

Figure 15. Primary Road Crossing at Intersection – Signed

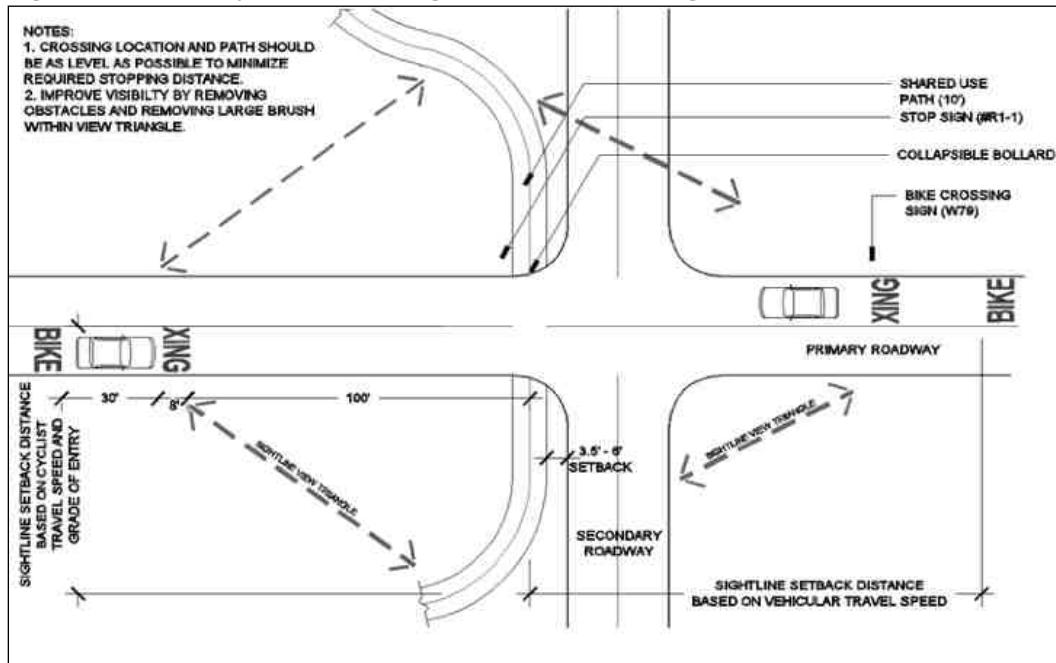


Figure 16. Secondary Road Crossing at Intersection – Signed

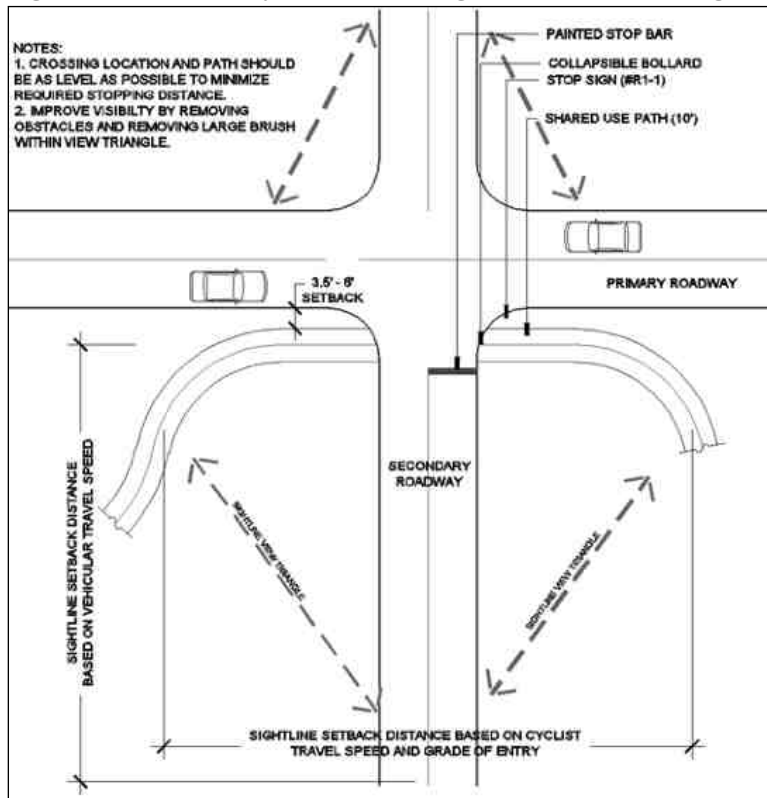
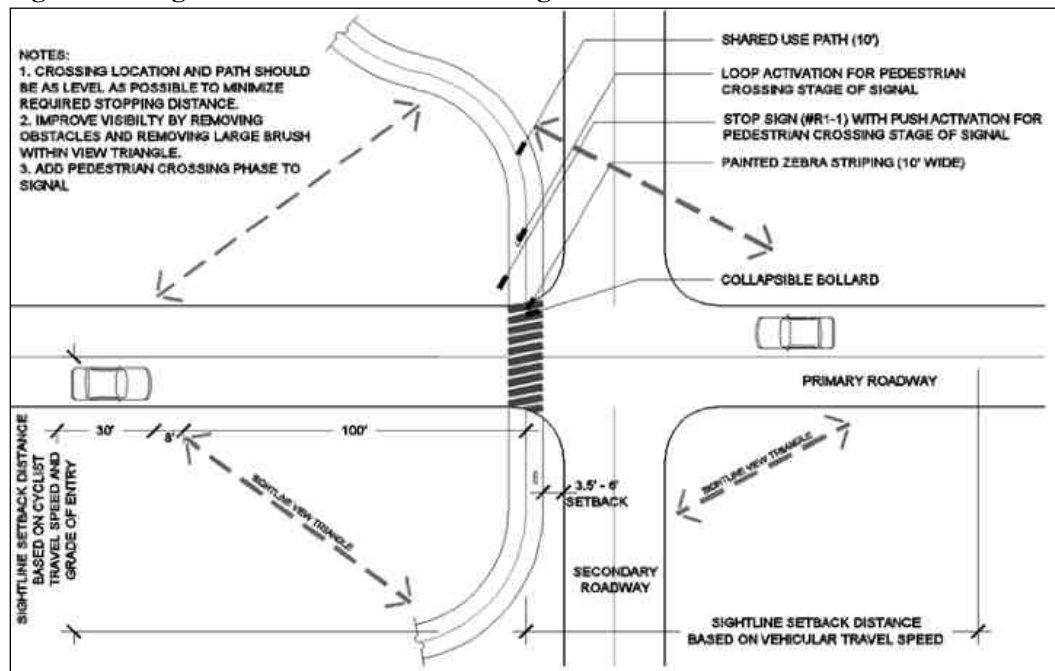


Figure 17. Signalized Intersection Crossing with Pedestrian Activated Phase



2.6.2.8 Signage

The Greenway relies on education and interpretation as a first means of resource protection and public safety. Directional or wayfinding signage to specifically designated access areas decreases the pressure to develop new informal unpaved trails. Interpretive signage improves compliance with these directions and enhances the sense of stewardship of trail users. The Greenway recognizes the abilities of strategic sign placement to direct most users as well as the limitations of this approach in high use or particularly sensitive areas. Final design plans will include signage details such as size, color, placement, and text.

Shared-use trails like the Greenway require the proper use of signage and striping to meet applicable design standards (e.g., AASHTO). Striping the center of the trail alignment will separate direction of travel and reduce user conflicts. Signage planned for the Greenway will include:

- Signage for interpretive opportunities, including natural communities, historical sites of interest, and cultural landscapes;
- Signage for restoration and revegetation areas, including both interpretive and regulatory;
- Signage for appropriate trail use and the need to stay on designated paths, including stewardship, Safe Speeds and Yield to Wheels (to reduce user conflicts);
- Signage for public safety and crosswalk identification, including notice about trail grade changes and approaching street crossings;
- Recommended use signs at neighborhood access points if necessary to reduce neighborhood conflicts, and
- Mileage markers or other wayfinding signage.

Greenway signage complies with the TRPA Code as well as the TRPA Design Review Guidelines (i.e., Appendix E of the TRPA Guidelines), which provides guidance for signage content, sizing, and placement. As stated in the Guidelines, metal signs are acceptable if sized, located, and painted appropriately to blend into the surrounding environment.

2.6.2.9 Physical Barriers and Screening

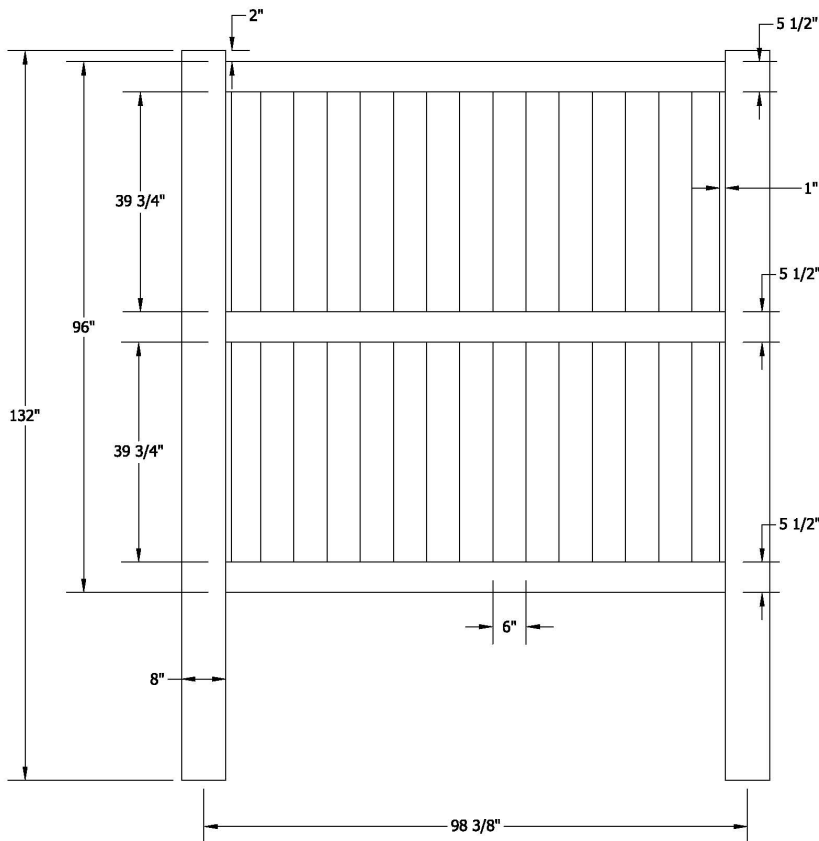
The project installs physical barriers in sensitive areas that may involve:

- Log fencing (Figure 18);
- Vegetative screening; and
- User management gates.

In some locations, design constraints prevent vegetation screening directly in front of retaining walls. In order to effectively reduce the scenic contrast of large, flat retaining walls, the final design details for the color and rough surface texture of the retaining wall will blend with adjacent vegetation to avoid the appearance of a large flat plane. The Greenway proposes privacy fencing (Figure 19) of sufficient height to shield views into residences from passing trail users where necessary on a case-by-case basis.

Figure 18. User Management Fencing



Figure 19. Potential Privacy/Screening Fencing

2.6.2.10 Staging and Access Areas

Development of construction staging and access areas relates to construction phasing, so precise locations could change. Performance criteria for final determination of staging areas are: 1) high capability land outside of 100-year floodplains; 2) areas with existing disturbance with preference towards existing paved areas; 3) ability to access on higher traffic volume streets, using neighborhood streets only if no other location possible; 4) protected by site-specific BMPs for erosion and sediment control and fugitive dust; and 5) close enough to construction site to allow for efficient use.

Conservancy owned land along Barbara Ave and Aloha Ave meet the criteria established above and provide convenient access for two of the three trail segments. Providing adequate staging areas for Segment 2-80 (Ski Run Blvd to Van Sickle Bi-State Park) requires close consultation with the City. Potential sites along unused public roadway ROWs exist. Other necessary construction management requirements described in Section 2.6.5 include dust control, properly located and protected stockpiles, erosion and sediment control structures, and disturbed site restoration. Little of the project area offers constraints to standard practices for these provisions. In a few locations, the trail cuts between developed neighborhoods and creates longer sections without direct access from nearby streets. In these locations, final construction access proposals shall assure construction disturbance is limited to the construction zone identified.

Work zones in SEZ and wetland areas will be established to limit and contain construction disturbance. Criteria for identification of these work zones includes: 1) construction methodology that uses the smallest equipment possible and works from both sides of the SEZ areas to reduce

access area needed; and 2) limiting disturbance to the minimum necessary to allow two pieces of construction equipment to pass. Section 2.6.5 contains additional construction control measures for work in SEZ.

2.6.3 Revegetation and Restoration, Trail Decommissioning and Permanent Best Management Practices

The Greenway project description includes restoration proposals that address a number of different needs. Compliance with the TRPA Code and other standard permit conditions includes restoration of soil disturbed during construction and offsetting restoration for permanent disturbance and coverage in low and high capability lands. Section 2.6.5 provides more detail for construction control measures. Additionally, the Greenway proposes to consolidate some trail uses, decommissioning some existing trails and applying BMPs to the unpaved routes retained.

The Greenway identifies seven types of revegetation / restoration treatment and soil protection strategies: 1) Disturbed Areas - upland sites, retaining walls, staging areas and miscellaneous disturbed areas, 2) SEZs (including wetlands), 3) Upland Slopes 3:1 or greater, 4) Clear Zones, 5) Topsoil and Organic Mulch Stockpiles, 6) Temporary Erosion Control/BMPs, and 7) Trail Removal and Restoration,

Appendix D provides the details of the Restoration and Revegetation Plans (RRPs) for disturbed areas, trail decommissioning, and for temporary and permanent erosion control. The project's revegetation and restoration goals are to establish or reestablish a naturally functioning and self-sustaining landscape. The project limits ground and vegetation disturbance to the trail corridor (including cut and fill boundaries) within the project area boundaries defined on the plan sheets attached in Appendix C: Project Area and Trail Context Plan sheets. The plans describe treatment types and areas, seed mix types, soil treatments, material lists, and methods towards control of noxious weeds. Descriptions of specific restoration prescriptions exist on the "I" series plan sheets attached as Appendix C. Appendix C documents trails and roadways proposed for application of BMP retrofits or for land coverage removal and disturbance restoration.

Approved professionals will monitor the revegetation and restoration activities. These professionals represent the State, act as revegetation/restoration specialists, and verify that the treatments are conducted in a satisfactory manner. Post-construction conditions require a multi-year warranty period to ensure success.

2.6.3.1 Revegetation and Restoration of Land Coverage/ SEZ (Land Capability District 1b) Restoration

TRPA verified the existing legal land coverage for the project area. When the Greenway removes and restores verified existing land coverage within the defined project area, the project delineates square footage as relocated land coverage. If these activities occur outside of the project area (and if it is unreasonable to enlarge the project area to include them), this restoration is considered transferred land coverage. In both cases, this restored coverage is considered part of the restoration mitigation requirement (at 1.5:1 ratio for low capability lands). If the Conservancy does not own the parcel, the property owner (e.g., LTBMU or City) must agree to permanent restoration to allow mitigation credit.

Although minimized, the Greenway must encroach into delineated SEZ, wetland, and 100-year floodplains in some locations to maintain the integrity of a linear public facility. The project team established trail alignments to avoid these sensitive areas to the extent possible, reduced disturbance through design details (e.g., permeable fill and boardwalk construction), and propose to fully mitigate impacts when necessary. The project requires total additional permanent disturbance of 1.99 acres in SEZ and 0.15 acres in wetlands. Adopted water quality plans from

TRPA and Lahontan establish mandatory requirements for disturbance in SEZ. Lahontan and the USACE regulate activities in wetland areas. The following elements constitute the project proposal related to meeting these requirements.

Throughout the project area, TRPA verified existing SEZ land coverage exists that can be removed and the native hydrology and vegetation community reestablished. The project area includes 0.57 acres in SEZ with this restoration potential. In most cases, this restoration involves removal of existing biking/walking trails. Identification of existing trails within the project area for restoration took into account several factors to assure long-term restoration is achieved. They are:

- Locations where multiple trails exist in close proximity, allowing consolidation of access,
- Locations where construction of the Greenway offers equal or improved access, allowing successful removal of redundant trails,
- Locations where restoration activities will change site conditions and lead to changing desirable movement patterns, and
- Ability to implement adaptive management strategies that can address increased levels of future SEZ protection if necessary.

Encroachment within SEZs requires offsetting mitigation for new disturbance, including land coverage and disturbance associated with application of fill material. The project meets the TRPA Code exemption findings necessary for this new land coverage and disturbance (Code Sections 20.4.B(3) and 28.3.D(2)) with the restoration mitigation requirement of 1.5:1 (Code Subsection 20.4.A(2)(e)) of disturbed land, hard or soft land coverage (Code Subsection 20.4.C(2)). Chapter 3 provides a detailed discussion of the necessary findings for new land coverage and disturbance.

On-site SEZ restoration includes specific treatments, such as salvage and replanting of willows and roses, wetter sites where sod will be salvaged and replanted, and mesic SEZs that require seeding and mulching. The proposals include use of woody and thorny vegetation in select locations for screening and traffic control.

2.6.3.2 Permanent Best Management Practices

TRPA Code Chapter 25 establishes requirements for permanent BMPs. The Greenway incorporates provisions related to drainage conveyances, water quality treatment, cut/fill slopes, and revegetation. The Greenway proposes to infiltrate storm runoff from trail surfaces in adjacent clear zone areas. Where the trail lies in close proximity to existing roadways, capture and conveyance to infiltration areas may be necessary and will be defined during final engineering design.

To avoid or minimize vegetation removal and the extent of disturbance from cut and fill slopes, the Greenway project includes a variety of retaining walls, as illustrated in Figures 12 and 20.

To limit disturbance and erosion from informal trails to remain, Figure 21 illustrates a schematic of the project's approach to permanent BMP application along trails. Figure 22 describes the approach to removing and restoring existing trails for land coverage relocation.

Other subsections of this chapter describe permanent BMP project proposals related to vegetation protection, disturbed site revegetation, and on-site restoration.

Figure 20. Several Types of Retaining Walls

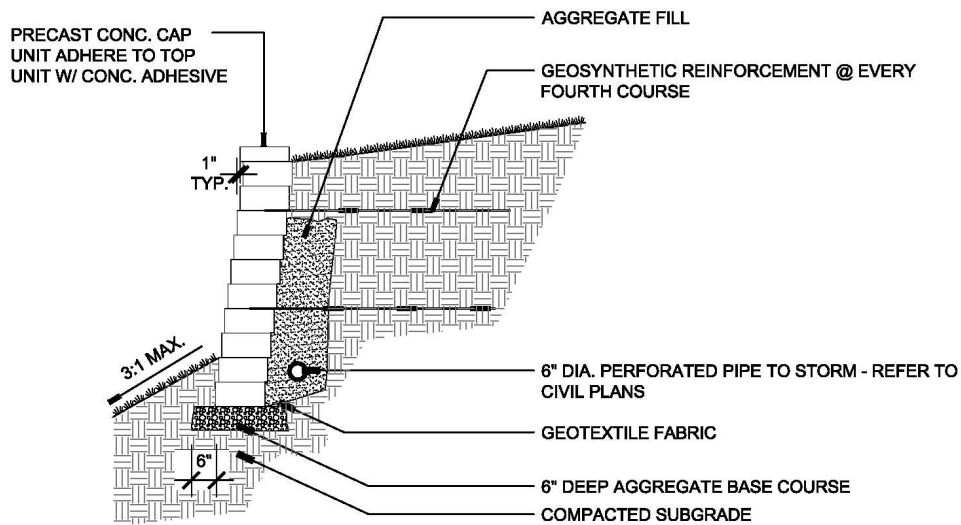
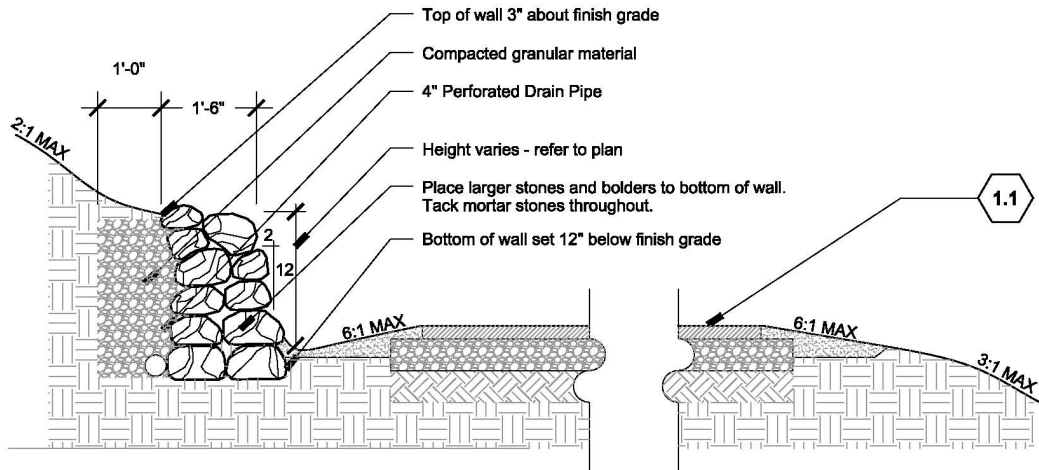


Figure 21. Trail Corraling BMP

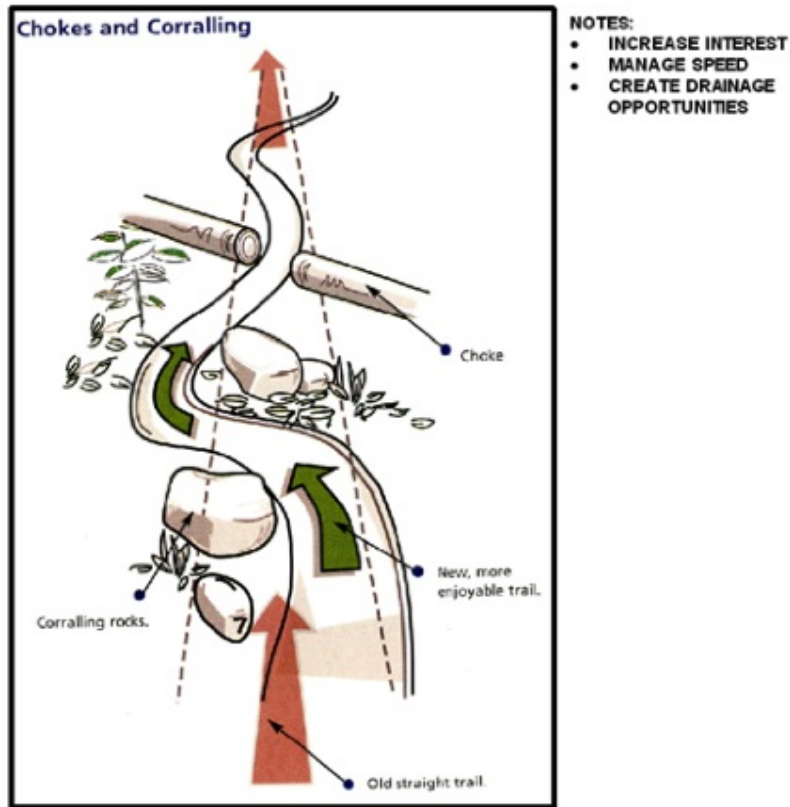
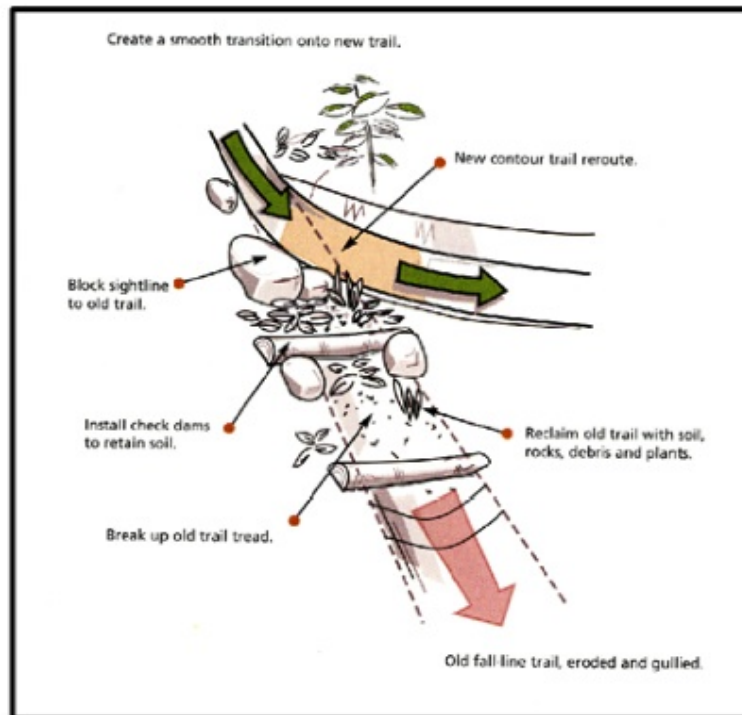


Figure 22. Trail Land Coverage Removal and Disturbance Restoration



2.6.4 Connectivity to Existing Trails, Neighborhoods and Other Access Points

The Greenway provides the central north-south trail link in the South Lake Tahoe community as identified in the Lake Tahoe Regional BPMP (TMPO 2010) and connects residential neighborhoods to existing trails, commercial areas, schools, public parks and other access areas. Figure 23 illustrates the connectivity of the Greenway. Table 3 identifies name and type of the connections numbered 1 through 27 in Figure 23.

Table 3

Greenway Connections (See Figure 23)

Connection Number	Connection Name	Connection Type
1	Class 2 trail at Sierra Blvd	Designated Trails
2 (2 pts with this #)	Class 1 trail at the LTCC (including trail just south of the South Lake Tahoe Community Play Fields)	Designated Trails
3	Class 1 trail at Al Tahoe Blvd	Designated Trails
4 (2 pts with this #)	Class 2 trail on Pioneer Trail by Herbert and at Ski Run Blvd	Designated Trails
5	Class 1 trail at Ski Run Blvd	Designated Trails
6	Class 3 trail at Blackwood	Designated Trails
Off the map	Well known mountain bike trails in the Golden Bear neighborhood (access from Sierra Tract)	Existing Trails
Same as #1	Class 2 trail at Sierra Blvd	Designated Trails
7	Sierra Tract (on an existing Class 2 trail along Sierra Blvd)	Neighborhood
8	Pioneer Village (trail spur at the end of Matheson Dr)	Neighborhood
9	Bijou (along a variety of residential roads, access to Bijou Community School on Herbert)	Neighborhood
10	Ski Run area (along residential roads and up to the Class 1 trail along Ski Run Blvd)	Neighborhood
11 (2 pts with this #)	Neighborhoods along David Ln and Rocky Point	Neighborhood
12	Senior housing project (Tahoe Senior Plaza II) at the corner of Herbert and Pioneer Trail	Neighborhood
Off the map	Sierra House Elementary School (indirect connection from Sierra Tract using Segment 2-50 and Black Bart Ave)	School
13	LTCC (direct connection at the South Lake Tahoe Community Play Fields)	School
14	South Tahoe Middle School (Direct connection along Class 1 trail on Al Tahoe Blvd with a short gap to the school)	School
15	St. Theresa's Catholic School (Class 1 connection along Al Tahoe Blvd with a short gap to paved trail along US Hwy 50)	School
16	Ski Run Employment Center (direct connection along Class	Employment Center

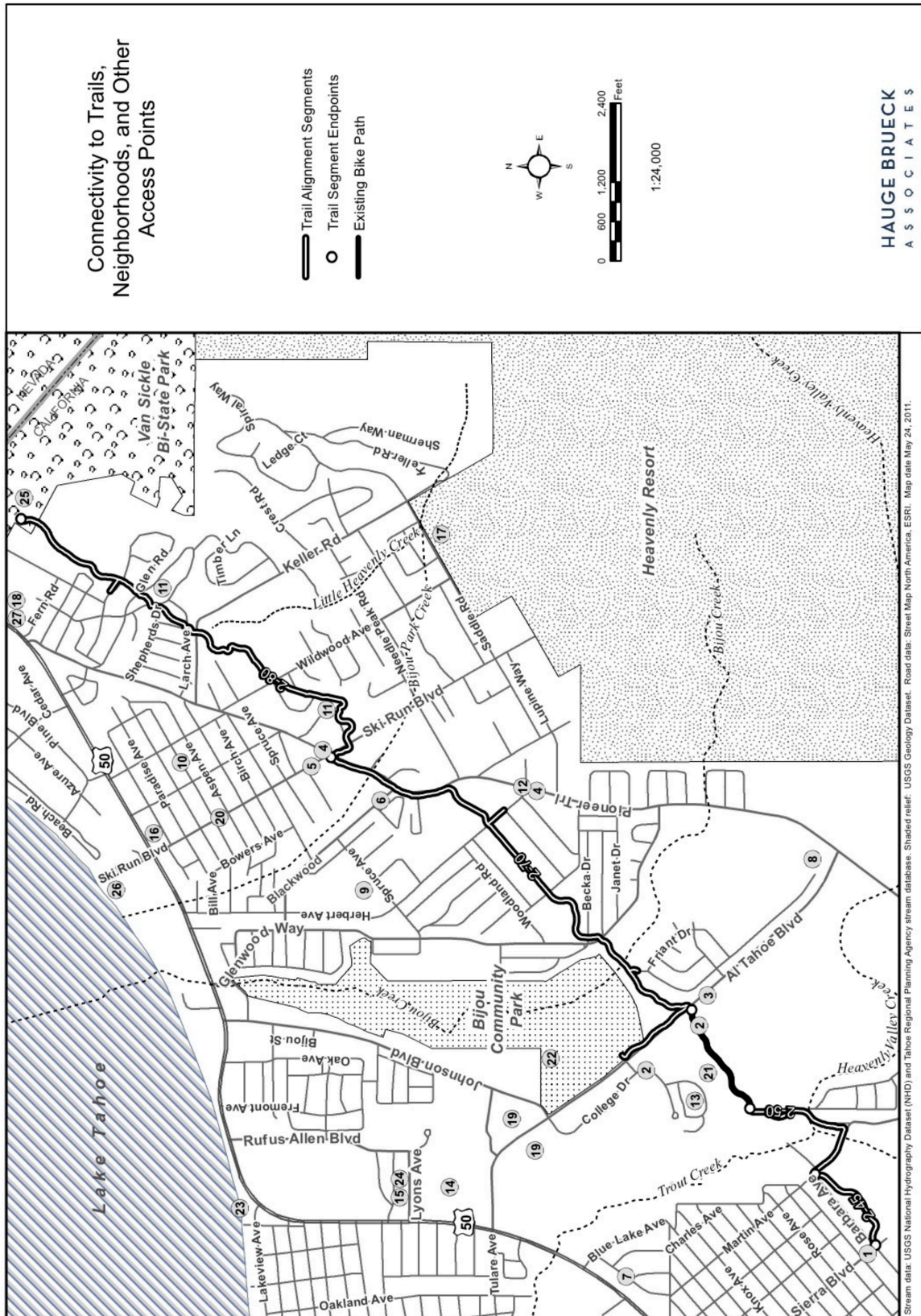
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Connection Number	Connection Name	Connection Type
	1 trail at Ski Run Blvd)	
17	Heavenly Mountain Resort (connection to California Base Lodge on Ski Run Blvd; exceeds grade requirement for improved connection)	Employment Center
18	Heavenly Village (direct connection from Van Sickle Bi-state Park)	Employment Center
Off the map	Casino core in Stateline (direct connection from Van Sickle Bi-state Park)	Employment Center
Same as 13	LTCC (direct connection at the South Lake Tahoe Community Play Fields)	Employment Center
Same as 14	Lake Tahoe Unified School District offices (direct connection along Class 1 trail on Al Tahoe Blvd with a short gap to the offices)	Employment Center
19 (2 pts with this #)	Al Tahoe Government Center, LTBMU Supervisor's Office, and shopping district (connection along Class 1 facility on Al Tahoe Blvd. with a short gap at the west end)	Employment Center
20	Pioneer Trail/US Hwy 50 Redevelopment area (connection along Class 3 route from Ski Run Blvd)	Employment Center
21	South Lake Tahoe Community Play Fields (direct connection to facilities)	Recreation Area
22	Bijou Community Park (connection via Class 1 trail on Al Tahoe Blvd)	Recreation Area
23	El Dorado County Beach and Campground (connection via Class 1 trail on Al Tahoe Blvd with a short gap to paved trail along US Hwy 50)	Recreation Area
24	Boys and Girls Club of Lake Tahoe (connection along Class 1 trail on Al Tahoe Blvd with a short gap to paved trail along US Hwy 50))	Recreation Area
25	Van Sickle Bi-State Park (direct connection into the planned facilities)	Recreation Area
26	Planned water-borne transit connection at Ski Run Marina (connection via Class 1 trail along Ski Run Blvd)	Transit Center/Bus Stop
27	Transit Center at Heavenly Village (connection from Van Sickle Bi-state Park, or connecting to existing Class 2 trail along Pioneer Trail from the Ski Run Blvd intersection)	Transit Center/Bus Stop
Same as 27	Access to the Nifty Fifty Trolley at Village Center and Casinos (connect from Van Sickle Bi-state Park) and Ski Run Marina (via Class 1 trail along Ski Run Blvd)	Transit Center/Bus Stop
	Access to established Blue Go bus stops along major routes. Current financial constraints have reduced BlueGo service, although past and potentially future routes crossed the Greenway along Al Tahoe Blvd, Pioneer Trail, Blackwood, and Ski Run Blvd.	Transit Center/Bus Stop

Source: HBA 2011

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Figure 23. Greenway Connectivity



2.6.5 Regulatory Compliance Measures

Regulatory compliance measures are measures that are part of the Greenway project proposal because compliance must occur to construct and operate the project. This section identifies the project features that implement these measures. Chapter 3, Environmental Setting and Impact Analysis, identifies additional mitigation measures when the analysis identifies compliance with regulation inadequate to eliminate potential environmental impacts. Where necessary, resource impact analyses identify the required compliance measures as linked to a potential impact with a clear description of why and how the compliance measure will reduce the impact to a less than significant level.

2.6.5.1 CM-1: *Standard Engineering Practices for Seismic Coefficients*

The Greenway implements design features and construction controls appropriate to local seismic coefficients (e.g., 0.3g) to minimize the damage potential from ground shaking hazards on project features such as bridges, walls, boardwalks, drainage features, and trail surfaces. Site-specific geotechnical investigations at locations such as the Trout Creek crossing and retaining wall locations will provide necessary engineering details. These include appropriate site preparation, excavation of unstable materials, structural fill, compacted fill, subsurface drainage, and subgrade and aggregate base for asphalt trail surfaces.

2.6.5.2 CM-2: *Standard Engineering Practices for Corrosive/Expansive Soils*

Some soil map units within the project area are moderately corrosive to steel. Greenway facilities and structures constructed in areas of corrosive soils utilize corrosive resistant materials and employ design features and construction controls to protect buried helical piers.

2.6.5.3 CM-3: *TRPA Erosion and Sediment Control Plan*

The TRPA Erosion and Sediment Control Plan (ESCP) identifies the type and placement of temporary construction BMPs and is often complimentary to the SWPPP required for NPDES permitting. Project construction documents will demonstrate compliance with TRPA Code Chapter 25.

2.6.5.4 CM-4: *NPDES Permit Requirements (SWPPP, On-site Monitor, Emergency Response Plan, Construction Dewatering Plan, Stockpiling and Staging Areas)*

The Greenway must comply with Lahontan Board Order R6T-2011-0019, entitled *General Waste Discharge Requirements and National Pollutant Discharge Elimination System for Discharges of Storm Water Discharges Associated with Construction Activity in the Lake Tahoe Hydrologic Unit, Counties of Alpine, El Dorado and Placer* (Permit No. CAG616002). The permit applies to construction sites and activities resulting in the disturbance of one or more acres of soil disturbance in the Lake Tahoe Hydrologic Unit. Construction activities include clearing, grading, demolition, excavation, construction or new structures and reconstruction. Most detail associated with SWPPP consideration will be developed during preparation of the final construction plans and address features such as construction techniques and staging. The project description incorporates general features related to SWPPP requirements as follows:

- a) Prevent discharge into surface water, including into SEZ and wetlands, during project construction. Critical areas of concern include construction near Trout Creek and Heavenly Valley Creek, the ephemeral drainage north of Keller Dr and the other SEZ and wetland areas shown on Figure 28 in Chapter 3.
- b) To prevent discharge from soil or construction activities, construction plan proposals shall implement the following provisions:

- Construction scheduling shall respect site conditions and occur during the driest conditions possible.
- Construction activity including grading and equipment and materials movement shall be conducted within designated work areas near the trail surface, identified with construction fencing or other approved means.
- Site preparation for the construction zone includes tree and other vegetation removal. As identified in the RRP (Appendix D), some riparian vegetation for removal and replacement will be stockpiled, irrigated, and protected for reuse. Brush, slash, timber, and removed stumps not used for restoration will be chipped for mulch or otherwise disposed of in accordance with local restrictions and regulatory requirements.
- Vegetation protection for existing trees and other vegetation to remain will follow provisions of CM-7, below.
- In SEZ, construction activities shall avoid existing vegetation removal to the maximum extent possible, including in areas of necessary equipment movement. Use of pin-type footings for boardwalk construction avoids most clearing and excavation, and allows smaller equipment to complete construction. Compact excavators and ATV-type utility vehicles will be preferred for boardwalk construction (helical pier footings area) and materials movement to reduce SEZ vegetation disturbance. Where necessary, construction proposals could also use linked landing plates, geotextile fabric topped with sand, or an alternative with equal or lesser impacts to protect work zone soils near the trail.
- Engineering and construction control details for the new bridge at Trout Creek and boardwalk areas of emergent floodplain between Herbert Ave and Pioneer Trail will result from further geotechnical evaluation. Current project planning assumes new bridge supports can be piling or pier design; however use of concrete footings may be necessary. If so, dewatering for footings construction at Trout Creek is possible. In that event, construction scheduling will direct footings excavation to the driest conditions possible. Excavation sites will be protected with sand bags, water berms, siltation fences, or other approved techniques. Localized pumping will clear the construction area of turbid standing water. Pumped water could be used to irrigate planted vegetation, sprayed on uplands to allow infiltration at the project site, held in Baker Tanks, or otherwise treated to remove suspended sediment to comply with the requirements of the permit prior to discharge to Trout Creek.
- Section 2.6.2.10 includes location requirements for staging areas outside of SEZ and floodplains. Materials storage and stockpiles shall be protected from erosion with temporary siltation fences, straw wattles, or other approved methodologies. As potential staging areas sit within or adjacent to residential development, careful consideration of dust control provisions, including prevention of track-out, will be necessary. (CM-9, Fugitive Dust Control Plan, provides more detail.) Construction specifications will employ exposed soil watering, stockpile protection, street sweeping and/or other techniques to control dust. Access to staging and site construction will be protected with clean gravel or other approved material to reduce track-out.
- If construction conditions warrant equipment washing to prevent soil transport off site, the areas will be identified in the SWPPP and located outside of sensitive areas and away from stream channels.
- Greenway construction involves the short-term use of hazardous materials necessary for operation and maintenance of construction equipment, (e.g., diesel fuel and hydraulic fluid). Hazardous materials will be stored at the staging areas identified and prevented from contaminating the site from natural conditions or vandalism. Fueling and necessary maintenance of construction equipment will occur outside of SEZ,

wetland or floodplain areas and be managed to avoid site contamination. A spill response plan will include provisions for worker training, spill containment, agency notice, and a remediation process. On LTBMU parcels, spill prevention and clean-up of hazardous materials will follow the LTBMU Spill Notification and Response Plan (for emergency spills) or demonstrate compliance with BMPs for non-emergency spills (USDA 2000).

- If construction for any given segment will extend beyond a single construction season, the project site will be stabilized to meet permit requirements for withstanding the 20-year, 1-hour storm.
 - A Qualified SWPPP Practitioner (QSP) that is on-site during construction activities provides professional expertise and expedited response to correct issues that could arise during construction and assures compliance with permitting conditions and fulfillment of project commitments.
- c) Prevent discharge into surface water throughout the life of the project. Key project features to address these requirements include installation of permanent BMPs and water quality protection controls, revegetation and restoration of disturbed soil, and minimization of foot trail width where necessary. These features are described in more detail above. Appendix E contains the Greenway Operations, Management and Maintenance Strategy (OMMS), which includes anticipated maintenance schedules for post-construction and permanent BMPs.
- d) Properly sited and staging and stockpiling areas reduce potential impact to surface water quality by locating these areas on higher capability lands, maximizing distance to streams and conveyance systems.

2.6.5.5 CM-5: Revegetation and Restoration Plans

Section 2.6.3.1 above summarizes the RRP for trail removal and BMP retrofitting, and restoration of disturbed areas.

The Greenway proposes the use of native and low water demand revegetation plantings and thus proposes no ornamental landscaping, irrigation or fertilizer plans.

2.6.5.6 CM-6: Permanent BMPs

The Greenway conforms to requirements for permanent BMPs as outlined in TRPA Code Chapter 25, LTBMU Management Practices, Lahontan's Basin Plan Chapter 5 and City of South Lake Tahoe Code. Section 2.6.3 provides details for permanent BMPs.

2.6.5.7 CM-7: Tree Evaluation and Tree Protection Measures

Tree Survey and Evaluation. Prior to completion of final construction drawings, the Conservancy completes a detailed tree survey identify the precise number, size and species of trees to be removed for construction of project features. Evaluation of nearby trees determines if they pose a hazard to high traffic areas, or risk to structures, are disease ridden, contribute to the expansion of disease or result in increased fire danger. Final project plans will demonstrate compliance with TRPA Code Chapter 71 for tree removal provisions.

Design Criteria. The Greenway design element seeks to avoid tree removal to the maximum extent possible. Where site conditions allow, the trail winds through the trees, retaining the character of a forest trail as created in the existing trail segment on the LTCC campus. On these sites, the trail alignment passes within the drip-line of mature trees, reducing threats to long-term tree survival by encroaching on one side only and setting trail surface grades to reduce excavation.

Tree Protection Measures. Final construction drawings will identify trees to be retained requiring protection during construction. Trees are fenced at the drip-line in accordance with TRPA Handbook of BMPs except where described above. If the Greenway must be located within the drip-line of a tree, two by four (2x4) lumber secured with banding around the trunk of the tree protects the tree bole from construction equipment damage. No material storage or equipment parking occurs within the drip-lines of retained trees.

Maintenance of tree protection measures occurs throughout the construction period the originally installed condition. A qualified professional (i.e. certified Arborist or equivalent) preforms the cutting or pruning of tree roots. To minimize root damage, actions of root pruning are hand dug. Hand pruning of roots utilize clean and sharp tools and saws. Roots are cleanly cut to prevent disease introduction. Exposed roots are covered to prevent drying. Avoidance of compaction in the dripline allows for adequate infiltration of water.

2.6.5.8 CM-8: Shared-Use Trail Operations, Maintenance and Management Strategies

Appendix E presents the OMMS and establishes Conservancy guidance for protection of critical resources, public access and use, and operations and maintenance for the Greenway. Section 2.7 further details the operations, management and maintenance identified for the Greenway.

2.6.5.9 CM-9: Fugitive Dust Control Plan

Construction for the Greenway is subject to El Dorado County Rule 223, Fugitive Dust – Construction Requirements. Under this rule a Fugitive Dust Control Plan will be submitted to the Air Quality Management District (AQMD) for approval at least 10 days prior to construction. The specifics of an approved Fugitive Dust Control Plan will be based on the segments proposed for construction. Such plans normally include use of on-site watering trucks for fugitive dust control and washing of truck wheels and undercarriages to reduce trackout. These measures typically reduce fugitive dust emissions by up to 50 percent.

Within the project area, few limitations to typical dust control plan elements exist. Site watering must occur to avoid spray beyond the project area in those locations with narrow right-of-way (e.g. where residences or other structures lie close to the project area). Additionally, equipment washing must occur on high capability land with the discharge contained to avoid runoff.

2.6.5.10 CM-10: Time of Day Construction Restrictions

This compliance measure restricts construction activities to between the hours of 8:00 a.m. and 6:30 p.m. Construction activities before or after the time restriction may occur, but must be consistent with CNEL limits imposed for the applicable TRPA PAS.

2.6.5.11 CM-11: Construction Equipment Muffling

This compliance measure requires shrouding or shielding of impact tools and muffling or shielding intake and exhaust ports on construction equipment.

2.6.5.12 CM-12: Construction Coordination

The Conservancy and Greenway contractor will coordinates with law enforcement and fire protection agencies, utility companies, and businesses and residents within the construction corridor prior to and during construction activities. This coordination informs affected parties of the construction schedule and allows development of actions to best maintain access and service in the active project area.

Coordination with utility companies will follow accepted practice. During final plan preparation, utilities will be located on the civil plan sheets and confirmed to identify the depth to conduit, pipeline, or other facility and to avoid significant grade changes for maintenance of minimum coverage depths for safety and compliance. If necessary, the project will relocate utility infrastructure including underground or aboveground connections. Prior to construction, the contractor shall contact Underground Service Alert (USA) to ensure buried lines are properly located and marked and provide utility companies with an accurate schedule noting when construction occurs in the vicinity of their facilities.

2.6.5.13 CM-13: Law Enforcement and Fire Protection

Prior to construction, the contractor will provide a construction schedule for use by public service agencies. This schedule outlines the location of the construction, types of activities to occur, and the location of anticipated traffic delays or hazards. It identifies a point of contact within the construction team to inform law enforcement and fire protection personnel of emergency actions and traffic control measures within or near the active construction corridor and communicate in advance changes to these measures or their location.

Particular coordination occurs with SLTFD Station #1, to ensure construction activities allow ingress and egress at all times and to maintain appropriate signage.

2.6.5.14 CM-14: Traffic Control Plan

TRPA and City permit conditions require a traffic control strategy to reduce construction-related effects on roadways and circulation patterns within the construction corridor. Construction activity near collector or arterial streets requires detailed consideration including: Martin Ave (construction of the bridge span and the adjacent boardwalk), and Al Tahoe Blvd, Glenwood, Pioneer Trail, Glen and Keller (bike trail construction crossing or adjacent to heavily traveled streets where lane closure requirements are likely). The traffic control plan will address:

- Coordination with affected jurisdictions regarding construction hours and lane closures;
- Emergency service consultation and implementation of an emergency access plan;
- Implementation of TRPA guidelines for construction-related road closures;
- Lane closure and truck hauling limits during peak commute hours to the extent possible;
- Provision of alternate bicycle and pedestrian routes where necessary;
- Provision of temporary parking;
- Location of truck haul routes;
- Traffic control devices;
- Construction signage and lane closure notification in the vicinity of the construction corridor;
- Monitoring of in-place traffic control methods and devices;
- Driveway access maintenance; and
- Onsite circulation and staging areas.

2.6.5.15 CM-15: Fire Suppression and Management Provisions

The Conservancy will develop fire suppression and management provisions as it completes final plans and construction specifications. These provisions include fire precaution, pre-suppression and suppression measures, a flow chart of actions during a fire event, and identification of points of contact and responsible personnel. Construction sites and major equipment will be outfitted with fire protection devices and spark arrestors as appropriate. A copy of the requirements will be maintained at the construction site and submitted to the SLTFD and LTBMU.

2.6.5.16 CM-16: Property Acquisition and Access

The project requires acquisition of permanent access easements from landowners for the following parcels: APNs 027-323-010, 028-141-037, 025-021-077, 025-282-018, 025-282-001, 025-021-038, 025-051-022, 027-323-016, 028-141-039 and 025-510-002. Temporary easements in other areas during construction may be necessary for equipment access, materials storage, or other needs. Easement rights will be secured prior to construction based on fair market value and willing sellers. During construction the Greenway will maintain reasonable access to private property and match pavement and grade of affected driveways.

2.6.5.17 CM-17: Noxious Weed and Invasive Species Program

A Noxious and Invasive Weed Program shall be developed for the approved project and completed prior to final permitting. TRPA, Conservancy, and LTBMU botanists/biologists shall review and approve the plan prior to construction. The plan will include the following:

- Equipment used in the project area will be sanitized and free of non-native invasive species before moving into the project area to ensure that the equipment is free of soil, seeds, vegetative material, or other debris that could contain or hold seeds of non-native invasive species. It is recommended that vehicles, especially large, off-road and/or earthmoving vehicles are cleaned when they come into the Lake Tahoe Basin or come from an area known to contain non-native invasive species. Equipment will be considered clean when visual inspection does not reveal soil, seeds, plant material, or other such debris.
- Gravel, fill, or other materials are required to be “weed-free”. Use onsite sand, gravel, rock, or organic matter when possible. Otherwise, obtain “weed-free” materials from gravel pits and fill sources that have been surveyed and approved by qualified personnel.
- Use “weed-free” mulches, and seed sources. Salvage topsoil from project area for use in onsite revegetation, unless contaminated with non-native invasive species. Do not use soil or materials from area contaminated by cheat grass.
- After the project is completed the Conservancy will monitor the project area for 2 years subsequent to project implementation to ensure additional non-native invasive species do not become established in the areas affected by the project and to ensure that known non-native invasive species do not spread.
- Treat invasive plant species according to the treatment methods established by each land ownership.

2.6.5.18 CM-18: TRPA Soils Hydrologic Approval

The Greenway design element directly addresses and minimizes impacts from excavation, grading or filling to reduce potential impacts to soils and will continue to do so as part of the final design. While this is true, plan details require excavations over 5 feet in some areas. Preliminary investigation indicates no groundwater interception will occur in these areas, yet TRPA Code Subsection 64.7.B requires a soils hydrologic report confirm this finding. The report includes a summary of the geologic, soil, and hydrologic conditions expected to be encountered within the Greenway construction corridor and the qualifications of the personnel conducting the soil/hydrologic investigation. The report specifies if backhoe excavation test pits or drill boring and the depths to which the samples were taken conducted the field exploration. Methods will comply with TRPA requirements to reveal information to 125 percent of the excavation depth. The boring logs will reveal the vertical sequence of soil textures, percent rock fragment, soil colors, and depths associated with the contact boundaries of these features.

If the soils hydrologic report identifies concerns related to depth of excavation, design modifications will be necessary. Excavation depths in some locations could be reduced during final project design by raising the elevation of the shared-use trail surface or modifying trail alignment.

2.6.5.19 CM-19: SEZ Restoration for New Disturbance

The SEZ restoration requirement for new disturbance totals 2.99 acres. On-site SEZ restoration will accomplish 0.57 acres. For the remainder of the need, the Conservancy will provide 2.41 acres of off-site LCD 1b SEZ restoration in compliance with TRPA Code Subsection 20.4.C. As allowed in Code Subsection 20.3.C, the Conservancy will utilize banked restoration from LCD 1b SEZ from the California Land Bank including from the following sources:

- Twin Peaks (Nemetz, APN 32-184-04) – up to 0.42 acres of hard coverage removal and SEZ restoration available through this project. Total site restoration includes potential for montane mesic and montane dry meadow wetland types.
- Tahoe Area Recyclers and Dismantlers Yard (APN 31-040-04) - up to 0.18 acres of SEZ restoration available through this project. Wetland types could include montane mesic and montane dry meadow types.
- Other completed Conservancy restoration projects that may be eligible for SEZ Land Bank credit include APN 33-191-04 (Elks Club Boat Launch), APN 23-522-11 (Tucker Ave), APN 28-141-27 (Charlesworth Ct) and Sunset Ranch - West. Restoration on these parcels addressed a wide range of SEZ conditions, including those within wet meadows, floodplains and woody riparian (willow/aspen) areas. Additional staff work will confirm restoration type and quantities prior to acceptance in the Land Bank. The total from these projects could reach 1.8 acres.

At the time of final permits, other restoration projects could be considered as candidate sources for California Land Bank credit in compliance with Land Bank provisions.

2.6.5.20 CM-20: Avoid Disturbance to Wetlands and Waters of the U.S. and Obtain Section 404 Permit from USACE

The Conservancy will, before construction of the Greenway, complete a jurisdictional wetlands delineation to determine the location of jurisdictional wetlands and waters of the U.S. within the project area. Design measures will avoid or minimize impacts to delineated wetlands and waters of the U.S. to the extent possible as determined by the USACE and Lahontan. If development within the delineated wetlands cannot be avoided, and if disturbance quantities rise to the minimum level, a Section 404 permit shall be obtained from the USACE as well as a water quality certification (Section 401) from Lahontan. The Conservancy shall comply with requirements of the permits to mitigate the specific impacts of the Greenway.

2.6.5.21 CM-21: Avoid Removal of Trees 30-inch dbh or Greater Within Conservation and Recreation Plan Area Statements

Final Greenway design avoids trees larger than 30-inch dbh within Conservation and Recreation Plan Areas. The following trail segments offer clear alignment flexibility to avoid protected trees:

- Segment 2-50, near the Barbara Ave intersection and the approach to Trout Creek;

- Segment 2-70, within Bijou Community Park and within the connector alignment along Al Tahoe Blvd; and
- Segment 2-80, near Chonokis St.

Other portions of the project area within Recreation or Conservation plan areas present more challenges to realignment. In the Trout Creek riparian area at the intersection of Martin and Black Bart Aves (Segment 2-50) and near Van Sickle Bi-State Park (Segment 2-80), the presence of SEZ and wetland, steep topographic features, or land uses such as roadways limit design options. In these areas, additional wetland or SEZ encroachment may be necessary to avoid large tree removal. As identified for Question 33 and 66, additional disturbance, land coverage, and riparian vegetation removal that may result requires additional offsetting measures, including an increased off-site mitigation responsibility. As construction plan development progresses and tree survey work provides more detail, additional evaluation to assure that adequate offsetting restoration mitigates project impacts may be necessary.

2.6.5.22 CM-22: Public Agency Right-Of-Way Exemption with Calfire

The Conservancy will file a Public Agency Right-of-Way exemption with Calfire to comply with requirements for conversion of Timberland for installation of public service projects. Tree removal will occur along the trail corridor and be completed within one year of filing by a Registered Professional Forester and a Licensed Timber Operator.

2.7 OPERATIONS, MANAGEMENT AND MAINTENANCE STRATEGY

The Greenway includes design features and construction controls to minimize management and maintenance requirements including: adequate construction standards to accommodate service vehicles, designated access points, and user control features such as signage, railings, or rock/wood/vegetative barriers as appropriate in sensitive areas. The OMMS, attached in Appendix E, establishes the Conservancy's guidance for the Greenway. As project planners complete environmental study and final design details, and as use of the completed trail or trail segments dictate, additional requirements may arise and will be addressed.

The following management and maintenance objectives state clearly the Conservancy's intent for long-term project support.

- a. Manage trail use to provide broad non-motorized access to users of all age groups and abilities. Comply with ADA provisions for access for persons with disabilities.
- b. Manage trail use to protect natural and cultural resources.
- c. Manage trail use to create a neighborhood asset.
- d. Use the least restrictive means available to effectively manage trail use, increasing degree of restrictions only in response to actual conditions.
- e. Maintain trail facilities adequately to insure a safe experience for all user groups.
- f. Maintain trail facilities adequately to protect the public investment in construction costs.

The Conservancy owns and manages land throughout the California side of the Tahoe Basin in compliance with its mission to protect the Region's natural resources and preserve public access to outdoor recreation opportunities. Recognizing that mission, management direction detailed in Appendix E provides specific guidance for public access and use along the Greenway.

The Greenway brings new users to the project area and proposes new facilities that require periodic maintenance. The Conservancy retains the responsibility to ensure public access consistent with project goals and to maintain trail features for safety and to protect the investment of public funds used in their

construction. Appendix E describes strategies to provide management and maintenance, acknowledging the appropriate combination will change over time to reflect need and changing circumstances.

2.8 NO PROJECT ALTERNATIVE

A No Action or No Project alternative is included in the NEPA EA analysis for consideration, evaluating the existing conditions and the potential effects of implementation of other projects within and adjacent to the Greenway project area. The potential projects include, but are not limited to, the following list. Table 60 presents a more detailed cumulative evaluation.

- South Shore Fuels Reduction and Healthy Forest Restoration Project;
- Sierra Tract Erosion Control Projects;
- Bijou Meadow Erosion Control Projects; and
- Van Sickle Bi-State Park.

Future project developments listed in proposed and approved environmental documents could occur and would be subject to appropriate and effective design features, mitigation measures, project limitations and timelines. Under the No Project alternative, the Conservancy takes no action and constructs no shared-use trail or bridge within the project area. Existing informal trails and associated land uses would remain. Current management plans would continue to guide management of the project area.