

# Level 4 Potential Conservation Area (PCA) Report

Name Iron Creek Fen

Site Code S.USCOHP\*25931

## IDENTIFIERS

Site ID 2309 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 395139N  
State Colorado Longitude 1055519W

## Quad Code Quad Name

39105-G8 Byers Peak

## County

Grand (CO)

## Watershed Code Watershed Name

14010001 Colorado headwaters

## SITE DESCRIPTION

Minimum Elevation 10,050.00 Feet 3,063.24 Meters

Maximum Elevation 10,060.00 Feet 3,066.29 Meters

## Site Description

Community inhabits large partially treed meadow along Iron Creek. Iron Creek is a first order tributary of St. Louis Creek which is a small, perennial, type E stream along this section. General geology consists of metamorphic rocks of the Precambrian Age. Groundwater is a major source of perennial hydrology for the meadow surrounding the stream due to high water table. Community has variable cover throughout, with water sedge (*Carex aquatilis*) being the most common and dominant species in most areas. Other species that may be present due to a drying, seral trend in the meadow include Engelmann spruce (*Picea engelmannii*), diamondleaf willow (*Salix planifolia*), and bluejoint reedgrass (*Calamagrostis canadensis*). It appears that the meadow may be succeeding from a former beaked sedge (*Carex utriculata*) inundated meadow, past a mesic water sedge meadow to its current planeleaf willow/water sedge status. Inundated areas are dominated by strictly herbaceous vegetation of *Carex aquatilis* and fewflower spikerush (*Eleocharis quinqueflora*) in some areas. Engelmann spruce is also present in a consistent layer throughout, also forming areas dominated by Engelmann spruce / bluejoint reedgrass. Other graminoids present include Norway sedge (*Carex norvegica*), analogue sedge (*Carex simulata*), and Tracy's rush (*Juncus tracyi*). Forbs present include heartleaf bittercress (*Cardamine cordifolia*), white marsh marigold (*Caltha leptosepala*), and arrowleaf ragwort (*Senecio triangularis*). Surrounding uplands are dominated by Engelmann spruce - subalpine fir (*Abies lasiocarpa*) / whortleberry (*Vaccinium* sp.) forests. Peat soils are hemic and well developed throughout the fen suggesting long history of perennial groundwater. There are no evident disturbances present other than some wildlife browsing on willow (*Salix*). Site appears to be seral or in the process of filling or drying evidenced by the occurrence of many canopy species, Engelmann spruce and planeleaf willow, within the meadow.

## Key Environmental Factors

Key environmental factors driving the biota include a perennial water source from groundwater and surface flows, organic matter and sediment deposition, saturated to inundated soils, and well-developed peat soils.

## Climate Description

Site likely follows typical Colorado weather patterns being generally xeric throughout the year with a wet spring season and late summer "monsoons". The area may experience some microclimate differences from surrounding forested areas due to perennial standing water, low tree cover, and its low-lying position within a narrow valley.

## Land Use History

Site does not show any evidence of historic use, but has likely been used in the past by local wildlife as a feeding area due to its species composition.

## Cultural Features

No Data

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## SITE DESIGN

Site Map Y - Yes

Mapped Date 11/25/2005

Designer Jones, J.R.

### Boundary Justification

Boundary is drawn to include large, open meadow of peat soils along lower Iron Creek. Boundary encompasses meadow and the hydrologic features that support its unique biota and soil structure including groundwater seeps and upstream surface flows. All surrounding uplands and hydrologic processes necessary to the area are not fully contained within the boundary and the area may be adversely affected if activities such as development, logging, or water diversions are introduced.

Primary Area 45.40 Acres

18.37 Hectares

## SITE SIGNIFICANCE

Biodiversity Significance Rank B4: Moderate Biodiversity Significance

### Biodiversity Significance Comments

This site is drawn for an excellent (A-ranked) occurrence of a globally demonstrably secure (G5/S4) diamondleaf willow / water sedge (*Salix planifolia* / *Carex aquatilis*) subalpine riparian willow carr.

Other Values Rank V2 - High values

### Other Values Comments

Other values include aesthetics and open-space, and general ecosystem values such as providing wildlife habitat and forage. It is unique for the area because of its hydrology and soils.

## LAND MANAGEMENT ISSUES

### Land Use Comments

No Data

### Natural Hazard Comments

Soils are very hummocky in some areas and may cause difficult or hazardous walking. There is no defined trail to the site.

### Exotics Comments

The site is pristine and supports no exotic species. Iron Creek is transected by a well-traveled road at its confluence with St. Louis Creek and may act as a conduit for exotic species.

### Offsite

Surrounding uplands are dominated by lodgepole pine (*Pinus contorta*), Engelmann spruce, and subalpine fir (*Abies lasiocarpa*) forests. There is currently a devastating beetle infestation impacting the lodgepole pine population and it has been predicted that spruce beetle infestation is likely.

### Information Needs

No Data

## ASSOCIATED ELEMENTS OF BIODIVERSITY

<u>Element</u>			<u>Global Rank</u>	<u>State Rank</u>	<u>Driving Site Rank</u>
<u>State ID</u>	<u>State Scientific Name</u>	<u>State Common Name</u>			
24850	<i>Salix planifolia</i> / <i>Carex aquatilis</i> Shrubland	Subalpine Riparian Willow Carr	G5	S4	Yes

## 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.
193578	NatureServe. 2005. NatureServe Explorer: An online encyclopedia of life [web application]. Version 4.6. NatureServe, Arlington, Virginia. Available <a href="http://www.natureserve.org/explorer">http://www.natureserve.org/explorer</a> . (Accessed: December 8, 2005 ).
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.
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 11/25/2005

Version Author Jones, J.R.

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