

# Level 4 Potential Conservation Area (PCA) Report

Name Mitre Peak at Carlin Gulch

Site Code S.USCOHP\*1662

## IDENTIFIERS

Site ID 1143 Site Class PCA  
 Site Alias McClure Ranch Site  
 Site Alias Carlin Gulch

## 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 383830N  
 State Colorado Longitude 1051138W

## Quad Code Quad Name

38105-F2 Cripple Creek South  
 38105-E2 Cooper Mountain

## County

Fremont (CO)  
 Teller (CO)

## Watershed Code Watershed Name

11020002 Upper Arkansas

## SITE DESCRIPTION

Minimum Elevation	7,000.00 Feet	2,133.60 Meters
Maximum Elevation	8,564.00 Feet	2,610.31 Meters

## Site Description

The Mitre Peak at Carlin Gulch site is located in the lower montane zone foothills on the west slope of the Front Range at the southern border of Teller County. The site encompasses rugged and large landscape with steep hillslopes, rocky ridges and deep canyons. Wilson Creek drains the sub-watershed in this narrow, southwest-trending valley which, in September, had a dry stream channel. The valley was historically ranched but now the valley bottom has been overtaken by weeds. Habitat is a complex mosaic of coniferous and deciduous woodlands, shrublands, grasslands, cliff habitat and, along stream corridors, riparian vegetation characterized by a mosaic of willow shrublands and narrow-leaf and lance-leaf cottonwood (*Populus angustifolia* and *P. acuminata*) gallery forests. Shrublands are characterized by a variably dense cover of Gambel oak (*Quercus gambelii*) in association with mountain mahogany (*Cercocarpus montanus*) with a sparse tree cover of mixed conifers including pinon pine (*Pinus edulis*), Rocky Mountain juniper (*Juniperus scopulorum*) and Douglas-fir (*Pseudotsuga menziesii*) with an herbaceous layer dominated by graminoids such as Geyer sedge (*Carex geyeri*). Steep rocky ridges crown the mountain tops. Here rock-loving herbs and shrubs find protected habitat along crevices and seeps including species such as Fendler's cloak fern (*Argyrochosma fendleri*), slender lip fern (*Cheilanthes feei*) and waxflower (*Jamesia americana*). Local hydrology is driven by soil characteristics, precipitation and infiltration. Geology is predominantly Precambrian age igneous granitic rock of the 1,700 m.y. age group but also includes some Pre-Pennsylvanian Paleozoic age sedimentary carbonate rock from Ordovician formations (Tweto 1979). Soils on hillslopes are predominantly Cathedral-Rock outcrop complex, warm, 25 to 70 percent slopes with Cathedral very gravelly sandy loam, warm, 20 to 50 percent slopes on south-facing hillslopes. Valley floor soils are a mosaic of Cumulic Endoaquolls, 0 to 5 percent slopes, Pendant extremely gravelly loam, 5 to 35 percent slopes and High loam, 3 to 10 percent slopes (USDA NRCS 2008).

## Key Environmental Factors

Fire is important in maintaining these montane shrublands. Burning eliminates the invasion of trees such as Rocky Mountain juniper (*Juniperus scopulorum*) and pinon pine (*Pinus edulis*) trees, but not the more fire-adapted shrub species which sprout vigorously from stembases or from underground rhizomes following fire. Gambel oak (*Quercus gambelii*) is a fire-adapted species with a well-developed root system used to draw moisture from a large volume of soil allowing for rapid re-sprouting after fire and oak cover often increases after fire (NatureServe 2010, Rondeau 2001).

## Climate Description

The site is located in the lower montane zone and the climate is somewhat dry. At this site at an elevation of 7,200 feet coldest temperatures occurred in January with an average maximum of 41.59 °F and a minimum of

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15.46 °F. Warmest temperatures occurred in July with an average maximum of 81.27 °F and an average minimum of 52.68 °F. Annual average maximum precipitation was 18.15 inches. July and August were the wettest months of the year with 3.21 and 3.39 inches of precipitation respectively. Driest months are December, January and February with 0.47, 0.37 and 0.39 inches of precipitation respectively. March through June and September through November have intermediate amount of precipitation (Prism 2010).

## Land Use History

No Data

## Cultural Features

No Data

## SITE DESIGN

Site Map Y - Yes

Mapped Date 01/12/2011

Designer Malone, D.G.

## Boundary Justification

Site boundaries were delineated along ridgelines to encompass the watershed boundaries and associated ecological processes, especially hydrology and fire, essential to long-term viability of the occurrence. Only those private lands with written permission from landowners were surveyed.

Primary Area 2,621.80 Acres 1,061.01 Hectares

## SITE SIGNIFICANCE

Biodiversity Significance Rank B3: High Biodiversity Significance

## Biodiversity Significance Comments

The site was drawn for a good (B-ranked) occurrence of the globally and state vulnerable (G3/S3) Gambel oak-mountain mahogany (*Quercus gambelii* - *Cercocarpus montanus*) shrubland. These shrubland associations are threatened with vegetation alteration due to the invasion of trees and non-native forbs as a result of an altered fire regime or grazing disturbance (Rondeau 2001). This site also contains historical occurrences of plant communities which are vulnerable on a global scale: two-needle pinon / Scribner's needle grass (*Pinus edulis* / *Achnatherum scribneri*) woodland (G3/S2) and ponderosa pine/ spike fescue (*Pinus ponderosa* / *Leucopoa kingii*) woodland (G3/S3).

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

Alien plant cover <1% in upland shrub habitat includes red clover (*Trifolium pratense*); valley habitat >50% of the valley floor is dominated by Russian thistle (*Salsola iberica*); and in riparian habitat 5% cover of tamarisk (*Tamarix ramosissima*).

## Offsite

No Data

## Information Needs

No Data

## ASSOCIATED ELEMENTS OF BIODIVERSITY

Element State ID	State Scientific Name	State Common Name	Global Rank	State Rank	Driving Site Rank
24719	<i>Pinus edulis</i> / <i>Achnatherum scribneri</i> Woodland	Two-needle Pinyon/Scribner's Needle Grass	G3	S2	No
24685	<i>Quercus gambelii</i> - <i>Cercocarpus montanus</i> / ( <i>Carex geyeri</i> ) Shrubland	Mixed Mountain Shrublands	G3	S3	Yes
24756	<i>Pinus ponderosa</i> / <i>Leucopoa kingii</i> Woodland	Foothills Ponderosa Pine Savannas	G3	S3	No

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## REFERENCES

<u>Reference ID</u>	<u>Full Citation</u>
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> .
198649	Prism Climate Group (Web Page). Accessed 2010. Spatial Climate Analysis. <a href="http://www.prism.oregonstate.edu/">http://www.prism.oregonstate.edu/</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.
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.
198651	U.S. Department of Agriculture (Web Page). Accessed 2010. Natural Resource Conservation Service, Soil Data Mart. <a href="http://soils.usda.gov/survey/">http://soils.usda.gov/survey/</a>

## ADDITIONAL TOPICS

### Additional Topics

Original site design by Kittel, G.M. and A.M. Loar. 1997-04-30.

## VERSION

**Version Date** 01/12/2011  
**Version Author** Malone, D.G.

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