

Level 4 Potential Conservation Area (PCA) Report

Name North Boulder Creek at Caribou Ranch

Site Code S.USCOHP*27295

IDENTIFIERS

Site ID 2507 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 400032N
State Colorado Longitude 1053314W

Quad Code Quad Name

40105-A5 Ward

County

Watershed Code Watershed Name

10190005 St. Vrain

SITE DESCRIPTION

Minimum Elevation	9,240.00	Feet	2,816.35	Meters
Maximum Elevation	9,920.00	Feet	3,023.62	Meters

Site Description

The site is located in southwestern Boulder County at the junction of Caribou Creek with North Boulder Creek some 3.5 miles northwest of Nederland. Caribou Creek is formed by three tributaries draining the eastern slopes of Caribou Peak, while North Boulder Creek arises from a pair of glaciated valleys heading on the Continental Divide northwest of the site. Within the site, Caribou Creek pours down a moderately sloping hillside of glacial till from a flat valley above. The slope has considerable groundwater discharge and supports a large sloping fen located on glacial till and draining into North Boulder Creek. The vegetation is dominated by tall (6.5-16.5 ft/2-5 m) shrubs, primarily Drummond's willow (*Salix drummondiana*) at approximately 50% cover, with occasional park willow (*Salix monticola*) and alder (*Alnus incana*) at approximately 10% cover each. Beneath the shrub layer, there is dense graminoid cover dominated by bluejoint reedgrass (*Calamagrostis canadensis*), fowl mannagrass (*Glyceria striata*), beaked sedge (*Carex utriculata*), and water sedge (*Carex aquatilis*). There are numerous pools formed on flat benches within the slope and numerous small channels flowing through the wetland. The ground surface is uneven and hummocky, which combined with tall shrubs and deep pools of water, makes for difficult navigation through the site. Heavy litter and dense moss carpet the ground, where not covered in water. Moss genera observed in the wetland include *Drepanocladus*, *Bryum*, and *Brachythecium*. At the bottom of the slope, the banks of North Boulder Creek support a narrow, mixed riparian shrubland. The tall shrub (2-5 m) layer is dominated by 30% cover of Drummond's willow and 20% cover of alder. The understory is diverse and contains mixed graminoids and forbs. The most prevalent species include bluejoint reedgrass, softleaf sedge (*Carex disperma*), fowl mannagrass, cowparsnip (*Heracleum maximum*), and arrowleaf ragwort (*Senecio triangularis*). Several forest tree species overhang and integrate into the riparian vegetation, including Engelmann spruce (*Picea engelmannii*), lodgepole pine (*Pinus contorta*), and quaking aspen (*Populus tremuloides*). The surrounding valley walls are densely forested by a mix of Engelmann spruce, subalpine fir (*Abies lasiocarpa*), limber pine (*Pinus flexilis*), and lodgepole pine.

Key Environmental Factors

A sloping fen fed by groundwater, and a riparian corridor with seasonally variable flows.

Climate Description

No Data

Land Use History

There was historic mining, grazing, and possibly forestry in the area.

Cultural Features

No Data

SITE DESIGN

Site Map Y - Yes Mapped Date 06/12/2008

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Designer Decker, K.L. and J.M. Lemly

Boundary Justification

The boundary includes the occurrences and the immediate watershed, allowing for the operation of normal hydrological and ecological processes that support the fen and riparian communities, and providing a buffer against direct disturbance. These natural processes are not completely contained within the boundary, and offsite activities within the watershed have the potential to impact the elements of biodiversity present in the area.

Primary Area 462.64 Acres 187.22 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B3: High Biodiversity Significance

Biodiversity Significance Comments

The site supports an excellent (A-ranked) occurrence of a globally vulnerable (G3/S3) *Salix drummondiana* / *Calamagrostis canadensis* montane willow carr and a fair (C-ranked) occurrence of a globally vulnerable (G3/S3) *Alnus incana* - *Salix drummondiana* montane riparian shrubland. Several individuals of the globally rare (G3/S3) reflected moonwort (*Botrychium echo*) were documented in the area in the 1990s, but locational information is imprecise.

Other Values Rank No Data

Other Values Comments

No Data

LAND MANAGEMENT ISSUES

Land Use Comments

There are no obvious diversions within the site, but the upper watershed is dammed for City of Boulder municipal water use and diverted out of the creek through a substantial underground pipeline, which runs adjacent to the creek. Along with the pipeline, there is an adjacent dirt road for pipeline access and maintenance.

Natural Hazard Comments

No Data

Exotics Comments

There are only a few nonnative species present in the wetland and they represent very little cover. These plants include redbtop (*Agrostis gigantea*), oxeye daisy (*Leucanthemum vulgare*), timothy (*Phleum pratense*), Kentucky bluegrass (*Poa pratensis*), dandelion (*Taraxacum officinale*), and white clover (*Trifolium repens*).

Offsite

No Data

Information Needs

Search for reflected moonwort (*Botrychium echo*).

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>
24473	<i>Salix drummondiana</i> / <i>Calamagrostis canadensis</i> Shrubland	Lower Montane Willow Carrs	G3	S3	Yes
24743	<i>Alnus incana</i> - <i>Salix drummondiana</i> Shrubland	Montane Riparian Shrubland	G3	S3	No

REFERENCES

<u>Reference ID</u>	<u>Full Citation</u>
195190	Neid, S., J. Lemly, K. Decker and D. Culver. 2009. Final Report: Survey of Critical Biological Resources in Boulder County 2007-2008. Colorado Natural Heritage Program, Fort Collins, CO.

ADDITIONAL TOPICS

Additional Topics

No Data

VERSION

Version Date 06/12/2008
Version Author Decker, K.L. and J.M. Lemly

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