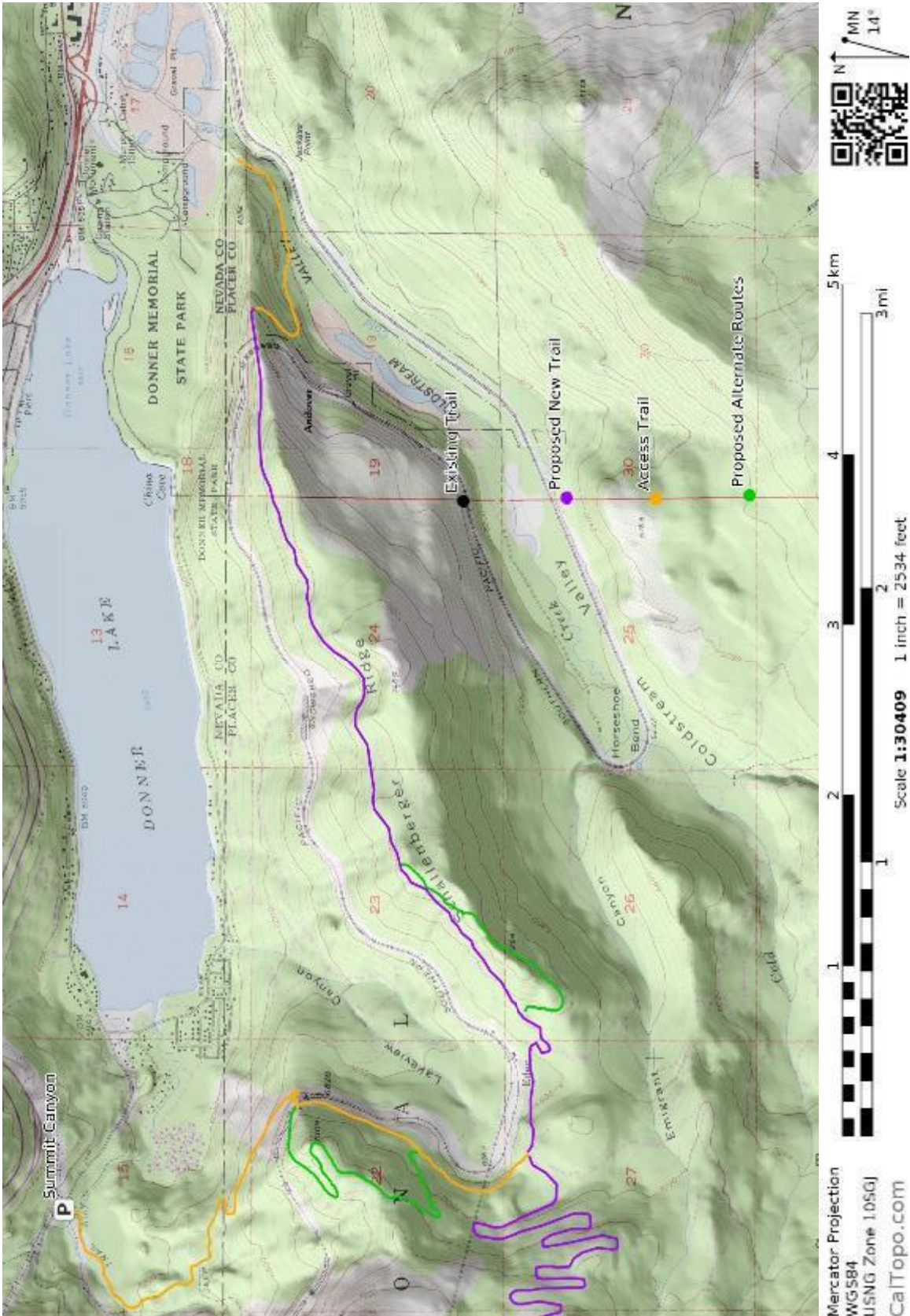
6km
5
4
3
2
1

3mi
2
1

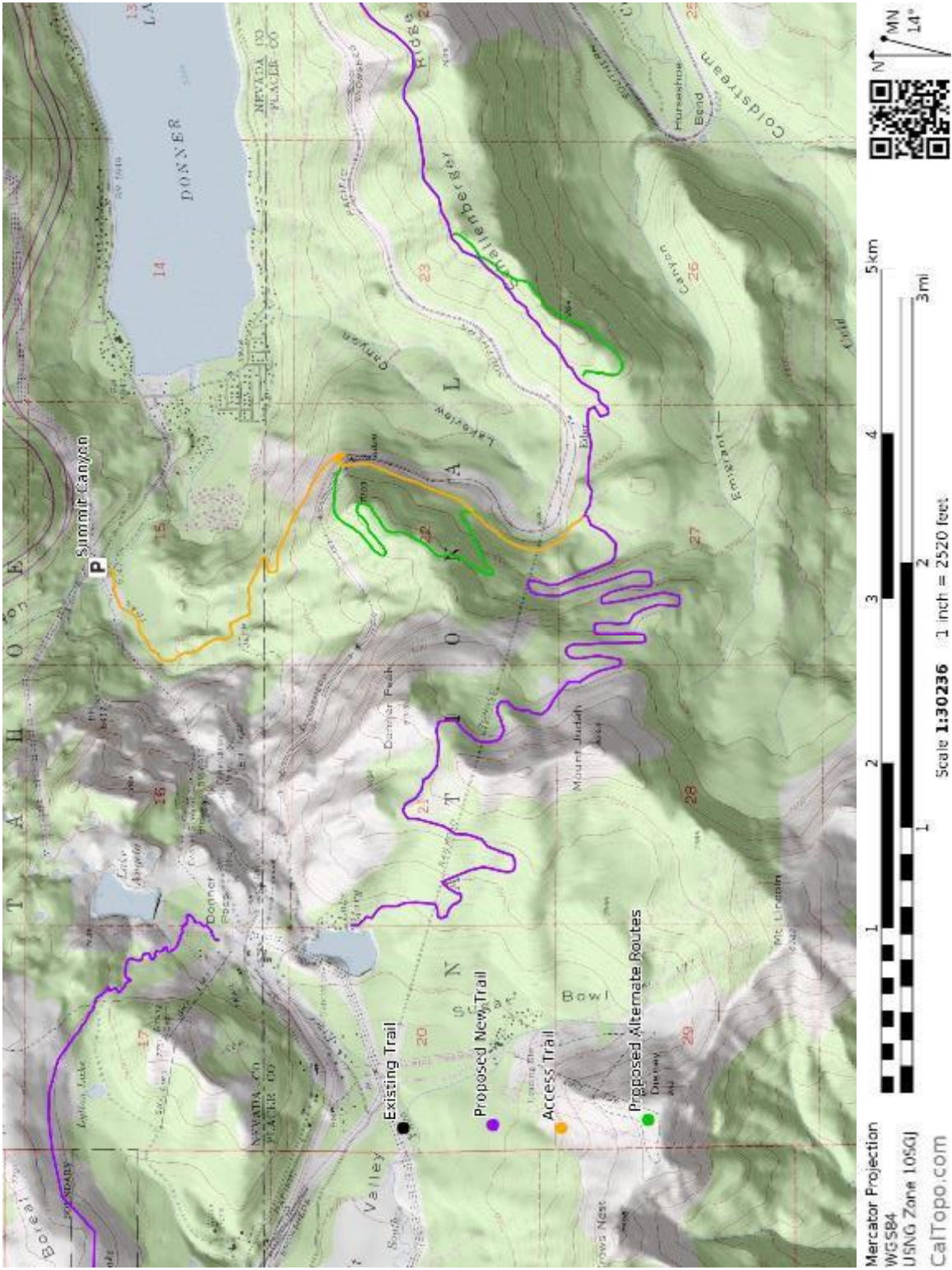
Scale 1:34462 1 inch = 2872 feet

Mercator Projection
WGS84
USNG Zone 10SGJ
CallTopo.com

**Appendix 4:
Southern Portion
Schallenberger Ridge and Summit Canyon**



Appendix 5:
Western Portion
Judah Alternative



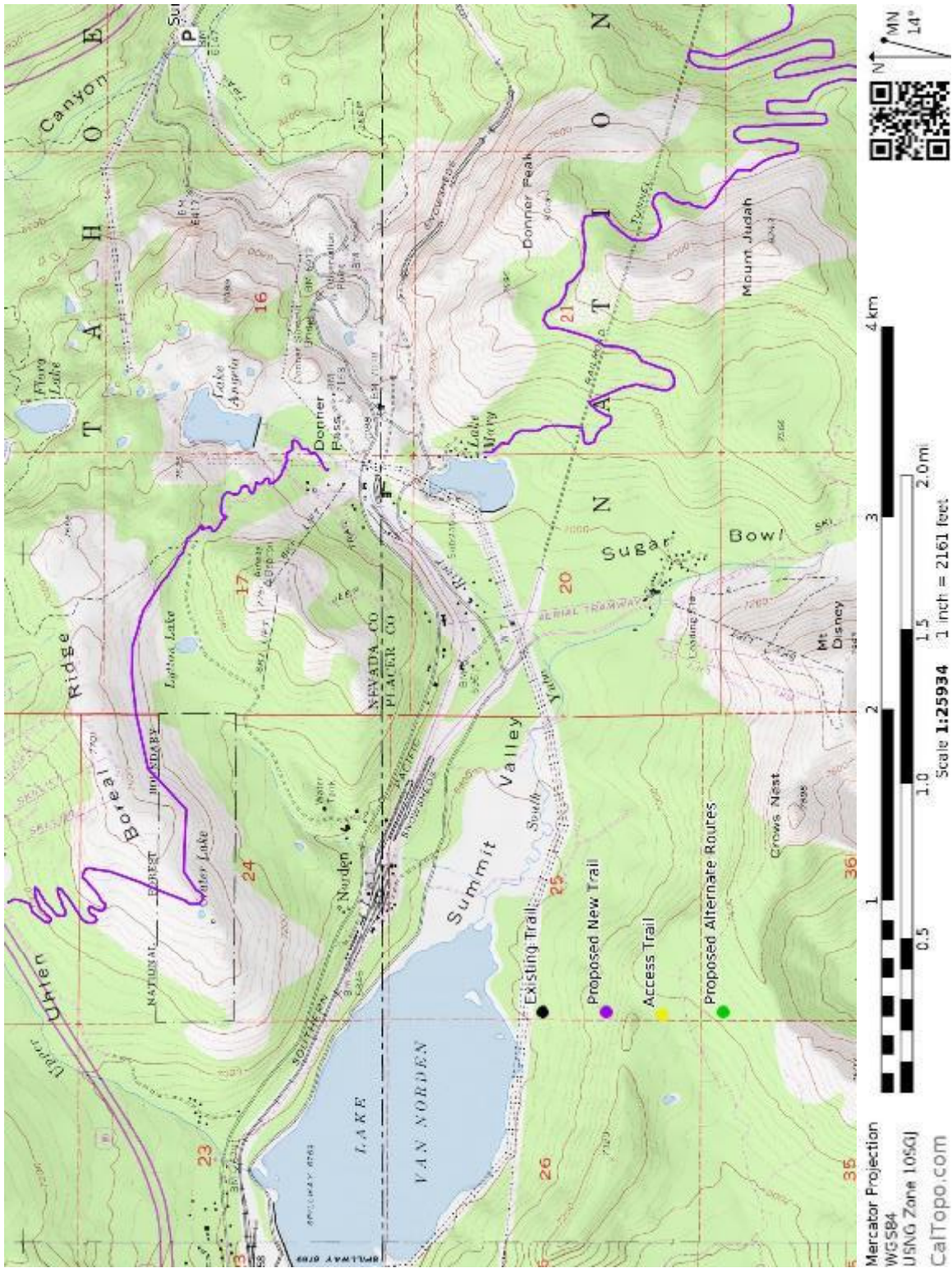
Mercator Projection
WGS84
USNG Zone 10SQ
CalTopo.com

Scale 1:50236 1 inch = 2520 feet

5 km
4
3
2
1
3 mi



**Appendix 6:
Western Portion
Boreal, Auburn Ski Club, and, Donner Ski Ranch Ski Resorts**



**Appendix 7:
Examples of Signage**



**Appendix 9:
Trail construction standards, by agency or landowner.**

The Land Trust has constructed trails to these three standards, all of which were reviewed and approved by the agency or landowner. Land Trust trail design and construction has also been reviewed and approved by the Truckee Tahoe Airport District, Truckee River Watershed Council, Truckee Trails Foundation, Nevada State Parks, and the Tahoe Rim Trail Association.

USFS TRAIL CONSTRUCTION STANDARDS:

http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5341754.pdf

CA STATE PARKS TRAIL CONSTRUCTION STANDARDS:

http://www.parks.ca.gov/?page_id=23419#trail_design/_construction

TDA TRAILS MASTER PLAN:

<http://www.tahoedonner.com/wordpress/wp-content/uploads/2012/03/H-Trails-Master-Plan.pdf>

**Appendix 10:
Photos of the trail**







Appendix 11:
Memorandum of Understanding
See Attachment