

# Level 4 Potential Conservation Area (PCA) Report

Name Middle Saint Vrain Creek at Peaceful Valley

Site Code S.USCOHP\*27222

## IDENTIFIERS

Site ID 2496 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 400745N  
State Colorado Longitude 1053105W

## Quad Code Quad Name

40105-A5 Ward  
40105-B5 Allens Park

## County

Boulder (CO)

## Watershed Code Watershed Name

10190005 St. Vrain

## SITE DESCRIPTION

Minimum Elevation	8,560.00 Feet	2,609.09 Meters
Maximum Elevation	9,300.00 Feet	2,834.64 Meters

## Site Description

The site is located in west-central Boulder County, about 3.5 miles north of the town of Ward. Middle St. Vrain Creek originates below the St. Vrain glaciers in a cirque on the Continental Divide approximately five miles west of the site. The creek and its upper tributaries flow east from the Indian Peaks Wilderness through a steep-walled valley, crossing Highway 72 at Peaceful Valley just east of the site. The valley walls are formed in glacial drift and rock outcrop. At Camp Dick Campground, the valley widens and the stream gradient decreases; here beaver activity has filled the valley with standing water ponds and lush riparian vegetation. The valley is 125-200 m wide and the stream gradient is 5-10%. The creek itself is 16.4-32.8 ft (5-10 m) wide and is located mainly along the western edge of the willow carr. Extensive beaver activity has created side channels and stagnant pools that divert surface and groundwater across the valley floor. Numerous seeps from the southern valley wall feed these beaver ponds. Where not inundated, the ground surface is covered with litter and moss. Surrounding north-facing slopes are steep and dominated by dense, moist Engelmann spruce (*Picea engelmannii*) and subalpine fir (*Abies lasiocarpa*) with occasional limber pine (*Pinus flexilis*). South-facing slopes are more open and rocky with moderate cover of lodgepole pine (*Pinus contorta*) and many standing dead trees. The valley floor between the campgrounds supports a dense willow carr dominated by tall (6.6-16.4 ft/2-5 m) shrubs. The most dominant tall shrub is Drummond's willow (*Salix drummondiana*) at 40% cover. Other prominent shrubs include park willow (*Salix monticola*) at 20% cover, diamondleaf willow (*Salix planifolia*) at 10% cover, and thinlinef alder (*Alnus incana*) at 10% cover. The stream channel itself is shaded by Engelmann spruce, but much of the wetland is open willow carr over beaver ponds. The understory contains many herbaceous species, but is primarily dominated by bluejoint reedgrass (*Calamagrostis canadensis*), fowl mannagrass (*Glyceria striata*), softleaf sedge (*Carex disperma*), and cowparsnip (*Heracleum maximum*). A lush moss layer occurs beneath the vascular plants and litter and includes *Aulacomnium palustre*, *Climacium dendroides*, *Drepanocladus aduncus*, and *Brachythecium* spp. Upstream from the willow carr, Drummond's willow also occurs along the narrower forested reaches of the creek as part of a subalpine fir - Engelmann spruce / Drummond's willow community. The geology of the area is mapped as glacial drift of the Pinedale and Bull Lake glaciations (Tweto 1979). Soils within the occurrence are mapped at a coarse level as Cryaquolls-Leighcan family, till substratum complex, 0 to 15 percent slope. Cryaquolls occur on floodplains and are derived from gravelly glaciofluvial deposits and/or gravelly till from igneous, metamorphic, and sedimentary rock. Soils from the Leighcan family occur on mountain slopes and are derived from residuum and/or till from igneous and metamorphic rock (USDA 2007).

## Key Environmental Factors

Water levels in the creek fluctuate seasonally, but the extensive ponds maintained by a thriving beaver population are essential to providing the hydrologic setting for the wetland community.

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## Climate Description

No Data

## Land Use History

There are two campgrounds in the site. Camp Dick, now a USFS campground, was once the site of a Civilian Conservation Corps camp, established in the 1930s. The area currently receives fairly heavy recreational use.

## Cultural Features

No Data

### SITE DESIGN

Site Map Y - Yes

Mapped Date 06/12/2008

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

## Boundary Justification

The boundary includes the valley of the Middle St. Vrain above and below the occurrence. Although this area provides a buffer against some disturbance and contributes to the hydrological and ecological processes maintaining the willow carr, off-site activities within the watershed have the potential to impact the elements of biodiversity present in the area.

Primary Area 470.35 Acres 190.35 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 drummondiana* / *Calamagrostis canadensis* lower montane willow carr and a good (B-ranked) occurrence of the state imperiled (G5/S2) broad-leaved twayblade (*Listera convallarioides*). Clustered lady's-slipper (*Cypripedium fasciculatum*), a plant on CNHP's watch list, was documented in 2001.

Other Values Rank No Data

## Other Values Comments

No Data

### LAND MANAGEMENT ISSUES

## Land Use Comments

The site is currently used for recreation, including hiking, backpacking, horseback riding, mountain biking, 4x4 and off-highway vehicle use, and fishing.

## Natural Hazard Comments

No Data

## Exotics Comments

The vegetation does show some evidence of disturbance, including some invasive species such as smooth brome (*Bromus inermis*), Kentucky bluegrass (*Poa pratensis*), timothy (*Phleum pratense*), and Canada thistle (*Cirsium arvense*).

## 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>
17861	<i>Listera convallarioides</i>	broad-leaved twayblade	G5	S2	No
24473	<i>Salix drummondiana</i> / <i>Calamagrostis canadensis</i> Shrubland	Lower Montane Willow Carrs	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.
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.
194850	USDA. 2007a. Soil Survey Geographic (SSURGO) database for Arapaho-Roosevelt National Forest Area, Colorado, Parts of Boulder, Clear Creek, Gilpin, Grand, Park, and Larimer Counties. USDA Natural Resources Conservation Service, Fort Worth, Texas. URL: < <a href="http://SoilDataMart.nrcs.usda.gov/">http://SoilDataMart.nrcs.usda.gov/</a> >. Downloaded on October 16, 2007.

## 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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