# Level 4 Potential Conservation Area (PCA) Report

**Name** Happy Meadows Campground **Site Code** S.USCOHP*28188

## IDENTIFIERS

**Site ID** 2720 **Site Class** PCA

**Site Alias** None

**Network of Conservation Areas (NCA)**

| NCA Site ID | NCA Site Code | NCA Site Name |
|---|---|---|
| - | | No Data |

## LOCATORS

**Nation** United States **Latitude** 390103N

**State** Colorado **Longitude** 1052136W

| Quad Code | Quad Name |
|---|---|
| 39105-A3 | Hackett Mountain |

**County**

Park (CO)

| Watershed Code | Watershed Name |
|---|---|
| 10190001 | South Platte Headwaters |

## SITE DESCRIPTION

| | | | | |
|---|---|---|---|---|
| **Minimum Elevation** | 7,830.00 | **Feet** | 2,386.58 | **Meters** |
| **Maximum Elevation** | 8,520.00 | **Feet** | 2,596.90 | **Meters** |

**Site Description**

This site is drawn to protect plants growing on Pikes Peak granite outcrops (Tweto 1979) above the South Platte River. This reach of the river is a Rosgen class C channel that has become wider and shallower than appropriate, in part due to a low-head diversion structure immediately downstream from the site. This reach is designated as impaired by the State of Colorado for excessive sedimentation. Parts of the east side of the river burned in the 2002 Hayman fire, which resulted in gulley formation (CUSP 2010). The uplands are woodlands dominated by ponderosa pine (*Pinus ponderosa*) and mountain muhly (*Muhlenbergia montana*). Waxflower (*Jamesia americana*), California brickellbush (*Brickellia californica*), Woods' rose (*Rosa woodsii*), blue grama (*Bouteloua gracilis*), Fendler cloak-fern (*Cheilanthes fendleri*), Oregon cliff fern (*Woodsia oregana* ssp. *cathcartiana*), Front Range alumroot (*Heuchera hallii*) and mountain muhly grow on rock outcrops. Canada thistle (*Cirsium arvense*), butter-and-eggs (*Linaria vulgaris*), and common mullein (*Verbascum thaspus*) occur along the floodplain below the granite outcrops. Upland soils are very gravelly sandy loam. Soils on the west side of the river belong to the Guffey series, which are loamy-skeletal, mixed Typic Cryoboralfs, while soils on the east side are classified as the Garber series, which are loamy-skeletal, mixed Pachic Haploborolls (USDA NRCS 2008).

**Key Environmental Factors**

Fendler cloak-fern (*Argyrochosma fendleri*) inhabits crevices of talus slopes or cliffs and is limited to dry granite rock faces.

**Climate Description**

Average annual precipitation is 12.7 inches. Snowfall is greatest in April and May. Monsoon rains peak in July and August. Spring and summer therefore have the greatest precipitation, and sunny fall weather dries out the landscape. Average maximum temperature is lowest, 30° F, in January, and highest, 75.4° F, in July. Average minimum temperature is lowest, -2.8° F, in January, and highest, 45.9° F in July (www.worldclimate.com).

**Land Use History**

No Data

**Cultural Features**

No Data

## SITE DESIGN

**Site Map** Y - Yes **Mapped Date** 11/30/2010

**Designer** Shaw, A.E. and D.R. Culver

**Boundary Justification**

The site is drawn to the ridgeline on either side of the valley. The upstream boundary is where the valley widens while the downstream boundary is the edge of a subdivision. These boundaries represent minor

barriers to seed dispersal. The plants may extend beyond the site on other rock outcrops, but would be far enough away to be considered distinct subpopulations.

**Primary Area** 726.17 **Acres** 293.87 **Hectares**

## SITE SIGNIFICANCE

**Biodiversity Significance Rank** B3: High Biodiversity Significance

**Biodiversity Significance Comments**

This site is drawn for a good (B-ranked) occurrence of the globally vulnerable (G3/S3) Fendler cloak-fern (*Argyrochosma fendleri*). Fendler cloak-fern is endemic to the southern Rocky Mountains, spanning from Wyoming through New Mexico (NatureServe 2010).

**Other Values Rank** No Data

**Other Values Comments**

No Data

## LAND MANAGMENT ISSUES

**Land Use Comments**

No Data

**Natural Hazard Comments**

No Data

**Exotics Comments**

Weeds include Canada thistle (*Cirsium arvense*), butter-and-eggs (*Linaria vulgaris*), and common mullein (*Verbascum thaspus*).

**Offsite**

No Data

**Information Needs**

No Data

## ASSOCIATED ELEMENTS OF BIODIVERSITY

| Element State ID | State Scientific Name | State Common Name | Global Rank | State Rank | Driving Site Rank |
|---|---|---|---|---|---|
| 24246 | *Argyrochosma fendleri* | Fendler cloak-fern | G3 | S3 | Yes |

## REFERENCES


| Reference ID | Full Citation |
|---|---|
| 198641 | Coalition for the Upper South Platte. 2010. South Platte River Happy Meadows-Reach 22 River Restoration Plan. |
| 198672 | Culver, D. and A. Shaw. 2010. Colorado Natural Heritage Program Field Surveys. |
| 198314 | NatureServe Explorer (Web Page). Accessed 2010. An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. http://www.natureserve.org/explorer. |
| 192747 | Tweto, O. 1979. Geologic Map of Colorado, 1:500,000. United States Geological Survey, Department of Interior, and Geologic Survey of Colorado, Denver, CO. |
| 198640 | USDA Natural Resource Conservation Service. 2008. Soil Survey Geographic (SSURGO) Database for Teller-Park Area, Parts of Teller and Park Counties, Colorado. Fort Worth, TX: United States Department of Agriculture, Natural Resource Conservation Service. |


## ADDITIONAL TOPICS

**Additional Topics**

No Data

## VERSION

**Version Date** 11/30/2010

**Version Author** Shaw, A.E. and D.R. Culver

## Disclaimer

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