

01/14/11 Web Version

Now Available For Review

Draft Proposed Action for the Four Forest Restoration Initiative – Coconino and Kaibab National Forests

In preparation for our upcoming workshops, we wanted to share the draft proposed action with you. Although the official scoping period (request for comments) does not start until January 28, 2011, we wanted to give you additional time to review the purpose and need and draft proposed action.

The proposed action is purposely in a draft form. Our intent is to work with you through the comment period to finalize this draft. In the event you cannot attend the workshops, feel free to stop by the Coconino Forest Supervisor's Office. The Four Forest Restoration Initiative (4 FRI) team will be glad to chat about the project with you.

Thank you for your interest in this project. As new information becomes available, it will be posted to this website. Contact Henry Provencio, project team leader at (928) 226-4684 or Paula Cote, project NEPA specialist at (928) 226-4686 for additional information.

What To Expect Next

Workshops – All workshops start at 1 p.m. to 5 p.m.

- January 20, 2011 Meeting/Workshop – Arizona Department of Game and Fish, 3500 S. Lake Mary Road, Flagstaff, Az
- February 2, 2011 – Coconino National Forest Supervisor's Office, 1824 S. Thompson Street, Flagstaff, AZ
- February 9, 2011 – Williams Ranger District, Kaibab National Forest, 742 South Clover Road, Williams, AZ
- February 16, 2011 - Coconino National Forest Supervisor's Office, 1824 S. Thompson Street, Flagstaff, AZ

- February 24, 2011 - Coconino National Forest Supervisor's Office, 1824 S. Thompson Street, Flagstaff, AZ

Scoping Period – 45 day comment period

The scoping period begins January 28, 2011 with the publication of the Notice of Intent (NOI) to prepare an environmental impact statement (EIS) in the Federal Register. The “official” request for comments on the scoping letter sent out via letter, e-mail and will be posted on the forest web-site. The scoping period ends on March 14, 2011.

DRAFT PROPOSED ACTION

Introduction

The Coconino and Kaibab National Forests are proposing to conduct restoration activities within a 750,000 acre ponderosa pine ecosystem over approximately 10 years. Treatment areas are located on the Williams and Tusayan districts of the Kaibab National Forest and on the Flagstaff, Mogollon Rim and Red Rock districts of the Coconino National Forest. Project treatments would occur in the vicinity of Flagstaff, Munds Park, Mormon Lakes, Tusayan, and Williams, Arizona (see figures 1-3). A brief description of the purpose and need for the project and the draft proposed action are provided below.

Project Background

This project is part of a larger effort to address the ecological restoration of ponderosa pine forest across 2.4 million acres on four National Forests in northern Arizona: the Apache-Sitgreaves, Coconino, Kaibab, and Tonto National Forests. Once the Coconino and Kaibab (Environmental Impact Statement (EIS)) analysis is complete in 2012, a second restoration analysis (EIS) will occur on the Apache-Sitgreaves, the Coconino, or Tonto National Forests. For the past year, stakeholders who represent individuals, agencies and organizations have worked on a landscape strategy that would aid restoration at the four-forest scale.

Need for Action – Why Here, Why Now?

The objective of this project is to re-establish forest structure, pattern and composition, which will lead to increased forest resiliency and function. Resiliency increases the ability of the ponderosa pine forest to survive natural disturbances such as insect and disease, fire and climate change. This project is expected to put the analysis area on a trajectory towards comprehensive, landscape-scale restoration with benefits that include improved vegetation biodiversity, wildlife habitat, soil productivity, opportunity for the safe use of managed fire and watershed function. A summary of the need for the project is provided below.

Forest Structure and Forest Health

Historically, the ponderosa pine forest within the analysis area was a mosaic of grassy opening and interspaces with trees arranged in groups and clumps. All tree size classes (an un-even aged structure)

were present. Re-occurring low-intensity fire maintained this mosaic. Under these conditions, the forest had faunal diversity and resiliency to fire and other natural disturbances. Today, a lack of re-occurring fire has resulted in a proliferation of smaller trees that have reduced or entirely replaced openings and interspaces that are important to wildlife and the health of the forest. There is a lack of age and size class diversity and the forest has moved towards an even-aged structure. Dense stand of young, small trees have reduced tree growth and health to the point there is a high risk of losing trees that are in the mid to large size classes. Reduced forest health and the lack of diversity have resulted in a forest that is less resilient to the damaging effects of drought, insect and disease, and intense wildfire.

The desired condition is to move towards an uneven-aged forest structure with all size classes represented. A mosaic of grassy openings and tree groups of varying sizes and shapes (groups and clumps) is present and maintained primarily with fire. The numbers of trees are reduced to allow for individual tree growth, vigor, and increased understory grass and forbs production. There is a need to improve forest structure and maintain the forest mosaic with frequent, low intensity fire. There is a need to implement the forest plan which states, "Manage for old age trees such that as much old forest structure as possible is sustained over time across the landscape" (USDA Forest Service 1987, as amended).

Vegetation Composition and Diversity

Vegetation diversity throughout the analysis area has declined. A lack of fire has allowed Gambel oak, an important habitat component, to become outcompeted by fast growing ponderosa pine which has been growing unimpeded since the disruption of fire. Aspen, a species that provides for habitat diversity, is dying or dead due to the combined effects of conifer encroachment, browsing, insect, disease, severe weather events, and lack of fire disturbance (USDA Forest Service 2008) (USDA Forest Service 2009). The desired condition is to have Gambel oak and aspen present and reproducing. Natural disturbance processes such as fire maintains the oak and aspen component within ponderosa pine systems. There is a need to maintain and promote Gambel oak by removing ponderosa pine competition, stimulating new growth and maintaining growth in large diameter trees. Where possible, there is a need to regenerate aspen by removing ponderosa pine competition, stimulating growth and increasing individual recruitment.

Grasslands (which includes wet and dry meadows), which were once found throughout the analysis area, have shifted to woody vegetation as a result of tree encroachment (USDA Forest Service 2008) (USDA Forest Service 2009). Grasslands provide valuable habitat to many wildlife species including pronghorn antelope, birds and small mammals. The desired condition is to restore the historic patterns of trees within grasslands. There is a need to reduce/remove tree encroachment from historic grasslands. To maintain Gambel oak, aspen and grasslands, there is a need to reduce canopy density by thinning ponderosa pine encroachment.

Fire Regimes

Fire regimes in the analysis area have shifted from frequent, low-intensity surface fires (Fire Regime Condition Class (FRCC I) to lower frequency, high-intensity crown fires (FRCC III). FRCC III indicates high departure from reference conditions and indicates there is potential to sustain a crown fire and high-intensity surface fire. The desired condition is to have the majority of the analysis area in FRCC I. There is a need to reduce the potential for crown fire and high intensity surface fire. In order to maintain grassy

openings and interspaces between trees (as well as promote Gambel oak and aspen), there is a need to move towards having frequent fires that burn with low to mixed severity in 0 to 35 year intervals across most of the analysis area. There is a need to strategically place treatments to reduce the effects of high intensity and high severity wildfire on resources such as sensitive wildlife habitat and the urban interface.

Ecological Processes and Function

Riparian systems on the Coconino portion of the analysis area have shifted from having large trees with open canopies to small and medium trees with closed canopies. Understory vegetation has been reduced (USDA Forest Service 2009). The desired condition is to promote large trees and understory vegetation. There is a need to reduce tree encroachment and increase/maintain grasses, forbs and woody vegetation.

This project would take opportunities to restore riparian features such as springs and seeps. There is a lack of recharge in the aquifers associated with these features due to drought, lack of fire, and closed forest canopies which increase evapotranspiration. Excessive disturbance can result in these features becoming non-functional (USDA Forest Service 2008) (USDA Forest Service 2009). The desired condition is to maintain or restore functionality. In order to restore functionality, there is a need to reduce tree encroachment, maintain these features through natural processes, and limit future disturbance where possible and practical.

Throughout the analysis area, dry ephemeral channels have been degraded by past actions. Some channels are heavily eroded with excessive bare ground and denuded vegetation and head cuts. The desired condition is to have fully functioning ephemeral channels which may promote the establishment of native vegetation and reduced sediment flows. There is a need to restore channels to a functioning condition that more closely resembles their natural condition.

Throughout the analysis area, there are closed roads¹ and unauthorized user-created routes present. Some road prisms, which were identified for closure in other environmental analyses, are eroding and contributing sediment. Sediment can impact water resources and watershed function. In some cases, the roads and user-created routes are inhibiting the long-term establishment and retention of trees and ground-cover. The desired condition is to return road prisms (as possible and practical) to their natural condition. There is a need to promote and maintain vegetation re-establishment and physically preclude future motorized use on select closed roads and user-created routes.

Draft Proposed Action

In response to the purpose and need, the Coconino and Kaibab National Forests propose to conduct restoration activities within a 750,000 acre ponderosa pine ecosystem over approximately a 10-year period (figures 3 to 5). The draft proposed action would:

- Cut trees using a range of treatment methods including group selection, intermediate and pre-commercial thinning. Treatments would focus on the most abundant tree size classes in order to achieve and/or set the analysis area on the trajectory to attain greater diversity (heterogeneity) in

¹ This analysis would does not make decisions on what roads would be open or closed, nor would this analysis make decisions on cross country motorized travel. Decisions regarding the forest's transportation network, including closed roads, have been made in other environmental analyses. The purpose of this analysis is to disclose the effects of preventing motorized travel on select closed roads and unauthorized user-created routes.

spatial patterns and size class distribution. Treatments would be designed to manage for old age trees in order to have and sustain as much old forest structure as possible across the landscape. Strategically-placed treatments would be designed to create tree groups and clumps that stimulate grass, forbs and individual tree growth. The strategic placement of treatments would maximize the ability to reduce fire risk. Trees cut would be mechanically piled, burned, lopped and scattered or removed.

- Cut trees using methods that promote and stimulate the growth of Gambel oak and aspen in order to improve vegetation diversity and wildlife habitat. Protective measures (such as fencing or tree felling) would be used to protect aspen from ungulate use during critical growth periods.
- Cut trees that have encroached on grassland (including wet and dry meadows) to restore historic tree patterns using evidence based science as a guide. After treatment and when appropriate, fire would be used to maintain the grasslands.
- Cut trees within select Mexican spotted Owl Protected Activity Centers (PACs) to improve habitat.
- Conduct prescribed burning over a period of 10 years. Burning methods would include jackpot, pile burning and broadcast. Maintenance burns would occur as needed to maintain openings and interspaces between trees, maintain tree groups and clumps, and move towards and/or maintain Fire Regime Condition Class (FRCC) I.
- Utilize protective measures (such as fencing) to protect sensitive riparian resources including springs, seeps and restored channels.
- Restore dry ephemeral channels to reduce sediment delivery, improve watershed function and increase the potential for future riparian vegetation establishment.
- Utilize (and reconstructing as needed) existing closed roads. Use of the roads would be temporary. Once treatment has occurred, roads would be returned to a closed status.
- Reconstruct roads to access treatment areas. Reconstruction may include road blading, culvert installation or replacement and gravelling.
- Decommission select closed and unauthorized roads. Decommission methods would include installing signs, gates, rock barriers, ripping, or re-contouring of slopes to preclude future motorized use. Roads that have established vegetation may need minimal treatment while others may need to be entirely ripped, seeded and slopes re-contoured.
- Obliterate select unauthorized, user-created routes on the Kaibab National Forest. Mechanical equipment would be used to install rock barriers and/or rip, seed and re-contour slopes.

Design Features, Mitigation, Best Management Practices and Monitoring

The draft proposed action is designed to comply with Coconino and Kaibab forest plan standards and guidelines, as amended. Whether minor forest plan amendments are needed will be determined as the analysis progresses. However, no significant forest plan amendments are anticipated. Design features would be incorporated into the proposed action to protect forest resources including soil, water, scenery values, wildlife and aquatic habitat, and rare plants. Mitigation measures and best management practices will be incorporated into the proposed action to reduce impacts to soil and water resources, prevent the introduction and spread of invasive plants, reduce impacts (and create beneficial impacts) to wildlife, protect heritage resources, and protect public health and safety. A monitoring plan that will inform adaptive management is under development. Comments received during collaborative workshops and throughout the scoping period will guide further refinement of the proposed action, monitoring plan and adaptive management.