Level 4 Potential Conservation Area (PCA) Report

Name Buffalo Redskin Creeks **Site Code** S.USCOHP*28404

IDENTIFIERS

Site ID 2770 **Site Class** PCA

Site Alias None

Network of Conservation Areas (NCA)

NCA Site ID	NCA Site Code	NCA Site Name
1666	S.USCOHP1*1992	South Platte Canyon

County

Jefferson (CO)

SITE DESCRIPTION

Site Description

The site follows a narrow riparian corridor with a dense cover of blue spruce (*Picea pungens*) and water birch (*Betula occidentalis*) along Redskin and Buffalo creeks in the Pikes Peak National Forest. Redskin and Buffalo creeks both originate in the mountains just 2-3 miles west of the western border of Jefferson County and join together 5-6 miles from their points of origin. At their confluence Buffalo Creek becomes a third order stream and flows to the northeast following a Forest Service Road. Ponderosa pine *(Pinus ponderosa)* dominates on the steep-sided canyons that include large picturesque tors of Pikes Peak granite (Tweto 1979). Forest openings with large areas of healthy grasslands dominated by Arizona fescue (*Festuca arizonica*), mountain muhly (*Muhlenbergia montana*) and needle and thread grass (*Hesperostipa comata*) were observed in the upland areas of the drainages. Most of the occurrence is in excellent condition with overhanging vegetation, shaded banks and low impacts from nearby dirt roads. The drainages have a large diversity of vegetation in the understory and include large moss covered areas and populations of slender bog orchids (*Limnorchis stricta*), dwarf red blackberry (*Cylactis pubescens*), and liverworts on the flood plains. In the less impacted sections of the streams the bottoms are gravelly with moss covered rocks and boulders lining the streams. The water is clear with sands, gravel and large boulders in the stream. The upland soils consist of sandy loams and loamy sands near the valleys.

Key Environmental Factors

The topography and hydrological features are significant factors that support the rare plant community that occurs in this drainage. The anthropogenic disturbances have not compromised the hydrology of the system within the site.

Climate Description

The weather station at Cheesman, CO between 1902 and 2011 recorded an average annual precipitation of 15.89 inches. Snowfall is greatest in March and April, spring/summer rains peak in July and August. The average annual maximum temperature is 62.7°F (17.0°C) and the average annual minimum temperature is 28.6°F (-1.9°C, WRCC 2006).

Land Use History

During the 1800's much of the land that makes up the Pikes Peak National Forest was logged, burned and overhunted until the early 1900's when it became part of the National Forest System. Grazing, stream alterations and road building have impacted the area. Upstream and just outside the western boundary of the site, impacts from a private residence and ranch appear to have altered the hydrology. In addition, private property along Buffalo Creek contains an area where the floodplain has been mowed on both sides of the occurrence for about a half mile on both sides of the stream leaving only a narrow band of riparian vegetation and no tree cover. In 1996, the Buffalo Creek Fire burned portions of the Buffalo Creek drainage so that the canopy cover is broken for about a quarter of a mile on Buffalo Creek. There is also a large beaver dam on Buffalo Creek about one mile from the east border of the site.

Cultural Features

No Data

Minimum Elevation	7,000.00	**Feet**	2,133.60	**Meters**
Maximum Elevation	7,800.00	**Feet**	2,377.44	**Meters**

SITE DESIGN

Site Map Y - Yes **Mapped Date** 02/17/2012

Designer Smith, P.F.

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Boundary Justification

The boundary is drawn to include the known occurrence of a rare plant community. The boundary is based on the immediate watershed which also encompasses intact upland communities of forests and grasslands. The largely intact hydrology supports many ecological processes especially flooding, natural migration, pollination and dispersal that are essential to the long-term persistence and integrity of the occurrence.

Primary Area 834.67 **Acres** 337.78 **Hectares**

SITE SIGNIFICANCE

Biodiversity Significance Rank B2: Very High Biodiversity Significance

Biodiversity Significance Comments

This site is drawn for a good (B-ranked) occurrence of a Blue Spruce / Water Birch (*Picea pungens* / *Betula occidentalis*) Montane Riparian Woodland that is both globally and state imperiled (G2/S2). This is a large occurrence that follows first and third order streams for a distance over four miles. Most of the area is in very good condition with a thick band of overhanging vegetation that shades the stream. The narrow canyons are deep and cool with floodplains that support a lush assortment of native plant species. The uplands that are located away from the disturbed roadsides are in excellent condition and include large areas of native grass dominated meadows in a matrix with the surrounding ponderosa pine (*Pinus ponderosa*) woodlands.

Other Values Rank No Data

Other Values Comments

Within the site were eleven plant species that ranked a 7 or above on the Colorado Floristic Quality Index (Rocchio 2007): dwarf red blackberry (*Cylactis pubescens*), red baneberry (*Actaea rubra*), slender bog orchid (*Limnorchis stricta*), Parry's bellflower (*Campanula parryi*), starry false lily of the valley (*Maianthemum stellatum*), hemlock parsley (*Conoselinum scopulorum*), enchantress' nightshade (*Circaea alpina*), mountain muhly (*Muhlenbergia montana*), tall fringed bluebells (*Mertensia ciliata*) and water birch (*Betula occidentalis*). Coefficient of Conservation values range from 0-10 with 10 ranks representing species that are always found in unaltered high quality habitats. The presence of species with high FQI values (7-10) is indicative of the high quality of the habitats within the site.

ASSOCIATED ELEMENTS OF BIODIVERSITY

Element State ID	State Scientific Name	State Common Name	Global Rank	State Rank	Driving Site Rank
24654	*Picea pungens / Betula occidentalis* Riparian Woodland	Montane Riparian Woodland	G2	S2	Y

LAND MANAGMENT ISSUES

Land Use Comments

Today much of the area is used primarily for recreation including camping and hiking. Many of the Forest Service roads have high volumes of vehicular traffic to access the camping and the trail system. Both Redskin and Buffalo creeks have roads that run alongside them within the site. Impacts to the stream were obvious at the campgrounds and included moderately to severely eroded and sloughing banks. The streambanks within the campgrounds were almost completely devoid of vegetation. The nearby roadway had a number of invasive weed species present, especially in non-shaded portions where the tree cover had been removed.

Natural Hazard Comments

Very steep and rugged terrain.

Exotics Comments

The quantity of non-native species in the more protected part of the drainage was very low. However, areas near roads, bridges, agricultural areas, private houses and campgrounds have non-native and noxious weed species present. Noxious weed species (B-List –CDA 2023) found included: Canada thistle *(Cirsium arvensis),* bull thistle (*Cirsium vulgare*), yellow toadflax (*Linaria vulgaris*), and musk thistle (*Carduus nutans*,). It is interesting to note that none of these noxious weed species (observed in 2011) were noted in the original survey of this community conducted 15 years ago (McMullen and Van Wie 1996*).* Other non-native species that can invade wetlands that were noted in both 1996 and 2011 include two species of pasture grasses, smooth brome *(Bromus inermis)* and Kentucky bluegrass which often invade riparian areas. Common dandelion *(Taraxacum officinale),* common mullein (*Verbascum thapsis*) and creeping bentgrass (*Agrostis stolonifera*) were also observed in both studies in the disturbed areas.

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Offsite

No Data

Information Needs

No Data

REFERENCES

Reference ID	Full Citation
299850	Ackerfield, J. 2022. Flora of Colorado. Second Edition. Bot. Misc. 60. BRIT Press, Fort Worth Botanic Garden/Botanical Research Institute of Texas, U.S.A. 861 pp.
301831	Colorado Department of Agriculture (CDA). 2023. Noxious Weed List, https://ag.colorado.gov/conservation/noxious-weeds.
170776	McMullen, Amy and Erika VanWie. 1996. Field survey of riparian vegetation of the Upper South Platte Watershed.
198887	Rocchio, J. 2007. Floristic quality assessment indices for Colorado plant communities. Prepared for the Colorado Department of Natural Resources Division of Wildlife, Wetlands Program, Denver, Colorado and the U.S. Environmental Protection Agency, Region 8,Denver, Colorado. Colorado Natural Heritage Program, Fort Collins, Colorado
198851	Sovell, J., P. Smith, D. Culver, S. Panjabi and J. Stevens. 2012. CNHP Final Report: Survey of Critical Biological Resources in Jefferson County, Colorado. Colorado Natural Heritage Program, Fort Collins, CO.
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.
198883	WRCC. 2011. Western Regional Climate Center. Division of Atmospheric Sciences, Desert Research Institute. Reno, Nevada. Accessed 2011.

ADDITIONAL TOPICS

Additional Topics

No Data

LOCATORS

Nation United States **Latitude** 392107N

State Colorado **Longitude** 1051908W

Quad Code	Quad Name
39105-C4	Windy Peak
39105-C3	Green Mountain

Watershed Code	Watershed Name
10190002	Upper South Platte

VERSION

Version Date 05/08/2023

Version Author Smith, P.F.

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