

# **Forsythe II Fuels Reduction Project**

Biological Report<sup>1</sup> for Plants

Boulder Ranger District

Arapaho and Roosevelt National Forests and Pawnee National Grassland

June 30, 2016

**Prepared by:**



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Thomas O. Bates  
Botanist

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<sup>1</sup> 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](http://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-panicled 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<br>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><br>ssp. <i>parviflorum</i> | 7400-8500        | Fl: June-July                          | No       |  |
| Clawless draba            | <i>Draba exunguiculata</i>                              | 12,000-14,000    | Fl: Late June-July<br>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<br>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><br>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<br>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 kotzebuei</i>    | 10,000-12,000    | Fl: June-July<br>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<br>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<br>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<br>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.