



US Forest Service
Pacific Southwest Region
Lake Tahoe Basin Management Unit



Proposed Action for Trails Maintenance
Carson City, Douglas and Washoe Counties, Nevada
Placer, El Dorado and Alpine Counties, California

BACKGROUND:

The Lake Tahoe Basin Management Unit (LTBMU) manages all approved recreational trails on National Forest System (NFS) lands or rights-of-way within its jurisdiction. There are currently approximately 320 miles of classified trails (known as “classified” or “system” trails), authorized for motorized use (approximately 20 miles) or restricted to non-motorized use, within the LTBMU. The authorized inventory of classified trails is listed in the Forest Service’s INFRA database which includes the trail location and management objectives.

Management of the trails system requires an effective program of preventative maintenance, refurbishment, repair, and in some cases rebuild of the trails within the system.

PURPOSE AND NEED:

Trails degrade over time through a combination of natural processes and human use. Trail features such as water bars, retaining walls, and stream crossings need regular maintenance to be effective. Consequently there is a continual need to conduct efficient trail maintenance activities. Timely and effective maintenance activities will preclude the need for more invasive actions later.

The purpose of this project is to maintain the LTBMU trail system on a continuing annual basis, with consideration of effects to the natural and human environment.

A well-designed program of inspection and maintenance is required to maximize the life of any investment, while minimizing the life cycle cost of operating the facility (in this case, a trail system). For trails, those life cycle costs are measured not just in dollars and personnel commitments, but, equally important, in environmental effects. This project would implement an efficient program for annual preventative and corrective maintenance which will balance the continuing enjoyment of recreational users with protection and restoration of the Basin ecosystem.

PROPOSED ACTION:

The proposed action is to conduct annual routine and corrective maintenance on the existing classified trail system under the jurisdiction of the LTBMU.

Annual Routine Maintenance

Annual routine maintenance typically consists of minor tasks such as log removal, brushing, drainage cleaning and repair, cleaning culverts, loose rock and root removal, berm and slough removal, and tread repair in accordance with the Forest Service direction (see references below). It includes those routine activities necessary to keep the travelway clear and trail features such as drainage structures and retaining walls functional. This work would be done annually throughout the summer from early May through mid-October depending on the snow pack as conditions permit. The work is done with handtools (crosscut saws, shovels, rockbars etc.) and chainsaws (outside of wilderness). Depending on funding and available personnel (including volunteers) most of the classified trails on the LTBMU would receive annual routine maintenance.

Corrective Maintenance

Corrective maintenance activities include tasks that are more intensive than annual routine maintenance but still would involve the customary maintenance of trail features on classified trails. Typical actions would include replacement of failing drainage or stabilizing features, tread and turnpike repair, and addition of minor stabilizing features such water bars, rock steps or walls, etc. within the existing trail prism. Corrective maintenance may also involve minor trail re-routes (up to 100 feet in length) to avoid environmentally sensitive areas or unsustainable trail alignments.

Corrective maintenance projects would be consolidated into an Annual Maintenance Plan by the LTBMU Trails Coordinator for interdisciplinary review and coordination. The location, timing, methods, equipment and description of the work planned would be reviewed annually prior to the field season by an interdisciplinary team consisting of all resource management areas. At the time of the annual review, appropriate site specific design features in addition to those listed could be added as necessary for each proposed corrective maintenance project.

The trail maintenance actions proposed in this project would meet the definition described by the Federal Accounting Standards Advisory Board and the Forest Service: “Maintenance: The act of keeping fixed assets (*including trails*) in acceptable condition. It includes preventive maintenance, normal repairs, replacement of parts and structural components, and other activities needed to preserve a fixed asset so that it continues to provide acceptable service and achieves its expected life. Maintenance includes work needed to meet laws, regulations, codes, and other legal direction as long as the original intent or purpose of the fixed asset is not changed. Maintenance excludes activities aimed at expanding the capacity of an asset or otherwise upgrading it to serve needs different from, or significantly greater than those originally intended.”

Trail maintenance activities proposed would be conducted in accordance with the guidelines, procedures and standards published in FSH 2309.18 “Trails Management Handbook” (November, 1991) and EM-7720-103 “Standard Specifications for Construction and Maintenance of Trails” (August, 1996). For trail maintenance within designated wilderness (Desolation, Mt. Rose and Granite Chief) follow policy in FSM 2320 “Wilderness Management”. In addition, follow guidance in the Desolation Wilderness Plan (November 1998) for trail maintenance within the Desolation Wilderness.

Both routine annual and corrective maintenance work would be accomplished through a combination of in-house, volunteer and contracted personnel who have received training approved by the LTBMU and are working under the supervision of a Crew Leader certified by the Trails Coordinator.

PROJECT DESIGN FEATURES APPLICABLE TO CORRECTIVE MAINTENANCE:

The project design features are elements of the project that are applied in treatment areas. These features are developed based on Forest Plan direction and site specific evaluations in order to reduce or avoid negative environmental impacts of the proposed action. Project specific design features associated with this project include the following:

Coordinate additional maintenance needs. When unplanned corrective maintenance needs are discovered, these would be reviewed by an IDT prior to implementation, except in the case where there are health and safety issues and there were no alternatives (such as closure).

Soil Design Features

1: Limit timing of activities. Trail maintenance involving grading or movement of more than 3 cubic yards of dirt will occur between May 1 and October 15 (except as specifically permitted through the TRPA) to avoid the period of highest precipitation, streamflow, and erosion potential. During inclement weather, SEZ operations will be shut down until stream flows are seasonably low and soil/channel conditions are sufficiently dry and stable to allow continuation without substantial erosion, sedimentation, or offsite sediment transport.

2: Implement erosion and sediment control BMPs on delayed project elements. Appropriate erosion and sediment control BMPs will be applied to all disturbed ground during temporary delays when inclement weather is forecast. Design features will vary with conditions, should include measures to suppress airborne transport of dust, reduce runoff velocity, promote infiltration, and capture sediment before discharge to nearby surface waters and drainage ways.

3: Minimize ground and vegetation disturbance. Ground and vegetation disturbance will be minimized. Few, if any, snags or green trees will be felled, since maintenance activities will rarely depart from the existing trail corridor. No live trees greater than 24 inches in diameter at breast height (dbh) will be felled, and snags larger than 24 inches dbh will be left unless deemed a hazard (when it is

within striking distance and has structural weaknesses or leans toward or over the trail). In late seral stands, no standing trees or non-hazard snags larger than 6" dbh will be cut.

4: Decompact, recontour, and mulch in disturbed areas. Soils lacking adequate ground cover will be mulched with available forest materials (ensuring that source areas retain sufficient cover), or with imported mulch, such as certified weed-free straw. Slash and logs from the site may be distributed over the area to provide additional soil cover, retain sediment, provide a microclimate to speed up the soil development and revegetation process, and to discourage use.

5: Control concentrated runoff from trail surfaces to reduce erosion. Methods to reduce erosion and disperse drainage from trails include outslowing the tread and inclusion of drainage improvement designs and features. Proper spacing of drainage improvements is less than 164 linear feet (50 meters), with reduced intervals for SEZ approaches, grades greater than 10%, turns and switchbacks.

Stream Environment Zone Design Features

1: Prevent discharges of hazardous substances from refueling and maintenance. All equipment (chainsaw) refueling and maintenance activities will occur outside SEZs to minimize the risk of adversely affecting water quality. Staging of materials and equipment will be limited to existing disturbed areas outside of SEZs.

2: Stabilize stream banks. Stream banks will be protected from erosion by maintenance or installation of appropriate crossing features, such as bank armoring, trail narrowing, and drainage features.

Fire Risk Reduction Design Features

1: Keep fire tools onsite. When mechanized equipment (chainsaw) is used during maintenance, fire tools and extinguishers will be kept on site and readily available.

2: Monitor fire weather. Monitoring of fire weather and Project Activity Level (PAL) will occur during project activities when equipment is used (e.g. chainsaw). If equipment use restrictions are implemented, activities will be suspended in compliance with Forest Service direction.

Biological Resource Design Features

1: Control noxious weeds. All off-road equipment and vehicles used for project implementation are required to be weed-free. Equipment and vehicles will be cleaned of mud, dirt, and plant parts before the equipment and vehicles enter and leave the project area and before exogenous vehicles enter the Basin. Details are specified in USFS National Strategy and Implementation Plan for Invasive Species.

Use within corridor sand, gravel, rock, or organic matter sources when possible. Otherwise, obtain weed-free materials from gravel pits and fill sources that have been surveyed and approved by the State Department of Agriculture or by a botanist or ecologist at the LTBMU.

2: Avoid or minimize impacts on threatened, endangered, Forest Service sensitive, or TRPA special-interest wildlife and plant species. If there are known threatened, endangered, or sensitive plant species or noxious weeds present within 100 feet of trail maintenance activities then the botany department will need to be notified prior to implementation so that the plants can be flagged and avoided; a botanist/plant ecologist will be the individual who flags the plants due to the technical nature of correctly identifying the plant species.

3: Ensure updated plant surveys are used. Plant surveys will be reviewed to protect sensitive species and to prevent the spread of noxious weeds. If a current plant survey (controlled: w/in 5 years, cursory: w/in 2 years) is not available, a Forest Service botanist will validate plant data whenever:

- More than 10 cubic feet of rock or soil will be removed from a segment of tread and scattered in the adjacent corridor.
- New structures are constructed within 100 feet of any water feature
- Ground disturbance occurs within a riparian area outside the existing trail prism
- Borrow material is taken which results in more than 2 square feet of ground disturbance outside of the trailway.

5: Avoid or minimize impacts to federally threatened or endangered, LTBMU sensitive, or TRPA special interest species. Any detection of federally threatened or endangered, LTBMU sensitive, or TRPA special interest species or of nests, dens, roost sites, or other areas of concentrated use (e.g., perch or plucking post) by these species, before or during maintenance activities, within or from the project area, will be reported to a USFS wildlife biologist and protected as directed in the Forest Plan.

6: Implement Limited Operating Periods. To avoid or minimize disturbance to breeding activities and suitable habitat of species, limited operating periods (LOPs) will be implemented around nests, dens, roost sites, and other areas of concentrated use (e.g., Protected Activity Centers) by these species as directed in the Forest Plan. LOPs limit the type, spatial extent, and timing of project activities permitted. The timing of LOPs are standardized by species as described below. Limitations to the types of project work that may be conducted during a LOP and the spatial extent of the LOP are to be determined by a USFS wildlife biologist and are typically based upon the potential of the activity to disturb relevant federally threatened or endangered, LTBMU sensitive, or TRPA special interest species.

- California spotted owl: March 1 - August 15
- Northern goshawk: March 15 - August 31
- Bald eagle (nest): March 1 - August 31
- Bald eagle (winter habitat): October 15- March 15
- Golden eagle: March 1 - July 31
- Osprey: March 1 - August 15

- Peregrine falcon: April 1 - July 30
- Willow flycatcher: June 1 - August 31
- Marten: May 1 - July 31

Heritage Resource Design Features

1: Monitoring and survey. When maintenance will be performed outside surveyed corridors or within 30 meters of previously recorded cultural resources, the LTBMU Heritage department will be notified to assess the need for survey or monitoring.

2: Discovery. If any previously unrecorded heritage resources are discovered during maintenance activities, all related activities shall cease immediately and the procedures as set forth in Section 800.13 of the Advisory Council on Historic Preservations (ACHP) regulation 36 CFR Part 800 will be initiated.

Air Quality Design Features

1: Limit vehicle speeds. Project access vehicle speeds on unpaved surfaces will be limited to 15 miles per hour to prevent excessive dust generation.

IMPLEMENTATION DATE:

Trail maintenance actions as described above would occur annually starting in the spring of 2009.

CONTACT PERSON:

The project contact person is Jacob Quinn, Interdisciplinary Team Leader, Lake Tahoe Basin Management Unit, 35 College Dr., South Lake Tahoe, CA 96150. Electronic comments must be submitted in a format such as an email address, plain text (.txt), rich text format (.rtf), or Word (.doc) to comments-pacificsouthwest-ltbmu@fs.fed.us using the subject title "Trails Maintenance project".