

Forsythe II Fuels Reduction Project

Biological Report¹ for Plants

Boulder Ranger District

Arapaho and Roosevelt National Forests and Pawnee National Grassland

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¹ Includes Biological Assessment, Biological Evaluation and Specialist Report for Plants.

Introduction

The purpose of this biological report is to determine the likely effects of the project to federally listed plant species (endangered, threatened, and proposed), Forest Service Sensitive plant and terrestrial insect species, management indicator species (MIS) (There are no plant Management Indicator Species (MIS) on the ARP; therefore, MIS will not be discussed further in this report), and other rare plant species or habitats pertinent to this project, according to direction in the 1997 Revision of the Land and Resource Management Plan for Arapaho and Roosevelt National Forests and Pawnee National Grassland (USDA Forest Service 1997).

Section 7 of the Endangered Species Act of 1973, as amended, requires federal agencies to ensure that actions authorized, funded, or carried out by them are not likely to jeopardize the continued existence of Proposed, Threatened, or Endangered species, or result in the destruction or adverse modification of their critical habitats. In addition, the Forest Service has established direction in Forest Service Manual 2670 to guide habitat management for Proposed, Endangered, Threatened and Sensitive species (PTES). This process ensures that PTES species receive full consideration in the decision-making process. The direction establishes the process, objectives, and standards for conducting a Biological Evaluation.

A Region 2 Manual Supplement 2600-2015-1 provides additional direction for conducting the analysis required in Biological Evaluations.

Purpose and need for the proposed action

Existing Condition

Vegetation in the area includes a mix of montane and subalpine plant communities consisting of aspen, Douglas-fir, limber pine, lodgepole pine, ponderosa pine, Engelmann spruce, subalpine fir, and meadows. Elevations in the project area range from approximately 7,000 feet to 9,000 feet above mean sea level.

Consultation History

Interagency cooperation between the Forest Service and the United States Fish and Wildlife Service (USFWS) regarding proposed, threatened, or endangered species is described in Section 7 of the Endangered Species Act. Definitions relating to “consultation” and “conference” are given in FSM supplement 2600-90-6.

A project specific threatened and endangered species list was obtained for the project area dated June 7, 2016 from the U.S. Fish and Wildlife Service’s (FWS) Information, Planning, and Conservation System (IPAC) on-line tool (www.fws.gov/ipac). IPAC is recognized by FWS as an appropriate means of identifying listed species for project areas. No further analysis is needed for threatened, endangered, or proposed species that are not known or suspected to occur in the project area, and for which no suitable habitat is present, unless indirect or cumulative effects may result (as in downstream water depletions). The following table documents the rationale for excluding a species. If suitable but unoccupied habitat is present, then potential effects are evaluated in this biological assessment. The species noted as excluded on the table below will not be discussed further in this document. No consultation has occurred for listed plant species for this project.

Species Considered and Evaluated

Proposed, Threatened, and Endangered Species

Table 1. Includes federally listed or proposed species determined by FWS to possibly be located or affected by the proposed project on the Boulder Ranger District of the Arapaho and Roosevelt National Forests and Pawnee National Grassland. There are no known or expected occurrences or suitable habitat within the project area, nor are there any downstream water depletions planned or expected because of the proposed project.

Table 1. Federally listed species considered for analysis in the biological evaluation

Common Name	Species	Status	MIS/Indicator Community	Species Excluded	Reason for Exclusion
Ψ *Colorado butterfly plant	<i>Gaura neomexicana ssp. coloradensis</i>	Threatened	No	Yes	Outside of elevation range, No influence on species or habitat/no water depletions
*Ute ladies' -tresses	<i>Spiranthes diluvialis</i>	Threatened	No	Yes	Outside of elevation range, No influence on species or habitat/no water depletions
*Western prairie fringed orchid	<i>Platanthera praeclara</i>	Threatened	No	Yes	Not near species or habitat/no water depletions

Note: Ψ Suspected to occur but unconfirmed on the Arapaho and Roosevelt National Forests. *Could be affected by downstream water depletions.

Sensitive Species

The Arapaho and Roosevelt National Forests and Pawnee National Grassland received the Region 2 Forest Service sensitive species list, dated August 29, 2015, from the Regional Forester. The following list includes current sensitive species found within or suspected on the ARP. Complete lists by Region and Forests/Grassland can be found as an attachment to this report. The species noted as excluded on the table below will not be discussed further in this document. Some species are excluded from analysis due to elevation. Generally this means that the proposed project is outside the species known elevation range for this particular latitude.

Table 2. Region 2 Forest Service sensitive species considered for analysis

Common Name	Species	Elevation (feet)	Plant Phenology	Excluded	Reason for Exclusion
Ψ Sea pink	<i>Armeria maritima</i> var. <i>siberica</i>	11,900-13,000	Fl: July, Fr: August	Yes	Project is outside the elevation range of this species and no suitable habitat exists.
☼ Dwarf milkweed	<i>Asclepias uncialis</i>	4000-6500	Fl: Late April-May Fr: June-Early July	Yes	Project is outside the elevation range of this species and no suitable habitat exists.
Ψ Park milkvetch	<i>Astragalus leptaleus</i>	7675-9500	Fl: June to Aug	No	

Common Name	Species	Elevation (feet)	Plant Phenology	Excluded	Reason for Exclusion
☼ Prairie moonwort	<i>Botrychium campestre</i>	3700-10,800	Emerges in May	No	
Lesser-panicked sedge	<i>Carex diandra</i>	6100-9600	Fr: Late May – mid-August	No	
Livid sedge	<i>Carex livida</i>	9000-10,000		Yes	Project is outside the elevation range of this species and no suitable habitat exists.
☼ Sandhill goosefoot	<i>Chenopodium cycloides</i>	4000-5500	Fl: July-August Fr: Aug-Sept	Yes	Project is outside the elevation range of this species and no suitable habitat exists.
Yellow lady's-slipper	<i>Cypripedium calceolus</i> ssp. <i>parviflorum</i>	7400-8500	Fl: June-July	No	
Clawless draba	<i>Draba exunguiculata</i>	12,000-14,000	Fl: Late June-July Fr: Early August	Yes	Project is outside the elevation range of this species and no suitable habitat exists.
Gray's peak whitlow-grass	<i>Draba grayana</i>	11,500-14,000	Fl: July-August Fr: Aug-Sept	Yes	Project is outside the elevation range of this species and no suitable habitat exists.
Roundleaf sundew	<i>Drosera rotundifolia</i>	9100-9600	Fl: July	Yes	Project is outside the elevation range of this species and no suitable habitat exists.
Dropleaf buckwheat	<i>Eriogonum exilifolium</i>			Yes	Not near species or habitat
Slender cotton grass	<i>Eriophorum gracile</i>	8100-12,000	Fr: July-September	No	
Hall's fescue	<i>Festuca hallii</i>	11,000-12,000	Fl, Fr: July-August	Yes	Project is outside the elevation range of this species and no suitable habitat exists.
Ψ Weber's scarlet-gilia	<i>Ipomopsis aggregata</i> ssp. <i>weberi</i>	8000-9600	Fl: July	Yes	Species is endemic to West Slope of Colorado and southern Wyoming
Simple kobresia	<i>Kobresia simpliciuscula</i>	8900-12,800	Fl, Fr: July-August	Yes	No suitable habitat.
Colorado tansyaster	<i>Machaeranthera coloradoensis</i>			No	
Ψ Adder's-mouth	<i>Malaxis brachypoda</i>	7200-8000	Fl: July Fr: August	Yes	Project is outside the elevation range of this species and no suitable habitat exists.
Budding monkeyflower	<i>Mimulus gemmiparus</i>	8500-10,500	Fl: Mid-July	No	

Common Name	Species	Elevation (feet)	Plant Phenology	Excluded	Reason for Exclusion
Kotzebue grass-of-Parnassus	<i>Parnassia kotzebeui</i>	10,000-12,000	Fl: June-July Fr: July-August	Yes	Project is outside the elevation range of this species and no suitable habitat exists.
Ψ Harrington beardtongue	<i>Penstemon harringtonii</i>	6800-9200	Fl: June Fr: July-August	Yes	Not near species or habitat.
Rock cinquefoil	<i>Potentilla rupincola</i>	6900-10,500	Fl: Mid-June to August	No	
Tundra buttercup	<i>Ranunculus karelinii</i>	12,000-14,000	Fl: July Fr: August	Yes	Project is outside the elevation range of this species and no suitable habitat exists.
Dwarf raspberry	<i>Rubus arcticus</i>	8600-9700	June-July	No	
Silver willow	<i>Salix candida</i>	8800-10,600	Fl: May-June	No	
Ψ Autumn willow	<i>Salix serissima</i>	7800-10,200	Fl: May-July Fr: Late July-September	No	
Sphagnum moss	<i>Sphagnum angustifolium</i>	subalpine		No	
Lesser bladderwort	<i>Utricularia minor</i>	8200-10,950	Not available	No	
Ψ Selkirk violet	<i>Viola selkirkii</i>	8500-9100	Fl: May-June	No	

Ψ These species are suspected to occur but unconfirmed on the ARP. ✧ These species are suspected to occur but unconfirmed on the Pawnee National Grassland.

Pre-field review and field reconnaissance

Colorado Natural Heritage Program (CNHP) and Natural Resources Information System (NRIS) Element Occurrence information was reviewed for species occurrence. The occurrence of habitat was identified through existing vegetation inventory and general field review. Detailed habitat maps for each species are not available. Field reconnaissance was conducted during the summers of 2008 – 2014. All proposed treatment units were surveyed by USDA FS personnel using an intuitively controlled meandering transect methodology biased toward the habitats of R2 Sensitive plant species that were being evaluated for this report.

All federally threatened, endangered, proposed, and Region 2 Sensitive plant species for the Arapaho and Roosevelt National Forests were considered in this analysis. No federally listed or proposed threatened or endangered plant species were identified as being within the project area or potentially affected by the proposed project. Region 2 Sensitive plant species considered in the analysis are listed in Table 2. No records of Region 2 Sensitive plant species were found within the proposed project area during office review of CNHP and NRIS databases. Nor were

there any observed during field reconnaissance. Neither was there any suitable habitat noted for the Region 2 Sensitive plant species.

Effects determination

Provided the design criteria are met; there will be no direct, indirect or cumulative impacts to Region 2 sensitive plant species. There are no extenuating circumstances that would affect this determination.