

Level 4 Potential Conservation Area (PCA) Report

Name Big Cottonwood Creek at Battle Mountain

Site Code S.USCOHP*8584

IDENTIFIERS

Site ID 1738 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>
1956	S.USCOHP*5778	Sangre de Cristo

LOCATORS

Nation United States Latitude 381820N
State Colorado Longitude 1054540W

Quad Code Quad Name

38105-C6 Cotopaxi
38105-C7 Coaldale

County

Fremont (CO)

<u>Watershed Code</u>	<u>Watershed Name</u>
11020001	Arkansas Headwaters

SITE DESCRIPTION

Minimum Elevation	7,000.00 Feet	2,133.60 Meters
Maximum Elevation	9,000.00 Feet	2,743.20 Meters

Site Description

This riparian system drains the north face of the Sangre de Cristo Range, a linear range of steep, rugged peaks in southern Colorado. Big Cottonwood Creek spans several elevation zones before its confluence with the Arkansas River. It flows from subalpine zones, through spruce - fir (*Picea engelmannii* - *Abies lasiocarpa*) and aspen (*Populus tremuloides*) forests, and transitions to mixed evergreen forest in montane zones before grading into Gambel oak (*Quercus gambelii*) scrub and ponderosa pine (*Pinus ponderosa*) in the lower montane zone. The drainage cuts through Sangre de Cristo sandstone and Minturn and Belden Formations, which have lenses of marine limestone. Vegetation along the main channel of Big Cottonwood Creek changes with elevation. In upper montane zones, aspen dominates the tree canopy. Downstream, the riparian system shifts to conifer forest dominated by Douglas-fir (*Pseudotsuga menziesii*) before transitioning to narrowleaf cottonwood (*Populus angustifolia*) in the lower montane zone (below 7,300 feet). Throughout the reach, the shrub layer consists of discontinuous copses of river birch (*Betula occidentalis*) with scattered individuals of many other shrub species. Streambank vegetation is dominated by forbs and is limited to immediate streambanks in most locations, although there are several wide spots with wet seepage meadows on the sides of the stream at the base of the north-facing slopes where they meet the riparian corridor. The main channel is a rocky, tumbling creek with moderate gradient throughout much of the riparian system. However, it is punctuated by short lower gradient sections where the floodplain is wider. In these areas there can be several anastomosing channels. Wolf Creek is a tributary stream of Big Cottonwood Creek. This smaller channel is followed by an evergreen riparian woodland with a shrub layer that is a diverse mix of diffusely arranged individuals with no one species dominant along the reach as a whole. Streambank vegetation is limited to a very narrow band along the channel, which has a bed of small rocks and gravel.

Key Environmental Factors

Montane elevations; moderate stream gradient; limestone bedrock; localized groundwater seepage.

Climate Description

No Data

Land Use History

No Data

Cultural Features

No Data

SITE DESIGN

Site Map Y - Yes Mapped Date 01/13/2006
Designer Neid, S.L.

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Boundary Justification

The boundary is drawn as a 1 km buffer of the riparian corridor clipped at the upper end by the watershed boundary to protect the immediate watershed.

Primary Area 4,091.01 Acres 1,655.58 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B3: High Biodiversity Significance

Biodiversity Significance Comments

This site is drawn for an excellent (A-ranked) occurrence of a globally vulnerable (G3/S3) riparian natural community, Douglas-fir / river birch (*Pseudotsuga menziesii* / *Betula occidentalis*) woodland. Additionally, there is a good (B-ranked) occurrence of the globally vulnerable (G3/S2) narrowleaf cottonwood / river birch (*Populus angustifolia* / *Betula occidentalis*) woodland and an excellent (A-ranked) occurrence of the globally apparently secure (G4/S2) Douglas-fir / red-osier dogwood (*Pseudotsuga menziesii* / *Cornus sericea*) woodland.

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</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>			
24962	<i>Pseudotsuga menziesii</i> / <i>Betula occidentalis</i> Woodland	Montane Riparian Forest	G3?	S3	Yes
24884	<i>Populus angustifolia</i> / <i>Betula occidentalis</i> Woodland	Montane Riparian Forest	G3	S3	Yes
24989	<i>Pseudotsuga menziesii</i> / <i>Cornus sericea</i> Woodland	Lower Montane Riparian Forests	G4	S2	No

REFERENCES

<u>Reference ID</u>	<u>Full Citation</u>
159580	Kittel, G., R. Rondeau and A. McMullen. 1996. A classification of the riparian vegetation of the Lower South Platte and parts of the Upper Arkansas River basins, Colorado. Unpublished CNHP Report for CO DNR and US EPA, Region VIII. 243 p.
193618	Neid, S.L. 2006. Final Report: Survey of Critical Wetlands and Riparian Areas in Fremont County, Colorado. Colorado Natural Heritage Program, Fort Collins, CO.

ADDITIONAL TOPICS

Additional Topics

Original site design by Kittel, G.M. 1997-04-20.

VERSION

Version Date 01/13/2006

Version Author Neid, S.L.

Disclaimer

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