

Level 4 Potential Conservation Area (PCA) Report

Name Beaver Creek Mineral Spring at Blue Valley Ranch

Site Code S.USCOHP*25975

IDENTIFIERS

Site ID 2323 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 395917N
State Colorado Longitude 1062400W

Quad Code Quad Name
39106-H4 Sheephorn Mountain

County
Grand (CO)

Watershed Code Watershed Name
14010002 Blue

SITE DESCRIPTION

Minimum Elevation	7,670.00 Feet	2,337.82 Meters
Maximum Elevation	7,680.00 Feet	2,340.86 Meters

Site Description

Community inhabits two warm mineral springs just south of Beaver Creek along the Colorado River Road, Rd 1. Geology consists of sedimentary rocks of the Cretaceous Age, specifically of the Colorado Group. Soils are very peaty and hummocky immediately surrounding the spring. Soils just outside of the fens are very dense clays and the lower spring has an area of deep, open water. Analogue sedge (*Carex simulata*) occurs throughout as a dense ground cover. In very hummocky, quaking soils, it occurs as the sole cover. On more solid, peaty soils it occurs in association with hardstem bulrush (*Schoenoplectus lacustris* ssp. *acutus*). There is a small area of threesquare bulrush (*Schoenoplectus pungens*) downhill of the upper spring which is likely fed by lateral seepage. The springs are heavily used by wildlife during the winter season, specifically antelope and mule deer, and seem to be an important mineral source for the area. Surrounding uplands are dominated by xeric subalpine big sagebrush (*Artemisia tridentata* ssp. *vaseyana*) shrublands with a few small patches of aspen (*Populus tremuloides*) further uphill. The property supports little livestock, less than 200 head for 25,000 acres, and is heavily managed for its wildlife resources.

Key Environmental Factors

Key environmental factors for the area include hydrology dependent upon perennial, warm, mineral, groundwater discharge, making this site very unique for the area.

Climate Description

Climate likely follows typical Colorado weather patterns being xeric throughout most of the year with a wet spring season and late summer "monsoon" season.

Land Use History

Historically the area was split into multiple homesteads which were farmed by early settlers.

Cultural Features

Uplands surrounding the river still have many old homesteads from early settlers.

SITE DESIGN

Site Map Y - Yes Mapped Date 11/25/2005
Designer Jones, J.R.

Boundary Justification

Boundary is drawn to include saturated and mesic soils around the Beaver Creek mineral hot spring on the Blue Valley Ranch. Boundary is drawn to encompass the hydrologic functions important to the area such as groundwater levels and groundwater discharge, as well as a portion of road just uphill of the site and some buffered uplands. However, boundaries do not include all uplands and surroundings important to the hydrology and maintenance of the site. Changes in management and use of surrounding uplands including development, road maintenance, and improper livestock grazing could be detrimental to soil stability and

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Primary Area 24.97 Acres 10.10 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B3: High Biodiversity Significance

Biodiversity Significance Comments

This site is drawn for an excellent (A-ranked) occurrence of the globally apparently secure (G4/S3) plant community, analogue sedge (*Carex simulata*) herbaceous vegetation. It is ranked as a having high biodiversity significance due to its unique peat soils and mineral rich, groundwater fed, hydrology.

Other Values Rank V2 - High values

Other Values Comments

The most important value provided is a mineral source for local wildlife populations. Another value is the spring's unique nature being supported by warm groundwater and its peat soil structure.

LAND MANAGEMENT ISSUES

Land Use Comments

Land is currently used as a summer retreat for the owner's family and friends. There are some 200 head of cattle that are grazed on the 25,000 acre ranch that do not impose much impact to the riparian areas due to intense management. Bison raised on the ranch use the area as a mineral source.

Natural Hazard Comments

The lower spring supplies an area of deep, open water. Water is not hot enough to inflict harm.

Exotics Comments

There are some exotic species present along the road that transects the slope just above the springs. There are very few non-natives present within the spring area.

Offsite

Approximately 25,000 acres surrounding the site supports 200 head of cattle and about 50 bison. There is a private road used by the property owner that transects the slope just uphill from the springs.

Information Needs

No Data

ASSOCIATED ELEMENTS OF BIODIVERSITY

<u>Element</u>			<u>Global Rank</u>	<u>State Rank</u>	<u>Driving Site Rank</u>
16887	<i>Carex simulata</i> Herbaceous Vegetation	Wet Meadow	G4	S3	Yes

REFERENCES

<u>Reference ID</u>	<u>Full Citation</u>
160903	Carsey, K., D. Cooper, K. Decker, D. Culver, and G. Kittel. 2003. Statewide wetlands classification and characterization: Wetland plant associations of Colorado. Prepared for Colorado Department of Natural Resources, Denver, CO by Colorado Natural Heritage Program, Fort Collins, CO.
193632	Culver, D.R. and Jones, J.R. 2006. Final Report: Survey of Critical Biological Resources in Grand County. Colorado Natural Heritage Program, Fort Collins, CO.
167224	Hurd, E.G., N.L. Shaw, J. Mastrogisepe, L.C. Smithman, and S. Goodrich. 1998. Field Guide to Intermountain Sedges. U.S. Department of Agriculture, Rocky Mountain Research Station, Ogden, UT.
193647	Kosler, John. 2005. Rangeland Manager for Blue Valley Ranch. Personal communication to Jennifer Jones of the Colorado Natural Heritage Program.
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.
172684	Weber, W.A. and R.C. Wittmann. 2001. Colorado Flora: Western Slope, Third Edition. University Press of Colorado, Niwot, CO.

ADDITIONAL TOPICS

Additional Topics

No Data

VERSION

Version Date 11/25/2005

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Version Author Jones, J.R.

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