

# Level 4 Potential Conservation Area (PCA) Report

Name Caribou Townsite

Site Code S.USCOHP\*358

## IDENTIFIERS

Site ID 7 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 395846N  
State Colorado Longitude 1053524W

Quad Code Quad Name  
39105-H5 Nederland

## County

Watershed Code Watershed Name  
10190005 St. Vrain

## SITE DESCRIPTION

Minimum Elevation - Feet - Meters  
Maximum Elevation - Feet - Meters

## Site Description

The site is located in southwestern Boulder County, about four miles northwest of Nederland. The site encompasses the area around Caribou Hill, including Caribou Flat to the south, and the open valley of Caribou Park to the north. Within the site, Caribou Creek and Coon Track Creek originate in glacial drift at the southeast foot of Caribou Peak. The area supports three separate, large wetlands located within 0.5 miles of Caribou Hill. Each wetland is slightly different, but they are all primarily dominated by diamondleaf willow (*Salix planifolia*) and water sedge (*Carex aquatilis*), and are all sloping, groundwater-fed fens with thick organic soil and a dense ground layer of moss. 1) Northwest wetland (Upper Caribou Creek). This wetland is located at the headwaters of Caribou Creek and is a diverse wetland that includes multiple plant communities. One section of the wetland along the creek hosts an active beaver colony with several dams along the creek. The soil beneath these dams is not organic, but accumulated silt and clay. Tall willows, primarily park willow (*Salix monticola*) and beaked sedge (*Carex utriculata*) grow around the beaver dams. Above these dams, the wetland is nearly level and dominated by a mix of diamondleaf willow and bog birch (*Betula glandulosa*), both growing approximately 1m tall. The understory is dominated by water sedge over a dense moss layer that includes *Aulacomnium palustre*, *Sphagnum warnstorffii*, *Tomenthypnum nitens*, *Climacium dendroides*, *Helodium blandowii*, and species of *Drepanocladus*, *Plagiomnium*, and *Calliergon*. All around the edges of this open shrub fen, the wetland contains a perimeter of forested fen with Engelmann spruce (*Picea engelmannii*) and very high species diversity. 2) Northeast wetland (Caribou Park). This wetland is located lower on Caribou Creek, but the hydrology is driven more by groundwater discharge from the surrounding slopes than by the creek itself. This wetland is dominated by a mix of low shrubs, including diamondleaf willow, resin birch, and wolf's willow (*Salix wolfii*). Water sedge dominates the understory with a diverse array of wetland herbs and a dense moss layer. This wetland was historically mined for peat and one section of the wetland remains highly disturbed. 3) South wetland (Caribou Flat). This wetland is at the headwaters of Coon Track Creek, which drains east towards North Beaver Creek and Nederland, and not into Caribou Creek. This wetland has the steepest slope (5-7%) and contains dense willow cover of diamondleaf willow and bog birch. Willows in this wetland are taller, growing to 2m tall. The understory is dominated by a mix of water sedge and beaked sedge along with mixed forbs. The surrounding slopes contain a mix of subalpine fir (*Abies lasiocarpa*), Engelmann spruce, limber pine (*Pinus flexilis*), and lodgepole pine (*Pinus contorta*).

## Key Environmental Factors

Though creeks runs through the valleys, the wetlands are permanently saturated by groundwater discharge from the surrounding slopes that eventually drains into the creek, and are not necessarily associated with overflow from the active creek channel. Because of this hydrologic distinction, the wetlands are not true riparian areas. Instead, they are sloping fens with organic soil formed over hundreds and thousands of years.

## Climate Description

No Data

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## Land Use History

The surrounding uplands have been used heavily in the past 150 years for mining. There is a network of dirt roads that cross the landscape and there are small piles of tailings and other evidence of mining. There are also old structures, either from the mines or the old historic town. The northwest wetland was mined for peat in the 1940s and a crane left over from mining remains in the wetland. In this section of the wetland, the peat is thin or scraped down to the underlying mineral soil. The vegetation is disturbed and differs from the rest of the wetland. To further compound the impact of past disturbance, there was a large, illegal gathering of 4x4 vehicles in 2002 that drove in and around the wetland and tore up the soil. Restoration efforts have mitigated some of the effects.

## Cultural Features

No Data

### SITE DESIGN

Site Map Y - Yes

Mapped Date 06/10/2008

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 wetlands, and providing a buffer against direct disturbance. The boundary includes all of the known occurrences and a significant downslope buffer. The amphibians documented in the boundary may leave the area.

Primary Area 1,742.61 Acres

705.21 Hectares

### SITE SIGNIFICANCE

Biodiversity Significance Rank B4: Moderate Biodiversity Significance

## Biodiversity Significance Comments

This site contains an excellent (A-ranked) occurrence of a globally common (G5/S4) riparian willow carr, *Salix planifolia* / *Carex aquatilis* shrubland. The presence of such an excellent example of this plant association indicates that the hydrologic processes in this site are intact. The wetlands are primarily ground-fed fens. There are also several historical occurrences of globally and state rare moonworts (*Botrychium pallidum*, *B. echo*, *B. minganense*, and *B. hesperium*). More precise and current information is needed to confirm the specific locations and qualities of the rare plant populations. In 1999, CNHP zoologists documented 3 northern leopard frog (*Rana pipiens*) tadpoles, a species on CNHP's "watch list".

Other Values Rank No Data

## Other Values Comments

No Data

### LAND MANAGEMENT ISSUES

## Land Use Comments

No evidence of grazing was noted.

## Natural Hazard Comments

No Data

## Exotics Comments

Invasive species are absent from the wetlands.

## Offsite

No Data

## Information Needs

Need additional field work to evaluate rare plants populations.

### 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>			
18056	<i>Oeneis jutta reducta</i>	Rocky Mountain Arctic Jutta	G5T4	S1	No
20266	<i>Oxytropis parryi</i>	Parry's crazy-weed	G5	S1	No
19971	<i>Botrychium pallidum</i>	pale moonwort	G3	S2	No

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20475	<i>Botrychium echo</i>	reflected moonwort	G3	S3	No
22785	<i>Botrychium hesperium</i>	western moonwort	G4	S2	No
23966	<i>Botrychium minganense</i>	Mingan's moonwort	G4	S2	No
24850	<i>Salix planifolia</i> / <i>Carex aquatilis</i> Shrubland	Subalpine Riparian Willow Carr	G5	S4	Yes

## REFERENCES

Reference ID	Full Citation
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

Original site design by Pague, C.A. 1994-09-12.

## VERSION

Version Date	06/10/2008
Version Author	Decker, K.L. and J.M. Lemly

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