

Level 4 Potential Conservation Area (PCA) Report

Name Phantom Canyon of Eightmile Creek

Site Code S.USCOHP*1755

IDENTIFIERS

Site ID 1708 Site Class PCA
Site Alias Adelaide

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 383437N
State Colorado Longitude 1050636W

Quad Code Quad Name

| | |
|----------|---------------------|
| 38105-E1 | Phantom Canyon |
| 38105-E2 | Cooper Mountain |
| 38105-F1 | Big Bull Mountain |
| 38105-F2 | Cripple Creek South |
| 38105-D1 | Florence |

County

Fremont (CO)

Teller (CO)

Watershed Code Watershed Name

11020002 Upper Arkansas

SITE DESCRIPTION

| | | | | |
|--------------------------|----------|-------------|----------|---------------|
| Minimum Elevation | 5,800.00 | Feet | 1,767.84 | Meters |
| Maximum Elevation | 9,520.00 | Feet | 2,901.70 | Meters |

Site Description

Eightmile Creek has carved Phantom Canyon through rugged, low elevation, granitic hills southwest of Pikes Peak. At the upstream end, dense Douglas-fir (*Pseudotsuga menziesii*) forest occupies north-facing slopes while relatively sparse ponderosa pine (*Pinus ponderosa*) and Gambel oak (*Quercus gambelii*) are on south-facing slopes. At lower elevations, the upland vegetation transitions to pinon - juniper (*Pinus edulis* - *Juniperus scopulorum*) woodland. Canyon sides are quite steep in some places with many cliff faces and rock outcrops. Tributaries of Eightmile Creek are moderately to somewhat steep, boulder-strewn channels at the bottom of narrow, sinuous valleys that course down the canyon sides. The riparian corridor within Phantom Canyon is predominantly a mixed evergreen-deciduous woodland with a variable, broken canopy along a dry, sandy wash. Eightmile Creek has ephemeral to intermittent flow, the latter occurring at higher elevations within the riparian system. Higher in the watershed, where there is more intermittent water flow, there is a greater diversity of conifer species, with Douglas-fir and white fir (*Abies concolor*) commonly occurring amidst areas of alder or willow shrub carr vegetation. However, the vast majority of the riparian canopy at lower elevations is comprised of scattered narrowleaf cottonwood (*Populus angustifolia*), plains cottonwood (*Populus deltoides*), and lanceleaf cottonwood (*Populus acuminata*) groves (the latter two species occur at the downstream end, below about 6,800 feet) interspersed with Rocky Mountain juniper (*Juniperus scopulorum*) in the canopy, subcanopy, and shrub layer throughout. The shrub layer is almost non-existent other than sporadic areas of regeneration of canopy species and occasional copses with hoptree (*Ptelea trifoliata*) and prairie rose (*Rosa arkansana*) although vines often drape the subcanopy and shrub layers. The herbaceous understory is likewise sparse and primarily comprised of drier, more upland species although there are very local patches of more mesic herbs. The stream channel is primarily sand and gravel or cobbles with occasional areas having boulders. Catastrophic flooding has occurred repeatedly in Phantom Canyon. Upland vegetation was, by all reports, denuded during railroad construction during early mining era at Cripple Creek (late 1800's). A devastating flood occurred in 1912 when "a 30-foot high wall of water roared down the canyon in a torrent that ripped 12 bridges from their abutments and destroyed miles of [railroad] track" (BLM interpretive sign at Steel Bridge). As part of the Goldbelt Scenic Byway, a road that replaced the railroad follows the entire reach through Phantom Canyon. The most recent significant flood washed out Phantom Canyon Road in 1995.

Key Environmental Factors

Lower to upper montane elevations; moderate gradient; ephemeral to intermittent flow; historic catastrophic flooding.

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Climate Description

Average annual precipitation is 16.2 inches. Snowfall is greatest in April and May. Monsoon rains peak in July and August. Spring and summer therefore have the greatest precipitation, and sunny fall weather dries out the landscape. 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

A narrow gauge railroad was built through Phantom Canyon in the late 1800's to early 1900's to transport gold and materials between Cripple Creek upstream in Teller County and Canon City downstream along the Arkansas River. After continual maintenance problems following catastrophic flooding episodes, the railroad was dismantled in 1915. The transportation corridor was reopened as a car road in 1918. It is now part of the Goldbelt Scenic Byway.

Cultural Features

No Data

SITE DESIGN

Site Map Y - Yes

Mapped Date 11/30/2010

Designer Shaw, A.E. and D.R. Culver

Boundary Justification

The boundary is drawn as a 1 km buffer of the riparian corridor, which roughly approximates the adjacent ridgelines surrounding Eightmile Creek for immediate watershed protection.

Primary Area 12,771.21 Acres

5,168.35 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B2: Very High Biodiversity Significance

Biodiversity Significance Comments

This site is drawn for good (B-ranked) occurrences of a globally imperiled (G2G3/S2S3) riparian natural community, narrowleaf cottonwood - Rocky Mountain juniper (*Populus angustifolia* - *Juniperus scopulorum*) woodland. It also encompasses a good (B-ranked) occurrence of thinleaf alder (*Alnus incana*) / mesic graminoids shrubland (G3/S3) and a good (B-ranked) and an excellent (A-ranked) occurrence of narrowleaf cottonwood - Douglas-fir (*Populus angustifolia* - *Pseudotsuga menziesii*) woodland (G3/S2). The globally imperiled (G2/S2) plant, Degener beardtongue (*Penstemon degeneri*), is also present in good condition (B-ranked).

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

Much of the herbaceous vegetation is exotic, including common mullein (*Verbascum thapsus*), Canada thistle (*Cirsium arvense*), butter-and-eggs (*Linaria vulgaris*), Kentucky bluegrass (*Poa pratensis*), smooth brome (*Bromus inermis*), redtop (*Agrostis stolonifera*), and orchardgrass (*Dactylis glomerata*).

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> |
| 24963 | <i>Populus angustifolia</i> - <i>Juniperus scopulorum</i> Woodland | Montane Riparian Forest | G2G3 | S2S3 | Yes |

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|-------|--|----------------------------|---------------|------|-----|
| 24692 | <i>Populus angustifolia</i> - <i>Pseudotsuga menziesii</i> Woodland | Montane Riparian Forest | G3 | S2 | No |
| 24976 | <i>Alnus incana</i> / Mesic Graminoids Shrubland | Montane Riparian Shrubland | G3 | S3 | No |
| 24692 | <i>Populus angustifolia</i> - <i>Pseudotsuga menziesii</i> Woodland | Montane Riparian Forest | G3 | S2 | No |
| 21773 | <i>Penstemon degeneri</i> | Degener beardtongue | G2 | S2 | No |
| 21773 | <i>Penstemon degeneri</i> | Degener beardtongue | G2 | S2 | Yes |
| 24963 | <i>Populus angustifolia</i> - <i>Juniperus scopulorum</i> Woodland | Montane Riparian Forest | G2G3 | S2S3 | Yes |

REFERENCES

| Reference ID | Full Citation |
|--------------|--|
| 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. |
| 159580 | Kittel, G., R. Rondeau and A. McMullen. 1996. A classification of the riparian vegetation of the Lower South Platte and parts of the Upper Arkansas River basins, Colorado. Unpublished CNHP Report for CO DNR and US EPA, Region VIII. 243 p. |
| 193618 | Neid, S.L. 2006. Final Report: Survey of Critical Wetlands and Riparian Areas in Fremont County, Colorado. Colorado Natural Heritage Program, Fort Collins, CO. |

ADDITIONAL TOPICS

Additional Topics

Original site design by Kittel, G.M. 1997-04-02. Updated by Neid, S.L. 2006-01-13.

VERSION

| | |
|----------------|----------------------------|
| Version Date | 11/30/2010 |
| Version Author | Shaw, A.E. and D.R. Culver |

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