

Level 4 Potential Conservation Area (PCA) Report

Name Upper Crystola Creek

Site Code S.USCOHP*28200

IDENTIFIERS

Site ID 2732 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 385547N
State Colorado Longitude 1050607W

Quad Code Quad Name
38105-H1 Woodland Park

County
Teller (CO)

Watershed Code Watershed Name
11020003 Fountain
10190002 Upper South Platte

SITE DESCRIPTION

Minimum Elevation	9,160.00 Feet	2,791.97 Meters
Maximum Elevation	9,800.00 Feet	2,987.04 Meters

Site Description

The headwaters of Crystola Creek drain Raspberry Mountain. Crystola Creek flows north/northeast through this high montane site before arcing to the southeast where it flows into Fountain Creek at the Town of Crystola. Unlike the adjacent North and South Catamount Creeks to the southeast, Crystola Creek does not have any major reservoirs affecting its hydrology. However, there are two stock ponds upstream of the shrubland. In 2010, there is little evidence of flooding, with no debris along stream banks nor redox soils. The ground surface also has high leaf litter cover indicating no flood scouring during the current growing season. Soils are deep poorly drained fine-textured aquolls (USDA NRCS 2008). Pikes Peak granite is the underlying geology (Tweto 1979). Grazing occurs throughout the occurrence. The uplands consist of coniferous forest fragmented by residential areas and agriculture. A Bebb's willow (*Salix bebbiana*) shrubland occurs in a narrow band along Crystola Creek.

Key Environmental Factors

Bebb's willow (*Salix bebbiana*) is palatable to cattle, so it is rare to find large occurrences of Bebb's willow shrubland (Carsey et al. 2003). This site supports horses, which may explain the persistence of this occurrence.

Climate Description

Teller County is relatively cool and dry considering that Pikes Peak has the topographic relief to cool humid air and initiate precipitation. Average annual precipitation is 10.5-16.2 inches (<http://www.worldclimate.com>), depending upon exact location within the county. Snowfall is greatest in April and May. Monsoon rains peak in July. Spring and summer therefore have the greatest precipitation, and sunny fall weather dries out the landscape. Teller County has the second highest rate of lightning strikes nationwide, an annual average of 5,700 strikes that reach the ground. (Precipitation timing and lightning information was taken from Teller County 2008). Average maximum temperature is lowest, 30 °F (-1.1 °C), in January, and highest, 75.4 °F (24.1 °C), in July. Average minimum temperature is lowest, -2.8 °F (-19.4 °C), in January, and highest, 45.9 °F (7.7 °C) in July (<http://www.worldclimate.com>).

Land Use History

No Data

Cultural Features

No Data

SITE DESIGN

Site Map Y - Yes Mapped Date 12/13/2010
Designer Shaw, A.E. and D.R. Culver

Level 4 Potential Conservation Area (PCA) Report

Name Upper Crystola Creek

Site Code S.USCOHP*28200

Boundary Justification

The boundary upstream marks where the creek begins intermittently, while downstream marks the transition between the shrubland and the wet meadow. The other boundaries are adjacent ridgelines. This should protect surface water flows to try to restore the flooding missing from the shrubland.

Primary Area 640.01 Acres 259.01 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B4: Moderate Biodiversity Significance

Biodiversity Significance Comments

The site is drawn for a fair viability (C-ranked) Bebb's willow (*Salix bebbiana*) shrubland, a plant association that is tentatively ranked as globally vulnerable (G3?/S2).

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

Canada thistle (*Cirsium arvense*), butter-and-eggs (*Linaria vulgaris*), and various hay grass species were documented.

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>
20994	<i>Salix bebbiana</i> Shrubland	Montane Willow Carrs	G3?	S2	Yes

REFERENCES

<u>Reference ID</u>	<u>Full Citation</u>
159854	Carsey, K., G. Kittel, K. Decker, D. Cooper, and D. Culver. 2003. Field guide to the wetland and riparian plant associations of Colorado. Prepared for the Colorado Department of Natural Resources, Denver, CO by the Colorado Natural Heritage Program, Fort Collins, CO.
198660	Culver, D.R., D. Malone, and A. Shaw. 2011. CNHP Final Report: Survey of Critical Biological Resources in Teller County, Colorado. Colorado Natural Heritage Program, Fort Collins, CO.
198642	Teller County (Web Page). Accessed 2010. 2008 Teller County Multi-Hazard Mitigation Plan. http://www.co.teller.co.us/OEM/tellercopdm_plan.pdf
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.
198640	USDA Natural Resource Conservation Service. 2008. Soil Survey Geographic (SSURGO) Database for Teller-Park Area, Parts of Teller and Park Counties, Colorado. Fort Worth, TX: United States Department of Agriculture, Natural Resource Conservation Service.

ADDITIONAL TOPICS

Additional Topics

No Data

VERSION

Version Date 12/13/2010

Version Author Shaw, A.E. and D.R. Culver

Copyright © 2011. Colorado State University. Colorado Natural Heritage Program. All Rights Reserved.

Level 4 Potential Conservation Area (PCA) Report

Name Upper Crystola Creek

Site Code S.USCOHP*28200

Disclaimer

These data are a product and property of Colorado State University, Colorado Natural Heritage Program (CNHP). These data are strictly "on loan" and should be considered "works in progress". Data maintained in the Colorado Natural Heritage Program database are an integral part of ongoing research at CSU and reflect the observations of many scientists, institutions and our current state of knowledge. These data are acquired from various sources, with varying levels of accuracy, and are continually being updated and revised. Many areas have never been surveyed and the absence of data in any particular geographic area does not necessarily mean that species or ecological communities of concern are not present. These data should not be regarded as a substitute for on-site surveys required for environmental assessments. Absence of evidence is NOT evidence of absence. Absence of any data does not mean that other resources of special concern do not occur, but rather CNHP files do not currently contain information to document this presence. CNHP is not responsible for whether other, non-CNHP data providers have secured landowner permission for data collected.

These data are provided for non-commercial purposes only. Under no circumstances are data to be distributed in any fashion to outside parties. To ensure accurate application of data, tabular and narrative components must be evaluated in conjunction with spatial components. Failure to do so constitutes a misuse of the data. The Colorado Natural Heritage Program shall have no liability or responsibility to the data users, or any other person or entity with respect to liability, loss, or damage caused or alleged to be caused directly or indirectly by the data, including but not limited to any interruption of service, loss of business, anticipatory profits or indirect, special, or consequential damages resulting from the use of operation of the data. Data users hereby agree to hold CNHP, Colorado State University, and the State of Colorado harmless from any claim, demand, cause of action, loss, damage or expense from or related to data users use of or reliance on the data, regardless of the cause or nature thereof, and even in the event that such cause is attributable to the negligence or misconduct of CNHP.

These data are provided on an as-is basis, as-available basis without warranties of any kind, expressed or implied, INCLUDING (BUT NOT LIMITED TO) WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT. Although CNHP maintains high standards of data quality control, CNHP, Colorado State University, and the State of Colorado further expressly disclaim any warranty that the data are error-free or current as of the date supplied