

Level 4 Potential Conservation Area (PCA) Report

Name Upper Big Duck Creek

Site Code S.USCOHP*26896

IDENTIFIERS

Site ID 2437 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 395600N
State Colorado Longitude 1083350W

Quad Code Quad Name
39108-H5 Sagebrush Hill

County
Rio Blanco (CO)

Watershed Code Watershed Name
14050006 Piceance-Yellow

SITE DESCRIPTION

Minimum Elevation	6,200.00 Feet	1,889.76 Meters
Maximum Elevation	8,100.00 Feet	2,468.88 Meters

Site Description

The Upper Big Duck Creek site is located in the Piceance Creek Basin. Big Duck Creek is one of a series of ephemeral streams that drain the eastern slope of the Cathedral Bluffs. Dead Horse Ridge rises up from Big Duck Creek forming the southern border of the site. This area typifies the basin and range topography of the Piceance Creek Basin with depositional valleys at the base of uplifted hills that dip towards the creeks. Pinon pine (*Pinus edulis*) and Utah juniper (*Juniperus osteosperma*) are prevalent on the drier, south-facing sides of the hills. Douglas-fir (*Pseudotsuga menziesii*) with snowberry (*Symphoricarpos rotundifolia*) plant community is located on the north-facing sides of the gullies and hills. The riparian vegetation consists of Great Basin big sagebrush (*Artemisia tridentata* ssp. *tridentata*) and rubber rabbitbrush (*Chrysothamnus nauseosus*) with Great Basin ryegrass (*Leymus cinereus*). Cottonwood Springs is a viable spring located above Big Duck Creek. It is the only spring observed during 2007 that was not impaired or developed. Narrowleaf cottonwood (*Populus angustifolia*) and river birch (*Betula occidentalis*) thrive in this green oasis, along with yellow currant (*Ribes aueum*), rose (*Rosa woodsii*) and snowberry. The herbaceous layer is dominated by forbs with false lily of the valley (*Maianthemum stellatum*) and nettle (*Urtica gracilis*).

Key Environmental Factors

Geology consists of Parachute Creek Member of Green River Formation and Uinta Formation. Soils range from well drained Rhone and Parachute loam to rock outcrops of Torriorthents

Climate Description

In the County, summers are warm or hot in most valleys but are much cooler in the mountains. Winters are cold in the mountains. Summer thunderstorms are prevalent; of the total precipitation, 55% usually falls between April and September. Average seasonal snowfall is 74.4 inches, average day time temperature is 45 degrees and average precipitation is 16.5 inches for Meeker between 1948 -2007 (Western Regional Climate Center 2008).

Land Use History

No Data

Cultural Features

No Data

SITE DESIGN

Site Map Y - Yes Mapped Date 01/16/2008
Designer Culver, D.R.

Boundary Justification

Boundary is drawn to capture the mesic area of Big Duck Creek from its headwaters at the base of Cathedral Bluffs to where the sagebrush / Great Basin ryegrass grades into the more saline plant communities of

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greasewood (*Sarcobatus vermiculatus*) dominated shrubland. Both public and private lands are within the site, however, only the public lands were surveyed.

Primary Area 689.26 Acres 278.93 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B3: High Biodiversity Significance

Biodiversity Significance Comments

This site contains Cottonwood Spring, one of the best observed springs during 2007 in Rio Blanco County. It also supports a good (B-ranked) occurrence of the globally vulnerable (G3/S2) *Populus angustifolia* / *Betula occidentalis* riparian forest. This plant association is an indicator of a seep or spring, a perennial water source. There were few non-native plants, mainly hay grasses, and little evidence of grazing pressure. In addition, there is a fair (C-ranked) occurrence of the globally imperiled (G2/S1) sagebrush bottomland shrublands (*Artemisia tridentata* spp. *tridentata* / *Leymus cinereus*). Although not drawn for this species, there are documented Greater Sage-grouse (*Centrocercus urophasianus*) nest sites adjacent to this site. This is a globally secure (G4/S4) species with a restricted range and is also a State Special Concern species and BLM/USFS sensitive species. The Greater Sage-grouse and other sagebrush obligates such as Columbian Sharp-tailed Grouse (*Tympanuchus phasianellus columbianus*), Sage Sparrow (*Amphispiza belli*), and the Brewer's Sparrow (*Spizella breweri*) depend on large, continuous blocks of viable sagebrush habitat such as identified within and adjacent to this site.

Other Values Rank V2 - High values

Other Values Comments

Good wildlife and bird habitat exists.

LAND MANAGEMENT ISSUES

Land Use Comments

No Data

Natural Hazard Comments

No Data

Exotics Comments

No Data

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>
24884	<i>Populus angustifolia</i> / <i>Betula occidentalis</i> Woodland	Montane Riparian Forest	G3	S3	Yes
24677	<i>Artemisia tridentata</i> ssp. <i>tridentata</i> / <i>Leymus cinereus</i> Shrubland	Sagebrush Bottomland Shrublands	G2	S1	Yes

REFERENCES

<u>Reference ID</u>	<u>Full Citation</u>
195026	Culver, D., J. Huggins and P. Lyon. 2008. Final Report: Significant Biological Resources in Rio Blanco County, CO. Colorado Natural Heritage Program, Fort Collins, CO.
195034	WRCC. 2008. Western Regional Climate Center. Division of Atmospheric Sciences, Desert Research Institute. Reno, Nevada. < http://www.wrcc.dri.edu >.

ADDITIONAL TOPICS

Additional Topics

No Data

VERSION

Version Date 01/16/2008

Version Author Culver, D.R.

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