

EFFECTS ON SENSITIVE PLANT SPECIES.

The public expressed concerns about the potential effects of motorized cross-country travel and motorized trail travel on sensitive plant species.

1. EXISTING CONDITION

a. Natural Characteristics

Sensitive species are “Those plant and animal species identified by a Regional Forester for which population viability is a concern, as evidence by: a) significant, current, or predicted downward trends in population numbers or density; b) significant, current or predicted downward trends in habitat capability that would reduce a species’ existing distribution.

The current USFS Northern Region (R1) sensitive plant species list (Kimbell, October 28, 2004) was reviewed and species absence and presence is summarized in the following table and discussed below.

There are several sensitive plant populations within the project area. Generally, the Rocky Mountain Travel Plan analysis area boundary has been used to address impacts to sensitive plants. The potential effects to sensitive plant species would be disclosed as related to recreational travel and disturbance which could increase the competition of noxious weeds.

This assessment takes into account the habitats and known population areas of 20 sensitive plants know or suspected to occupy habitat within the Rocky Mountain Ranger District of the Lewis and Clark National Forest. Fourteen species are know to occupy habitat within the District: round-leaved orchis (*Amerorchis rotundifolia*), Lackschewitz' milkvetch (*Astragalus lackschewitzii*), upward-lobed moonwort (*Botrychium ascendens*), peculiar moonwort (*Botrychium paradoxum*), small yellow lady’s-slipper (*Cypripedium parviflorum*), sparrow’s-egg lady’s slipper (*Cypripedium passerinum*), northern wild-rye (*Elymus innovatus*), giant helleborine (*Epipactis gigantean*), Lackschewitz' fleabane (*Erigeron lackschewiti*), Macoun’s gentian (*Gentianopsis macounii*), stalked-pod crazyweed (*Oxytropis podocarpa*), Austin’s knotweed (*Polygonum douglasii* spp. *Austenae*), blunt-leaved pondweed (*Potamogeton obtusifolius*), and five-leaf cinquefoil (*Potentilla quinquefolia*). It is possible that six species: English sundew (*Drosera anglica*), linear-leaved sundew (*Drosera linearis*), Hall’s rush (*Juncus hallii*), Barratt’s willow (*Salix barratiana*), water bulrush (*Scripus subterminalis*), and alpine meadowrue (*Thalictrum alpinum*) may be present, although these species have not been found their habitat may occur within the project area. Four species: short-styled columbine (*Aquilegia brevistyla*), long-styled thistle (*Circium longistylum*), northern rattlesnake-plantain (*Goodyera repens*), and Missoula phlox (*Phlox kelseyi* var. *missoulensis*) do not occur on the Rocky Mountain Ranger District of the Lewis and Clark National Forest.

Table III-82. R-1 Sensitive Plant Species - Lewis And Clark National Forest

SPECIES NAME	HABITAT PREFERENCE AND OCCURRENCE IN PROJECT AREA
round-leaved orchis	Moist to wet coniferous forests in full or partial shade, seepy areas and along stream habitat, on limestone substrate. Associated vegetation includes spruce and horsetail species. Elevation ranges from 4,900 to 5,900 feet on the Forest. Known to occur in the project area.
Lackschewitz' milkvetch	Open, gravelly calcareous soils and talus on ridge-tops and slopes in alpine and sub-alpine zones. Known to occur in the projects area.
upward-lobed moonwort	Alpine meadows, grassy openings in ope sub-alpine forests. Potential habitat occurs in the project areas. Known to occur within the project area.

SPECIES NAME	HABITAT PREFERENCE AND OCCURRENCE IN PROJECT AREA
peculiar moonwort	Open meadows or dense stand of tall forbs in the foothill to alpine zones, often in areas that have experienced some disturbance. Elevations range from 5,520 to 7,330 feet on the Forest. Known to occur in the project area.
small yellow lady's-slipper	Bogs, damp mossy woods, seepage areas, and moist forest meadow ecotones. Elevations range from 4,400 to 4,000 feet on the Forest. Known to occur in the project area.
sparrow's-egg lady's-slipper	Mossy, moist, seepy places in coniferous forests, often on calcareous substrates. Frequently co-occurs with round-leaved orchis, spruce and horsetail species. Elevations range from 4,900 to 5,700 feet on the Forest. Known to occur in the project area.
English sundew	Sphagnum moss in wet, organic soils of fens in the montane zone. Habitat may occur in project area; no known populations.
linear-leaved sundew	Sphagnum moss bogs, organic soils of poor nutrient fens at mid elevations in the montane zone. Habitat may occur in project area; no known populations.
Northern wild-rye	Sandy meadows, streambank and rocky hillsides to open lodgepole pine or spruce forests. Elevations range from 4,600 to 4,800 feet on the Forest. Known to occur in the project area.
giant helleborine	Streambanks, lake margins, seep and springs, often near thermal waters. Elevation is approximately 4,560 feet on the Forest. Known to occur in the project area.
Lachschewitz' fleabane	Open, gravelly calcareous soils and talus ridge-tops and tundra in the alpine zone. Elevations range from 7,500 to 8,400 feet on the Forest. Known to occur in the project area.
Macoun's gentian	Wet, organic soils of calcareous fens in the valley and foothill zones. Known to occur in the project area.
Hall's rush	Montane to sub-alpine, wet sloughs to moist or dry meadows and open, grassy slopes. Often associated with fescue grasslands or more moist meadows, sometimes partially shaded. Habitat may occur in project area; no known populations.
stalked-pod crazyweed	Alpine ridge and slope habitats, often on limestone substrates. Elevations range from 7,920 to 8,200 feet on the Forest. Known to occur in the project area.
Austin's knotweed	Barren to sparsely vegetated, dry, gravelly, often shale-derived soils of eroding slopes and banks in the montane zone. Elevations range from 4,900 to 7,000 feet on the Forest. Known to occur in the project area.
blunt-leaved pondweed	Shallow water of lakes, ponds, and sloughs in the valley, foothill, and montane zones, usually at lower elevations. Known to occur in the project area.
five-leaf cinquefoil	Dry, gravelly soils of exposed ridges and slopes in the montane to alpine zones. Known to occur in the project area.
Barratt's willow	Cold, moist soils near or above timberline. Habitat may occur in project area; no known populations.
water bulrush	Shallow fresh water and boggy margins of ponds, lakes and sloughs in valley, foothill and montane zones. Habitat may occur in project area; no known populations.
alpine meadowrue	Hummocks, often beneath low shrub in moist, alkaline meadow in the montane zone. Habitat may occur in project area; no known populations.
short-styled columbine	Open woods and stream banks at mid-elevations in the montane zone. No known populations occur in the project area.
long-styled thistle	Vernally moist meadows in the montane zone. No known populations occur in the project area.
northern Rattle-snake plantain	North-facing, mossy forested slopes in the montane zone. No known populations occur in the project area.
Missoula phlox	Open, exposed, limestone-derived slopes in foothills and montane zones. No known populations occur in the project area.

b. Desired Condition

The long-range goal is to promote high quality, wildlife, and fish habitat to insure a desired mixture of well-distributed species and numbers for public benefit and give special emphasis to sensitive plant, animal and fish species management [Forest Plan, 2-2, (3)], and to insure maintenance of sensitive plant species populations to provide protective measures that allow species populations to become viable in accordance with the Forest-Wide objective and standards [Forest Plan, pp. 2-5 and 2-34, (11)] and as amended (Forest Plan Amendment Number 12, 10/83).

2. ENVIRONMENTAL CONSEQUENCES

a. Alternative 1 - No Action Alternative

1. Direct and Indirect Effects

Existing roads and trails would not have a major impact on sensitive plant species. However, some activities associated with the roads and trails have the potential to affect plant populations. Vehicle or stock travel outside the road or prism could impact plants. Use of herbicides on noxious weeds could affect sensitive plant species. Most road and trail maintenance activities that stay within the existing prism would not pose a direct threat to those plant populations that are established along road or trail-ways.

2. Cumulative Effects

Several plant populations are located adjacent to road and trails. Some of the roads and trail within the project area would be improved with future NEPA projects. These projects may have the potential to affect sensitive plant populations, depending on the location and scope of the project. Those projects would require site specific analysis and survey for plant populations, if appropriate.

b. Action Alternatives 2 - 5

1. Direct and Indirect Effects

Alternatives 2 through 5 have the potential to affect three known populations of round-leaved orchis, and one population of Austin's knotweed and sparrow's-egg lady's slipper. All the potential effects come from decommissioning of existing road or trail prisms that are within or near populations. The roads and trails that may potentially affect populations are shown in the following table.

Table III-83. Roads & Trails That May Potentially Affect Sensitive Plant Species

Road/Trail Number	Action Proposed	Species Present/Suspected	Remarks/Mitigation
Trail #219	Decommission	round-leaved orchis	Known population near proposed activity. Site specific evaluation required. Avoid disturbing population.
#233 Beaver/Willow Road spurs	Decommission	round-leaved orchis Austins knotweed sparrow's-egg lady's slipper	Known populations near proposed activity. Site specific evaluation required. Avoid disturbing population.

c. Effects Common to All Alternatives

1. Direct and Indirect Effects

General effects on sensitive plants are negative due to the potential ground disturbing activities. Ground disturbing activities, particularly when the soil surface is disturbed, can cause negative impacts to sensitive plant populations. These factors include the direct physical impacts to populations and the alteration of habitats adjacent to these populations.

Any increase in bare soil that is likely to cause an increase in invasive plant species may have a long-term negative effect on sensitive plants and potential sensitive plant habitats. These invading species often out-compete native flora. Soil disturbance and erosion are all likely to increase the opportunity for invasive species to become established. Road management activities such as grading, widening and other improvements provide fresh seedbeds for noxious weeds and constitute an important threat to noxious weed species. The use of herbicides is the most effective treatment for noxious weed occurrence particularly along roadsides. Herbicides can kill sensitive plants, however, and known populations must be buffered from herbicide application.

2. Cumulative Effects

Several sensitive plant species populations are known to occupy habitat along existing roads, trails and areas proposed for decommissioning. Some of the road and trail in the project area would be decommissioned depending on method, with future NEPA projects. Those projects would require site specific analysis and survey for plant populations, if appropriate.

Indirect impacts associated with illegal motorized vehicles, future road improvements and herbicide application could pose a threat to several adjacent populations. This indirect impact is common to all alternatives.

d. Effects Common to All Action Alternatives

1. Direct, Indirect, and Cumulative Effects

There are no known direct, indirect, or cumulative effects common to all action alternatives.

MITIGATION MEASURES

All known populations of sensitive species would be protected during ground disturbing activities. Herbicide applications (spraying) of roadsides and trail-ways would not occur within a specific buffer, as described in the Lewis and Clark National Forest Noxious Weed FEIS (Chapter II, p. 4), depending on the herbicide uses and the plant population involved.