

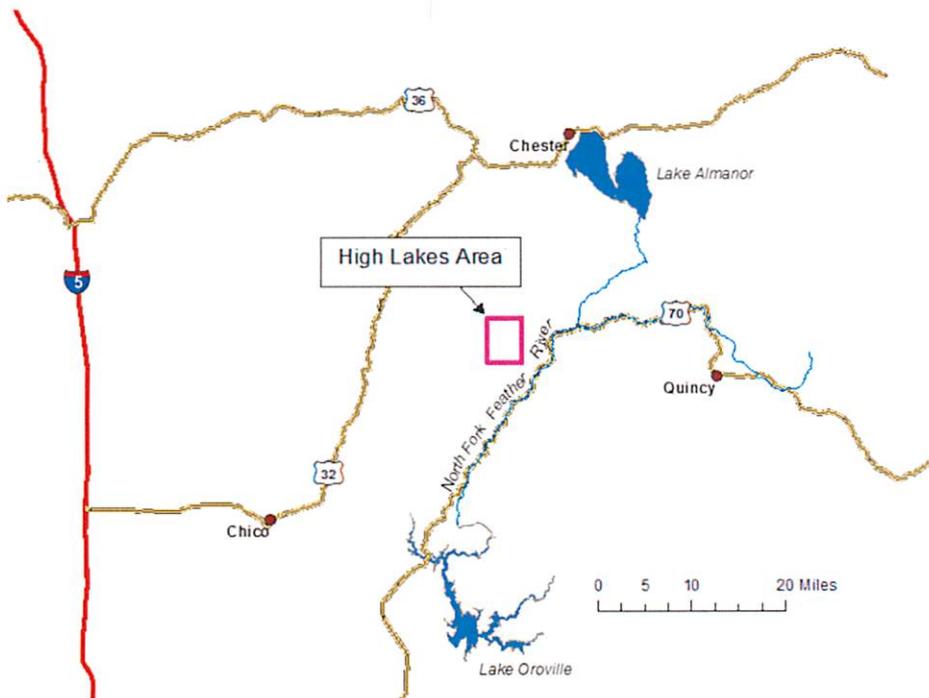
**High Lakes Motorized Trail Re-routes and  
Staging Area Improvements  
Almanor Ranger District, Lassen National Forest  
Plumas County, California  
10 February, 2016**

**Introduction**

The Almanor Ranger District (ALRD), Lassen National Forest (LNF), proposes to re-route and reconstruct motorized trail segments, decommission the eliminated trail segments associated with the re-reroutes, and restore or improve dispersed recreation areas within the High Lakes semi-primitive motorized area, and develop a trailhead to accommodate a staging area with overnight camping space available.

The proposed project, hereafter referred to as the High Lakes Project, is located in the Mt. Hope management area of the LNF (MA 47), Plumas County, California, Township 25 North, Range 5 East, Section 15 and Township 25 North, Range 6 East, Sections 19, 28, 29, and 30.

**Figure 1 Vicinity map for High Lakes Project**



A portion of the project lies within an Inventoried Roadless Area (IRA). Management of IRAs falls under the 2001 Roadless Area Conservation Rule, which limits road construction, reconstruction and the cutting and removal of timber within the IRA. In the rule motorized trails are specifically exempted. The Trail 611 re-routes, the Trail 613 re-route and a portion of the Trail 605 re-route are in the IRA. The staging area is outside of the IRA. The High Lakes Project Proposed Action is consistent with IRA direction and the Roadless Rule. Further administrative review will ensure any alternatives or changes to the proposed action fully complies with the Roadless Rule.

## **Goals and Objectives**

The LNF Land and Resource Management Plan (LRMP) designates the High Lakes as an area for semi-primitive motorized and semi-primitive non-motorized recreation use (LRMP 4-272). Semi-primitive motorized (SPM) and semi-primitive non-motorized (SPNM) are designations made through the Recreation Opportunity Spectrum (ROS). ROS designations classify opportunities for recreation and guide the stewardship and protection of resources and values. With a designation of SPNM and SPM, rustic and rudimentary facilities are primarily for site protection. There is a moderate (SPM) to high (SPNM) probability of experiencing solitude, closeness to nature, tranquility, self-reliance, challenge, and risk. There are a minimum of site controls; restrictions are present, but subtle. The LRMP includes guidance to provide OHV facilities such as staging areas, trailheads with cleared parking, sanitation facilities, information signing, and trails (LRMP p. 4-25).

The Lassen National Forest Land and Resource Management Plan (LRMP) directs forest managers to implement Best Management Practices (BMPs) to meet water quality objectives and to comply with Federal, State, regional, and local water quality regulations, requirements and standards described in Water Quality Management for Forest System Lands in California, Best Management Practices (USDA FS, 2010), and Soil and Water Conservation Handbook (USDA FS, 2011). Managers are to maintain or improve riparian-dependent resources in and around wetlands, stream corridors (including ephemeral and intermittent streams), lakes, seeps, springs and wet meadows (Riparian Conservation Areas; LRMP, pp. 4-31 & 4-32). The Sierra Nevada Forest Plan Amendment (SNFPA), 2004, provides guidance to maintain and restore the hydrologic connectivity of streams, meadows, wetlands, and other special aquatic features by identifying roads and trails that intercept, divert, or disrupt natural surface and subsurface flow paths. Additionally the Aquatic Management Strategy (SNFPA 2004 ROD, p. 32) provides broad goals for moving ecosystem conditions towards restoring and maintaining the physical, chemical, and biological integrity of water resources. These goals include maintaining and restoring special aquatic habitats (meadows, fens, and springs), watershed connectivity, watershed condition and stream banks and shorelines. Forest managers are to implement corrective actions where necessary to restore connectivity (SNFPA 2004 ROD, p. 63).

## **Public Involvement**

Public involvement helped shape this proposal. The Lassen National Forest presented the project concept at an open house on September 16<sup>th</sup>, 2015. Feedback from interested stakeholders received during and after the event was used to help form a proposed action that best meets the need for action.

## Purpose and Need

### Existing Condition

The High Lakes area is used for recreation by diverse user-groups, and has become a popular area for Off Highway Vehicles (OHV) enthusiasts. Use has increased during the last four decades since the first OHV management plan for the area was signed, and the vehicles have changed, now having much greater capability for traversing rugged terrain.

The High Lakes area receives on average more than 70 inches of precipitation annually. The high precipitation produces extensive surface and subsurface water. There are abundant wetlands and riparian vegetation in the area. Some trails travel through wet areas, adversely affecting riparian vegetation, hydrologic connectivity, and contributing to sedimentation of the lakes and their tributaries. Camping in the area is dispersed, and campsites are typically located within riparian areas.

An undeveloped area near the intersection of roads 25N05 and 25N04 is used as a staging and camping area for OHV recreation in High Lakes and as an access point to the Pacific Crest Trail for hikers and equestrian users. Concentrated use without a toilet facility has resulted in sanitation concerns. Accelerated erosion and compaction at this site has also occurred.

### Trail assessments

Trail condition assessments conducted in 2006 and 2014 identified five trail segments that are impacting meadows and wet areas, resulting in impaired hydrologic function and sediment delivery to streams and lakes. Some existing stream crossings are eroding and in poor condition. Regular use has resulted in deep rutting, over-widened trails, and trail braiding. Several trail segments travel through sensitive wet areas (Figures 2 – 5). Relocation or extensive trail reconstruction out of these wet areas cannot be performed with routine maintenance.

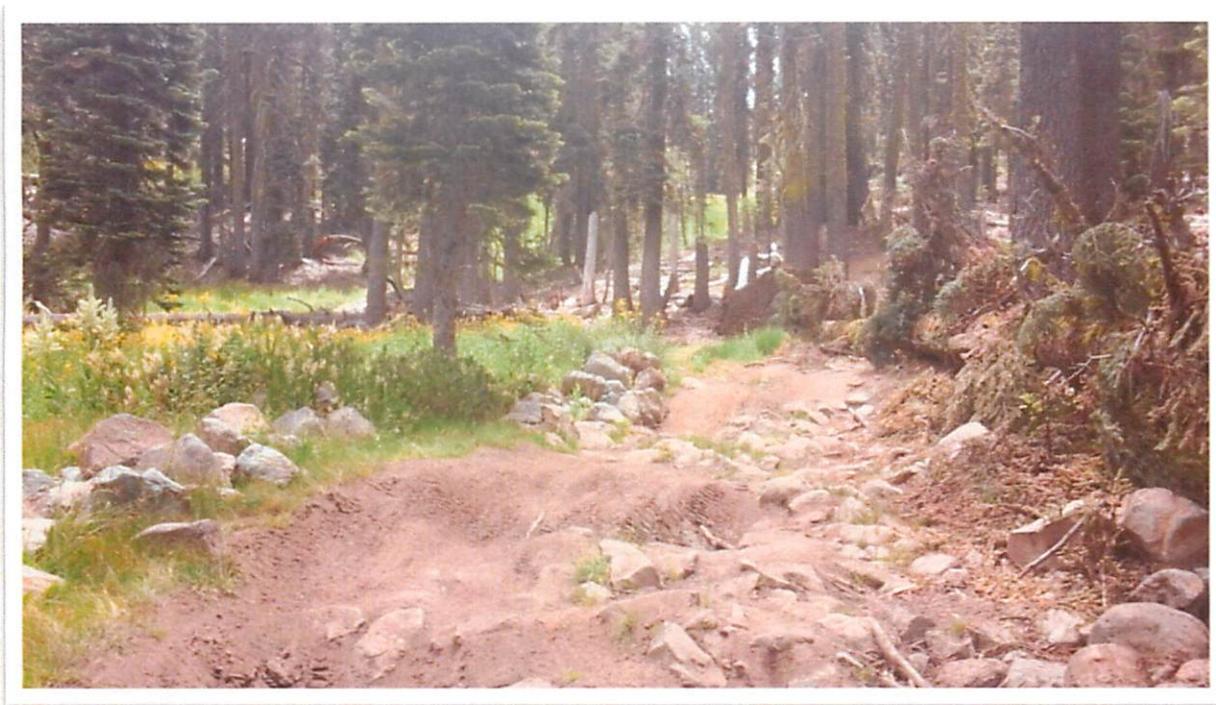
Figure 2 Segment of Trail 605 proposed for re-route



Figure 2 shows a rutted crossing at the upper end of a wet meadow on Trail 605. Some users have driven off the trail to avoid deep and slippery ruts. The user created route can be seen in the upper left of the image. A need exists to restore degraded trail segments impacting riparian areas. Direction is to re-route authorized system trails out of riparian areas when feasible. If the riparian areas cannot be avoided, the trail should be designed to withstand projected use while maintaining integrity of the riparian area. User created trails need to be blocked and stabilized or rehabilitated.

Three segments on Trail 611 were identified in need of treatment. A section of Trail 611 that travels along the edge of a steep stringer meadow is shown in Figure 3. This segment of trail needs to be re-located to a drier, non-riparian site and the current segment decommissioned. The proposed re-route (611-RR1) would place the trail in upland vegetation seen to the right in Figure 3. Trail segment 611-RR2 travels through a small meadow. Trail segment 611-RR3 borders a small meadow and has drainage and erosion issues. A need for action to mitigate these resource impacts exists. Viable re-routes for these trail segments to move away from the affected riparian areas were identified.

**Figure 3 Trail 611 segment proposed for re-route 611-RR1 located on edge of meadow**



Trail 613 traverses the western edge of both Long and Campbell Lakes. Much of the trail travels through wet meadow. The scenery traveled by this trail is extremely important to the OHV users visiting High Lakes. A need exists to protect water resources and hydrologic function of the meadows while preserving the quality experience of this trail. The trail in foreground in Figure 4 shows drainage issues on the trail needing water control measures and a section needing restoration of hydrologic connectivity in the distance. A segment of Trail 613 that lies between Campbell and Long Lakes parallels an unnamed perennial creek within the creek's resource conservation area (RCA) and has a stream crossing in very poor condition above Long Lake. This segment is a chronic source of sediment to the stream and lake. The most viable solution to the problem is to reroute and decommission this segment.

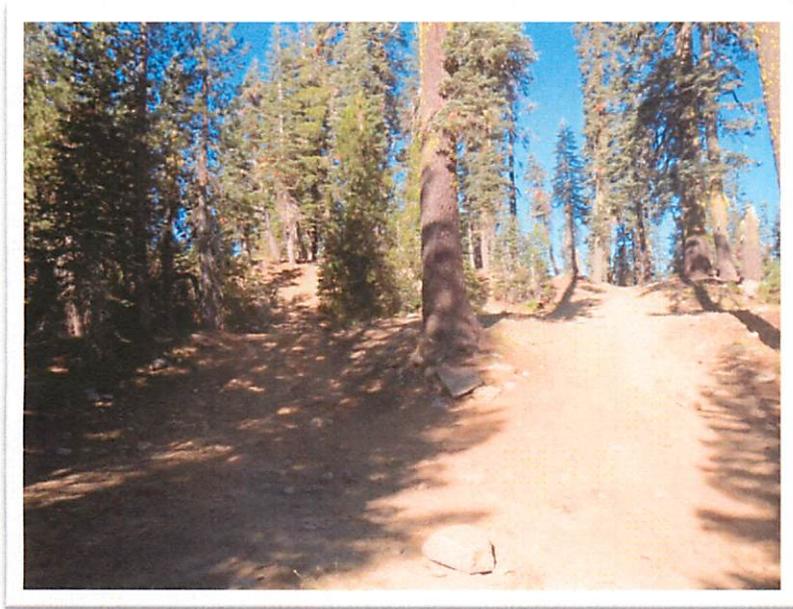
**Figure 4 Segment of Trail 613 along Long Lake needing water control measures**



**Dispersed recreation areas**

Although off-trail use is prohibited, users have created an unauthorized play area consisting of multiple user created trails, currently one acre in size, at the south end of Long Lake that is highly compacted and devoid of vegetation within the RCA. Accelerated erosion from this play area is contributing sediment to Long Lake. The play area needs to be closed and stabilized to reestablish ground cover and reduce accelerated erosion. Steep user created trails within the play area are shown in Figure 5.

**Figure 5 Portion of play area near Long Lake needing stabilization**



Motorized use in the dispersed campsites has reduced vegetation and increased compaction in riparian areas as shown in Figure 6. Trails accessing camping areas have concentrated runoff and directed the flow into campsites. These factors have contributed to increased erosion and sedimentation. Campfire rings are located in wet meadows bordering Long and Campbell Lakes and are flooded at times. These fire rings need to be re-located farther from the lakes.

**Figure 6 Fire ring poorly located next to Long Lake**



Many campsites in the area are large and devoid of ground cover and vegetation. Long-term use and lack of maintenance has allowed these sites to increase in size and encroach on riparian vegetation. The lack of ground cover combined with compaction has accelerated erosion and increased sedimentation in nearby lakes. Deferred maintenance of trails accessing the site has resulted in concentrated runoff within the campsites as shown in Figure 7. Maintenance of many dispersed campsites in the High Lakes is needed to sustain resources and use of the sites.

**Figure 7 Example of dispersed campsite needing mitigation**



## Staging area

At present, the impacted area used for staging at the intersection of Forest roads 25N05 and 25N04 is undeveloped and unmanaged. It encompasses approximately two acres which are denuded of vegetation, severely compacted, and a source of erosion and sedimentation (Figure 8). Off-road vehicle use and camping in the vicinity is resulting in new impacted areas including a small meadow at the road intersection. During wet weather, the ground at the staging area becomes exceedingly soft and muddy, and continual use by motorized traffic causes severe erosion and rutting. There are currently no toilet facilities at this location and human waste is locally concentrated.

The area is used for both camping and staging for access to the High Lakes Area and nearby PCT. Several factors have caused increased use in this area including greater numbers of OHV enthusiasts and decreased use of camping in southern High Lakes because the Storrie Fire burned through popular camping areas.

Provision of a developed campground, staging area, trailhead parking, and sanitation facility would address the need for drainage and stabilization of this site, sanitation issues, adequate parking and staging. Providing the facilities to accommodate the existing use would discourage spread of impacts to other areas and address the need to mitigate currently degraded areas.

**Figure 8 Proposed High Lakes Staging Area location**



## Proposed Action

The following proposed actions for the High Lakes Project are designed to be consistent with the 1992 *Lassen National Forest Land and Resource Management Plan (LRMP)* and 1993 *Record of Decision (ROD)*, as amended by the *Sierra Nevada Forest Plan Amendment (SNFPA) Final Environmental Impact Statement (FEIS)* and *ROD (2004)*, and the *Sierra Nevada Forests Management Indicator Species Amendment (MIS) FEIS* and *ROD (2007)*, and the *LNF Motorized Travel Management ROD (2010)*.

The Almanor Ranger District proposes the following actions:

1. Reroute five trail segments out of impacted riparian areas (Figures 9-14). Normal ground disturbance, including excavation that would occur with new trail construction is expected. No unusual circumstances are known at this time.
  - a. Re-route Trail 613 segment between Long and Campbell Lakes in T25N 6E, sec. 30 (Figure 10) The new trail construction proposed is approximately 550 feet in length and located in upland vegetation; approximately 646 feet of the current trail would be decommissioned.
  - b. Re-route Trail 611 (611-RR1) out of stringer meadow in T25N R6E, sec. 30 (Figure 12). The new trail construction proposed is approximately 197 feet in length and located in upland vegetation; approximately 197 feet of the current trail would be decommissioned.
  - c. Re-route Trail 611 (611-RR 2) out of small meadow in T25N R6E, sec. 29 (Figure 11). The new trail construction would be approximately 480 feet in length; approximately 360 feet of the current trail would be decommissioned.
  - d. Re-route Trail 611 (611-RR 3) away from small meadow in T25N R6E, sec. 28 (Figure 11). The new trail construction would be approximately 410 feet in length and located in upland vegetation; approximately 270 feet of the current trail would be decommissioned.
  - e. Re-route Trail 605 out of wetland habitat in T25N R6E Sections 19 and 30 (Figure 12). The new trail construction would be approximately 1,030 feet in length and located in upland vegetation and would include installation of a bottomless arch culvert across a small unnamed perennial stream. This culvert installation would involve minor excavation of stream banks to install. Approximately 924 feet of the current trail and 230 feet of user-created trail would be decommissioned.
  - f. Decommissioned trail segments, equipment staging areas and user-created trails would be restored to natural conditions by blocking access, signage, loosening or scarifying the soil, recontouring, filling deep ruts, seeding or planting with native species, and/or covering with native forest material, and/or mulching with weed-free material.
  - g. Danger trees may be felled from the proposed re-routes, decommissioned trail segments, and dispersed recreation areas to protect workers during implementation. Trees may also be felled for construction of trail re-routes segments. Felled trees would be cut and left for firewood or placed for use as barriers.
2. Construct rock causeways on Trail 613 through wet areas adjacent to Campbell and Long Lakes (Figure 10). The causeway construction would involve shallow excavation work within the trail prism. Approximately 200 feet of causeway would be constructed near Campbell Lake and approximately 270 feet of causeway would be constructed near Long Lake. For a sample design drawing of a trail causeway see attached Figure 15.
3. Restore or improve dispersed camping and recreation areas not meeting best management practices. Actions include placement of barriers, erosion control measures, reestablishment of natural vegetation, and tillage.
  - a. Restore an unauthorized play area located on the southeast edge of Long Lake near the dam.
  - b. Restore a small meadow located at the intersection of 25N05 and 24N04 adjacent to the proposed staging area (Figure 14).
  - c. Implement best management practices in dispersed campsites by controlling vehicle access within the camping area and installing erosion prevention measures.
4. Move three poorly sited camp fire rings that are close to Campbell and Long Lakes, and one campfire ring from the Northeast end of Long Lake that would no longer be accessible by OHV due to a proposed re-route. Campfire rings would remain in the general vicinity of the lakes.
5. Develop a trailhead with overnight camping at the intersection of Forest roads 25N05 and 25N04 (Figures 13, 14). The facility design would meet the Architectural Barriers Act (ABA) and Forest Service Outdoor Recreation Accessibility Guidelines (FSORAG) design standards.

- a. Parking for day and overnight use would be provided at the High Lakes staging area.
- b. Campsites would be designed to accommodate tent campers, vehicle campers, and horse campers. The preliminary design includes three horse campsites and nine OHV sites. A campfire ring would be placed at each campsite.
- c. A vault toilet for public use would be constructed.
- d. Gravel surfacing of parking and high use areas including campsites would be completed. Barriers would be used to clearly denote vehicular access.
- e. Season of operation would typically be from mid-June through October annually.
- f. Danger trees would be felled and left for firewood, placed for use as barriers, or removed as part of commercial timber sale. Slash and any understory vegetation removed would be piled and burned. Usable firewood would be cut, stacked, and made available to campers.
- g. Staging area would be designed to minimize number of felled trees other than danger trees.
- h. Undeveloped, degraded areas would be restored and stabilized. Related actions could include placement of barriers, signage, planting of natural vegetation, reestablishment of natural drainage, and tillage.

## Integrated Design Features

### Soil and Water Resources

Lands adjacent to streams, meadows, and other wetlands on the forest are land allocations referred to as Riparian Conservation Areas (RCAs). RCAs are determined based on the horizontal distance (ft.) from the feature’s edge. The RCA for Perennial and intermittent surface water features that intersect High Lakes Project proposed actions are listed in Table 1. Actions within these areas are designed to ensure that riparian conservation objectives (RCOs) are met. In addition to the following project-specific restrictions on proposed actions (Table 1), all applicable BMPs would be implemented.

**Table 1 Riparian Conservation Areas (RCAs) widths (feet) by type and the associated surface water features in proximity to proposed actions of the High Lakes Project.**

Riparian Conservation Area (RCA) Type	RCA Width (ft.)	Surface Water Features
Perennial Streams	300	Unnamed Perennial Streams (2)
Seasonally Flowing Streams (Intermittent and Ephemeral)	150	Unnamed Intermittent Stream (2)
Special Aquatic Features (includes lakes, meadows, wetlands and springs)	300	Campbell Lake and Long Lake

- 1. Soil quality standards and appropriate best management practices (BMP) that protect forest soils would be implemented for the entire project. Standards are described in Lassen National Forest Land and Resource Management Plan (LRMP, 1993), the 2004 Sierra Nevada Framework Plan Amendment ROD (2004), and the USFS Region 5 Soil Management Supplement No. 2500-2012-1 (2012). BMPs are described in the USFS Region 5 Water Quality Management Handbook Amendment No. 2509.22-2011-1 (2011).

2. Ground disturbing activities would occur from about May 1 to about October 15 to avoid the period of highest rainfall, stream flows, and erosion potential. During periods of inclement weather, operations would be shut down until stream flows are sufficiently low and soil/channel conditions are sufficiently dry and stable to allow construction to continue without the threat of substantial soil compaction, erosion, sedimentation, or offsite sediment transport.
3. Staging of materials and equipment will be limited to existing disturbed areas outside riparian conservation areas where soils are already compacted and vegetation has been cleared. No new disturbance will be created for staging and stockpile areas. After project completion, these areas would be scarified, seeded, and mulched.
4. During rain events or over winter, straw wattles, silt fences, or hay bales will be installed around the base of temporary stockpiles to intercept runoff and sediment draining from the stockpiles. If necessary, the stockpiles will be further stabilized by mulching them with available forest materials or an appropriate geotextile material. All spoils not used during construction will be hauled to a designated location.
5. Appropriate erosion and sediment control BMPs will be applied to all disturbed ground during temporary construction delays caused by inclement weather or other circumstances. Measures would vary with conditions, but are likely to include (1) placement of readily available mulch materials (e.g., pine needles, branches, coarse woody debris) and/or imported mulch materials (e.g., certified weed-free rice straw) to protect disturbed surfaces from raindrop impact, reduce runoff velocity, and reduce erosion; and/or (2) installation of straw wattles, silt fences, and/or hay bales to reduce runoff velocity and intercept sediment; and/or (3) installation of temporary water controls such as waterbars or rolling dips.
6. Soils lacking adequate ground cover because of disturbances caused by the proposed action would be mulched with available forest materials, such as pine needles, tree bark, and branches, or with imported mulch, such as certified weed-free straw. Areas denuded during construction will be actively revegetated with appropriate native plant species using materials (i.e., seed, transplant plugs, pole cuttings) collected from local sources.
7. Ground disturbance would be minimized and confined to the existing or proposed trail prism, and where restoration from user created trails is needed. All disturbed areas would be mulched with native material or weed-free straw (e.g., rice straw) and seeded with native grass species. During periods of inclement weather, excavation sites would have perimeter containment installed around the site's lower perimeter to contain any eroded material. Native shrubs such as willows may be planted if stream channel or bank stability concerns are identified.
8. Stream banks adjacent to and/or affected by the proposed re-routes, decommissioned trail segments, and trail reconstruction in meadows will be stabilized and protected from erosion using a combination of structural and biotechnical methods. The specific methods used will vary depending on site conditions, but would likely include one or more of the following: adjustment of stream bank slopes; installation of rock slope protection (riprap); installation of biodegradable erosion control blankets; installation of willow wattles (live fascines); and/or the use of pole cuttings, and seed collected from local sources to reestablish native stream zone vegetation.
9. The goal during in-channel excavation is zero discharge. Wherever possible activities would be delayed until flow has ceased or is at lowest flow.
10. Water drafting would occur from Campbell, Long, and Mud Lakes for work within the High Lakes area. Drafting equipment would locating on existing trails and disperse campsites that permit vehicle access. All drafting equipment would utilize appropriate screening devices and use pumps with a low entry velocity to minimize the impact to aquatic organisms. A hydrologist and/or fisheries biologist would monitor and approve the location, amount of water, recommend any site mitigations if needed, and other site-specific constraints of any water drafting sites.
11. All equipment refueling and maintenance activities will occur outside RCAs to minimize the potential to adversely affect water quality and minimize risk to aquatic species.
12. Wastes and petroleum products used during construction will be collected and removed from the project site in accordance with the Resource Conservation and Recovery Act regulations and federal Occupational Safety and Health Administration standards.

13. There would be no crossing of stream channels by mechanical equipment except on existing or newly constructed motorized trails.

### **Aquatic Resources**

14. Tightly woven fiber netting or similar material will not be used for erosion control or other purposes within suitable habitat for the Sierra Nevada yellow-legged frogs.
15. If work is completed within flowing watercourses, large mesh, non-plastic mono-filament nets would be placed above and below the area to prevent aquatic organisms from entering the project area during implementation. Nets would be removed from the watercourse following project implementation. Net selection will be made so there is no chance of entangling or trapping Sierra Nevada yellow-legged frogs.
16. A fisheries biologist will visit the project areas prior to implementation to determine the presence/absence of Sierra Nevada yellow-legged frogs.
17. If Sierra Nevada yellow-legged frogs are observed during project construction location activities will be stopped until a Forest Service or Service-approved biologist has assessed the situation and determined a course of action.

### **Botany**

#### **Threatened, Endangered, Sensitive (TES) Plant Species**

18. New occurrences of Threatened, Endangered, or Sensitive (TES) plant species discovered before or during ground-disturbing activities would be protected through flag-and-avoid methods.

#### **Invasive Species**

19. All off-road equipment would be weed-free prior to entering the Forest. Staging of equipment would be done in weed-free areas.
20. New small infestations identified during project implementation would be evaluated and treated according to the species present and project constraints and avoided by project activities.
21. Post-project monitoring for implementation and effectiveness of weed treatments and control of new infestations would be conducted as soon as possible and for a period of two years after completion of the project.
22. If project implementation calls for mulches or fills, they would be certified weed-free.
23. Revegetation activities associated with restoration actions would utilize native plant materials and site-appropriate species.

### **Fuels**

24. Piles would not be placed in a location that would result in the mortality of surrounding trees when piles are ignited.
25. All pile burning would be completed under an approved prescribed burn plan.
26. All burning of hand piles would be in compliance with California Ambient Air Quality Standards (CAAQS).

### **Recreation**

27. During implementation activities, routes and campsites not directly involved in construction would be left open to the public and free of construction debris and materials.
28. Post signs at all entrance points on NFS lands to the High Lakes as well as at the junction of FS road 25N05 and Humbug Summit and junction of 25N05 and Concow Road (FS road 25N04) advising public of project activities and start/end dates and times.
29. Keep FS road 25N04 that accesses the staging area and serves as a primary ingress to the High Lakes passable at all times.

30. Restrict equipment operations in the High Lakes staging area to the hours of 8 AM to 7 PM.
31. At least 30 days in advance of operations, notify the public as well as the Lotts Lake Homeowner's Association of the expected operations and duration.
32. At least 30 days in advance of operations, notify special use permit holders operating in the project vicinity. Work with existing permit holders on scheduling project implementation activities to minimize user conflicts.

### **Silviculture**

33. Cut stumps of live conifers with a 14-inch stump diameter or larger would be treated with an EPA-approved borate compound which is registered in California for the prevention of annosum root disease. No EPA-approved borate would be applied within 25 feet of known Sensitive and Special Interest Plants or within 25 feet of live streams and meadow/wetlands.
34. All sugar pine and western white pine identified as rust resistant or as a candidate for rust resistance would be protected.
35. No felling or skidding operations would be allowed from April 1 through June 30 to reduce damage to true fir stands when sap is flowing and bark is loose.
36. No danger tree would be felled unless it meets the danger tree guidelines described in "Hazard Tree Guidelines for Forest Service Facilities and Roads in the Pacific Southwest Region" (Report #RO-12-01, April 2012). Potential danger trees would be evaluated and rated for danger levels and designated for harvest or felling only by qualified persons. A "qualified person" is described as one who has knowledge, training, and experience in identifying danger trees.

### **Transportation**

37. All unpaved roads used for hauling materials would receive dust abatement, grading, and routine maintenance of roadway drainage structures.
38. A surface replacement deposit would be required on all surfaced NFS roads used for hauling commercial materials.
39. Any drainage structure removed and/or damaged during hauling of materials and/or equipment will be replaced after project is complete and before a winter shutdown.
40. Warning signage would be placed along haul routes meeting Manual of Uniform Traffic Control Devices (MUTCD) standards during hauling operations.

### **Wildlife**

#### **American Marten**

41. If a marten den site is identified, a 100 acre buffer consisting of the highest quality habitat in a compact arrangement would be placed around the den site. A marten LOP from February 15 through July 31 would be placed around marten den sites. The LOP may be waived if the wildlife biologist determines that the specific action is unlikely to result in breeding disturbance considering the intensity, duration, timing, and specific location.

#### **Pacific Fisher**

42. If a fisher den site is identified within the project area, a 700 acre Limited Operating Period (LOP) buffer (SNFPA 2004, P. 39) consisting of the highest quality habitat in a compact arrangement would be placed around the den site. The limited operating period (LOP) would be from March 1 through June 30 (SNFPA 2004, p 61) for vegetation disturbance. The LOP may be waived if the wildlife biologist determines that the action is unlikely to result in breeding disturbance considering the intensity, duration, timing, and specific location.

### **Willow Flycatcher**

43. An LOP from May 1st to August 15th would be established for areas with suitable Willow Flycatcher nesting habitat within .25 miles of ground-disturbing activity, unless surveys indicate there is no nesting occurring.

### **Snags and Down Logs**

44. Snags and live trees with existing wildlife use would not be disturbed or removed, except for danger trees that need to be felled. Examples of wildlife use include large stick nests, large or small cavities, or woodpecker excavations.
45. Down logs a minimum of 12 inches in diameter and 6 feet in length would be retained to serve as wildlife habitat. Logs may be moved within the area to accomplish project objectives.

### **Heritage Resources**

46. Federal laws, regulations and programmatic agreements between the Forest Service and the Office of Historic Preservation for the protection of cultural resources would be followed. Historic properties within the High Lakes Motorized Trail Reroutes and Staging Area Improvement project area of potential effect would be protected during project implementation utilizing the following measures.
47. Cultural resources eligible or potentially eligible for listing on the National Register of Historic Places (NRHP) located within or adjacent to proposed trail reroutes and the staging area shall be identified on the ground using flagging or permanent tags. No project activities that compromise NRHP values shall occur within site boundaries.
48. NRHP eligible cultural resources located within the project area of potential effect, but not in close proximity to identified treatment areas shall be protected from all indirect effects caused by project related activities such as staging equipment, vehicles or materials within site boundaries. The Forest Service project manager will be apprised of all site locations to ensure protection from direct as well as indirect effects.
49. Linear sites such as historic ditches shall only be crossed by proposed trail reroutes in already disturbed ditch segments. All crossings shall be made perpendicular to the alignment and designated by heritage personnel.
50. Project manager shall walk historic property boundaries located within or near activity areas with equipment operator before project implementation to insure protection.
51. Cultural resources located within or adjacent to treatment areas or trail reroutes shall be monitored during and after project completion.
52. If cultural resources are identified during project implementation (unanticipated discovery) all work will cease immediately in that area until the situation is reviewed and an assessment and mitigation plan instituted to insure protection of the site.

### **Decision Framework**

The Responsible Official for this proposed project is the District Ranger of the ALRD. The decision to be made is whether to implement this project as proposed, as modified to address any unresolved issues, or not at all.

Figure 9 Topographic map of proposed High Lakes trail re-routes

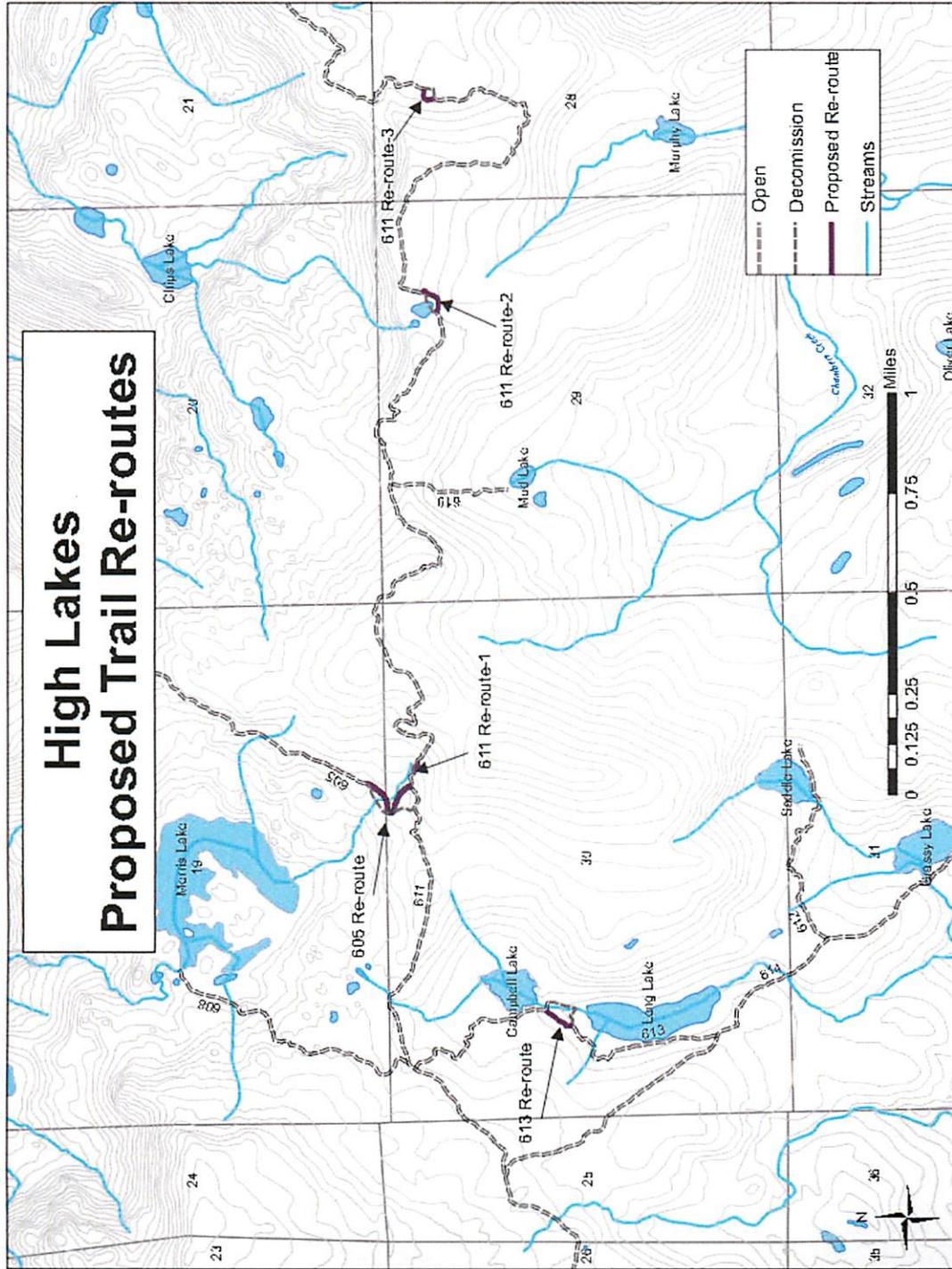


Figure 10 Proposed re-route of Trail 613 and restoration area near Long Lake dam

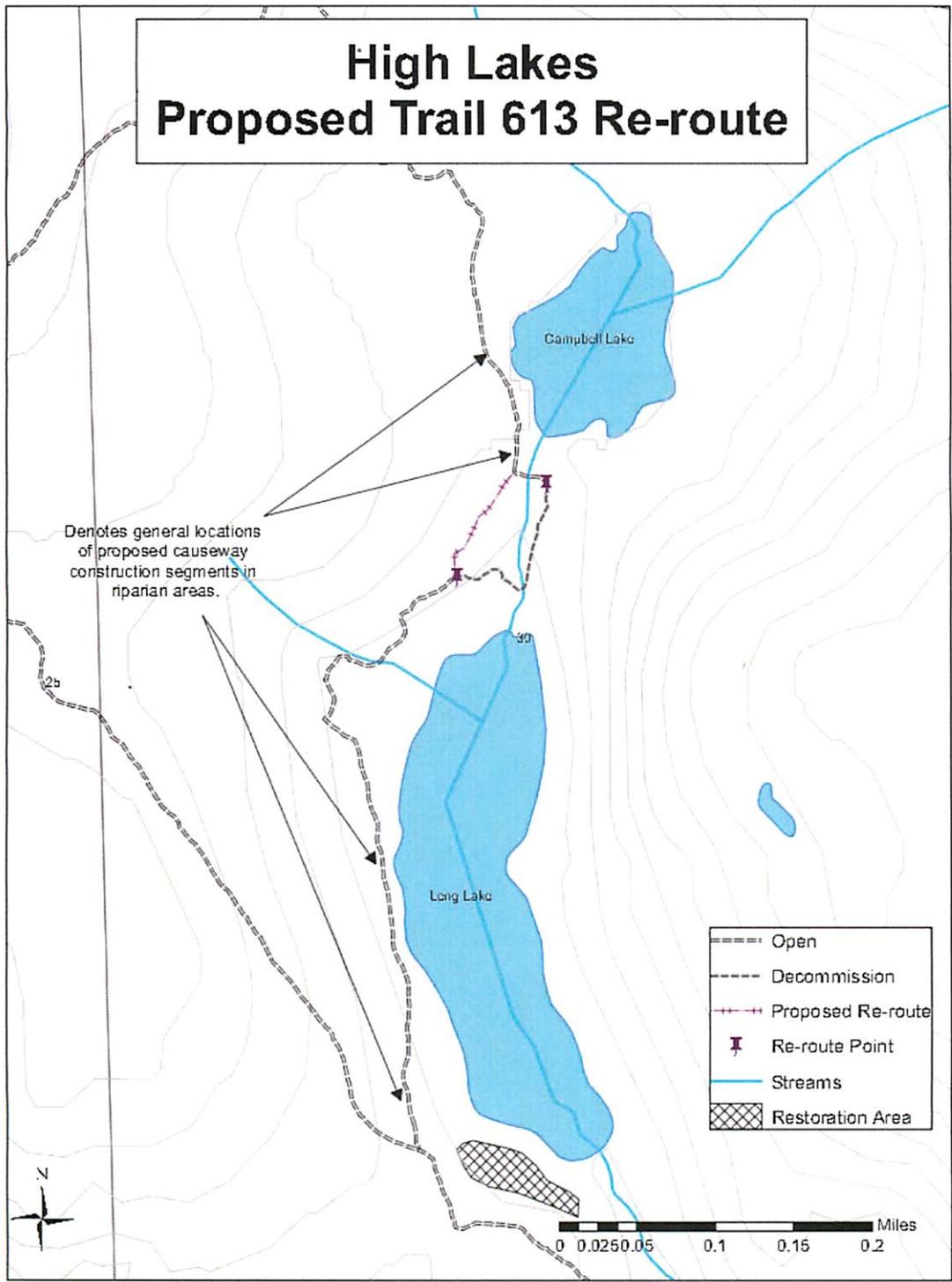


Figure 11 Topographic map of two re-routes proposed on Trail 611

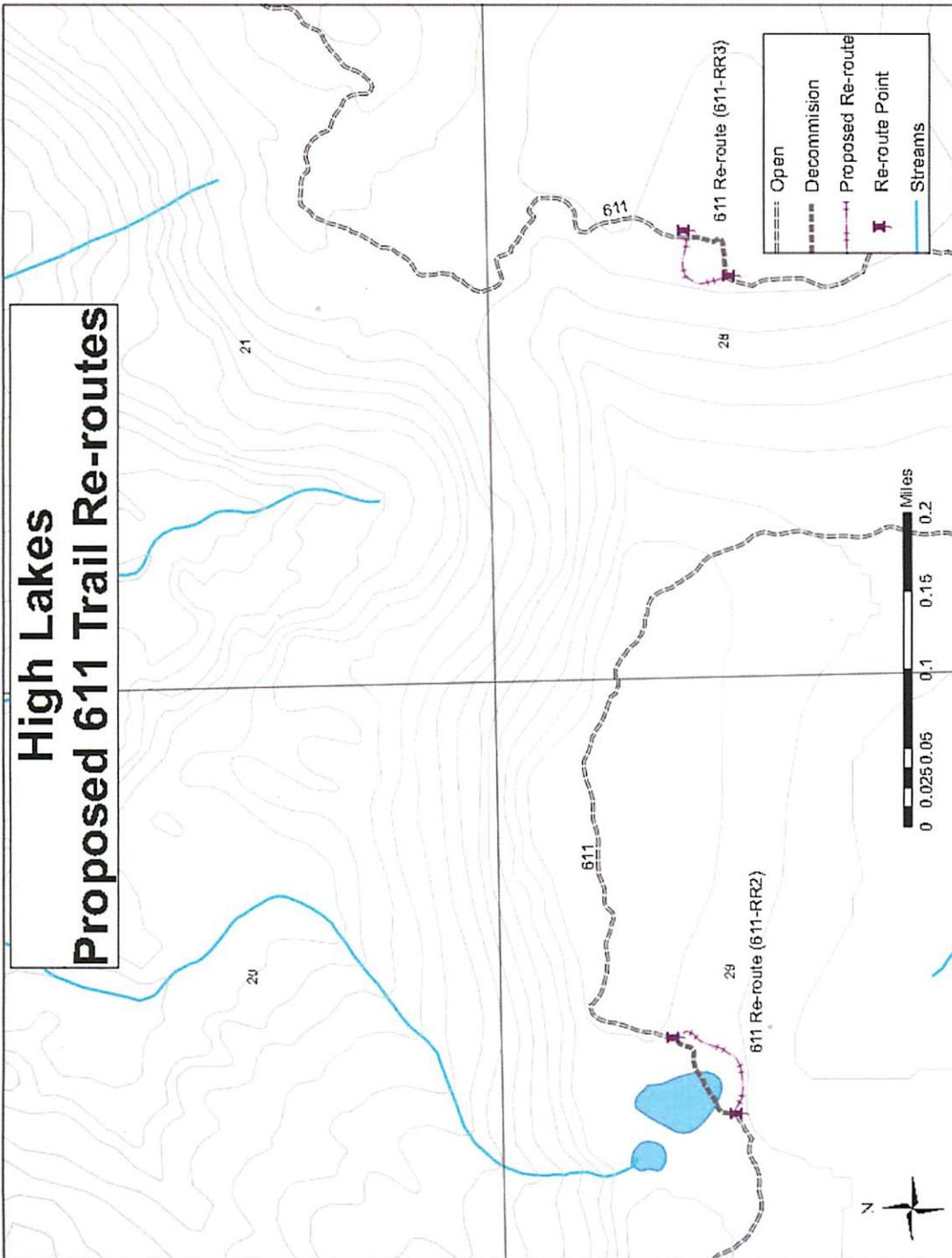


Figure 12 Topographic map of proposed re-routes on Trails 605 and 611

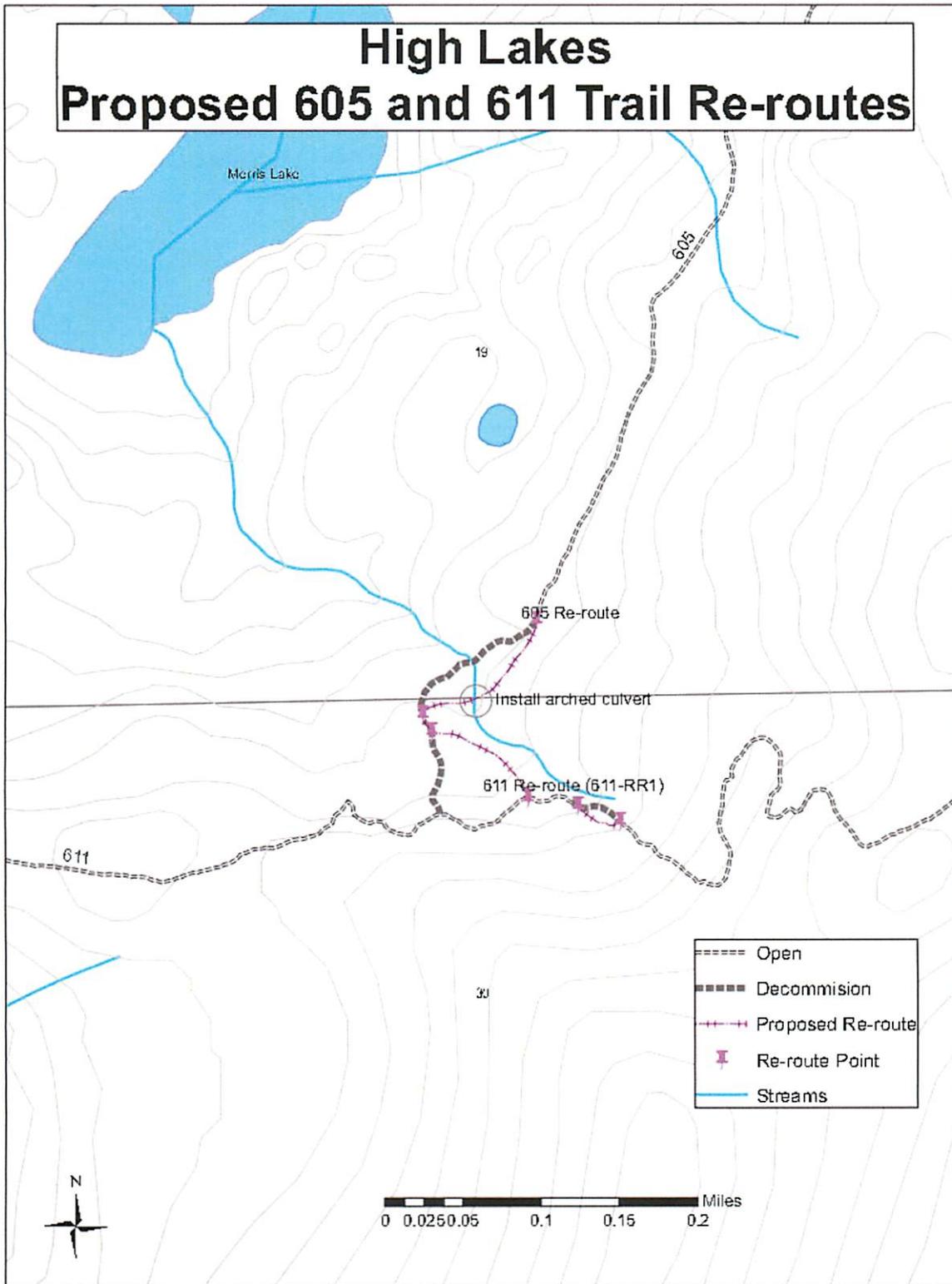


Figure 13 High Lakes Staging Area Vicinity Map

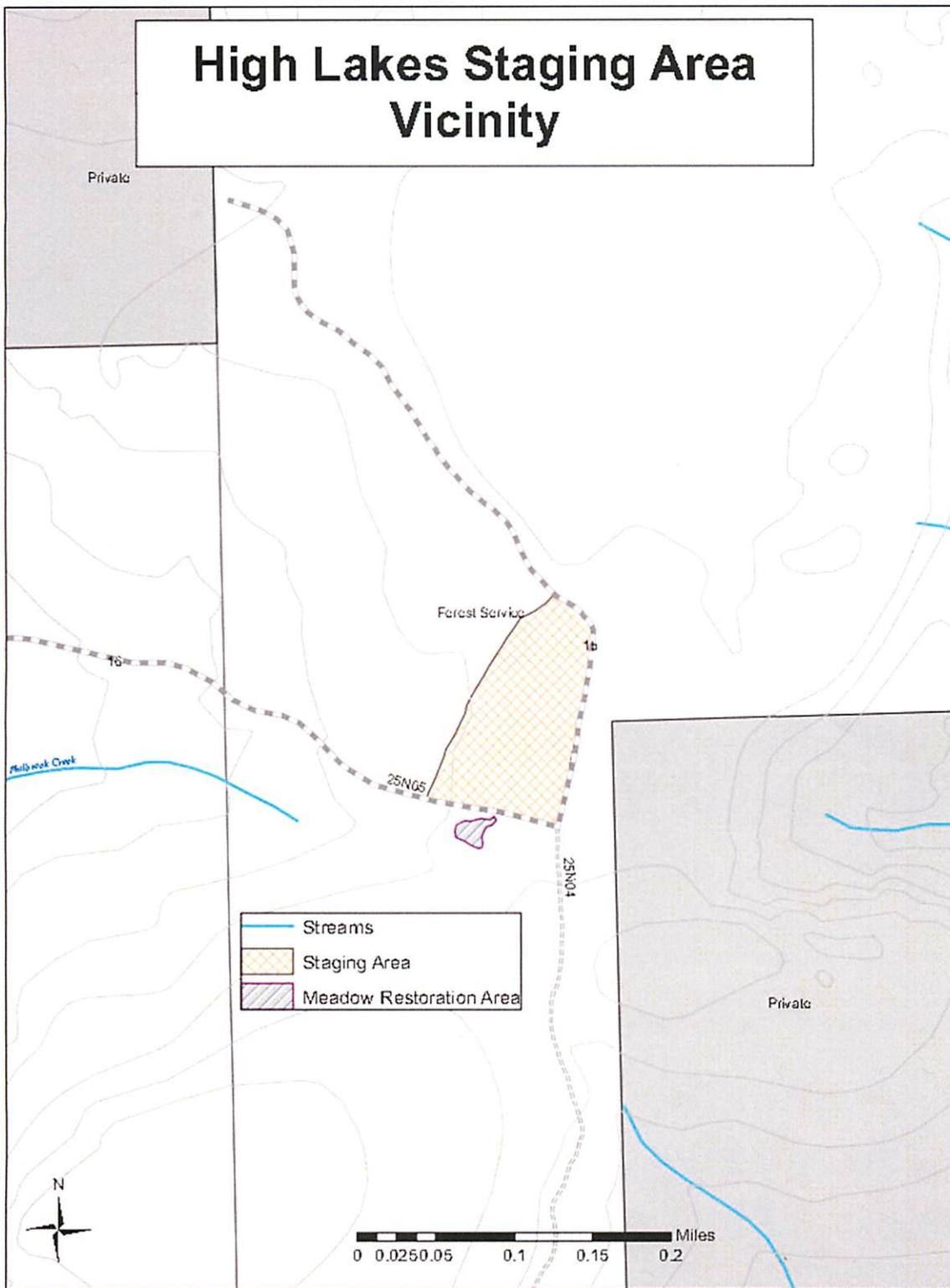


Figure14 Conceptual Design for High Lakes Staging Area

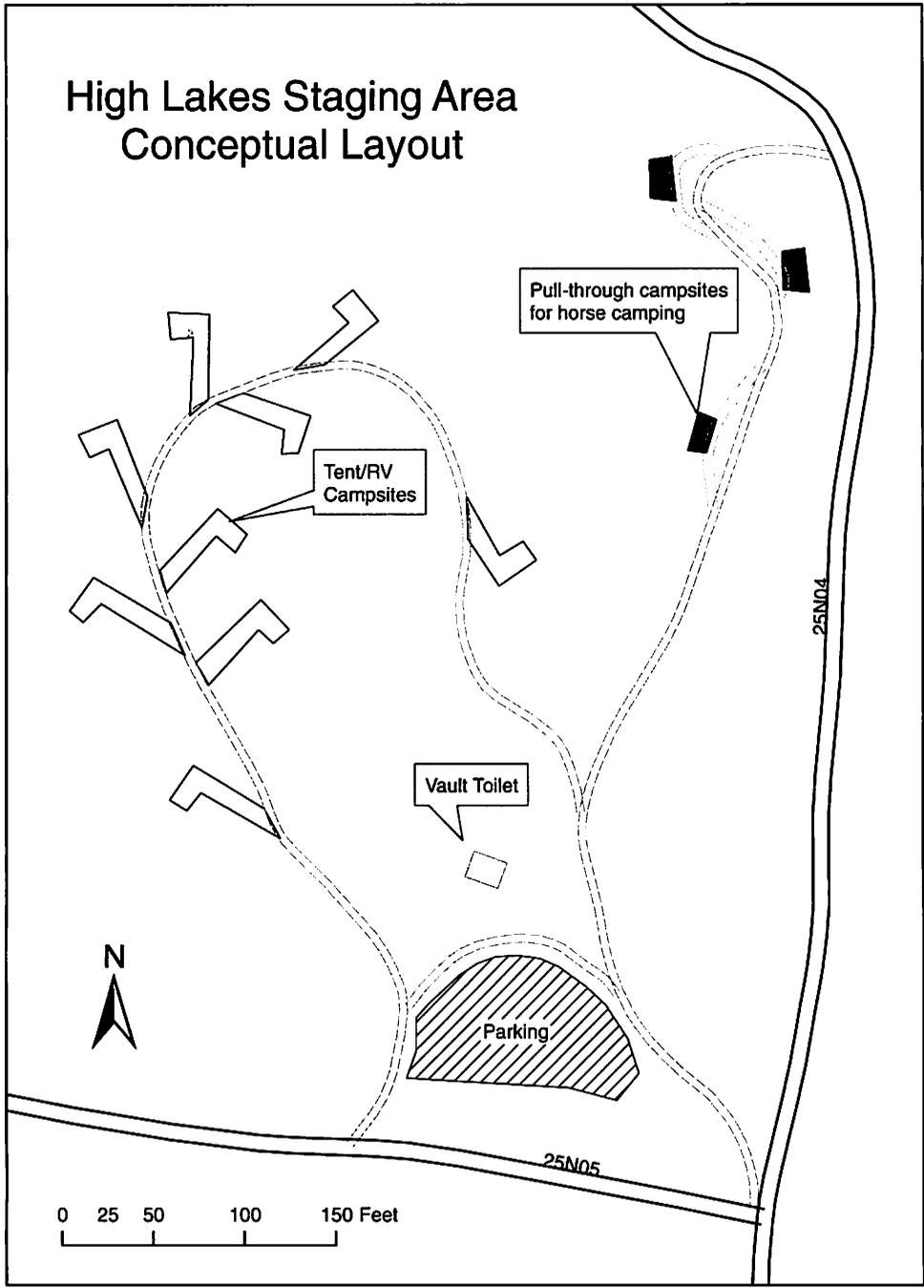


Figure 15 Example drawing of a trail causeway design

