

## **Greys Mountain Restoration Project DEIS Executive Summary**

The Sierra National Forest (SNF), Bass Lake Ranger District (BLRD) proposes to restore ecological structure and function to create a resilient landscape that can better withstand future disturbances and continue to provide sustainable ecosystem services for future generations. To accomplish this goal, the SNF BLRD proposes several restoration objectives aimed at promoting native biodiversity and ecosystem resilience in the Greys Mountain Project area. The Greys Mountain Project would restore the ecological processes and forest heterogeneity through a series of prescribed fire and thinning treatments aimed at reducing ladder fuels and dead and down fuel loads. Another objective is to create a network of landscape area treatments and defensible fuels profiles near key transportation corridors to reduce the intensity and rate of spread of wildfires across the landscape and near communities. Proposed treatments also would improve stand resistance to drought, insects, and disease by reducing inter-tree competition and improving tree vigor. Montane meadow restoration would be accomplished in targeted hydrologic systems through a combination of treatments, including improvements to degraded hydrologic features, encroaching conifer removal, and noxious weed management. Proposed treatments would restore culturally-significant vegetation and protect important historic and cultural resources threatened by uncharacteristically severe wildfire.

The area affected by the proposal includes 9600 total project boundary acres within the Willow Creek and Fresno River watersheds, in the Southern Sierra Nevada. The project is immediately north of the community of Bass Lake, California and south of Soquel Meadow, east of Nelder Grove Historical Area and west of Graham Mountain. Vegetation types include ponderosa pine plantations, mixed conifer, true fir, and hardwood species, as well as areas dominated by brush/shrubs, herbs and grasses (meadows), rock, and steep slopes.

This action is needed, because under the amended SNF-LRMP (Sierra Nevada Forest Plan Amendment [SNFPA], Record of Decision [ROD], USDA-FS 2004), an ecosystem approach to project development and planning is recommended. Where there are significant departures from the desired condition or potential for a loss in key ecosystem functions, opportunities for management actions to address this departure were developed. An emphasis on the inter-relationship of the major functional program goals was placed on these opportunities. Of particular concern was the Willow Creek watershed with its highly departed ecological condition and its importance in providing valuable ecosystem services and community benefits to meet the ecological, social, and economic needs of the public.

Current forest conditions, due to past management activities (including harvesting operations, fire exclusion/suppression, housing development, etc.) have been changed from one where fires were of frequent, low/ moderate intensity to infrequent, high intensity. Owing to these changes, forest stands have become less diverse, more homogenous, and more susceptible to uncharacteristically severe wildfire and drought. Current forests stands are typified by an overabundance of shade-tolerant conifer species in the lower and mid-level canopies of the forested stands. Other areas have converted from forested stands to brush/shrub species. This overstocking of conifers has led to a decline in forest health and high susceptibility of loss from insects, disease, wildland fire, and climate change.

A variety of wildlife species are highly dependent on conditions provided by functioning and intact ecosystems, including, Pacific fisher, California spotted owl and Northern goshawk., These species are highly susceptible to habitat loss and fragmentation caused by wildfire, insect and disease outbreaks, past

logging practices, and changing climate. Although there is inherent uncertainty (due to gaps in information) surrounding habitat management of these sensitive species, the vulnerability of these habitats to future stressors can be reduced through the implementation of ecological restoration treatments focused on improving ecosystem resilience, retaining key habitat structures (large live trees and snags), and restoring important forest characteristics (heterogeneity, fire-resilient tree species).

- **Alternative 1 – No Action.** Under the No Action alternative, current management plans would continue to guide management of the project area. No ecological restoration activities would be implemented to accomplish the purpose and need.
- **Alternative 2 – Proposed Action.** Treatment areas within the project area boundary were delineated to include those areas where some form of treatment was necessary to meet the purpose and need. First, treatment areas were designed to reduce the intensity and spread of wildfires in and around WUI. Treatment areas near key transportation corridors and within the defense zone of the WUI were designed next. Treatment areas were further designed to meet several additional ecological restoration objectives: (1) restoration of forest structure and composition (forest heterogeneity and biodiversity is promoted using prescribed burning and mechanical thinning) (2) fire and fuels management (treatments are designed to reduce ladder and surface fuels that occur within the lower and limited mid-level canopy); (3) wildlife habitat and watershed restoration (enhancement and retention of key habitat structures, meadow restoration), (4) forest health and ecological resiliency (overstocked stands are thinned in the lower- and mid-level canopy to promote resilience to changing environmental conditions resulting from insects, disease, wildfire, and drought; and (5) invasive species management (eradication or containment of noxious weed populations).
- **Alternative 3 – Lower and Limited Mid-level Canopy Treatments, All Treatment Areas.** In Alternative 3, treatment areas would remain the same as in Alternative 2, treatments within these areas would include only those needed to reduce the surface and ladder fuels (within the lower and limited mid-level canopy levels) needed to achieve fire and fuels objectives. Under Alternative 3 there would be no additional treatments (i.e. additional thinning in the mid-level canopy) to fully address stand density and forest health objectives.

This alternative would receive treatment only to achieve fire and fuels objectives and limit treatments to mechanical clearing of ladder and surface fuels and prescribed burning.