Part 2: Strategies

This part of the Forest Plan sets forth strategies and objectives for achieving or maintaining the desired conditions for the LTBMU. Program strategies embody the general approach that the responsible official will use to achieve desired conditions for each program area. Program strategies convey a sense of priority and a focus for objectives.

Objectives are concise, measurable, and time-specific statement of a desired rate of progress toward a desired condition or conditions. Objectives are consistent with the identified strategies, and are a means of measuring progress toward achieving or maintaining desired conditions.

2.1 Ecological Sustainability

Physical Resources Program Strategy

The close relationships among physical resources make it difficult to separate program strategies and objectives by resource. Soil and air quality objectives also support water quality. Preventing erosion not only maintains the nutrient-rich topsoil needed for plant growth, but also prevents sediment deposition in water bodies. Maintaining soil porosity is important for plant growth, but reduced porosity can also indirectly affect water quality – when the amount of water soil can accept is decreased, it runs off on the surface, increasing the potential for erosion and subsequent sedimentation. When pollutants in the air are deposited in water, water quality is compromised.

Air Quality

- Utilize smoke dispersion models for prescribed fire projects greater than 250 acres to ensure smoke impacts are minimized.
- Wherever feasible, apply Emission Reduction Techniques (ERTs) to reduce emissions and control greenhouse gas emissions from burn activities on NFS lands. Consider non-burning alternatives in addition to ERTs wherever possible to reduce and prevent smoke intrusion into communities. Manage emissions from on-forest activities to avoid elevating ambient air concentrations to levels that result in non-attainment of standards for the Lake Tahoe Basin.
- For Forest Service operated combustion engines, utilize alternative fuels when technically and fiscally feasible, for purposes of reducing greenhouse gas emissions and ozone precursor emissions.
- Consider the Regional Haze State Implementation Plan targets for the Class 1 Airshed over Desolation Wilderness during project planning.

Water Quality and Soil Quality

- Implement PSW Region Best Management Practices (BMPs) and National Core BMPs to protect and conserve physical resources.
- Manage activities within SEZs in a manner that is consistent with the protection of SEZ functions and values and protection of beneficial uses of water bodies.
- Participate in achieving the program goals for the Integrated Water Quality Management Strategy for achievement of the Lake Tahoe TMDL.
- Ensure that identified beneficial uses for water bodies are adequately protected. Identify the specific beneficial uses for the project area, and water quality goals from the Regional Basin Plan.
- Disperse runoff to reduce velocity, and increase infiltration to enhance treatment of nutrients and contaminants. Stabilize soil to prevent accelerated (human-caused) erosion of topsoil and subsequent sedimentation and loss of soil productivity. Utilize NFS lands for treatment of urban runoff where appropriate.
- Reduce the watershed impacts resulting from land coverage. Minimize the development of new hard and soft coverage from forest management activities. Seek opportunities to reduce coverage through site design when retrofitting, improving, or rebuilding at existing developed sites.
- Protect natural functioning of soil resources and sustain or improve long-term soil productivity in areas dedicated to growing vegetation. Where past management activities have reduced soil productivity below Forest Service regional or national guidelines, improve soil productivity by respreading displaced topsoil, using tillage to increase porosity, increasing nutrient supplies through the addition of appropriate amendments, or increasing nutrients and water-holding capacity through the addition of organic matter.

Water Use and Development

- Where feasible, arrange for and secure water rights for existing and foreseeable future Forest Service consumptive uses, including administrative, recreation, erosion control, and evaporative losses.
- Where feasible, obtain water availability assurances for existing and foreseeable future non-consumptive uses, including minimum instream flows and reservoir level maintenance for fish, wildlife, boating, swimming, and aesthetics.
- Manage dams to ensure adequate flows for downstream uses, including supporting aquatic habitats. Consider opportunities for removal of dams.
- Utilize a geologic and geotechnical analysis if it is not possible to determine from existing data the magnitude of potential adverse effects on the groundwater table of a groundwater development project.
- Use plants which do not require long-term irrigation in re-vegetation and landscaping projects in order to conserve water.

Natural Hazards

- Evaluate natural hazards before developing or permitting new uses or facilities on NFS lands.

Watershed Restoration

- Implement restoration projects in high priority watersheds identified by LRWQCB's total maximum daily load (TMDL) Model for Lake Tahoe, to promote self-sustaining, dynamically stable stream systems, channel stability, and hydrologic function.
- Implement projects identified through National USFS Watershed Condition Assessment Process.
- In general, where stream characteristics are outside the natural range of variability in the area of a proposed project/activity, implement mitigation measures and short-term restoration actions to prevent further declines or cause an upward trend in conditions.
- Reconnect floodplains with stream channels to enhance treatment of nutrients and contaminants, and improve channel geomorphic function to reduce in-channel sediment sources and increase in-channel sediment storage.
- Design projects to maintain and restore the timing, variability, and duration of floodplain inundation and water table elevation in meadows, wetlands, and other special aquatic features. Implement restoration projects to attenuate peak flows and promote water storage in SEZs.
- Maintain or restore: (1) the geomorphic and biological characteristics of special aquatic features, including lakes, meadows, bogs, fens, wetlands, vernal pools, springs; (2) streams, including in-stream flows; and (3) hydrologic connectivity both within and between watersheds to provide for the habitat needs of aquatic-dependent species.
- Identify and implement restoration actions to maintain, restore or enhance water quality and maintain, restore, or enhance habitat for riparian and aquatic species.
- Design projects to maintain and restore the hydrologic connectivity of streams, meadows, wetlands, and other special aquatic features. During project analysis, roads and trails that intercept, divert, or disrupt natural surface and subsurface water flow paths should be identified and corrective actions planned and implemented where necessary to restore connectivity

Physical Resources Objectives

OBJ1. Achieve load reduction targets for upland forest and SEZs identified in the Lake Tahoe TMDL during the life of the plan.

OBJ2. Implement effective BMPs to achieve 95% implementation and effectiveness ratings forest-wide in BMP assessments annually, as determined by the Pacific Southwest Region's Best Management Practices Effectiveness Program.

OBJ3. Maintain an up-to-date inventory of water rights and uses on NFS lands, and meet state requirements for maintaining water rights.

OBJ4. Implement actions to restore geomorphic and habitat function to approximately 5 miles of stream, and 350 acres of floodplain/SEZ by approximately 2016.

For Objectives related to facilities BMP retrofits, see Built Environment section.

Forest Vegetation, Fuels, and Fire Management Program Strategy

By improving, restoring, and maintaining forest health, a more resilient balance of forest stand densities, structure, and species composition will emerge across the landscape, and multiple objectives will be met, including developing and maintaining the habitat needs of wildlife species and enhancing scenic attributes.

The forest health and vegetation management strategy uses differences between current conditions and historic conditions (e.g. Table 2) as an index to measure the departure from, and progress towards desired conditions. Historic reference conditions are based on modeling conducted by Safford and Schmidt (2007). Note that these reference conditions do not necessarily represent targets, but they represent forest structures that are characteristic of pre-Comstock forests in the Lake Tahoe Basin, which were highly disturbance-adapted and disturbance-resilient. When the amount of forest area and vegetation type more closely approximates historical forest structures, forests in the Lake Tahoe Basin will be more resilient to fire, bark beetle-caused tree mortality, drought, and future changes in climate regimes. As new data become available, updated reference conditions may be applied when and where appropriate.

The strategies for the Forest Vegetation and Fuels program are:

- Emphasize prevention in the form of silvicultural (e.g. mechanical treatments, herbicides, etc.) or prescribed fire treatments, resulting in forest stands that are less susceptible to high levels of tree mortality caused by drought, wildfires and bark beetles.
- Implement specific integrated pest management strategies as needed to respond to immediate native or exotic forest insect or disease threats to forest health, which may include removal or treatment of beetle-infested trees, when identified that threaten

developed recreation and administrative sites, and private property, prior to beetle emergence, to reduce the likelihood of further infestation.

- Establish measures to prevent the establishment and spread of invasive plants during project implementation and post-disturbance rehabilitation activities.
- Consider all available technologies and management tools and practices to meet project objectives.
- Vegetation management activities adhere to ecologically-based management strategies and are integrated, ultimately to restore or maintain forest resiliency. For example, forest vegetation treatments around communities (thinning that alters density, structure, and species composition) to restore forest resilience to wildfire also meet the goals of reducing forest stand susceptibility to bark beetle-caused tree mortality.
- Vegetation treatments in montane forests favor Jeffrey pine, sugar pine that is white pine blister rust-resistant, and aspen, species that have become much less common over the last century due to logging and fire exclusion.
- Reforestation strategies incorporate species mix, stocking density, or use of genetically superior or pest resistant planting stock, to restore landscapes and improve adaptability under climate change.
- Revegetation following a disturbance event or management activity first considers hazard tree removal, then the potential for natural regeneration of early seral vegetation, and finally, the need for artificial regeneration and corresponding competing vegetation control measures.
- Forest vegetation treatments, including aspen stand enhancements and riparian area restorations, achieve High Minimum Scenic Stability (MSS) and enhance desired scenic attributes.
- When restoring disturbance regimes such as fire, many forest stands are currently too dense to allow the re-establishment of a frequent-fire regime. In these cases, management techniques such as thinning and prescribed burning are used as surrogates for wildfire and other mortality agents.
- Planned and unplanned ignitions are used where possible to accomplish forest health, wildlife habitat, or other ecosystem restoration objectives.
- The majority of fuels reduction treatment efforts are concentrated in WUIs until initial WUI treatments are completed. WUI maintenance treatments occur as needed.
- Consistent with preserving the recreation resource, trees, tree limbs, or downed woody debris identified as hazardous at developed recreation sites are removed.
- Projects should consider the creation of openings of varying sizes and shapes that retain reserve trees and clumps to produce spatial and structural heterogeneity in forest stands, and should give greater weight to openings from 2 to 7 acres. Forest structure should vary over the landscape in relation to topographic variables of slope, aspect, and slope position.

- Where reforested areas (generally Pacific Southwest Region size classes 0x, 1x, 2x) are included within area treatments, consider designing treatments to also: (1) accelerate the development of key habitat and late seral characteristics, (2) increase stand heterogeneity, (3) promote hardwoods, and (4) reduce risk of loss to wildland fire.
- Preference should be given to reducing stand density and modifying species composition through thinning treatments to prevent/reduce high levels of bark beetle-or other forest pest -caused tree mortality. Preventive measures such as thinning should be used for reducing opportunities for forest pests.
- Vegetation treatments designed to restore aspen should focus on restoring dominance of aspen in the canopy, regenerating and expanding aspen stands, reducing the risk of loss of aspen stands from the landscape, and developing vigorous under-story deciduous tree, shrub, and herbaceous associations and habitats.
- Consider aspen restoration or clone stimulation for each project planning area when aspen occur within vegetation management projects.
- Perpetuate and promote existing late seral stages in each project area and throughout the broader landscape if feasible, with primary emphasis on protecting/enhancing late seral dependent wildlife habitat.

Strategies for the Fire Management program are to:

- Maintain fire suppression capability and preparedness at a level that is appropriate to protect lives, communities, and resources. Protection of human life (firefighter and public safety) is the most important objective during a fire.
- Base fire management strategies and tactics on firefighter and public health and safety, fire cause, current and predicted weather, current and potential fire behavior, fire effects, values to be protected, post-fire tradeoffs, resource availability, cumulative effects of the fire, and cost effectiveness. Strategy and tactics may vary around a fire's perimeter.
- Support attainment of desired conditions for fuels reduction, wildlife habitat, forest health, and ecosystem restoration contained in this Forest Plan through appropriate response to unplanned ignitions. By taking into account the location of ignition, time of year, current and expected weather and burning conditions, fire managers apply the best strategy to mitigate risks to the public and firefighters, meet protection priorities, and meet cultural/natural resource management objectives defined in this Forest Plan
- Respond to mutual threat incidents when requested under a cooperative agreement. Forest Service employees limit fire suppression actions to exterior structure protection measures as described in FSM 5137.
- Consider use of all types of firefighting equipment in fire emergencies when there is threat to human life and property, or where resource value saved is clearly greater than the damage done through the use of such equipment. In other than these conditions, disturbance to soils, stream environment zones, and visual quality are given increased

priority. Cost effectiveness of equipment used is also considered during tactical decision-making.

- Strive to keep fire suppression costs near national historic averages for fires with similar characteristics in comparable areas.
- Continue a fire prevention program that reduces the number of human-caused fires through an aggressive program of public contact, education, outreach, and enforcement.
- Work in cooperation with public agencies, local fire-safe councils, and private citizens to exchange information and assistance throughout all local jurisdictions.
- Use fire retardant according to national and regional policy.

Forest Vegetation and Fuels Management Objectives

The following vegetation management objectives are stepping stones of expected achievement that will move the LTBMU forests toward the desired conditions. To accomplish these objectives two general treatments will guide restoration of forest structure, function and composition in the major forest types:

1) Thinning to move overabundance of closed mid-seral to open mid-seral or accelerate movement from one seral stage to the next.
2) Creating openings that emphasize group selections with reserves that move mid-seral to early-seral.

The amounts of acres by treatment and forest type represent the first small steps in a long-term process aimed at achieving forest restoration goals. Given the focus of current program of work in the WUI, objectives related to these treatments will generally occur in the first 10 years of plan implementation and treatments related to restoring forest type structure, composition, and resiliency will occur in the latter 10 years of plan implementation. These treatments will likely overlap sometime mid-way through plan implementation. Although the approximate accomplishments are annual, we are assuming a best case scenario, which might not occur for a variety of reasons including budget, mill capacity, policy, or other factors.

OBJ5. Reduce surface, ladder and canopy fuels through thinning and fuel reduction treatments on 2,000 acres per year in the WUI.

OBJ6. Prescribed burning of surface fuels in the WUI occur on 1,800 acres per year when possible.

The following objectives will generally occur over the latter 10 years of plan implementation. Specific amounts of acres to be treated by forest type are approximate and represent an optimistic annual level of accomplishment.

White fir – mixed conifer

OBJ7. Create approximately 50 acres of openings from the mid-seral stages to early-seral white fir – mixed conifer type each year over the latter 10 years of plan implementation.

OBJ8. In stands historically dominated by pines, convert white fir-mixed conifer type generally in the early or mid-seral stages to Jeffrey pine by approximately 50 acres per year over the latter 10 years of plan implementation. Retain pines during conversion treatments.

OBJ9. Thin approximately 200 acres of white fir-mixed conifer each year over the latter 10 years of plan implementation to improve resiliency and reduce susceptibility to insects, disease, and drought.

Jeffrey pine

OBJ10. Create approximately 40 acres of openings in the mid-seral stages to shift stands to early-seral Jeffrey pine each year over the latter 10 years of plan implementation, and maintain it as the dominant species. Employ techniques to release early seral pine from competing vegetation if necessary. Post-disturbance event treatments will be used as opportunities to regenerate early seral Jeffrey pine. This objective may be accomplished in coordination with white fir – mixed conifer conversion objective, above.

OBJ11. Thin approximately 250 acres of Jeffrey pine each year over the latter 10 years of plan implementation to improve resiliency and reduce susceptibility to insects, disease, and drought.

Red fir

OBJ12. Create approximately 10 acres of openings in the mid-seral stages to shift stands to early-seral red fir type each year over the latter 10 years of plan implementation. Utilize opportunities for treatment after disturbance events.

OBJ13. Thin approximately 50 acres of red fir each year over the latter 10 years of plan implementation to improve resiliency and reduce susceptibility to insects, disease, and drought.

Aspen

OBJ14. Restore or stimulate regeneration of at least 25 acres of aspen per year.

Biological Resources Program Strategy

Conservation of Habitat and Species Diversity Strategies

- Develop a LTBMU biological (aquatic, botanical, and terrestrial) resources conservation strategy, including a five year action plan.
- T, E, P, C, and FSS species are managed to enhance self-sustaining, well distributed, and well-connected populations and habitats.
- Provide for Lake Tahoe Basin-wide and Region-wide recovery actions for Federal Threatened and Endangered species. Develop, in partnership with other Lake Tahoe Basin entities, a basin-wide management strategy that utilizes well-supported indicators and reference conditions to assess the biological integrity and status and trend of a number of threatened and endangered species, Region 5 sensitive species, TRPA special interest species, and priority invasive species.

- Identify and map areas of high biological diversity, where multiple biological resources occur in the same habitat (e.g. a sensitive fish, TRPA special interest plant, and target wildlife species occur all within 200 meters of each other).
- Collaborate with partners to establish priority locations for maintaining and restoring habitat connectivity and to expand habitat of native species.
- Consider all levels of food web (trophic level) biodiversity (example predator/prey) during project planning and design to help mitigate climate change exposure to individual species and communities (e.g. from changes in phenology and habitat shifts).
- Consider habitat connectivity for species that may be impacted due to climate change by removing or modifying physical impediments to movements.

Aquatic Habitats and Species

- Maintain, enhance, or restore the physical and biological characteristics of aquatic ecosystems.
- Minimize human disturbance that would degrade wetland function and processes.
- Provide for hydrologic and geomorphic processes, such as allowing flood events and associated bedload to pass downstream while providing for maintenance of stream pattern, profile and dimension.
- Ensure that management activities, including fuels reduction actions, within SEZs and SRAs enhance or maintain physical and biological characteristics associated with aquatic- and riparian-dependent species.
- Preserve, restore, or enhance special aquatic features, such as meadows, lakes, ponds, bogs, fens, and wetlands, to provide the ecological conditions and processes needed to recover or enhance the viability of species that rely on these areas.
- Identify and implement restoration actions to maintain, restore or enhance water quality and maintain, restore, or enhance habitat for riparian and aquatic species.
- Protect rare aquatic ecological habitats such as Osgood Swamp, Hell Hole, and Pope Marsh. Enhance these habitats through restoration activities such as the removal of upland vegetation (i.e. conifers, xeric species) and restoring hydrologic function.
- Seek opportunities to remove physical impediments to the movement of aquatic species, or modify physical impediments to allow migration.
- Maintain and restore connectivity of aquatic habitats where barriers to aquatic organism passage have been identified or where natural surface and subsurface water flows are intercepted, diverted, or disrupted in highest priority watersheds that were identified in the 2010 and 2011 aquatic organism passage report (LTBMU).
- Employ natural channel design methods/techniques to restore aquatic habitat, and facilitate upstream or downstream passage for aquatic-dependent species.
- Manage stream reaches and associated habitat to support all life stages of native assemblages by providing aquatic organism passage for all life stages, stream conditions that provide spawning and rearing habitat such as appropriate pool/riffle ratio, substrate and large woody debris, except where not appropriate (e.g. some Urban Forest Parcels).

- Restore aquatic habitat for native non-game fishes in streams that have been identified in the LTBMU five year restoration plan by removing stressors including but not limited to removal of invasive species such as warm-water fish.
- Participate with partner agencies to ensure native nongame fish status is current and accurate. Target to resurvey fish community sampling reaches at a minimum of every 10 years.
- Work collaboratively with partners to assess native non-game fish populations and implement habitat restoration strategies, such as warm-water fish removal.
- Support active restoration for native fishes where field data and other State, Federal, and other local agencies have determined that such species are at high risk of local extirpation.
- Maintain, restore, and/or enhance the ecological function and condition of shorelines, streams, lakes, wetlands (e.g., marshes, fens, springs, seeps, and lagoons), and/or meadows (wet and dry) in unstable or poorly functioning watersheds identified in the Lake Tahoe's Environmental Improvement Program or otherwise specified in species recovery plans.
- Promote actions that increase meadow wetness and diversity of native wetland species (i.e. obligate, facultative-wet).
- Use historical sedimentation regimes as a guide for ecosystem resiliency and/or vulnerability.
- Project activities should maintain or enhance groundwater connectivity in marshes and lagoons to maintain linkage with fluctuations in lake levels.
- Management actions should consider retaining barrier beach and lagoon formations and processes.
- Utilize prescribed fire in aquatic ecosystems where the use of fire is needed to improve habitat or the long-term function of these ecosystems. Ensure that fire intensity and severity (i.e. residence time) are consistent with the natural fire regime for the ecotype.

Terrestrial Habitats and Species

- Maintain, enhance, and/or restore terrestrial habitats to increase the diversity, abundance, and distribution of species and biological communities.
- Design management activities to maintain suitable habitat structure and function following implementation.
- Manage snags and coarse woody debris for wildlife habitat as part of forest health or fuels reduction treatments as well as post-disturbance restoration.
- Seek opportunities to develop and restore species migration corridors for terrestrial species.
- Maintain or restore habitat connectivity where appropriate to improve adaptive capacity. Collaborate with partners to establish priority locations for maintaining and restoring habitat connectivity.

- Maintain, enhance, or restore the physical and biological attributes of habitats where rare plants occur.
- Protect rare terrestrial ecological sites including, but not limited to Freel Peak, through restoration activities including, trail maintenance and signage.
- Develop a conservation assessment for Draba (asterophora var. asterophora and Draba asterophora var. macrocarpa). Ensure that management activities maintain, enhance and or restore rocky habitats that support healthy and sustainable populations of Tahoe draba (Draba asterophora var. asterophora) and long-petaled lewisia (Lewisia longipetala).

Invasive Species Management Strategies (Aquatic and Terrestrial) Strategies

- Treat high priority invasive species and site infestations. Treat medium and low priority infestations as funding and staffing levels allow.
- Work with partners to evaluate the use of all available treatments, including chemical, to treat invasive species.
- Use early detection techniques and implement integrated, scientifically-based, rapid response measures to limit the spread and/or eradicate new invasive species.
- Continue to invest in public education regarding invasive species.

Aquatic Strategies

- Implement aquatic invasive species control and/or eradication measures where there is high potential for effects to native species, ecosystem function and socioeconomic conditions.
- Use prevention measures, such as boat inspection, decontamination, and weed washing stations to reduce the spread or establishment of invasive species.
- Provide boat inspection and decontamination at Meeks and Echo Lake Marinas to prevent the spread of invasive aquatic plants, animals, and diseases from watercraft hulls, trailers, motors, bilges, live wells, and other fishing and/or water skiing equipment or integrate boat ramp operations with the current program established and operated at partner agency off-site inspection stations.
- Establish boat inspection and decontamination at Forest Service boat launch facilities or integrate such prevention activities at off-site stations.
- Establish non-motorized watercraft risk screening for aquatic invasive species at both Forest Service boat launches and other recreation facilities adjacent to Lake Tahoe water bodies, including campgrounds, resorts, and day use areas.
- Cooperate with the multi-agency Lake Tahoe Region Aquatic Invasive Species Program.
- Provide the public information about local Aquatic Invasive Species policies, where watercraft can be inspected and decontaminated prior to entering water bodies of the Lake Tahoe basin, and education regarding principles of cleaning, draining and drying for all watercraft at developed recreation facilities.

- Control existing or new populations of Eurasian milfoil, curly leaf pondweed, invasive warm-water fish, bullfrogs, Asian clam or other newly discovered populations of aquatic invasive species.
- Work with current partners (CDFG, USFWS, UC Berkeley, and Sierra Nevada Aquatic Research Laboratory) and others to document Bd fungus occurrence levels in both existing populations and historic habitats of Sierra Nevada yellow-legged frog.

Terrestrial Strategies

- Cooperate with the multi-agency Lake Tahoe Basin Weed Coordinating Group Program.
- Treat as many acres as feasible of non-native invasive plant species annually.
- In partnership with the Pacific Southwest Research Station's Institute of Forest Genetics Blister Rust Project, identify and collect seed from target tree species that exhibit rust resistance to white pine blister rust (target species are 5-needle pines: sugar pine, western white pine, and whitebark pine).
- All gravel, fill, or other materials are required to be "weed-free." Use onsite, sand, gravel, rock, or organic matter when available and appropriate. Otherwise obtain "weed-free" materials from gravel pits and fill sources that have been surveyed and approved by Nevada Department of Agriculture or by the LTBMU noxious weed coordinator.
- Identify and assess terrestrial wildlife invasive species during project planning. During planned restoration activities, consider terrestrial invasive wildlife.

Protected Activity Centers and Home Range Core Areas (PACs and HRCAs) Strategies

- Minimize potential for creating isolated PACs and HRCAs by maintaining habitat connectivity of the PACs/HRCAs with the adjacent forest.
- Collaborate with partners to establish priority locations for maintaining and restoring spotted owl habitat connectivity.

Species Refuge Areas Strategies

- Work collaboratively with the Tahoe Basin Recovery Implementation Team for LCT to implement the short-term recovery action plan.
- Work collaboratively with partners to identify and implement additional habitat restoration efforts that expand the range of SNYLF within historic habitat throughout the Basin.
- Continue to implement site-specific actions for Tahoe yellow cress in coordination with an interagency team.
- Maintain or enhance habitat connectivity to achieve recovery goals among Species Refuge Areas.

Biological Resources Objectives

Conservation of Habitat and Species Diversity Objectives

OBJ15. Restore a minimum of two fens that are assessed to be at risk of conversion to meadow, based on fen inventory and ranking assessment (California Native Plant Society and LTBMU data) within the life of the Forest Plan.

OBJ16. Restore stream segments with degraded habitat in a minimum of 2 streams using natural channel design methods/techniques to create elements such as large wood and pools in aquatic habitats to maintain or improve biological processes (e.g., expansion of native species populations), biological characteristics (e.g., species composition), physical processes (e.g., erosion and aggradation), and physical characteristics (e.g., channel and over-bank flows) within the life of the Forest Plan. This will provide important aquatic habitat needed to support all life history processes.

OBJ17. Restore a minimum of 1 site to support self-sustaining aquatic populations within the life of the Forest Plan

OBJ18. Within the life of the Forest Plan, maintain or increase vegetation cover in meadows where LTBMU data shows that cover is insufficient.

OBJ19. Identify cave, cave surrogate, and/or cliff sites that are important to the survival, migration, reproduction, and dispersal of dependent species where removal of human impacts will improve species success. Remove human impacts at a minimum of one site, during the life of the Forest Plan.

OBJ20. Restore a minimum of three willow flycatcher nesting habitats in historic and currently occupied habitats.

Invasive Species and Habitat (Aquatic and Terrestrial) Objectives

OBJ21. Screen hand-carried/non-motorized watercraft or show proof of boat inspection or decontamination at all staffed developed recreation sites (campgrounds, day use areas, resorts) check-in points (i.e. kiosks), within two years of the adoption of the Forest Plan.

Protected Activity Centers and Home Range Core Areas (PACs and HRCAs) Objectives

OBJ22. Restore six California spotted owl PACs (representing approximately 30 percent of the known territories in the Lake Tahoe Basin) during the life of the Plan; treatments would be designed based on restoration needs of the specific PAC.

OBJ23. Restore seven northern goshawk PACS (representing approximately 30 percent of the known territories in the Lake Tahoe Basin) during the life of the Plan; treatments would be designed based on restoration needs of the specific PAC.

Species Refuge Areas Objectives

Lahontan Cutthroat Trout

OBJ24. Establish at least one self-sustaining LCT sub-population in Fallen Leaf Lake, and implement appropriate conservation measures in Glen Alpine Creek in cooperation with the Lake Tahoe Basin Recovery Implementation Team by 2020.

OBJ25. Secure the existing Upper Truckee River (Meiss Meadows) LCT sub-population (four miles of stream habitat) through maintenance removal of brook trout by 2015.

OBJ26. Reestablish LCT in ten stream miles of the Upper Truckee River (from Meiss Meadows to the southern extent of Christmas Valley), in cooperation with California Department of Fish and Game by 2020.

OBJ27. Recover an additional seven subpopulations of LCT within fluvial and/or lacustrine ecosystems, as identified by the Tahoe Basin LCT Recovery Implementation team within the life of the Forest Plan.

Sierra Nevada Yellow-legged Frog

OBJ28. Collaborate with California Department of Fish and Game, US Fish and Wildlife Service, and Eldorado National Forest to identify and restore additional suitable habitat for SNYLF as deemed appropriate. Complete restoration of seven high alpine lakes (composed of habitat areas that would support four sub-populations) adjacent to current SNYLF populations in the Desolation wilderness by removing introduced trout species within the life of the Forest Plan.

OBJ29. Conduct physical habitat maintenance or enhancement that promotes long-term water availability and structural conditions to create areas for basking and/or cover, for the Hellhole SNYLF sub-population, within the life of the Forest Plan.

OBJ30. Within the life of the Forest Plan, maintain or expand fishless high elevation aquatic habitats near existing or historic SNYLF sub-populations where such habitats are determined to support SNYLF production and development and these actions will increase localized range of SNYLF.

2.2 Social and Economic Sustainability

Recreation Program Strategy

Recreation strategies are unique to the LTBMU which provides high quality opportunities and services to the millions of visitors who visit the basin annually. The recreation program should meet the desires of the recreating public, should be consistent with desired recreation settings and user experience, and should be aligned with the special and natural resources of the area. The recreation program must have the ability to adapt to changing recreation preferences. All developed recreation sites will continue to be well maintained, attractive, satisfying to the visitor, and compatible with management goals.

In general, management of developed recreation sites will focus on deferred maintenance and /or modification of existing facilities to achieve ecological, social and economic sustainability of the recreation setting before constructing new facilities to maintain exiting opportunities and to respond to appropriate future demand.

Recreation Opportunities Strategies

- As recreation trends and users change, recreation facilities and opportunities are adapted to provide intended user experience while being compatible with management goals.
- Use planning inventory and monitoring tools to identify changing desired recreation activities, settings, and opportunities.
- Provide opportunities for general forest undeveloped camping where applicable and where it meets management goals. Periodically review and update the forest camping order based on public health and safety, fire prevention goals, and resource protection and management capabilities.
- Enhance (e.g. mitigate), restore, or relocate federally owned facilities and public access sites that are impeding groundwater connectivity, lagoon function, or barrier beach formation, while maintaining or enhancing public access and recreation opportunities.

Access Strategies

- Maintain and enhance public access opportunities to Lake Tahoe shorelines and NFS lands.
- Coordinate management activities to minimize impacts to public access and recreational experience.
- Consider developed site design capacity and management capabilities when evaluating access.

Recreation Development Strategies

- Review and evaluate developed facilities to allow for future changes in site development when financially feasible and where appropriate to meet changing user demands.
- Create outstanding recreation opportunities through innovative sustainable facility design.
- Small increases in the number of overnight accommodation units (e.g. campsites, cabins), parking spaces, and developed acres would be allowed over the life of the plan.
- Modify developed recreation facilities where appropriate to meet changing user demands.
- Recreation activity on public lands will be improved by retrofitting existing recreation sites, converting existing sites to compatible uses, or expanding recreation sites or permit boundaries.
- Improve circulation and reduce congestion through capital investments.

Stewardship Strategies

- Manage recreation activities in sensitive environments to ensure continued access, avoid or mitigate environmental degradation, and maintain the setting and visual integrity.
- Enhance (e.g. mitigate), restore, or relocate federally owned facilities and public access sites that are impeding groundwater connectivity, lagoon function, or barrier beach formation, while maintaining or enhancing public access and recreation opportunity.
- Encourage partners and volunteer stewards to achieve recreation management goals.
- Implement measures to address hazards as they are identified.

Recreation Program Objectives

OBJ31. Complete LTBMU National Visitor Use Monitoring every 5 years and review for trends and visitor satisfaction.

Recreation Special Uses Program Strategy

- Permitted activities increase opportunities for recreation use while protecting the natural setting and resources. Recreation special use permits effectively leverage LTBMU's ability to provide recreation services.
- Evaluate existing recreation special use permits for deficiencies before considering new proposals.
- Address recreation special use deficiencies by:
    - Eliminating the backlog of expired authorizations;
    - Increasing monitoring and oversight of current authorizations; and

  - Completing appropriate level of environmental documentation.

- Issue new long-term recreation special use permits that expand opportunities in response to identified needs and management goals.
- Consider expansion of existing ski facilities based upon an accepted master plan for future facilities.

Interpretive Services Program Strategy

- Provide visitor information facilities and services at major entry points and areas of concentrated use using public/private partnerships, assists in orienting visitors to an area's special features, recreation opportunities, regulations, and services. Develop messages to forge emotional and intellectual connections between the interests of visitors and the meanings inherent in the resource.

- With the intent to inform the public about forest management strategies, provide appropriate interpretive signage, displays, publications, and programs at strategic Lake Tahoe Basin locations. Interpreters conduct presentations that are designed to provoke visitors to take informed actions related to sustaining Lake Tahoe Basin resources. Interpretive messages are delivered through a variety of learning styles to enhance overall understanding and effectiveness.
- Communicate and educate visitors, teachers, and students about the important role Interpretive Services plays in advancing current local, environmental and agency issues.
- Update and implement LTBMU's Conservation Education Strategy, Interpretive Services Master Plan, and Interpretive Services Program Strategy when feasible.
- Engage potential public/private partners to identify need and locations for joint visitor information facilities and services at major Lake Tahoe Basin entry points for the life of the plan.
- Evaluate the success of partnerships to leverage support, funding, and volunteers to enhance interpretive and educational programs, facility renovations, and site upgrades annually.
- Participate in partnerships to consider newly designated national scenic byways.
- Offer appropriate interpretive signage, displays, publications, and programs at strategic Lake Tahoe Basin locations.
- Update exhibits, displays, waysides, and programming to address current local, environmental and agency issues.
- Review and incorporate stewardship messages into every program annually to encourage public responsibility for protection of natural resources.
- Annually update interpretive materials about specific forest management activities to inform and educate the public about the benefits of the activity.

Interpretive Service Objectives

OBJ32. Within 10 years, develop an interpretive signage program on the East Shore National Scenic Byway in cooperation with Nevada Department of Transportation (State of Nevada).

Conservation Education Program Strategy

The Conservation Education program emphasis is to increase youth and adult environmental literacy about forests and natural resources. The program is developed through an interdisciplinary process, and the outcomes are designed to target specific audiences. Conservation education builds conservation capacity, nurtures future land stewards, and provides people with the tools they need to take informed actions related to sustaining natural and cultural resources.

- Advance the important role of Conservation Education in communicating and educating visitors, teachers, and students about current local, environmental and agency issues.
- Education programs should utilize established curricula.
- Emphasize the Forest Service mission and management approaches, natural resource protection, safety, and personal responsibility during forest activities.
- Engage partners, volunteers and local community members to implement objectives.
- Update the LTBMU Conservation Education strategy to reflect current projects, broad theme areas, educational goals, objectives, and an implementation action plan.
- Update and deliver training to Forest Service employees and partners in program delivery techniques for conservation education programs.
- Work with educators and partner organizations to create a network connecting educators to resource professionals and projects. Provide for meetings and field trips to stewardship project sites.
- Develop programs that encourage forest stewardship, including creating and implementing a K-12 Conservation Education program.
- Provide stewardship opportunities to community groups.
- Review and provide curriculum-based school programs that meet Nevada and California State standards.

Visitor Services Program Strategy

- Visitor information is provided through public/private partnerships throughout the Lake Tahoe Basin. The information includes maps, recreation opportunities, activities, attractions, regulations, and visitor education.
- Update exhibits, displays, waysides, and programming to more fully address current issues.

- Update interpretive materials about specific forest management activities to inform and educate the public about the benefits of the activity.

Scenic Quality Strategies

- Manage scenery to perpetuate the overall natural-appearing setting, protect significant scenic features, and ensure that development is appropriate for the area in which it is located in terms of size, mass, architectural style, and density.
- Consider the type, intensity, location, and visual characteristics of land use, visual dominance competition between the natural and built environments, and resource management actions, particularly in sensitive, undeveloped areas.
- Manage for scenic stability through actions that will enhance and protect desired scenic attributes through vegetation treatments to achieve High Minimum Scenic Stability (MSS), on a project-by-project basis over the Plan Period. Examples include aspen stand enhancements and riparian area restorations.
- Restore damaged landscape scenes (currently meeting Low or No Scenic Integrity Levels), to achieve the long-term guideline of High to Very High Minimum Scenic Integrity (MSI).

Cultural Resources Program Strategy

LTBMU's cultural resources program is focused on three main areas of resource management: 1) providing education, interpretation, and research opportunities; 2) protecting archeological, historical, cultural and traditional resources; 3) collaborative partnering with the Washoe Tribe and other heritage-resource interests.

Protecting cultural resources includes both proactive and reactive efforts, as well as offering support to other resource programs. Efforts and support activities include inventory, resource identification, documentation, evaluation, monitoring, consultation, nomination, preservation, stabilization, and/or restoration of cultural resources, under direction in Section 106 and 110 of the National Historic Preservation Act (NHPA). Most actions affected by Section 106 and 110 provisions are guided by Region 5's Programmatic Agreement with the California State Historic Preservation Office (SHPO) and the Advisory Council for Historic Preservation (ACHP).

- Through the Plan period, efficiently manage cultural resource databases to support resource management and research, in cooperation with the appropriate California and Nevada state agencies.
- Employ education and enforcement to deter vandalism.
- Implement restrictions, using permits and/or visitation controls, when necessary, to protect sites from physical damage and excessive wear and tear.
- Implement a policy of site avoidance to prevent physical damage to heritage resources during forest management activities.

- The cultural resources program will involve collaboration with site stewards; volunteers; State and other Federal agencies; local and tribal governments; schools and universities; and non-profit groups. Cooperative partnerships with organizations will provide site protection and facilitate development of research, educational, and interpretive opportunities. Public participation and partnerships in cultural resources management for these purposes will be increased.
- Address natural physical deterioration of cultural resources based on resource priorities and availability of funding.

Cultural Resources Objectives

OBJ33. Nominate for listing to the National Register of Historic Places - the Comstock Historic Logging District, Angora Lookout, Cave Rock, Hawley Grade, Camp Richardson Resort, Meiss Cabin and Barn, and Skunk Harbor on the National Register of Historic Places during the Plan period.

OBJ34. Within five years of Plan approval, development of a management plan for arborglyphs throughout the Lake Tahoe Basin.

OBJ35. Add new interpretive elements (i.e. signs, boards, graphics, or new publicly-available printed materials) highlighting historic or cultural areas not yet interpreted in the Lake Tahoe Basin, during the Plan period.

Tribal Relations Program Strategy

- Tribal input is solicited during all stages of planning processes. Existing agreements that allow the Tribe to manage vegetation resources in traditional use areas are maintained or enhanced, and tribal interests are integrated into LTBMU program areas where possible.
- Coordinate management where National Forest lands are adjacent to tribal lands.
- Continue support of the Washoe Tribe in pursuit of establishing a Washoe Cultural Center and a Washoe Tending and Gathering Garden.
- Continue to implement the agreement regarding use of traditional management techniques for Meeks Meadow.
- Work closely with tribes to ensure that cultural practices and traditional knowledge is preserved and made available to future generations through preservation of important resources and supporting traditional uses at Lake Tahoe.
- Support the Washoe Tribe’s goal of ensuring and increasing Tribal access to Lake Tahoe.
- Work cooperatively with the Washoe Tribe to maintain access to and protect the physical integrity of Cave Rock and other culturally important areas.
- Participate in additional LTBMU programs to enhance economic development opportunities for the Washoe Tribe (e.g. contracting, permits, employment). EO 13084-

Consultation with Indian Tribal Governments. EO 13175-Consultation with Indian Tribal Governments.

- Identify opportunities to incorporate tribal traditional management practices into projects to restore, enhance, and promote ecosystem health, in collaboration with the Washoe Tribe and native traditional practitioners.

Tribal Relations Objectives

OBJ36. Revise the consultation protocol defined in the 1996 Memorandum of Understanding between the LTBMU and the Washoe Tribe within five years of Plan approval.

Access and Travel Management Program Strategy

The strategy for achieving sustainable routes is to complete access and travel management (ATM) planning to identify needed routes, BMP needs, and restoration and reroute opportunities that will protect and enhance natural resources. The Travel Analysis process provides the guiding framework for Access and Travel Management planning for the National Forest Transportation System and the ATM process provides site specific analysis for implementation. The first round of ATMs are completed, for all roads and once complete for trails, routes will be revisited on a larger scale to determine the effectiveness of their implementation, and to address new and remaining issues related to fuel treatments, water quality, and recreation management. A greater emphasis will be put on strategic road and trail planning with the second round of ATMs, by analyzing existing alignments for impacts to resources and identifying reroute opportunities that allow for more sustainable operation and management.

Use of over-snow vehicles (OSV) on national forests is governed by the travel management regulations at 36 CFR 212.80-81, also known as Subpart C. These regulations state "Use by over-snow vehicles on National Forest System roads and National Forest System trails and in areas on National Forest System lands may be allowed, restricted, or prohibited (36 CFR 212.81). Areas open to use by over-snow vehicles on the LTBMU are shown on the LTBMU Snowmobile Guide map (USDA Forest Service LTBMU. 2010c). Enforcement is through Forest Order.

- Restore soil function and natural drainage on unclassified roads as identified in completed travel management plans.
- Manage motorized routes through a designated route system that is updated as necessary.
- Maintain and provide road signage for safety, regulatory, and guide purposes.
- Provide and maintain a system of universally accessible trails between communities and developed recreation sites.
- Provide route information, way-finding, and regulatory signage at access points and along trail lengths as identified in trail ATMs. Identify and map all FS trail system access points.
- Develop or adopt trails to provide an interconnected trail system for non-motorized uses.

- Maintain current levels of OHV access on roads and trails.
- Relocate OHV routes if opportunities exist to reduce impacts to resources.
- Maintain OSV access consistent with the LTBMU Snowmobile Guide.
- Develop partnerships with local and regional transportation and trail entities to prioritize, fund and implement projects seamlessly across jurisdictional lines.
- Reduce roadside parking in areas of high density use and provide for managed parking. Prioritize transit or alternatives to the private automobile where parking capacity is reduced.
- Update the road and trail inventory as necessary to reflect current access needs and resource impacts of the transportation system.
- Roads and trails are comprehensively planned as part of area-wide systems. Unauthorized roads and trails are effectively removed and restored, or adopted for management.
- Designated parking, loading, staging, trailheads, accommodate a variety of users. Use is managed to avoid, minimize, and mitigate impacts to natural, cultural, and scenic resources.
- Road management decisions are prioritized based upon public benefit and ability to eliminate deferred maintenance.
- Achieve common goals with other transportation entities.
- Manage transportation facilities to achieve resource management goals.
- Manage transportation facilities to anticipate future management access needs for both public and administrative purposes.
- Meet management objectives for the LTBMU's portion of the National Forest Transportation System
- Consider trail closure if use creates resource impacts that cannot be mitigated.
- Use the following guidelines when developing trails:
    - ◊ create loop systems where practical;
    - ◊ incorporate accessibility or universal design opportunities;
    - ◊ coordinate with partners, stakeholders, and local communities to integrate systems and provide experiences desired by users;
    - ◊ protect habitats and Wilderness;
    - ◊ feature natural attractions and be compatible with the ROS setting;
    - ◊ minimize conflicts between residential area users and OHV users.

Access and Travel Management Objectives

OBJ37. Implement BMP retrofits on 285 miles of NFS roads by 2025.

OBJ38. Implement BMP retrofits on 370 miles of NFS trails by 2025.

National Trails System Program Strategy

National recreation and scenic trails are predominately located on National Forest System lands. Trails outside wilderness are generally clearly marked and identified for users with the national recreation or scenic trail symbol, especially at the trail termini and junctions with side trails. Access allows for public use, interpretation, and education of specified features of the trail in a manner that does not impair the features for which the individual trail was established. These trails may pass through a variety of physical settings and the recreational opportunity spectrum (ROS) varies depending on the outstanding features of the trail and the surrounding physical setting.

National Recreation Trails Strategies

- Utilize partnerships to achieve management goals for National Recreation Trails.
- National trails meet the maintenance standards for the trail class and managed use.
- Limited recreation facilities, such as interpretive signs, viewing platforms, and benches may be present along the trail. Trailheads may offer amenities such as picnic facilities or interpretive information that enhances the experience of using the trail.
- Trailheads may offer amenities such as picnic facilities or interpretive information that enhances the experience of using the trail.
- Where the trail leads to an outstanding destination feature, the qualities of that feature are protected.
- Implement measures to protect areas of high ecologic value, such as rare plant sites or unique geologic features within the corridor, as needed.
- Preserve the scenic quality and character of the Nationally Designated Trails.

National Scenic Trails Strategies

- Utilize partnerships to achieve management goals for National Scenic Trails.
- National Scenic Trails are single track, linear features that pass through a great variety of physical features, ranging from natural-appearing settings to locations where developments are noticeable.
- While the setting is predominately wilderness, the trail occasionally passes through areas of more development where the wilderness ROS setting or the semi-primitive non-motorized setting is not met. Due to the linear nature of the trail, there may be occasional locations where the trail overlooks or intersects a major highway. Road crossings and designated motorized trail crossings and mechanized trail crossings are the only evidence of motorized and mechanized use.
- Manage the Pacific Crest Trail as a non-motorized and non-mechanized trail (i.e. hiking, pack and saddle, ski and snowshoe uses.).
- Emphasize preservation of the backcountry setting and rustic character of the trail and amenities along the trail.
- Restore areas and trail sections to maintain scenic objectives.

- Degraded destinations areas or trail sections are restored from an ecologic and trail perspective to provide for public use while improving the immediate foreground view from the trail and area focal points such as lakeshores.
- Where possible, trailhead parking facilities are located outside of the trail corridor and are generally not visible from the trail. Short spur trails connect the trailhead to the main trail. Outside of wilderness, the national scenic trail symbol is displayed at road crossings and at junctions with side trails.
- National trail easements are in place for those trail segments crossing non-federal lands. Management of the national scenic trail is coordinated between the affected administrative units.
- Areas of high ecologic value, such as rare plant sites or unique geologic features, may occur within the corridor and are protected.
- Limited recreation facilities, such as interpretive signs, viewing platforms, and benches are allowed along the trail. Trailheads may offer amenities such as picnic facilities or interpretive information that enhances the experience of the trail.
- Where the trail leads to an outstanding destination feature, the qualities of that feature are protected.
- Protect the foreground and middle ground scenic corridor.
- Restore areas and trail sections to maintain scenic objectives.
- Manage the Pacific Crest Trail as a non-motorized and non-mechanized trail.

Built Environment Program Strategy

Fire stations, administrative offices, work centers, barracks, water systems, waste water systems, campgrounds, resorts, day use areas, visitor information/education centers, dams, and other similar constructed elements are components of the federally owned facilities managed by the Forest Service. The Forest Service also maintains administrative and recreation facilities that support recreation opportunities and community services and meet national direction for sustainable operations. The number, distribution, condition, and variety of facilities are important in providing a quality visitor experience and meeting administrative and community goals. Priorities for construction, reconstruction or decommissioning facilities are based upon public benefit and ability to reduce deferred maintenance.

- Use the Recreation Facility Analysis (RFA) and *Facilities Master Plan* to reduce deferred maintenance backlogs consistent with national direction.
- Buildings and facilities are prioritized for construction, reconstruction or decommissioning based upon public benefit and ability to reduce deferred maintenance.
- Provide and operate reliable, adequately sized facilities that support administrative needs and recreation opportunities.
- Seek opportunities to reduce impervious coverage and soil compaction on low capability soils.

- Implement water and energy conservation measures at developed recreation and administrative sites.
- Reduce energy consumption associated with facilities operations and maintenance.
- Retrofit Forest Service owned facilities with water quality protection BMPs throughout the Plan period.
- Incorporate opportunities for use of public transit, or other alternative modes of` transportation into new facilities or those undergoing remodel, reconstruction, or retrofit.
- Incorporate energy efficiency, conservation, sustainable design principles, and "green" technologies into administrative and recreation facilities whenever possible during renovations, remodels, reconstruction, retrofit, or new construction to minimize operation and maintenance costs.
- The quality of the built environment should benefit from sound site planning as well as from low-energy and environmental design principles such as those embodied in the LEED program.
- Construct facilities that are economically feasible to maintain.
- Recreational facilities and trails are rehabilitated and/or maintained to improve the environment, the user experience, protect natural settings, restore cultural and historical areas, and enhance economic sustainability.
- The architectural character of administrative and recreation buildings, landscape structures, site furnishings, wayside structures, and signs installed or operated on NFS lands are planned and designed with aesthetic characteristics that respect the cultural and natural scenic quality of the Lake Tahoe Basin. The built environment is economically, environmentally, and socially sustainable.

Built Environment Objectives

OBJ39. Implement BMP retrofits at all USFS facilities (including visitor centers, campgrounds, and parking lots.) by 2025.

OBJ40. Develop, plan and schedule to adoption for retrofitting five developed facilities rated as Development Scale 3-5 to include universally accessible features by 2025.

OBJ41. Prioritize buildings and facilities for construction, reconstruction or decommissioning based upon public benefit and ability to eliminate deferred maintenance.

OBJ42. Maintain 15 administrative sites to standard by 2025.

OBJ43. Maintain 44 recreation sites to standard by 2025.

Lands Program Strategy

Program strategies for the LTBMU Lands program are:

- Trespass and encroachments should be resolved with the highest priority assigned to the following: 1) where public safety is threatened; 2) where damage to resources and/or resource values is occurring, or encroachment is interfering with resource management activities; and 3) where public access is interfered with.
- Continue to purchase small urban lots, subdivision lots less than 1 acre, in Placer County only, where lots with an IPES score of 725 or less are still unbuildable and qualify for acquisition under the Santini-Burton program.
- All other land purchases should be directed to parcels larger than one acre that include important resource or recreational values, improve access to National Forest System lands, protect environmentally sensitive land from development or consolidate or improve NFS land boundaries, eliminate inholdings and provide for more efficient and effective resource management.
- In El Dorado and Douglas Counties, consider accepting donations of small urban lots that are unbuildable due to their location in Stream Environmental Zones when they improve the ownership pattern and management efficiency.
- Retain National Forest System lands in the Lake Tahoe Basin in public ownership to fulfill the specific objectives for which they were acquired.
- Seek opportunities for land adjustments with State and Local governments that consolidate ownership and improve management of urban lots.
- When approving erosion control grant projects, consider transfer of ownership to grantees when the proposed improvements encumber twenty-five percent or more of the lot.
- Consider authorizing small scale renewable energy projects, such a site specific solar, when they are compatible with other resource objectives and meet scenic resource standards.
- There are no major utility transmission corridors currently designated in the Lake Tahoe Basin. Such corridors should not be designated at Lake Tahoe due to their incompatibility with the scenic, recreational and other resource values at Lake Tahoe.

Research and Monitoring Projects Strategy

- Actively seek and encourage research activities that may be beneficial in informing management of NFS lands. Routinely evaluate research findings to inform adaptive management.

Santini-Burton Acquired Lands/Urban Forest Parcels Program Strategy

Santini-Burton acquired lands are located throughout the Lake Tahoe Basin. In general, desired conditions, management strategies and management objectives are consistent with those

associated forest-wide with the General Conservation and Transition Management Areas, dependent upon where the acquired lands exist on the landscape.

The Urban Forest Parcel Conservation Area subset of the Santini-Burton Management Area has more specific strategies and objectives than those found in other Management Areas.

The Forest Service manages urban forest parcels as undeveloped open space for the purpose of preserving the hydrologic function of sensitive lands and conserving natural forest conditions within the urban setting.

- Manage urban forest as undeveloped parcels that provide open space and dispersed recreation opportunity.
- Manage stand densities on urban forest parcels to achieve and maintain healthy forest characteristics.
- Manage the continuity and arrangement of live and dead fuels to reduce risk of catastrophic fire, and to complement defensible space efforts on adjoining private lands. Urban Forest parcels are located within the urban zone of the wildland urban interface (WUI).
- Retain, protect, and restore aspen and riparian plant communities to enhance wetland function and provide habitat for disturbance tolerant species that utilize urban forests.
- Restore areas of existing human-caused disturbance, generally related to residential development, to control erosion and support natural watershed function.
- Prevent the introduction of non-native, invasive species and noxious weeds and contain existing populations.
- Mitigate all identified hazard trees as quickly as possible.

Santini-Burton Acquired Lands/Urban Forest Parcels Objectives

OBJ44. Complete initial fuels reduction and forest health restoration treatments as needed on all urban forest parcels within five years of Forest Plan adoption.

OBJ45. Conduct follow-up fuels treatments every 10-15 years in urban forest parcels.

OBJ46. Restore and re-vegetate areas of existing disturbance on up to 20 urban forest parcels annually.

2.3 Management Areas and Suitable Uses

Introduction

NFS lands are generally available for a variety of multiple uses, although not all uses and activities are suitable for all areas. The LTBMU has identified suitable uses and activities for various areas of NFS Lake Tahoe Basin lands called *management areas* (Table 4, and Map 2). This section describes general land use suitability for each management area. Identification of an area as suitable, suitable with restrictions, or not suitable for a use or activity provides guidance for making decisions about proposed projects and activities, but does not constitute a commitment or a decision to approve any particular projects or activities. Identification of suitable uses for the management area is often one of several steps in determining whether a project or activity is suitable in a given location. See the *Forest Plan Consistency* section in the *Introduction* for more detail.

Table 4. LTBMU Management Areas and acreage

Management Areas		Acres
W	Wilderness	24,670
BC	Backcountry (IRA)	41,813
GC	General Conservation	75,432
SB	Santini-Burton Parcels	12,925
	NFS Lands Total Acres	154,840

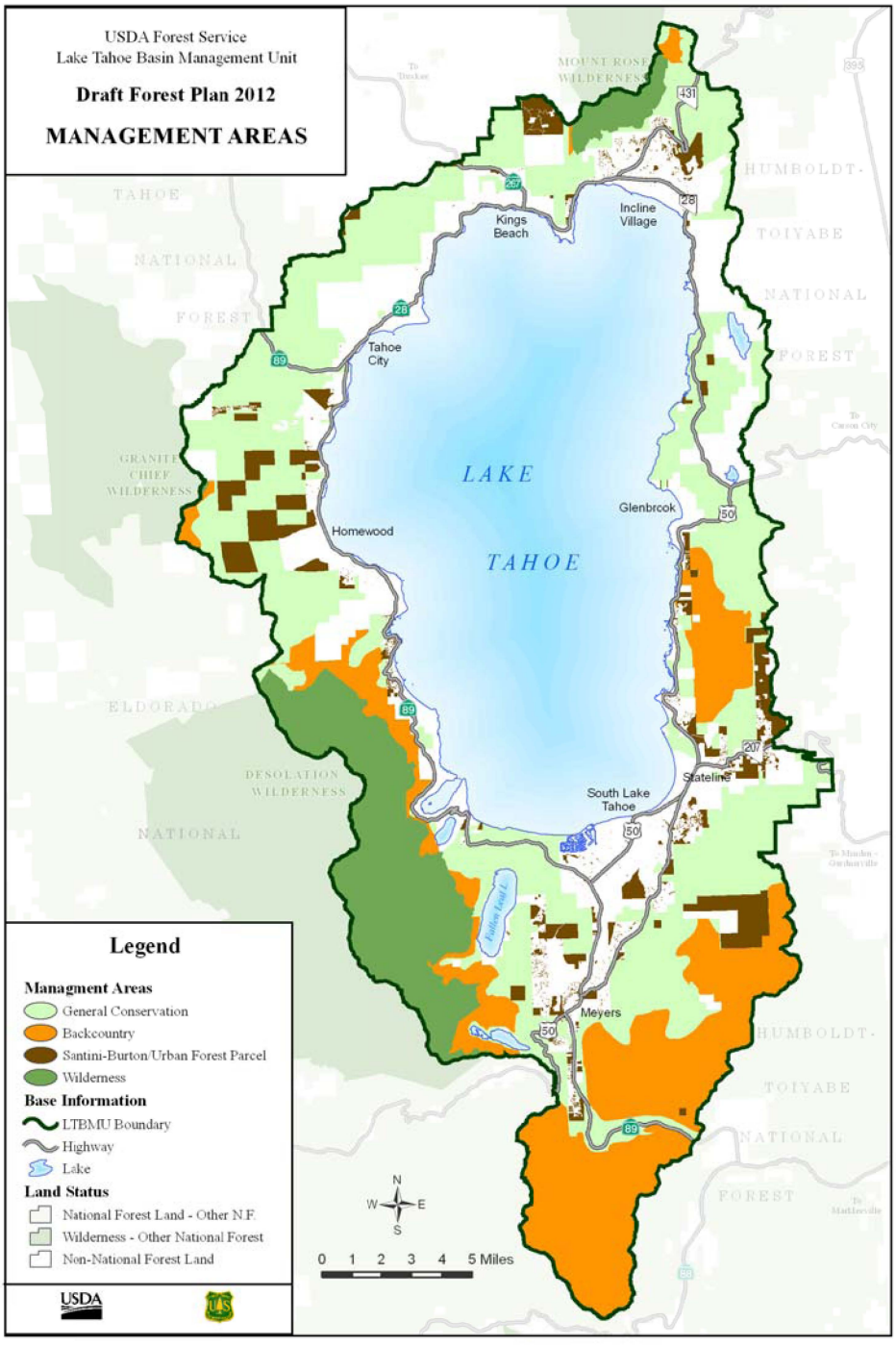


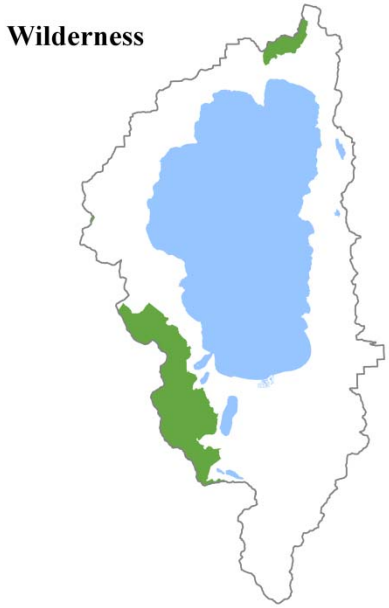
Figure 4. LTBMU Management Areas by category

Wilderness Management Area

Management Concept*:* natural processes, regulated use, preservation management

Portions of Desolation, Granite Chief, and Mt. Rose Wilderness areas are located within the administrative boundary of the LTBMU and are part of the National Wilderness Preservation System – as designated by Congress – to provide present and future generations the benefits of an enduring resource.

Wilderness lands appear primarily affected by the forces of nature. Scenic integrity is very high; the valued landscape character is intact and appears unaltered. Wilderness provides outstanding opportunities for solitude or a primitive and unconfined type of recreation, yet is accessible to many. Wilderness areas offer places of undisturbed purity for people seeking natural scenery. Facilities and infrastructure to support dispersed recreation are limited, and do not conflict with the landscape character or interfere with natural ecosystem processes.



Wilderness lands are of sufficient size to make preservation and use in an unimpaired condition practicable. Natural processes and disturbance events (fire, insects, disease, and floods) shape vegetation composition and structure and landscape patterns.

These areas help sustain ecosystem function and species diversity by serving as habitat for fauna and flora and providing wildlife corridors. Wilderness may also provide ecological, geological, or other features of scientific, educational, scenic, or historical value.

Wilderness Area	Acres
Desolation	22,038
Granite Chief	46
Mt. Rose	2,586
Total	24,670

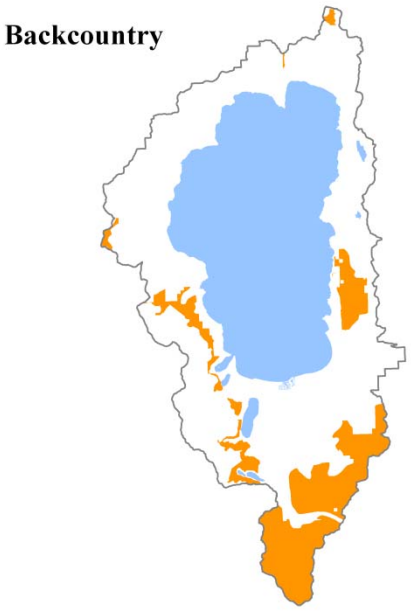
Generally Suitable Uses: Suitable uses in wilderness are defined in the Wilderness Act.

Backcountry Management Area

Management Concept*:* natural landscapes, dispersed non-motorized use, limited management

The LTBMU manages approximately 46,000 acres of Backcountry on NFS lands; some areas are adjacent – or contiguous – to existing Wilderness (i.e. Pyramid, Mt. Rose, and Granite Chief). Other lands designated as Backcountry are larger blocks of unroaded areas including the Dardanelles/Meiss, Freel Peak, and Lincoln Creek. A full evaluation of the Wilderness potential for these lands is located in the plan set of document report, Evaluation of Areas for Potential Wilderness. On these lands, natural ecological processes are primarily free from human influences. The landscape is predominantly shaped by natural processes and disturbance events such as vegetative succession, fire, insects attack, disease outbreak, and floods. Scenic integrity is high; the valued landscape character appears intact.

Backcountry areas offer a recreation experience similar to Wilderness, with places for people seeking natural scenery and solitude. Primitive and semi-primitive recreation opportunities include hiking, camping, wildlife viewing, and cross-country skiing, in addition to activities not allowed in Wilderness areas (e.g., mountain biking, snowmobiling). The characteristic ROS setting is Semi-Primitive Non-Motorized.



Management activities that support administrative and dispersed recreation activities are minimal, but may have a limited influence. Limited roads may be present in some backcountry areas; road reconstruction may be permitted on Backcountry lands where additional restrictions do not apply. Backcountry areas contribute to ecosystem and species diversity and sustainability, serve as habitat for fauna and flora, and offer wildlife corridors. These areas provide a diversity of terrestrial and aquatic habitats, and support species dependent on large, undisturbed areas of land. Backcountry areas are managed to preserve and restore healthy watersheds with clean water and air, and healthy soils. Watershed processes operate in harmony with their setting, providing high quality aquatic habitats.

Generally Suitable Uses: uses and activities that do not require construction of permanent roads and are compatible with the ROS class.

General Conservation Management Area

Management Concept*:* Roaded landscapes, active management

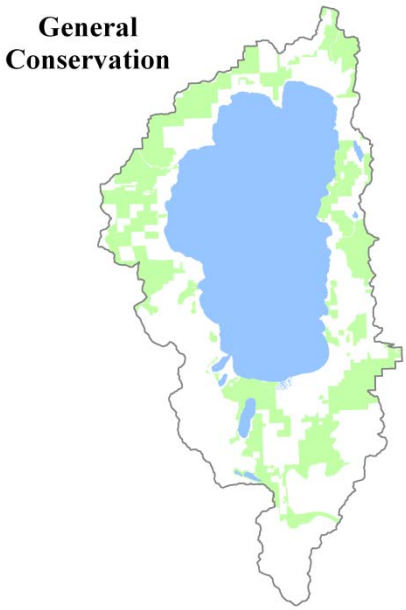
This management area includes a broad spectrum of landscapes, activities, and uses, ranging from relatively unaltered lands to intensively managed recreation settings. General Conservation lands include three subcategories of management emphasis: Roaded Backcountry, Transition lands, and Recreation Emphasis lands. Activities and uses in General Conservation Mangement Emphasis Area are guided by Forest-wide management direction, including the standards and guidelines associated with specific resource overlays.

Generally Suitable Uses: most activities and uses permitted by law on NFS lands.

Roaded Backcountry

Management Concept*:* natural landscapes, motorized and non-motorized use, active management

Roaded Backcountry lands lie beyond the Transition lands that separate them from the urban areas, and generally are not immediately adjacent to Lake Tahoe. Examples include the middle and upper portions of many watersheds, such as Blackwood Canyon, Oneidas, and areas such as Genoa Peak and Mt. Wilson. Included are NFS lands that do not have any other special designation that specifically defines their use; management is prescribed by Forest staff to attain forest-wide desired conditions. These relatively unaltered lands are places where active management is conducted for purposes of meeting a variety of social, economic, and ecological objectives. These lands are generally ½ mile beyond the places where people live and work, and often provide access to the Wilderness and Backcountry areas.



Succession, fire, insect attack, disease outbreak, floods, and other natural processes and disturbance events predominantly shape the composition, structure, and landscape patterns of the vegetation, although management activities may also have an influence. Scenic integrity is moderate or appears slightly altered.

Places for people seeking natural scenery and solitude are available in some areas. In other areas, motorized and non-motorized recreation opportunities are easily accessed by the roads found on these lands, and users of hiking trails can expect encounters with others. Developed

facilities may be present, but are not common. The areas are generally classified as Roaded Natural or Semi-Primitive Motorized.

These areas contribute to ecosystem and species diversity and sustainability; serve as habitat for fauna and flora; and offer wildlife corridors. A mosaic of vegetation conditions is often present, some areas showing the effects of past management activities, other areas appearing predominantly natural. Water quality is excellent in most streams and lakes, and aquatic habitats support desired species, although restoration activities may be needed to mitigate past disturbances and restore natural stream processes and habitats. Soil quality is close to optimum throughout most of the management area.

Transition

Management Concept*:* altered landscapes, motorized use, active management

Transition lands are LTBMU lands within one half mile of the TRPA-defined Urban Boundary. These lands are closely associated with communities, as well as with the houses, structures, people, and values associated with them. Individual and family histories may be closely interwoven with these lands. Consequently, residents may have strong attachments and feelings of ownership, which lead to a higher level of public scrutiny and sensitivity to management activities in these areas.

Lands within this zone provide balance between the human-dominated urbanized environment and the natural processes of ecosystems in the general forest. These lands are highly used by the public. Hiking, biking, and dog walking are common activities. A wide range of development is present, such as roads, trails, fences, and signage. The Rural and Roaded Natural ROS setting provided by many of these lands is an amenity serving the active lifestyles and enhancing the quality of life of local residents.

To conserve natural resources and maintain quality recreation opportunities, transition lands are intensively managed in close coordination with affected communities. Because these lands lie within the Wildland Urban Interface (WUI), vegetation and fuels are aggressively managed in order to reduce risks to community health and safety. Cooperation and partnerships with adjacent landowners and local governments are used to improve authorized legitimate access to public lands, convey roads to county jurisdictions, and improve transportation networks where appropriate.

These areas contribute to ecosystem and species diversity; physical and biological resource conditions are managed carefully due to the high level of use and close proximity to highly-developed lands.

Recreation

Management Concept*:* altered landscapes, infrastructural investment, motorized and non-motorized use, active management

These lands are associated with – and often provide access to – popular destinations (such as beaches, resorts, historic sites, interpretive centers, scenic vistas, lakes and streams, and regional trails). They are places subject to high levels of recreation use, ranging from modified natural settings (with few permanent developed facilities, primarily for resource protection) to highly modified natural settings (with permanently developed facilities for visitor convenience).

Recreation emphasis lands provide rich and diverse opportunities for recreation activities in a variety of well-designed, well-maintained, safe, and accessible settings. The uses associated with these lands contribute substantial socioeconomic benefits to the community in the form of jobs, income, access to public lands, and quality of life.

Scenic integrity is predominately between low and moderate, but developed facilities are aesthetically incorporated into the landscape. Forest management activities are carried out in ways that enhance scenic integrity. These lands are characterized by Roaded Natural, Rural, and Urban ROS settings.

Recreation emphasis lands have varying degrees of long-term development, infrastructure investment, and human alteration, often resulting in lasting changes to ecological composition, structure, and function. These lands provide wildlife habitat for species tolerant of human presence.

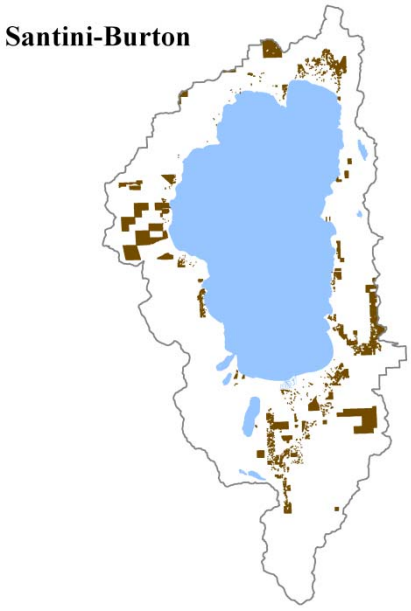
Santini-Burton / Urban Forest Parcels Management Area

Management Concept*:* protected and undeveloped landscapes, active management

Lands acquired under the Santini-Burton Purchase authority comprise this management area. In 1980, Congress passed the Santini-Burton Act, Public Law 96-586, which authorized the Forest Service to acquire environmentally sensitive lands within the Lake Tahoe Basin to protect them from development.

This management area includes a management subset, Urban Forest Conservation Area, comprised of numerous small urban forest parcels (urban lots) that are located within the TRPA-defined Urban Boundary. These urban lots are public inholdings among privately-owned developed parcels and are generally not adjacent to other NFS lands.

Management within the Santini-Burton / Urban Forest Parcel Management Area is focused on preserving the environmental quality and public recreational use of the acquired lands. The primary distinction between this management area and the General Conservation and Transition Management Areas is that the management emphasis is on protecting watershed conditions and community open space.



Urban Forest Parcels provide opportunity for dispersed recreation within the urban setting, such as walking/hiking, wildlife viewing, cross-country skiing, and access to streams and lakes. When appropriate, recreational improvements such as system trails and bike trails may occur on urban forest parcels. Development is prohibited on these environmentally sensitive lands except for dispersed recreation and erosion control improvements.

Generally Suitable Uses: improvements are generally not suitable except for dispersed recreation and erosion control.

Suitable Uses and Management Practices by Management Area

National Forest System lands are generally available for a variety of multiple uses, although not all uses are suitable for all areas. Section 6 (g) of the Resource Planning Act of 1974 (RPA), as amended by the National Forest Management Act of 1976 (NFMA), requires "the identification of the suitability of lands for resource management"(RPA 1974, pp. 4-9).

Suitability is defined as “The appropriateness of applying certain resource management practices to a particular area of land, as determined by an analysis of economic and environmental consequences and the alternative uses forgone. A unit of land may be suitable for a variety of individual or combined management practices” (36 CFR 219.3).

Suitability is expressed as suitable, not suitable, or with restriction. Restrictions have several sources depending on the legal, policy or permitting language that applies to the activity.

S - Suitable
N - Not Suitable
R - Restrictions:

- Restricted by law (i.e. Wilderness Act, Desolation Wilderness)
- Restricted by designation (i.e. Grass Lake Research Natural Area)
- Restricted by Forest Order (i.e. Motor Vehicle Use, Over Snow Vehicle Use)
- Restricted by another decision (i.e. mountain biking on the Pacific Crest Trail)
- Restricted by management direction within this plan
- Restricted to authorized use only (i.e. communication sites)

This section describes common activities and land uses expected to occur on NFS lands within the Lake Tahoe Basin. The general suitability of activities and uses by management area is displayed below (Table 5). Descriptions of these activities and uses follow the table.

Table 5. Suitable Uses and Management Activities by Management Area

Suitable Uses or Management Activities	Wilderness	Backcountry	General Conservation	Urban Forest Parcels
Ecosystem Restoration:				
Fuels Reduction	N	S	S	S
Vegetation Restoration	R	S	S	S
Managed Wildfire	S	S	R	N
Prescribed Burning	R	S	S	S
Stream Channel Floodplain Restoration	R	S	S	S
Soil & Water Restoration	R	S	S	S
Species Recovery Habitat Restoration	R	S	S	S
Invasive Species Management	R	S	S	S
Re-vegetation	R	S	S	S
Recreation:				
Developed Recreation Sites*	N	N	S	N
Dispersed Recreation Sites	R	R	S	N
Recreation, Non-motorized Use	S	S	S	S
Permitted Uses – Recreation:				
Resorts*	N	N	S	N
Recreation Residences	N	N	S	N
Ski Areas*	N	N	S	N
Ski Slope/Trail	N	R	S	N
Organization Camps	N	N	S	N
Outfitter and Guide Service	S	S	S	S
Events	N	R	R	R
Infrastructure:				
Administrative Facilities	N	N	S	N
Roads	N	N	S	R
Motorized Use of Roads	N	R	S	R
Trails	S	S	S	R
Motorized Use of Trails	N	R	R	N
Mechanized Use of Trails	N	R	S	S
Motorized Cross-country Travel	N	N	R	N
Over Snow Vehicle Travel	N	R	R	N
Permitted Uses – Non-Recreation				
Communication Sites	R	R	R	N
Transportation Related	N	R	S	N
Utilities	N	R	R	R
Urban Stormwater Treatment	N	N	S	S
Community Use and Public Information	N	N	S	R
Non-Timber Forest Products	N	S	S	R
Production Livestock Grazing	N	N	R	N
Research and Monitoring	S	S	S	S
Special Events	N	S	S	R

*Facility expansion limited to 5% as described in DEIS

Ecosystem Restoration

Fuels Reduction –Activities focused on reducing risk to people, property, infrastructure, and natural and cultural resources, by removal, utilization, and/or rearrangement of natural and residual activity generated fuels. Activities include but are not limited to various silvicultural practices using mechanical, aerial, and/or hand treatments, prescribed fire, reforestation, and chemical application.

Vegetation Restoration – A full suite of activities that contribute to the sustainability and restoration of desired conditions for forest health including habitat and vegetation structural attributes. Invasive plant species, insects, and disease will be managed as an integral part of the restoration program. Activities include but are not limited to various silvicultural practices using mechanical, aerial, and/or hand treatments, prescribed fire, reforestation, chemical application, clearing of trees encroaching upon meadows, human access control, control of invasive species, and maintenance of snags and down logs.

Managed Wildfire - the management of naturally ignited fires to achieve resource desired conditions and objectives where fire is a major component of the ecosystem.

Prescribed Burning - Igniting fires in order to achieve a management objective and/or a desired condition. This includes understory burning, pile burning, and broadcast burning. Managed active burning will be prescribed and monitored to burn at specified intensities over a defined area.

Stream Channel/Floodplain Restoration - Includes activities to restore geomorphic function and high quality habitat features to stream channels and adjacent floodplains. Activities include constructing new stream channels/floodplain and/or stabilizing and improving existing channels/floodplain. Restoration can also include removal or upgrades to in-channel infrastructure such as channel crossings or dams/diversion.

Soil and Water Restoration – Includes activities to maintain and restore soil function, and surface and groundwater hydrologic function. Activities include restoring compacted/disturbed soils, surface and soil organic matter, understory vegetation, and surface water drainage pathways. Restoration can also include removal of obsolete/legacy infrastructure such as asphalt, concrete, foundation, and drainage ditches.

Species Recovery and Habitat Restoration (aquatic and terrestrial) - Includes activities to recover and or restore biological processes and function of selected species and habitat. Restoration activities can occur in special habitats including, but not limited to, meadows, aspen stands, and or other habitats of importance to the recovery and restoration of a species. Recovery and restoration activities may include, but are not limited to vegetation thinning, fire (prescribed or natural), hydrologic modifications (i.e. removal of head cuts), introduction or re-introduction of a selected species, as well as removal, by various methods, of invasive species.

Invasive Species Management (aquatic and terrestrial) – Includes activities that prevent, control, and eradicate invasive species. Activities may include, but are not limited to outreach and education, inspection station, manual removal, chemical and biological removal, as well as thinning and fire.

Re-vegetation – Includes re-vegetation using primarily native seeds and transplants following the Native Plant Material Policy (FSM 2070 Vegetation Ecology). Re-vegetation activities may occur, but is not limited to, project areas such as on, trails, roads, in post-fire areas (prescribed and natural), at facilities, as well as in restoration.

Recreation

Developed Recreation Sites – Distinctly defined areas where facilities are provided for concentrated public use. Included are campgrounds, picnic sites, swimming beaches, interpretive centers, visitor information facilities, trails and parking and utility services associated with these facilities.

Dispersed Recreation Sites – Includes trailhead parking, small remote camping sites, interpretive sites, vista points, OHV staging areas, and toilets. Also included are structures or features needed to reinforce sites to protect the environment and enhance the quality of the visitor experience.

Recreation, Non-motorized Use - Includes activities such as hiking, climbing, fishing, camping, swimming, sunbathing, sightseeing, guided interpretive activities, nature viewing, picnicking, informal sporting activities, non-motorized boating, equestrian use, cross-country skiing, snowshoeing, and snow play.

Permitted Uses – Recreation

Resorts– Resorts are concessioner or government owned developments on NFS lands that include a complex of enterprises. They may include activities such as overnight accommodation, marinas, outfitting and guiding services, events, restaurants, retail, and day use (e.g. Zephyr Cove Resort) Some resorts accommodate primarily winter based recreation activities, but may also be used for summer recreation purposes (e.g. Heavenly Mountain Resort).

Ski Slope/Trail – Concessioner operated alpine or Nordic ski slopes and trails on NFS lands to accommodate winter based recreation activities. For alpine skiing, this use generally involves NFS lands without lifts on groomed or ungroomed trails. Alpine ski slopes and trails occur primarily in those situations where the majority of a large ski area operates on adjacent private lands (e.g. Homewood Mountain Resort). For Nordic trails, this use generally involves setting groomed ski tracks to enhance cross-country and skate-skiing opportunities (e.g. Spooner Cross-Country Ski Area).

Recreation Residences – The term "recreation residence" includes only those residences that occupy planned, approved tracts or those groups of tracts established for recreation residence use. See FSM 2347 for basic policy on recreation residence use.

Organization Camps – This designation includes camps of a public or semipublic nature that are developed by the special use authorization holder, by the Federal Government, or jointly by both. Normally, only nonprofit organizations or governmental agencies qualify for special use authorization in this category.

Outfitting and Guiding Service - This designation includes all commercial outfitting and guiding services for accommodating guests, transporting persons, and providing equipment,

supplies, and materials to NFS lands. This designation also includes commercial guiding activities wherein the guide furnishes personal services or serves as a leader or instructor.

Events – This designation includes organized events of a temporary nature such as races and festivals.

Infrastructure

Administrative Facilities - Includes offices, fire stations, lookouts, installations for research, and work centers.

Roads - Includes the construction, reconstruction, maintenance, and decommissioning of National Forest System (NFS) roads for motor vehicle use. (See Motor Vehicle Use Map for Designated Travel Routes)

Motorized Use of Roads – Roads open to all motor vehicles including smaller off highway vehicle that may not be licensed for highway use. (See Motor Vehicle Use Map for designated travel routes)

Trails - Includes the construction, reconstruction, maintenance, and decommissioning of NFS trails for allowed uses. (See Motor Vehicle Use Map for designated trails)

Motorized Use of Trails – Motorized use on trails such as OHV's, and Motorcycles (See Motor Vehicle Use Map for designated trails).

Mechanized Use of Trails - Includes use of mechanized equipment, such as mountain bikes.

Motorized Cross-country Travel - Motorized Cross-country travel such as OHV's or Motorcycles.

Over Snow Vehicle Travel (OSV) – Over-Snow Vehicle (Snowmobile) use on national forest lands (See LTBMU Snowmobile Guide for areas open to over-snow vehicle use).

Permitted Uses- Non-Recreation

Communication Sites – Sites designated for the location of communication facilities, including broadcast radio and television, cable television, microwave for industrial and common carriers, cellular telephone, land-line telephone, and amateur and mobile radio transmission and repeater sites. (See Map 8, Communication Sites for designated Communication Sites.)

Transportation Related – Includes facilities such as avalanche control centers, maintenance yards, storage facilities, airport navigation beacons, Department of Transportation easements, private party easements, and rights of way.

Utilities – Includes underground and overhead alignments for utilities including fiber optic, telephone, cable, water, sewer, and electricity distribution facilities. It also includes specific sites for wells, water tanks, springs, dams, pump stations, fish ladders, water diversion, reservoirs, and other utilities.

Urban Stormwater Treatment Projects – Includes special use permits to authorize use of NFS lands for urban storm water projects for treatment and control of runoff from urban areas and highways.

Community Use and Public Information – Includes permitted land uses such as non-commercial group use, monuments, markers, signs, benches, interagency visitor centers, amphitheaters, museums, transit centers, and cultural centers.

Non-Timber Forest Products – Includes commercial and non-commercial collection of materials such as firewood, plants, mushrooms, berries, biomass, pine cones, extractives, Christmas trees, and boughs.

Production Livestock Grazing – Authorized use and management of NFS lands for the purpose of livestock production, utilization of forage resources by livestock, and/or coordination of livestock grazing with other uses. Site specific environmental analysis is needed to determine the suitability of this activity on the single vacant grazing allotment on the LTBMU.

Permitted Research and Monitoring – Includes the temporary use of NFS lands for monitoring, sampling, and data collection in support of private and public research projects such as stream gauges and air and water quality monitoring stations, and may involve sampling programs, research experiments, and erosion control and water quality monitoring.

Permitted Temporary Activities – Includes the temporary use of NFS lands for activities such as weddings, commercial filming and commercial still photography, training, commercial special events, and vendors.

Lands Suitable for Timber Production

There are no lands on the LTBMU where timber "production" is either a primary or secondary objective or goal. Timber output may be an incidental product from silvicultural prescriptions designed for other purposes, and timber harvest is seen as a "tool" for accomplishing other objectives such as restoration and fuels hazard reduction (Table 6, Category 3b). There is no intent of producing a sustainable timber harvest over time on any lands in the Lake Tahoe Basin. Therefore, there are no acres of lands suitable for timber production (Table 6, Category 3a).

Table 6. Summary of Available Areas for Timber

Category	Acres	Acres Generally Not Available for Timber Harvest	Acres Generally Available for Timber Harvest	Acres Not Suitable for Timber Production
1. Total National Forest System Lands within the plan area	153,820			
2. Lands generally not available for timber harvest (sec. 62.1)		50,956		50,956
a. Lands not available for timber harvest due to statute, Executive order, regulation, policy or physical and biological conditions (sec. 62.1)		25,016		
b. Lands where timber harvest is not compatible with desired conditions and objectives (sec. 62.1)		25,940		
3. Lands generally available for timber harvest (sec. 62.2)			102,864	
a. Lands suitable for timber production (sec. 62.21)*			0	
b. Other lands where trees may be harvested for multiple use values other than timber production (sec. 62.22)			102,864	102,864
4. Lands generally not suitable for timber production, all lands except 3(a). (sec. 62.3)				153,820
*Timber production achieves or is consistent with desired conditions and objectives.				

2.4 Designated Special Areas

Special Areas are NFS lands designated as such because of their unique or special characteristics (reference Plan Maps 3 and 4). Special Areas include special interest areas (SIAs), research natural areas (RNA), Nationally Designated Trails, and other specially-designated sites. Special Areas will continue to be managed consistent with preservation of the values for which each Special Area was designated, as described below.

Wilderness Areas

Desolation Wilderness

Desolation Wilderness consists of 63,960 acres of sub-alpine and alpine forest, granite peaks, and glacially-formed valleys and lakes. It is located west of Lake Tahoe in El Dorado County, California and was designated in 1969. Desolation Wilderness is jointly administered by the Eldorado National Forest and Lake Tahoe Basin Management Unit.

Desolation Wilderness is managed according to the Wilderness Act of 1964 to "ensure an enduring resource of Wilderness for present and future generations." The wilderness character of Desolation and its values of solitude, physical and mental challenge, scientific study, inspiration and primitive recreation will be protected, and where necessary, restored. Natural ecological conditions will be preserved under a concept of non-degradation, to prevent loss of naturalness or solitude.

Granite Chief Wilderness

Granite Chief Wilderness was designated in 1984 because of its pristine nature, natural beauty, and potential to provide primitive, non-motorized recreational opportunities. The Tahoe National Forest is the lead forest and manages this 25,680-acre wilderness. Only 46 acres are located within the LTBMU.

Mt. Rose Wilderness

The 30,000-acre Mount Rose Wilderness was designated by Congress in 1989. The Humboldt-Toiyabe National Forest is the lead forest. The LTBMU shares management responsibility on 2,586 acres located within the Basin. Located in Nevada, between the Sierra Nevada mountain range and the Great Basin, the wilderness is named after the highest peak in the Carson Range. The summit of Mount Rose is at 10,776 feet elevation, and is accessible via a strenuous 12-mile round trip hike. Due to its proximity to urban centers (adjacent to Reno and communities of north Lake Tahoe) Mount Rose is easily Nevada's most heavily used Wilderness; however, portions of the interior hide small meadows and smaller lakes that are less frequented by humans.

National Trails System

Pacific Crest Trail, National Scenic Trail

National Scenic Trails are designated by an act of Congress. The Pacific Crest Trail is a 2,650-mile national scenic trail that runs from Mexico to Canada through California, Oregon, and Washington. Twenty eight miles of the PCT wander in and out of the LTBMU's western administrative boundary. Permit quotas and fees required for overnight camping in Desolation Wilderness do not apply to thru hiking on the PCT, as long as at least two Wilderness areas are visited. Day hiking and overnight backpacking can both be initiated at the Echo Lake trailhead and the PCT is open to equestrian use.

National Recreation Trails

National Recreation Trails (NRT) are authorized under the National Trails System Act of 1968 (Public Law. 90-543, as amended through P.L. 111-11, March 30, 2009) (also found in *United States Code*, Volume 16, Sections 1241-1251) and designated by the Secretary of Agriculture.

Tahoe Rim Trail

The Tahoe Rim Trail (TRT) is a 166-mile trail that circumnavigates Lake Tahoe's ridges and mountaintops. Ninety-six (96) miles of the TRT was designated a part of the National Trail System due to its historical features, landscape and water features, scenic qualities, and recreation opportunities it offers. Along the west shore of Lake Tahoe, 49 miles is part of the Pacific Crest Trail, National Scenic Trail. The TRT offers outstanding views of Lake Tahoe and surrounding mountain peaks, forests, and meadows that form the Lake Tahoe Basin. The trail passes through two states (California and Nevada), six counties, the LTBMU, the Eldorado National Forest, Humboldt-Toiyabe, and Tahoe National Forests, and Nevada state park lands.

Pope-Baldwin Bicycle Trail

The Pope-Baldwin Bicycle Trail was designated a national recreation trail in 1979 due to the exceptional scenic and recreational opportunities it offers. Pope-Baldwin Bicycle Trail is a 3.3 mile long paved bicycle trail that traverses an area offering scenic views and extensive recreational opportunities. The trail links to South Lake Tahoe's urban bike route on its western end, connecting Pope Beach, Camp Richardson Resort, the Tallac Historic Site, and the Taylor Creek Visitor center.

Hawley Grade Trail

Designated as a national recreation trail, in1979, a 1.8 mile segment of the historic Comstock-era prospector and Pony Express route, Hawley Grade was the main route from Echo Summit into Lake Valley and the Lake Tahoe Basin. The designation recognized the trail's exemplary local and regional significance.

Hawley Grade is a 1.8-mile trail that was originally constructed as a toll road during the gold rush era. The Hawley Grade was designated as a national recreation trail due to its historical role in the Lake Tahoe Basin and its scenic views. In the 1850's, the Hawley Grade served mule-drawn wagons, and for a short time, the Pony Express. This trail, although rugged, offers spectacular views of the Lake Tahoe Basin from Echo Summit, high above the valley floor.

Other Designated Special Areas

Tallac Historic Site, Special Interest Area

The management goal of Special Interest Areas is to protect special recreational or scientific values, such as unique scenic, historical, geological, botanical, zoological, or paleontological characteristics. These areas are then available for public study, use, or enjoyment as appropriate.

The Tallac Historic SIA was established by the 1988 LTBMU Land and Resource Management Plan to protect the Tallac Historic Site and ensure continuing education and interpretation opportunities.

Grass Lake Research Natural Area

Research natural areas (RNAs) illustrate adequately, or typify for research or educational purposes, the important forest and range types in each forest region, as well as other plant communities that have special or unique characteristics of scientific interest and importance. RNAs are retained in a virgin or unmodified condition, except where measures are required to maintain a plant community that the area is intended to represent (36 CFR 251.23).

The Grass Lake RNA was established in 1991 and is administered jointly by the USDA Forest Service Pacific Southwest Research Station and Pacific Southwest Region. Grass Lake RNA provides a sample ecosystem suitable for scientific study. Uses are limited to research, study, observation, monitoring, and educational activities that are non-destructive and non-manipulative. Dispersed recreation is not encouraged, but is allowed if it does not affect natural conditions.

Lake Tahoe East Shore Drive, National Scenic Byway

A National Scenic Byway is a road recognized by the United States Department of Transportation for its archeological, cultural, historic, natural, recreational, and/or scenic qualities. This designation was established by Congress in 1991 to preserve and protect the nation's scenic roads and promote tourism and economic development.

The Lake Tahoe East Shore Drive National Scenic Byway extends from Stateline, Nevada (on U.S. Highway 50) north to Crystal Bay (on NV State Highway 28). Scenic views along Lake Tahoe's eastern shore are dominated by undeveloped, forested lands. Scenic mid-ground views of Lake Tahoe's clear aquamarine waters and rocky shoreline, coupled with distant views of forested slopes and high granite peaks, provide dramatic scenic vistas.

2.5 Recommended Special Areas

Upper Truckee River Recommended Wild & Scenic River

The Upper Truckee Recommended Wild and Scenic River has a special mix of recreation, scenic values, and historic values that are considered Outstandingly Remarkable.

- A seven-mile segment of the Upper Truckee River on the Lake Tahoe Basin Management Unit is eligible for Wild and Scenic River designation.
- The eligible segment is located in the Meiss/Dardanelles Inventoried Roadless Area, from Carson Pass to south of Upper Truckee Rd. Until designated, the interim corridor includes an approximate ¼-mile buffer on either side.
- The Upper Truckee River was determined to be eligible in 1999, as a result of the Eight Eastside Rivers Wild and Scenic River Study Report and Final Environmental Impact Statement (USDA Forest Service Tahoe National NF and LTBMU 1999). Forest Supervisor Juan Palma recommended its designation to the Wild and Scenic River System as a Wild River. The Acting Regional Forester concurred and forwarded the recommendation to the Chief of the Forest Service.
- Formal designation of a Wild and Scenic River requires an act of Congress, similar to wilderness designation.
- Pending formal designation, the LTBMU must manage the river to maintain its wild and scenic qualities, by following the management guidelines for recommended and designated Wild, Scenic and Recreational River corridors.
- Formal designation would require the LTBMU to develop a specific management plan for the river and a final boundary for the corridor.

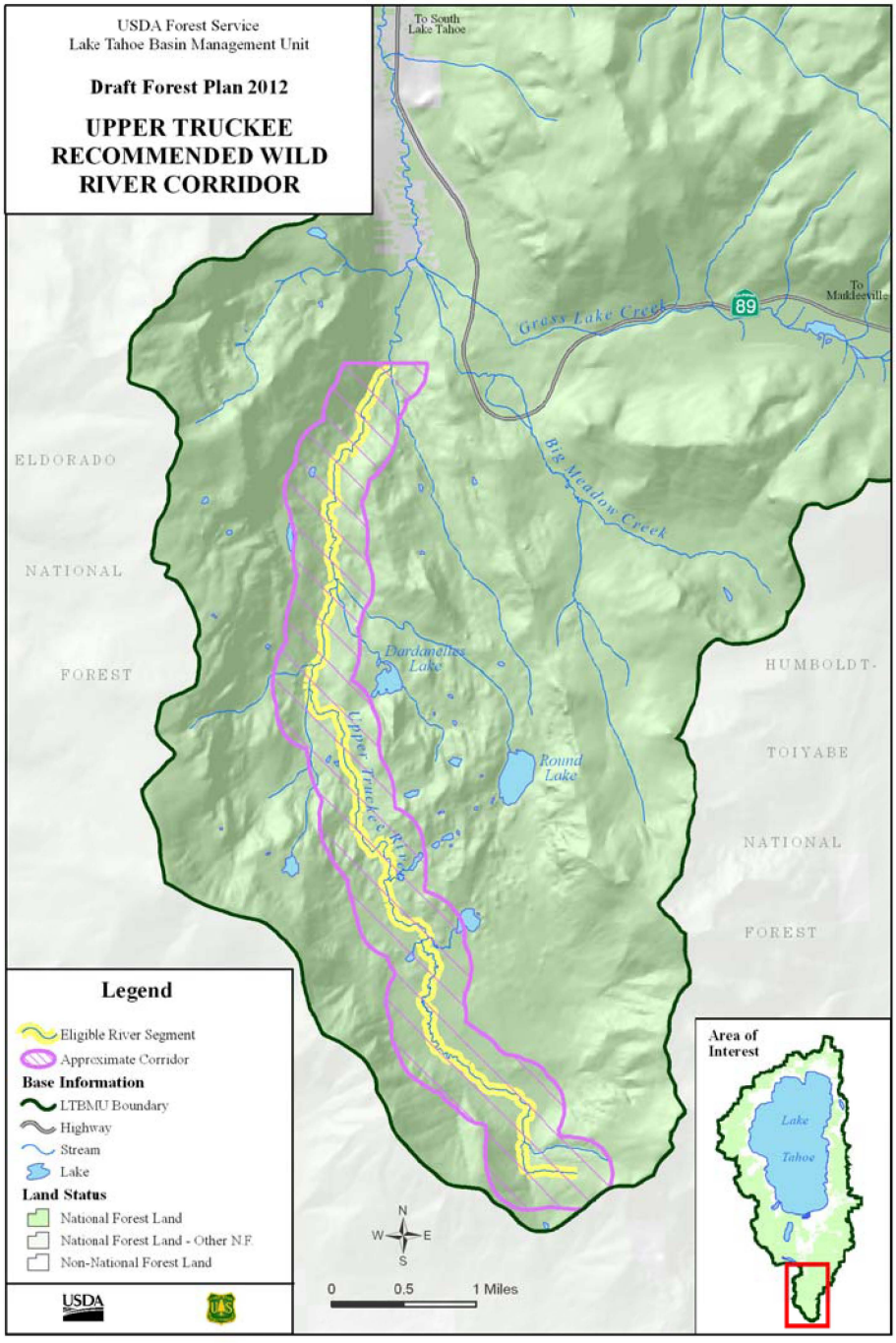


Figure 5. Map of Upper Truckee River Wild River Corridor