

Level 4 Potential Conservation Area (PCA) Report

Name Second Creek at Berthoud Pass

Site Code S.USCOHP*25874

IDENTIFIERS

Site ID 2284 Site Class PCA
Site Alias None

Network of Conservation Areas (NCA)

| <u>NCA Site ID</u> | <u>NCA Site Code</u> | <u>NCA Site Name</u> |
|--------------------|----------------------|----------------------|
| - | | No Data |

LOCATORS

Nation United States Latitude 394935N
State Colorado Longitude 1054702W

Quad Code Quad Name
39105-G7 Berthoud Pass

County
Grand (CO)

Watershed Code Watershed Name
14010001 Colorado headwaters

SITE DESCRIPTION

| | | |
|-------------------|----------------|-----------------|
| Minimum Elevation | 11,185.00 Feet | 3,409.19 Meters |
| Maximum Elevation | 11,425.00 Feet | 3,482.34 Meters |

Site Description

This site occurs along two first order tributaries of the Fraser River near Berthoud Pass, at and above treeline along variable western slopes. Hydrology is dependent on snowmelt and groundwater percolating through glacial till from above. Soils are rocky throughout except in areas of peat accumulation near groundwater discharge areas. Geologic structure is composed of igneous rocks of the Precambrian Age, specifically granitic rocks of 1,400 million years. Vegetation above the site is composed of alpine short shrub and herbaceous species. Forested areas below treeline are composed of Engelmann spruce (*Picea engelmannii*) / subalpine fir (*Abies lasiocarpa*) communities with whortleberry (*Vaccinium* sp.) species dominating the understory. Riparian areas are dominated by short shrub communities of diamondleaf willow (*Salix planifolia*) with some Engelmann spruce mixing in as an open short canopy layer. Groundwater fed areas are dominated by mesic graminoids including water sedge (*Carex aquatilis*), fewflower spikerush (*Eleocharis quinqueflora*), and sheep sedge (*Carex illota*) and have well-developed peat soils.

Key Environmental Factors

Environmental factors important to the occurrence and distribution of biota in the area include seasonal run-off/flooding, snow pack and snow melt, exposure, and groundwater percolation producing histosols in some areas.

Climate Description

The site occurs in exposed areas at high elevations. Trees exhibit flagging and general stunted growth from winds. Prevailing winds are typically south westerly, so there is likely a build-up of snow along the upper slopes in the area that aid in providing a consistent summer water source.

Land Use History

There is a ditch, Berthoud Pass Aqueduct, above the site that is currently not in use and there is a ski hut along the ridge between the two drainages.

Cultural Features

No Data

SITE DESIGN

Site Map Y - Yes Mapped Date 11/08/2005
Designer Jones, J.R.

Boundary Justification

The boundary includes both first order tributaries of First and Second creeks along the upper reaches of the Second Creek Trail, north of Berthoud Pass. It was drawn to encompass important geographic features that help maintain the site's hydrology, specifically surface flows from upstream. Upstream areas of snow accumulation supply the majority of water, but are not included in the boundary. Alterations to these areas

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could have deleterious affects on this site. Boundaries are based on field surveys and topographic maps of the area.

Primary Area 37.27 Acres

15.08 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B3: High Biodiversity Significance

Biodiversity Significance Comments

This site is drawn for two excellent (A-ranked) occurrences of globally apparently secure (G4) plant communities, *Eleocharis quinqueflora* herbaceous vegetation and *Salix planifolia* / mesic forbs, as well as one excellent (A-ranked) occurrence of a globally demonstrably secure plant community (G5/S4), *Carex aquatilis* herbaceous vegetation. Although these elements are globally common, the area is a pristine example of a headwater tributary of the Fraser and Colorado rivers and therefore merits a B3 rank.

Other Values Rank V2 - High values

Other Values Comments

The site provides recreation and open space for residents with a good, well-maintained trail and cabin/picnic area. It is also very important as a head water tributary for the Fraser and Colorado rivers, provides habitat for a variety of wildlife species, and is important to the aesthetics of the Berthoud Pass area.

LAND MANAGEMENT ISSUES

Land Use Comments

The area is currently used predominantly for recreational purposes including hiking, camping, and back country skiing. The area may have supported some mining in the past and still contains a ditch that was used to provide water to the Front Range for either agricultural or municipal purposes.

Natural Hazard Comments

Avalanche danger is likely high during the fall, winter, and spring seasons from snow build-up along the upper ridgeline.

Exotics Comments

There may be a few exotic species present, but they are confined to areas near the main trail and are not present in the element occurrences.

Offsite

The main feature off-site that has the potential to affect the area is the Berthoud Pass Aqueduct which could adversely affect water along the First Creek willow (*Salix*) shrubland and groundwater flows to the fens.

Information Needs

No Data

ASSOCIATED ELEMENTS OF BIODIVERSITY

| <u>Element State ID</u> | <u>State Scientific Name</u> | <u>State Common Name</u> | <u>Global Rank</u> | <u>State Rank</u> | <u>Driving Site Rank</u> |
|-------------------------|---|------------------------------|--------------------|-------------------|--------------------------|
| 23155 | <i>Eleocharis quinqueflora</i> Herbaceous Vegetation | Alpine Wetlands | G4 | S3S4 | Yes |
| 40641 | <i>Salix planifolia</i> / Mesic Forbs Shrubland [Provisional] | Planeleaf Willow/Mesic Forbs | G4 | S4 | Yes |
| 22745 | <i>Carex aquatilis</i> Herbaceous Vegetation | Montane Wet Meadows | G5 | S4 | No |

REFERENCES

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Reference ID

Full Citation

| | |
|--------|---|
| 160903 | Carsey, K., D. Cooper, K. Decker, D. Culver, and G. Kittel. 2003. Statewide wetlands classification and characterization: Wetland plant associations of Colorado. Prepared for Colorado Department of Natural Resources, Denver, CO by Colorado Natural Heritage Program, Fort Collins, CO. |
| 193632 | Culver, D.R. and Jones, J.R. 2006. Final Report: Survey of Critical Biological Resources in Grand County. Colorado Natural Heritage Program, Fort Collins, CO. |
| 160140 | Dorn, R. D. 1997. Rocky Mountain Region Willow Identification Field Guide. Renewable Resources R2-RR-97-01. Denver, CO: USDA, Forest Service, Rocky Mountain Region. 107p. |
| 167224 | Hurd, E.G., N.L. Shaw, J. Mastroguiseppe, L.C. Smithman, and S. Goodrich. 1998. Field Guide to Intermountain Sedges. U.S. Department of Agriculture, Rocky Mountain Research Station, Ogden, UT. |
| 193634 | Schott, Corie. 2005. Wildlife Biologist, Grand Environmental Services. Personal communication to Jennifer Jones of the Colorado Natural Heritage Program. |
| 193635 | Sumerlin, Doreen. 2005. Wildlife Biologist, U.S. Forest Service. Personal communication to Jennifer Jones of the Colorado Natural Heritage Program. |
| 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. |
| 193553 | USDA, NRCS. 2005. The PLANTS Database, Version 3.5 (http://plants.usda.gov). Data compiled from various sources by Mark W. Skinner. National Plant Data Center < http://npdc.usda.gov/ >, Baton Rouge, LA 70874-4490 USA. Accessed 2005. |
| 172684 | Weber, W.A. and R.C. Wittmann. 2001. Colorado Flora: Western Slope, Third Edition. University Press of Colorado, Niwot, CO. |

ADDITIONAL TOPICS

Additional Topics

No Data

VERSION

Version Date 11/08/2005

Version Author Jones, J.R.

Disclaimer

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