

Level 4 Potential Conservation Area (PCA) Report

Name Rock Creek at Green Ridge

Site Code S.USCOHP*27980

IDENTIFIERS

Site ID 2667 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 402502N
State Colorado Longitude 1061200W

Quad Code Quad Name

40106-D2 Rand

County

Jackson (CO)

Watershed Code Watershed Name

10180001 North Platte Headwaters

SITE DESCRIPTION

Minimum Elevation	8,600.00 Feet	2,621.28 Meters
Maximum Elevation	9,000.00 Feet	2,743.20 Meters

Site Description

The Rock Creek at Green Ridge site encompasses the watershed of Rock and McKinnon creeks. Rock Creek's headwaters are located in Arapahoe Ridge and McKinnon Creek begins at Green Ridge; both creeks confluence with Willow Creek at CO Highway 125. The riparian shrubland is dominated by tall willows: Geyer willow (*Salix geyeriana*), Rocky Mountain willow (*S. monticola*), planeleaf willow (*S. planifolia*), and short-fruited willow (*S. brachycarpa*). The understory with smaller shrubs such as, shrubby cinquefoil (*Dasiphora floribunda*), gooseberry (*Ribes inerme*), and twinberry (*Lonicera involucrata*). The understory is dominated by the introduced grasses, creeping foxtail (*Alopecurus arundinaceus*) and timothy (*Phleum pratense*). In the wetter areas, under the willows, water sedge (*Carex aquatilis*), meadow sedge (*C. praegracilis*), and beaked sedge (*C. utriculata*) exist. Within the floodplain, the soils are derived from shales and sandstones of the Coalmont Formation. Moose (*Alces alces*), elk (*Cervus canadensis*), and mule deer (*Odocoileus hemionus*) activity was evident throughout both drainages. The rivers are bordered on both sides by hay fields with a network of irrigation ditches. The uplands consist of sagebrush (*Artemisia tridentata* var. *pauciflora* and *A. cana*) shrublands.

Key Environmental Factors

Beaver (*Castor canadensis*) are primary users as well as maintainers to riparian shrublands. Beaver activity forms ponds that slow spring runoff and flooding and retain water that will be released slowly during the growing season. The primary abiotic ecological process to maintain viability is hydrology and more specifically surface flow. Annual and episodic flooding is important in maintaining riparian shrublands (Rondeau 2001).

Climate Description

The site is located in an intermountain basin that is enclosed on most sides by mountains that create precipitation shadows for air and moisture. Climate records for Walden indicate a mean annual precipitation of 10.53 inches (WRCC 2009). Annual mean for snowfall is 57.1 inches. The lowest average temperature (Jan.) is 3.9 degrees F and the highest average temperature (July) is 78.5 degrees F.

Land Use History

No Data

Cultural Features

No Data

SITE DESIGN

Site Map Y - Yes Mapped Date 10/26/2009

Designer Culver, D.R.

Boundary Justification

Boundaries are drawn to capture the immediate watershed that starts below Green Ridge. The boundaries

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were developed to include immediate ecological processes. Specifically the primary ecological process is hydrology, especially surface flow (Rondeau 2001). Only private lands with written permission were surveyed.

Primary Area 3,363.91 Acres 1,361.33 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B3: High Biodiversity Significance

Biodiversity Significance Comments

The site supports a good (B-ranked) occurrence of the globally vulnerable (G3/S3) *Salix geyeriana* / mesic forbs montane willow carr and a good (B-ranked) occurrence of the globally vulnerable (G3/S3) *Salix geyeriana* / *Carex aquatilis* montane willow carr.

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 (*Breea arvensis*) and musk thistle (*Carduus nutans*) were observed along the river banks.

Offsite

No Data

Information Needs

No Data

ASSOCIATED ELEMENTS OF BIODIVERSITY

<u>Element</u>			<u>Global Rank</u>	<u>State Rank</u>	<u>Driving Site Rank</u>
<u>State ID</u>	<u>State Scientific Name</u>	<u>State Common Name</u>			
24629	<i>Salix geyeriana</i> / Mesic Forbs Shrubland	Montane Willow Carr	G3	S3	Yes
24658	<i>Salix geyeriana</i> / <i>Carex aquatilis</i> Shrubland	Montane Willow Carr	G3	S3	Yes

REFERENCES

<u>Reference ID</u>	<u>Full Citation</u>
198407	Culver, D.R., K. Decker, J. Parker, J. Bell, J. Sovell, and J. Huggins. 2010. CNHP Final Report: Identification and Assessment of Important Wetlands within the North Platte Watershed, CO. Colorado Natural Heritage Program, Fort Collins, CO.
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.
198320	Western Regional Climate Center. 2009. Record Climate Summaries. Accessed in 2009. http://www.wrcc.dri.edu/

ADDITIONAL TOPICS

Additional Topics

No Data

VERSION

Version Date 10/26/2009

Version Author Culver, D.R.

Disclaimer

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