

# Level 4 Potential Conservation Area (PCA) Report

Name Beaver Creek

Site Code S.USCOHP\*27214

## IDENTIFIERS

Site ID 2488 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 395614N  
 State Colorado Longitude 1053054W

## Quad Code Quad Name

39105-H5 Nederland  
 39105-H4 Tungsten

## County

Gilpin (CO)  
 Boulder (CO)

## Watershed Code Watershed Name

10190005 St. Vrain

## SITE DESCRIPTION

<b>Minimum Elevation</b>	8,320.00	<b>Feet</b>	2,535.94	<b>Meters</b>
<b>Maximum Elevation</b>	9,000.00	<b>Feet</b>	2,743.20	<b>Meters</b>

## Site Description

This site straddles the boundary between Boulder and Gilpin counties south of Nederland. Beaver Creek originates on the eastern flank of Buckeye Mountain, in Gilpin County about 1.75 miles south of the town of Eldora. The creek flows in a generally eastward direction to its confluence with South Boulder Creek some 2.5 miles east of the site. The site encompasses Beaver Creek and the surrounding slopes in the area north of Los Lagos Reservoirs. Beaver Creek flows into the site within a narrow and moderately steep-walled valley. In this stretch, quaking aspen (*Populus tremuloides*) forms a consistent canopy of 40% cover over a dense layer of tall shrubs. Thinleaf alder (*Alnus incana*) dominates the tall shrub layer, which also included Drummond's willow (*Salix drummondiana*), Rocky Mountain maple (*Acer glabrum*), Bebb willow (*Salix bebbiana*), and many other woody species. The understory is a lush mix of graminoids and forbs dominated by bluejoint reedgrass (*Calamagrostis canadensis*), cowparsnip (*Heracleum maximum*), fowl mannagrass (*Glyceria striata*), and horsetail (*Equisetum arvense*). A moist moss carpet covers 20-30% of the understory and includes *Plagiomnium ellipticum*, *Climacium dendroides*, and *Brachythecium* spp. The riparian vegetation is 131 ft - 197 ft (40-60 m) wide and overhangs the creek, creating a cool, shaded corridor filled with native species. Continuing to the northeast, Beaver Creek is joined by an un-named tributary and flows through a more open valley. Here the riparian community is a mix of willow species, both tall and short. The stand is primarily dominated by park willow (*Salix monticola*) at 40% cover, but contains high diversity of shrubs, including nine species of willow. Diamondleaf willow (*Salix planifolia*), shrubby cinquefoil (*Dasiphora fruticosa* ssp. *floribunda*), and thinleaf alder each contribute 10% cover to the shrub layer, while all other shrubs occur with <5% cover. The understory is a lush carpet of grasses and sedges. Native species, including bluejoint reedgrass, water sedge (*Carex aquatilis*), and beaked sedge (*Carex utriculata*), dominate the wettest areas, but nonnative pasture grasses also contribute high cover and dominate the drier edges. Beneath the vascular plants, the stand contains a healthy moss layer in moist and wet areas. Moss species observed include *Helodium blandowii*, *Climacium dendroides*, *Tomenthypnum nitens*, *Drepanocladus aduncus*, *Bryum pseudotriquetrum*, and *Plagiomnium ellipticum*. The riparian corridor is a mosaic of small patch communities. Where groundwater discharge from the surrounding slopes is strong, there are small patches of organic soil accumulation where low willows, diamondleaf willow and Wolf's willow (*Salix wolfii*) dominate. Where the stream is entrenched and the water table is lower, the understory is a mix of native and non-native grasses. As a whole, the riparian vegetation is dominated by park willow / bluejoint reedgrass, which is typical of low gradient, upper montane streams in Boulder County. Surrounding slopes are densely forested with lodgepole pine (*Pinus contorta*) and ponderosa pine (*Pinus ponderosa*).

## Key Environmental Factors

Montane elevations and a gentle gradient help shape the species community. Water levels vary seasonally

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with snowmelt. Past beaver activity probably contributed to maintaining water levels in the valley.

## Climate Description

No Data

## Land Use History

The meadows within the site were historically grazed. Cattle were removed from sections of the valley within the last decade, but grazing still continues on other portions. The hydrology of Beaver Creek is somewhat modified through diversions and cattle ponds, but there is no major dam on the creek. There are a few scattered family homes.

## Cultural Features

No Data

### SITE DESIGN

Site Map Y - Yes

Mapped Date 06/02/2008

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 wetland communities, and providing a buffer against direct disturbance. These natural processes are not completely contained within the boundary, and off-site activities within the watershed have the potential to impact the elements of biodiversity present in the area.

Primary Area 812.93 Acres

328.98 Hectares

### SITE SIGNIFICANCE

Biodiversity Significance Rank B3: High Biodiversity Significance

## Biodiversity Significance Comments

This site supports a good (B-ranked) occurrence of a globally vulnerable (G3/S3) *Salix monticola* / *Calamagrostis canadensis* montane willow carr community and a good (B-ranked) occurrence of a globally vulnerable (G3/S3) *Populus tremuloides* / *Alnus incana* montane riparian forest.

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

Cover of non-native species in the understory is high, including pasture grasses redtop (*Agrostis gigantea*), smooth brome (*Bromus inermis*), timothy (*Phleum pratense*), and Kentucky bluegrass (*Poa pratensis*), as well as Canada thistle (*Breea arvensis*), musk thistle (*Carduus nutans*), common mullein (*Verbascum thapsus*), and ox-eye daisy (*Leucanthemum vulgare*).

## 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>
24514	<i>Salix monticola</i> / <i>Calamagrostis canadensis</i> Shrubland	Montane Willow Carr	G3	S3	Yes
24911	<i>Populus tremuloides</i> / <i>Alnus incana</i> Forest	Montane Riparian Forests	G3	S3	Yes

### REFERENCES

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**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**

No Data

**VERSION**

Version Date 06/02/2008

Version Author Decker, K.L. and J.M. Lemly

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