

# Level 4 Potential Conservation Area (PCA) Report

Name Crystola

Site Code S.USCOHP\*28224

## IDENTIFIERS

Site ID 2744 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 385645N  
State Colorado Longitude 1050228W

Quad Code Quad Name  
38105-H1 Woodland Park

County  
Teller (CO)  
El Paso (CO)

Watershed Code Watershed Name  
11020003 Fountain

## SITE DESCRIPTION

Minimum Elevation	7,880.00 Feet	2,401.82 Meters
Maximum Elevation	9,200.00 Feet	2,804.16 Meters

### Site Description

The Crystola site is located 0.3 miles southwest of the community of Crystola. At the eastern edge of the site, an unnamed stream flows into Fountain Creek at Highway 24. There are networks of access roads within residential areas in various stages of construction to the west and northeast of the site's boundaries. Colorado Springs Utilities has built three reservoirs in the watershed immediately south of the Crystola site. The main unnamed stream is classified as a Rosgen Class A with abundant coarse woody debris throughout the stream channel. The floodplain ranges from narrow to non-existent in steeper stretches with numerous boulders defining the stream banks. The central area of the site has a stream gradient of 35% and numerous small water cascades flow among the large boulders. The stream is dry in the flatter (8% slope) downstream end where it flows into a willow carr. Ponds have been constructed on the site's waterways. There is a small water diversion located at the western site boundary. Riparian vegetation is dominated by a Douglas-fir (*Pseudotsuga menziesii*) / red-osier dogwood (*Cornus sericea*) woodland. The northwest-facing slope is a coniferous forest of Engelmann spruce (*Picea engelmannii*), ponderosa pine (*Pinus ponderosa*), and limber pine (*Pinus flexilis*). The southeast-facing slope is a boulder field with sparse cover of bunchgrasses and shrubs that grades into a woodland upslope. The endemic plant, Front Range alumroot (*Heuchera hallii*), grows on the site's Pikes Peak granite canyon walls. Soil consists of deep, poorly drained Aquolls (USDA NRCS 2008).

### Key Environmental Factors

Steep, narrow canyons with cold air drainage create a moist microclimate for Douglas-fir (*Pseudotsuga menziesii*) (Carsey et al. 2003). This site is unusual for the Douglas-fir / red-osier dogwood (*Cornus sericea*) plant association in lacking well-drained loamy soil and for its extreme steepness in places. Red-osier dogwood is more abundant on level ground (Carsey et al. 2003), which may explain why it is sparse at this site

### Climate Description

Teller County is cool and dry although 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

Cabins were built by a cooperative of Colorado College professors in the early 20th century and are currently

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used by members.

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## Cultural Features

No Data

## SITE DESIGN

Site Map Y - Yes

Mapped Date 12/28/2010

Designer Shaw, A.E.

## Boundary Justification

The site boundary is drawn to the adjacent ridgeline except where residential development has caused significant landscape fragmentation at the ridgeline. This boundary would protect the Douglas-fir (*Pseudotsuga menziesii*) / red-osier dogwood (*Cornus sericea*) woodland from further development that could affect its water quality and quantity. The upstream and downstream boundaries are drawn where riparian woodlands change into shrublands. Ecological systems (such as woodlands vs. shrublands) are unified by similar ecological processes, abiotic factors, and environmental gradients (Rondeau 2001), so delimiting a site based on an ecological system of interest (i.e. riparian woodlands) creates a more cohesive site. Only private lands with written permission were visited.

Primary Area

410.01 Acres

165.92 Hectares

## SITE SIGNIFICANCE

Biodiversity Significance Rank B4: Moderate Biodiversity Significance

## Biodiversity Significance Comments

The site supports a good (B-ranked) occurrence of a plant association, Douglas-fir (*Pseudotsuga menziesii*) / red-osier dogwood (*Cornus sericea*) woodland, that is rare in Colorado (G4/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*) and butter-and-eggs (*Linaria vulgaris*) are present.

## 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>
24989	<i>Pseudotsuga menziesii</i> / <i>Cornus sericea</i> Woodland	Lower Montane Riparian Forests	G4	S2	Yes

## REFERENCES

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## Reference ID

## Full Citation

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.
198314	NatureServe Explorer (Web Page). Accessed 2010. An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. <a href="http://www.natureserve.org/explorer">http://www.natureserve.org/explorer</a> .
190863	Rondeau, R. 2001. Ecological system viability specifications for Southern Rocky Mountain ecoregion. First Edition. Colorado Natural Heritage Program, Colorado State University, Fort Collins, CO. 181 pp.
198642	Teller County (Web Page). Accessed 2010. 2008 Teller County Multi-Hazard Mitigation Plan. <a href="http://www.co.teller.co.us/OEM/tellercopdm_plan.pdf">http://www.co.teller.co.us/OEM/tellercopdm_plan.pdf</a>
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 12/28/2010

Version Author Shaw, A.E.

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