

# Level 4 Potential Conservation Area (PCA) Report

Name Castlewood Canyon State Park

Site Code S.USCOHP\*10000

## IDENTIFIERS

Site ID 986 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 392022N  
State Colorado Longitude 1044522W

### Quad Code Quad Name

39104-C7 Castle Rock South  
39104-C6 Russellville Gulch

### County

Douglas (CO)

### Watershed Code Watershed Name

10190003 Middle South Platte-Cherry Creek

## SITE DESCRIPTION

<b>Minimum Elevation</b>	6,180.00	<b>Feet</b>	1,884.00	<b>Meters</b>
<b>Maximum Elevation</b>	6,600.00	<b>Feet</b>	2,012.00	<b>Meters</b>

### Site Description

The canyon that is the dominant feature of this site is characterized by rocky boulder-strewn steep slopes with a canyon floor of loamy and sandy alluvial wet soils subject to seasonal spring flooding. Soils of the higher lying areas are of deep clay loam that have slightly stratified underlying material. The area has a diverse vegetative structure with mixed grass prairie at the canyon bottom. Along the banks of Cherry Creek are pockets of dense SALIX with a dense understory of mixed grasses and forbs. Width of the canyon floor varies, but can reach ~80m at its widest point. Upper canopy: PINUS PONDEROSA interspersed with PSUEDOTSUGA MENZIESII. Mid canopy: QUERCUS GAMBELLII interspersed with other unidentified shrubs. Included within this site are parts of Castlewood Canyon State Park: dominate vegetation, ponderosa pine/Douglas fir forest and Gambel oak shrubland. A rare plant, HEUCHERA RICHARDSONII, also occurs within the boundaries of this site, but was not use in boundary determination.

### Key Environmental Factors

Castlewood Canyon State Park rests on the Castle Rock conglomerate; an alluvial fan formed by the ancestral South Platte River as it emerged from mountains formerly present to the south and west. The Castle Rock conglomerate is more resistant to erosion than the formations underlying the adjacent prairies extending for hundreds of miles to the north, east and south. The erosion resistant Castle Rock conglomerate provides the foundation for the unique patterns of erosion that have created the canyons of the Castlewood area, giving the park a community structure that is more common of the Rocky Mountains, 20 miles to the west. This intermixing of montane and prairie ecotones has resulted in great zoological diversity at Castlewood Canyon State Park where species common to both ecotones occur.

### Climate Description

Annual precipitation is 15-19 inches. Mean annual soil temperature is between 48-50 degrees F, and the frost-free season is 120-135 days.

### Land Use History

In the past the area was probably used mostly for grazing livestock, but it is particularly suited to wildlife habitat and recreational facilities.

### Cultural Features

No Data

## SITE DESIGN

Site Map P - Partial Mapped Date 10/19/1998  
Designer Sovell, J.R.

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## Boundary Justification

The site boundary includes numerous elements and most of the ecological processes of the elements are protected within the boundary. The boundary includes important resources represented by ponds and lakes within 10 kilometers of the ARDEAS HERODIAS rookery located at Castlewood Canyon State Park. The large bodies of water are particularly important during drought years when smaller ponds and marshes of the area may recede or go completely dry. This is important because fledging success in A. HERODIAS depends on success of parents in providing sufficient food (i.e. aquatic animals and invertebrates) when nestlings are between 2-6 weeks of age (Bennett et al. 1995, Auk 112:201-209). The boundary also includes the extent of Cherry Creek within Castlewood Canyon State Park. The creek represents a dispersal corridor for ZAPUS HUDSONIUS PREBLEI, breeding habitat for RANA PIPIENS, and CELASTRINA HUMULUS occurs along this corridor.

Primary Area 682.09 Acres 276.03 Hectares

## SITE SIGNIFICANCE

Biodiversity Significance Rank B3: High Biodiversity Significance

## Biodiversity Significance Comments

[Rank assigned 1998-10-19] C-ranked occurrence of a globally imperiled (G2) species.

Other Values Rank V1 - Outstanding values

## Other Values Comments

State park near high-density urban area. Open space recreation: climbing, hiking, mountain biking, and jogging. This is unique habitat for both wildlife and vegetation.

## LAND MANAGEMENT ISSUES

## Land Use Comments

The area was homesteaded in the past and used for livestock grazing. At the center of this site there had formerly been a dam and reservoir, but the dam failed in the 1930's and was never replaced. A large part of the site is presently protected as Castlewood Canyon State Park.

## Natural Hazard Comments

There is a great deal of poison ivy throughout the site and numerous steep cliffs occur throughout the site.

## Exotics Comments

The more abundant exotics include BROMOPSIS INERMIS, ANISANTHA TECTORUM, and some CENTAUREA.

## Offsite

Housing development is occurring both to the east and west of Castlewood Canyon, right to the canyon's rim. As development continues in Douglas County and in the areas surrounding Castlewood Canyon, insularization of the park will make it difficult to maintain the current species diversity. Present management practices at the park have maintained the health of the ecosystem while meeting the many and varied recreational demands of park patrons (i.e. hiking, mountain biking, and rock climbing too education and interpretation). Management practices of the past should be continued into the future.

## Information Needs

Designs for trail development in the east canyon once that parcel of land is acquired are presently unknown. Expansion of trails along the canyon bottom uniting trails present on the west side of Highway 83 to new trails developed east of the highway would cut right through habitat important to ZAPUS HUDSONIUS PREBLEI, CELASTRINA HUMULUS, and RANA PIPIENS.

## 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>
21289	<i>Zapus hudsonius preblei</i>	Meadow Jumping Mouse Subsp	G5T2	S1	No
20146	<i>Celastrina humulus</i>	Hops Feeding Azure	G2G3	S2	Yes

## REFERENCES

<u>Reference ID</u>	<u>Full Citation</u>
-	No Data

## ADDITIONAL TOPICS

## Additional Topics

No Data

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## VERSION

Version Date 10/19/1998

Version Author Sovell, J.R.

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