

Appendix E. Greenway Operations, Management and Maintenance Strategy

South Tahoe Greenway Shared Use Trail Operations, Management and Maintenance Strategy (OMMS)

This Operations, Management and Maintenance Strategy (OMMS) establishes Conservancy guidance for the Revised South Tahoe Greenway Shared-Use Trail (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 Conservancy retains responsibilities as property owner of the project area that extends beyond trail uses. For example, the land management and forest health programs address stewardship responsibilities related to protection of natural and cultural resources. This strategy will address these and other ongoing programs *only* as they relate to existing and proposed future trail uses.

I. Objectives

The Conservancy's project goals provide direction for development of the proposed project design. Adequate long-term management and maintenance is required to assure project features continue to provide transportation and recreation benefits. The following management and maintenance objectives state clearly the Conservancy's intent for long-term project support.

- a. Manage trail use to provide broad access to users of all age groups and abilities.
- 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 meet safety needs for all user groups.
- f. Maintain trail facilities adequately to protect the public investment in construction costs.

II. Protection of Critical Resources

The Greenway trail route passes through areas of sensitive and diverse vegetation communities and habitats, as well as areas of containing cultural resources. The Conservancy commits to protection of these resources with the provision and process described below.

- a. Design features. The Greenway trail design incorporates features to keep through travelers on the protected surface of the Greenway trail through SEZ areas and other sensitive sites. The design also recognizes the high desire for access to good views, streamsidings, and other recreational amenities and provides specific, protected ways to accommodate that desire. To preserve neighborhood connections and an existing unpaved trail system where resources permit, the design also incorporates BMPs on existing trails identified to remain to reduce their impacts. The project description includes full discussion of these items.

- b. Education and Interpretation. The Greenway design relies on education and interpretation as a first means of resource protection. Directional signage to specifically designated access areas will decrease the pressure to develop new volunteer trails. Interpretive signage will improve compliance with these directions and enhance the sense of stewardship of trail users. This management plan 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.
- c. Adaptive management. In addition to directional and interpretive signing, the Greenway design uses physical barriers in critical areas to more emphatically direct users. For example, the design places short sections of fencing at the entrances of most boardwalk sections to direct all users to the protected surface trail. Some boardwalk areas also use railings for user and resource protection. If new volunteer trails develop through the SEZ, additional measures such as fence sections or areas of new planting can be used to direct travel. Outside of SEZ areas, the design uses forest debris or targeted planting to discourage access, use of which can be expanded if necessary.

III. Public Access and Use Guidance

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, the following management direction provides specific guidance for public access and use along the Greenway.

- a. The Greenway is a non-motorized trail, intended to meet environmental thresholds by providing for the non-auto transportation and non-motorized recreation needs of residents and visitors. The trail specifically accommodates bicyclists, pedestrians, cross-country skiers, snowshoers, and those with special access needs.
- b. The Greenway provides safe, direct access for persons with mobility disabilities in full compliance with Americans with Disabilities Act (ADA) provisions. Use of other powered mobility devices by persons with mobility disabilities as allowed by ADA will meet transportation and recreation goals for those persons. The Conservancy will stay vigilant to user safety needs and may amend use guidelines for any user group in response to specific future circumstances.
- c. Authorized personnel in motorized vehicles, such as maintenance crews, will occasionally require access on the trail. In recognition of the safety concerns related to mixing non-motorized and motorized users on the same trails, these vehicles will operate under heightened safety conditions. This could include temporary trail closures, flashing lights, or warning flags or signs. Emergency medical or police/fire personnel requiring vehicle access, and using emergency lights and/or sirens, will use the protected trail surface as the law allows. No routine or administrative access in vehicles will be allowed.
- d. The Conservancy has long considered snowmobiling incompatible with its mission and snowmobiles are prohibited by statute from operation within the city limits of the City of South Lake Tahoe.
- e. No camping on Conservancy land along the Greenway route is permitted.

- f. After construction of each segment of the Greenway, the protected surface of the trail will serve many trail access needs on the parcels through which it passes. Some needs will continue to be met best by smaller unpaved trails. The Greenway plans identify a network which includes maintenance of narrow unpaved trails where they provide an important access function and where the trails produce limited environmental effects.
- g. The nature of a shared use trail mixes different types of users traveling at different speeds. The Conservancy supports the “Yield to Wheels” and “Safe Speeds” outreach efforts to ensure safe and enjoyable use. Signage, trail markings, and education will improve compliance. Maintaining a safe trail experience for all users may require additional management strategies in the future. The proposal includes no posted speed limits.
- h. The Greenway is part of a developing bicycle access network with a goal of providing a completely non-auto route between origination and destination points. It is understood, however, that some trail users in the Tahoe Region drive to trail connections, generating a parking demand at connection points. Access from legal parking areas along public streets will occasionally occur. While parking along public streets is legal in most places and will not be prohibited through this proposal, this use can create conflicts with neighbors. Conflicts can include trespass, littering, sanitary concerns, noise, and off leash dog activity. The Conservancy employs use of adaptive management strategies to address this type of use conflict. In this situation, strategies could include (but may not be limited to) increasing educational signs concerning respectful use, increased visitation by management personnel, or placement of fencing or trash cans.
- i. Access to the Greenway from developed public sites will also occasionally occur. Greenway facilities are assets to parks such as Bijou Community Park and Van Sickle Bi-State Park. However, no public facilities along the Greenway route are designed to serve as trail heads for a regional bicycle trail. If extended parking for Greenway trail use competes with needs generated by other day uses, adaptive management strategies will be employed to protect park access for other user groups. This may include developing specific parking restrictions at public parking locations to limit or preclude bike trail network parking.

IV. Operations and Maintenance

The project brings new users to the site 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. Several strategies exist to provide management and maintenance; the appropriate combination will change over time to reflect need and changing circumstances.

- a. Urban Land Management (ULM) Personnel. At present, the Conservancy uses permanent land management staff and seasonal lot inspectors, site hosts, and land stewards to address issues as diverse as encroachments, land disturbance, hazard trees, needed maintenance, and disruptive users. These employees engage in pro-active inspections and respond to citizen calls. Seasonal field crews also accomplish site

restoration and maintenance such as building fences and other barriers, posting signage, and grading and revegetation.

- b. Enforcement Contract. The Conservancy and the City of South Lake Tahoe cooperate on enforcement actions needed in extreme situations on Conservancy parcels within City limits. These usually involve activities with threat of imminent harm such as illegal camping or campfires. This cooperation is critical as Conservancy staff have no law enforcement authority. It is important to note that City law enforcement officials only exercise their authority in relation to the laws of the respective jurisdictions. Law enforcement officials will not enforce Conservancy trail and land management policies described that are not also prohibited by local or state statute.
- c. Maintenance Contracts/Agreements. Many recreation providers, including the Conservancy, regularly contract with other entities to manage and maintain specific recreation properties and facilities. If contracts occur with eligible local jurisdictions for Greenway maintenance activities, funding for certain aspects of this type of agreement may be eligible for Measure S funding, a local tax that generates maintenance funds for new bicycle trails. Additionally, many communities rely on volunteer services for some types of public facility upkeep. Maintenance needs such as litter patrol are well suited for this kind of assistance.

Maintenance needs for trail features will change over time, increasing with facility age. As trail segments are constructed, specific maintenance needs will be identified and planned. The following description includes general maintenance issues and serves as a guide in developing a specific approach as plans mature.

1. Asphalt Trail Surface. The asphalt trail surface will require scheduled maintenance. Asphalt sealing is important to maintain the integrity of the surface; sealing frequency responds to site conditions such as proximity to snow removal from roadways and sun exposure. Other asphalt repairs can include crack sealing, patching, or repair of heave damage from tree roots.
2. Asphalt Markings. Repainting trail markings or roadway crosswalks must occur frequently. For crosswalks on roadways, maintained by other jurisdictions, annual repainting will typically be necessary. Trail centerline striping or other trail symbols require less frequent renewal.
3. Boardwalk Maintenance and Repair. If the final design uses wood decking on the boardwalks, scheduled maintenance will include sealant application to protect its integrity. Synthetic surfaces avoid this requirement. However, all trail surfaces require some element of regular maintenance.
4. Repair. Other site features such as signs and fences will require repair and periodic replacement. This includes trail and site features that can be damaged by snow load, vandalism, or improper use. Annual inspections and citizen reports can identify repair needs to be planned and completed as necessary.
5. Spring Clean-up. Interest in trail use in Tahoe begins with the first warm days in Spring, usually long before the snow melts on trail surfaces. The Conservancy does not plan to clear snow from the Greenway, yet expects that local interest exists and snow removal could be provided by others. Other spring tasks include sweeping the trail, seal coating

or repainting pavement markings if necessary and addressing hazard vegetation or other facility repair.

6. Regular Maintenance. Keeping the trail surface clear and free from obstacles requires regular sweeping, trimming trailside vegetation, and litter control and removal. Future tree or limb removal may be necessary to reduce safety hazard for trail users. Certain areas may benefit from placement of “mutt mitt” receptacles.
7. Site Protection/Restoration. The Greenway project relies on placing trail obstacles and revegetation to decommission and restore existing volunteer trails, particularly in SEZ and wetland areas. New public access to some areas, such as north of the Rocky Point neighborhood, could encourage establishment of new trails in these sensitive environments. To assure that restoration of existing trails in SEZ is successful, and that new trails accessing the Greenway in SEZ do not develop, the Conservancy will rely on a system of regular monitoring and adaptive management. The adaptive management techniques available described above include: use of interpretive/ directional signage, and placement of additional trail obstacles or fences.

V. Project Monitoring

Project monitoring addresses the following:

1. Construction Monitoring as determined by TRPA and NPDES construction permit conditions; and
2. Post-Project Monitoring (Revegetation and Restoration, including off-site SEZ restoration, BMP Effectiveness, Noxious Weed and Invasive Species).