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Organization: United States Fish and Wildlife Service
Title: Field Supervisor
Comments: AESO/SE
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August 11, 2016

Attn: Ms. Annette Fredette, 4FRI Planning Coordinator
Coconino National Forest
1814 South Thompson Street
Flagstaff, Arizona 86001

RE: Rim Country Project Proposal Comments

Dear Ms. Fredette:

Thank you for your June 21, 2016 request for comments concerning the proposed action for the 4FRI Rim Country Project, Apache-Sitgreaves, Coconino, and Tonto National Forests, in Apache, Coconino, Gila, Navajo, and Yavapai Counties, Arizona. The Forest Service is proposing to conduct various restoration activities within a 1,240,000-acre ponderosa pine and mixed conifer forest ecosystem (project area) over approximately 10 years. Treatment areas are located on the Black Mesa and Lakeside districts of the Apache-Sitgreaves National Forest, on the Mogollon Rim and Red Rock districts of the Coconino National Forest, and the Payson and Pleasant Valley districts of the Tonto National Forest. The purpose of the project is to re establish and restore forest structure and pattern, forest health, and vegetation composition and diversity in ponderosa pine ecosystems to conditions within the natural range of variation, thus moving the project area toward desired conditions.

Overall, the U.S. Fish and Wildlife Service (FWS) supports the Forest Service's efforts to plan and implement landscape-level forest restoration, and will continue to actively assist your agency in the development of the Draft Environmental Impact Statement (DEIS) for the project. The comments provided below are intended to assist in providing technical assistance toward the development of the proposed action and DEIS. Our comments are based upon the June 2016 Proposed Action.

General Comments

Existing Conditions

1. The proposed action write-up includes very few citations, but there are multiple areas where the proposal would be substantially stronger if supporting literature was provided. For example, Table 2, which provides numbers regarding the existing and desired conditions for forest cover types, does not include any citations or references indicating the source of the desired conditions. We are particularly interested in the sources used to define the desired conditions for dry mixed conifer. It appears that the average basal area and average trees per acre data was obtained from Reynolds et al. (2013). However, there is additional data on mixed conifer that has been collected since that General Technical Report was published that may aid in refining the ranges provided (e.g., Margolis and Malevich (2016) found that tree density in dry conifer forests historically ranged from open [36 trees per acre] to moderately dense [162 trees per acre]). We recommend that the Forest Service cite the basis for the desired conditions stated in the proposed action and update information with the best available science as the DEIS is developed. In addition, the range for the

desired average basal area for dry mixed conifer is different in Table 2 from that listed in Table 7.

2. Tables 3 and 4 describe existing crown fire potential in forest cover types. However, there is a column titled "No fire" in both tables that is undefined. We recommend that all terms be clearly defined throughout the document to minimize the potential for confusion.

3. Table 7 describes the desired conditions by cover type. We noticed in our review that the ranges listed for the average basal area for Ponderosa Pine/Gambel Oak and Dry Mixed Conifer do not include the full range for these cover types. Ponderosa Pine/Gambel Oak should have an upper limit of 110, and dry mixed conifer should have an upper limit of 120 for basal area. We also recommend providing data/information regarding why the average trees per acre for dry mixed conifer (20-100 trees per acre [TPA]) is less than the ponderosa pine (11-124 TPA) cover types.

4. The proposed action (page 11) states "For the dry mixed conifer type, forest plan direction is to allow fire to play its natural role, with high frequency (averaging about 12 years)..." We recommend including more specificity about what is known regarding dry mixed conifer fire return intervals and not using averages to describe the desired condition. If the goal is to allow fire to play its natural role, then the full range of fire return intervals for dry mixed conifer should be included in the proposed action. Swetnam and Baisan (1996) contains a summary of tree-ring studies conducted at 24 mixed conifer sites in Arizona and New Mexico, and reported historical mean fire intervals that ranged from about 4 to 15 years for mixed-conifer sites dominated by ponderosa pine. On sites with a more even mix of mixed-conifer tree species, but still containing ponderosa pine, Swetnam and Baisan (1996) found fire-return intervals ranged from about 8 to 26 years. Longer mean fire-return intervals (19-30 years) were reported by Grissino-Mayer et al. (2004) for three mixed-conifer sites containing ponderosa pine in southern Colorado. Other researchers have documented historical fire return intervals at sites in New Mexico, northern Arizona, and southern Colorado within this range (4-30 years) (Brown et al. 2001, Heinlein et al. 2005, Fule et al. 2003, Fule et al. 2009, Margolis and Balmat 2009, Bigio et al. 2010). The range of fire intervals in dry mixed conifer characterizes the diversity of this forest type and likely reflects interactions between climate, fuels, and topography. Longer fire-return intervals can result from a heterogeneous landscape structure that restricts fire spread (Iniguez et al. 2009) or long periods between climate conditions favorable for fire (Margolis and Swetnam 2013). We recommend that the Forest Service include this information in the "toolbox of treatments" to ensure the range of fire return intervals in dry mixed conifer is allowed for across the project area.

5. The proposed action (page 11) briefly describes desired conditions for Mexican spotted owls. We recommend modifying the "higher tree densities" to specifically state that we are attempting to increase the density of larger trees on the landscape in owl habitat, not manage for unsustainable levels of "high tree density." We refer you to Table C.2 (pages 275-277) in the Revised Recovery Plan for the Mexican spotted owl (USDI FWS 2012) for more detail regarding desired conditions, particularly in protected activity centers and nest/roost replacement recovery habitat.

6. The discussion regarding stream and aquatic habitat does not provide many details regarding the desired conditions or how the Forest Service intends to improve conditions in these areas. We recommend that language regarding these critically important habitats be very specific. In the "East Clear Creek Watershed Recovery Strategy for the Little Colorado Spinedace and Other Riparian Species" (Multiple Agencies, 1999), we defined criteria for rating individual stream (drainage) reaches and prioritizing treatment for these areas. We recommend that the Forest Service, Arizona Game and Fish Department, and other interested stakeholders work with us to use the data and evaluations developed for the eastern Coconino-western Apache-Sitgreaves National Forests to define actions that still need to be completed, identify new activities, and build criteria for assessing areas outside of the Clear Creek watershed for habitat improvement actions.

7. The discussion regarding forest cover types and how these cover types are broken out in Table 10 is not consistent with existing and revised forest plans or the Revised Recovery Plan for the Mexican spotted owl (USDI FWS 2012). Within the project area, there are two types of owl habitat -mixed conifer and ponderosa pine/Gambel oak (see "Key to Forest Types Referenced in the Recovery Plan" pages 254-256). It is confusing to have new categories of mixed conifer and ponderosa pine/oak listed as northern goshawk habitat, but not owl habitat. There is also some confusion regarding definitions. Ponderosa pine with less than 10% of the stand basal area in Gambel oak greater than five inches diameter-at-root collar is not considered "pine-oak." There is likely still oak in many pine stands that could be enhanced through active management, but that does not make it a "ponderosa pine/Gambel oak" cover type. The same is true for mixed conifer in terms of how it has been described in the proposed action. We would like to meet with you to further discuss the classification system used in the proposed action and the benefit to continuing to use the definitions for these cover types described in the Recovery Plan to ensure consistency between this and other forest plans and projects.

8. The scope and size of the Rim County Analysis Area is very large. To effectively implement forest restoration and other activities to improve wildlife habitat at this scale, there is a need to have a robust monitoring framework. Therefore, we recommend the Forest Service work with us to develop specific desired conditions for each restoration element affecting listed species, clearly articulate triggers for management change, and ensure the adaptive management strategy identifies a process for modifying management actions when objectives are not met.

We appreciate this opportunity to provide comments on the Rim Country Project, and we look forward to continuing our work with your agency in development of the DEIS. If you have any questions, please contact Shaula Hedwall (928-556-2118) or Brenda Smith (928-556-2157) of our Flagstaff Office.

Sincerely,

Steven L. Spangle
Field Supervisor

cc (electronic copy):

Chief, Habitat Branch, Arizona Game and Fish Department, Phoenix, AZ
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