

Level 4 Potential Conservation Area (PCA) Report

Name Chalk Bluffs

Site Code S.USCOHP*25952

IDENTIFIERS

Site ID 2313 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 400422N
State Colorado Longitude 1055642W

Quad Code Quad Name

40105-A8 Granby

County

Grand (CO)

Watershed Code Watershed Name

14010001 Colorado headwaters

SITE DESCRIPTION

Minimum Elevation	7,900.00 Feet	2,407.92 Meters
Maximum Elevation	8,200.00 Feet	2,499.36 Meters

Site Description

The Chalk Bluffs are a dominant landmark south of the town of Granby, bordered by Rockwell Creek to the west, Mueller Creek to the east, and Fraser River to the south. The Chalk Bluffs are steep and barren with highly erodible, silty soils, underlain by sedimentary deposits. The predominant grayish soils (USDA, NRCS 1994) are derived from Cretaceous Niobrara and Pierre Shale of the Troublesome Formation (Tweto 1979). The Chalk Bluffs appear to be mantled with old alluvium and a fine-textured deposit of uncertain geologic age is exposed on the northwest-facing slope (USDA, NRCS 1994). Dropleaf buckwheat (*Eriogonum exilifolium*), a globally vulnerable plant, dominates the vegetation throughout the Chalk Bluffs. The Bluff's lower slopes are dominated by a low stature three-part sagewort (*Artemisia tripartita* ssp. *tripartita*) with fringed sage (*Artemisia frigida*), yellow rabbitbrush, (*Chrysothamnus viscidiflorus*), spearleaf stonecrop (*Sedum lanceolatum*), Fendlers bluegrass (*Poa fendleriana*) and Indian ricegrass (*Achnatherum hymenoides*). Bitterroot (*Lewisia rediviva*) occurs throughout the sagebrush flats. Globally, the bitterroot is common. The Colorado occurrences are representative of its southern range. The ravines west of the Chalk Bluffs are dominated by aspen (*Populus tremuloides*), Douglas-fir (*Pseudotsuga menziesii*) and buffalo berry (*Sherperdia canadensis*). Lodgepole pine (*Pinus contorta*) and limber pine (*Pinus flexilis*) border the Chalk Bluffs. North of the Chalk Bluffs, the Fraser River flows west supporting a narrowleaf cottonwood (*Populus angustifolia*) riparian forest with mountain willow (*Salix monticola*).

Key Environmental Factors

Edaphic indicators are silty-clayey soils derived from Niobrara and Pierre shale, soil series Crespin (USDA, NRCS 1994).

Climate Description

The climate follows typical weather patterns of high mountain valleys, low precipitation/snowfall (<12-15 inches/year) and late summer "monsoons".

Land Use History

Past grazing evident.

Cultural Features

No Data

SITE DESIGN

Site Map Y - Yes Mapped Date 01/03/2006
Designer Culver, D.R.

Boundary Justification

The boundaries are delineated according to soil series to capture the Chalk Bluffs, sagebrush knoll and adjacent ravines. Boundaries include known occurrences as well as potential habitat.

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Primary Area 135.61 Acres

54.88 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B3: High Biodiversity Significance

Biodiversity Significance Comments

The Chalk Bluffs site supports an excellent (A-ranked) occurrence of the globally vulnerable (G3/S2) dropleaf buckwheat (*Eriogonum exilifolium*) and a good (B-ranked) occurrence of the globally secure but state imperiled (G5/S2) bitterroot (*Lewisia rediviva*). Additionally, documentation of the three-part sagewort (*Artemisia tripartite*) in 2005 is a new record for Grand County and the West Slope flora.

Other Values Rank V3 - Moderate values

Other Values Comments

Unique geologic formation.

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</u>	<u>State</u>	<u>Driving</u>
<u>State ID</u>	<u>State Scientific Name</u>	<u>State Common Name</u>	<u>Rank</u>	<u>Rank</u>	<u>Site Rank</u>
22225	<i>Eriogonum exilifolium</i>	dropleaf buckwheat	G3	S2	Yes
22471	<i>Lewisia rediviva</i>	bitterroot	G5	S2	No

REFERENCES

<u>Reference ID</u>	<u>Full Citation</u>
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.
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.
193653	U.S. Department of Agriculture, Soil Conservation Service. 1994. State Soil Geographic (STATSGO) database for Colorado. Fort Worth, TX.

ADDITIONAL TOPICS

Additional Topics

No Data

VERSION

Version Date 01/03/2006

Version Author Culver, D.R.

Disclaimer

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