

# Level 4 Potential Conservation Area (PCA) Report

Name Delonde Creek

Site Code S.USCOHP\*27221

## IDENTIFIERS

Site ID 2495 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 395918N  
State Colorado Longitude 1053213W

Quad Code Quad Name  
39105-H5 Nederland

## County

Watershed Code Watershed Name  
10190005 St. Vrain

## SITE DESCRIPTION

Minimum Elevation 8,240.00 Feet 2,511.55 Meters  
Maximum Elevation 10,200.00 Feet 3,108.96 Meters

## Site Description

The Delonde Creek site is located in southwestern Boulder County, northwest of the town of Nederland, beginning about six miles east of the Continental Divide. Delonde Gulch is an east-facing drainage that heads on the east side of a ridge forming the eastern boundary of Caribou Park. Boulder County Hill forms the highest point on this ridge, at the southwest corner of the drainage. Delonde Creek runs from west to east through a large open valley surrounded by wooded hillsides, joining North Boulder Creek at the lower, eastern end of the site. The head of the valley forms an open bowl >985 ft (300 m) wide. As the stream flows east, it flows through a comparatively narrow valley, then enters a lower-gradient reach where beaver dams have created a series of large open ponds surrounded by saturated willow carr. There are active beaver in the creek, which maintain ponded and saturated soils that help maintain the willow community. Here the stream gradient is <5% and the channel bottom is primarily sand and some gravel. Where not inundated, the ground surface is covered with litter and moss. Surrounding slopes are forested by ponderosa pine (*Pinus ponderosa*), lodgepole pine (*Pinus contorta*), Douglas-fir (*Pseudotsuga menziesii*), and large pockets of quaking aspen (*Populus tremuloides*). The riparian community is dominated by tall willows (6.5 -16.5 ft/2-5 m tall) interspersed with large open water beaver ponds. The most dominant tall shrub species is park willow (*Salix monticola*) at 50% cover. The stand also includes several other tall and short shrub species, including Bebb willow (*Salix bebbiana*), Geyer willow (*Salix geyeriana*), and alder (*Alnus incana*). The understory is primarily dominated by bluejoint reedgrass (*Calamagrostis canadensis*), but contains localized patches of beaked sedge (*Carex utriculata*) and water sedge (*Carex aquatilis*) depending on local hydrology. Numerous other herbaceous species provide low cover. There is a healthy moss layer beneath the vascular plants and litter. Moss species include *Drepanocladus aduncus*, *Climacium dendroides*, and *Plagiomnium* spp. Most of the creek drainage and willow community is located on glacial drift from the Bull Lake and Pindale glaciation. The southern boundary of the valley and slopes to the south of the occurrence are either Boulder Creek granodiorite or earlier metamorphic rocks, both of which date back to the Precambrian (Tweto 1979). Soils within the Delonde Creek riparian corridor are mapped at a coarse level as Cryaquolls-Gateview complex, 0 to 15 percent slope. Cryaquolls occur on floodplains and soils from the Gateview family occur on terraces. Both are derived from gravelly alluvium and/or gravelly glaciofluvial deposits from mixed parent material (USDA 2007).

## Key Environmental Factors

Active beaver activity retains water in the drainage and maintains the saturated soils necessary for the willow carr.

## Climate Description

No Data

## Land Use History

The surrounding meadows were historically used for cattle grazing and are primarily dominated by hay

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grasses. However, the majority of the site is now Boulder County Parks and Open Space land or in conservation easements, and grazing has been removed. Hay grasses extend to the edges of the wetlands, but the understory is predominately native in the wettest areas. Water may have been diverted to irrigate meadows, but this is not apparent today. Today the area is mainly used for recreation, including hiking and horseback riding (mountain bikes are not allowed on the trails), and the wetland itself is off limits to the public. The downstream section of the occurrence is located on private land where there are a few scattered homes.

## Cultural Features

No Data

## SITE DESIGN

Site Map Y - Yes

Mapped Date 06/11/2008

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

## Boundary Justification

The boundary includes the occurrence and the immediate watershed of Delonde Creek above it, allowing for the operation of normal hydrological and ecological processes that support the wetland community, and providing a buffer against direct disturbance.

Primary Area 1,651.91 Acres 668.51 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 geyeriana* - *Salix monticola* / *Calamagrostis canadensis* montane willow carr.

Other Values Rank No Data

## Other Values Comments

No Data

## LAND MANAGEMENT ISSUES

## Land Use Comments

There are several old roads and trails in the lower portion of the site, and some small culverts beneath these constitute minor diversions. On the lower, privately owned lands there are a few scattered homes.

## Natural Hazard Comments

No Data

## Exotics Comments

Kentucky bluegrass (*Poa pratensis*), timothy (*Phleum pratense*), orchard grass (*Dactylis glomerata*), and smooth brome (*Bromus inermis*), as well as exotic forbs oxeye daisy (*Leucanthemum vulgare*), common St. Johnswort (*Hypericum perforatum*), and Canada thistle (*Cirsium arvense*) were observed.

## Offsite

No Data

## Information Needs

No Data

## 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>			
24489	<i>Salix geyeriana</i> - <i>Salix monticola</i> / <i>Calamagrostis canadensis</i> Shrubland	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 06/11/2008

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

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