

Level 4 Potential Conservation Area (PCA) Report

Name East Fork Powderhorn Creek

Site Code S.USCOHP*23625

IDENTIFIERS

Site ID 742 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 380842N
State Colorado Longitude 1070614W

Quad Code Quad Name

38107-B1 Rudolph Hill
38107-A1 Mineral Mountain

County

Gunnison (CO)
Hinsdale (CO)

Watershed Code Watershed Name

14020002 Upper Gunnison

SITE DESCRIPTION

Minimum Elevation 9,300.00 Feet 2,835.00 Meters
Maximum Elevation 10,900.00 Feet 3,322.00 Meters

Site Description

East Fork Powderhorn Creek runs through a moderately wide and moderately deep valley with gently sloping to steep sided slopes. Aspen (*Populus tremuloides*), buffalo berry (*Shepherdia canadensis*), Douglas-fir (*Pseudotsuga menziesii*), and Engelmann spruce (*Picea engelmannii*) dominate these slopes. The valley bottom consists of a complex of beaver ponds, both active and abandoned, along with large willow carrs, open wet meadows, and stands of alder (*Alnus incana*). Beaver dams are large and numerous causing the usual steep gradient stream to slow, forming pool-drops. Mountain willow (*Salix monticola*), Geyer's willow (*S. geyeriana*), beaked sedge (*Carex utriculata*), Kentucky bluegrass (*Poa pratensis*), and numerous forbs dominate the riparian area forming a mosaic of sedge meadows and large willow carrs.

Key Environmental Factors

No Data

Climate Description

No Data

Land Use History

No Data

Cultural Features

No Data

SITE DESIGN

Site Map Y - Yes Mapped Date 12/19/2002
Designer Rocchio, F.J.

Boundary Justification

The boundaries incorporate an area that will allow natural hydrological processes such as seasonal flooding, sediment deposition, and new channel formation to maintain viable populations of the elements along East Fork Powderhorn Creek. The boundaries also provide a small buffer from nearby trails where surface runoff may contribute excess nutrients and sediment. It should be noted that the hydrological processes necessary to the elements are not fully contained by the site boundaries. Given that the communities are dependent on natural hydrological processes associated with East Fork Powderhorn Creek and its tributaries, upstream activities such as water diversions, impoundments, and improper livestock grazing are detrimental to the hydrology of the riparian area. This boundary indicates the minimum area that should be considered for any conservation management plan.

Primary Area 2,155.74 Acres 872.40 Hectares

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SITE SIGNIFICANCE

Biodiversity Significance Rank B3: High Biodiversity Significance

Biodiversity Significance Comments

This site supports a good (B-ranked) example of the globally vulnerable (G3/S3) Rocky Mountain willow / beaked sedge (*Salix monticola* / *Carex utriculata*) shrubland. This association is threatened by improper livestock grazing, inappropriate stream flow alterations, and heavy recreational use. The site also supports a good (B-ranked) example of the state vulnerable (G4/S3) Rocky Mountain willow (*Salix monticola*) / mesic forb shrubland. Many stands of this association may represent grazing induced shifts from other *Salix monticola* dominated plant associations. Stands with a complete native herbaceous understory intact are threatened by improper livestock grazing, inappropriate stream flow alterations, and heavy recreational use. Rocky Mountain willow appears to be the center of its distribution in Colorado, where it frequently forms large thickets with few other willow species present. Literature from Utah, Wyoming, Montana, Idaho, Nevada and Oregon indicate that Rocky Mountain willow loses importance north and west of Colorado, where Rocky Mountain willow mixes with other *Salix* species. For example, in central and eastern Utah, Rocky Mountain willow dominated stands are infrequent and due to structural and ecological similarities are included in Booth willow (*Salix boothii*) associations (Padgett et al. 1989), and in Idaho, Rocky Mountain willow also has a limited distribution and largely associates with other willow species (Brunsfeld and Johnson 1985).

Other Values Rank No Data

Other Values Comments

No Data

LAND MANAGEMENT ISSUES

Land Use Comments

No Data

Natural Hazard Comments

No Data

Exotics Comments

No Data

Offsite

No Data

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>
24809	<i>Salix monticola</i> / Mesic Forbs Shrubland	Montane Riparian Willow Carr	G4	S3	No
24882	<i>Salix monticola</i> / <i>Carex utriculata</i> Shrubland	Montane Riparian Willow Carr	G3	S3	Yes

REFERENCES

<u>Reference ID</u>	<u>Full Citation</u>
169941	Brunsfeld, S. J., and F. D. Johnson. 1985. Field guide to the willows of east-central Idaho. University of Idaho, Forest, Wildlife and Range Experiment Station Bulletin No. 39. Moscow. 95 pp.
194565	Neid, S.L. and J.R. Jones. 2008. Final Report: Survey of Critical Wetlands and Riparian Areas in Hinsdale County. Colorado Natural Heritage Program, Fort Collins, CO.
166452	Padgett, Wayne, G., Andrew P. Youngblood, and Alma H. Winward. 1989. Riparian community type classification of Utah and southeastern Idaho. R4-ecol-89-01. USDA Intermountain Research Station, Ogden, Utah.
173839	Rocchio J., G Doyle, and R. Rondeau. 2003. Final Report: Survey of Critical Wetlands and Riparian Areas in Gunnison County, Colorado. Colorado Natural Heritage Program, Fort Collins, CO.

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ADDITIONAL TOPICS

Additional Topics

No Data

VERSION

Version Date 12/19/2002

Version Author Rocchio, F.J.

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