

Level 4 Potential Conservation Area (PCA) Report

Name Slater Creek

Site Code S.USCOHP*28275

IDENTIFIERS

Site ID 2765 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 384714N
 State Colorado Longitude 1051858W

Quad Code Quad Name
 38105-G3 Wrights Reservoir

County
 Teller (CO)

Watershed Code Watershed Name
 11020002 Upper Arkansas

SITE DESCRIPTION

Minimum Elevation	7,970.00 Feet	2,429.26 Meters
Maximum Elevation	8,435.00 Feet	2,570.99 Meters

Site Description

This site is located in the montane zone on the west slope of the Front Range in the southwest region of Teller County. Landscape in this site is by rolling hills punctuated by an abrupt and steep-walled, east-facing rock outcrop. Cliff habitat is characterized by a widely spaced tree canopy dominated by ponderosa pine (*Pinus ponderosa*) with a limited shrub and herbaceous layer with graminoids and forbs including blue grama (*Bouteloua gracilis*) and mountain muhly (*Muhlenbergia montana*) and Front Range alum-root (*Heuchera hallii*) and American pasque flower (*Anemone patens*). Habitat at the base of the cliffs and in surrounding hill country is occupied by ponderosa pine woodlands and savannahs. The valley floor is dominated by agricultural fields. Several ephemeral/perennial streams flow out of the cliffs, eastward out into the surrounding hill country and have their confluence with Slater Creek which drains this south trending valley. Riparian habitat at the base of the cliffs is characterized by a mixed coniferous - deciduous tree canopy that includes narrowleaf cottonwood (*Populus angustifolia*) and ponderosa pine with understory shrubs that include river birch (*Betula occidentalis*) and Rocky Mountain maple (*Acer glabrum*). Stream channels at the base of the cliffs are structured by high energy floods that have formed deep pools. As the streams flow out onto the valley floor many disappear or transition to low-energy streams. Slater creek is a Rosgen type C stream but has been highly modified by agricultural-induced channelization and flow modification. Geology of hillslopes and cliff habitat is composed of Precambrian age igneous granitic rocks of 1,400 m.y. age group. Valley geology, where Slater Creek flows, is Tertiary age igneous rock composed of pre-ash-flow andesitic lavas, breccias, tuffs and conglomerates (Tweto 1979). Soils on hillslopes and cliffs are primarily classified as Rock outcrop-Cathedral complex, 35 to 70 percent slopes and are interspersed with patches of Cathedral very gravelly sandy loam, 3 to 15 percent slopes, Teaspoon-Rock outcrop complex, 5 to 45 percent slopes, and Teaspoon-Rock outcrop complex, 5 to 45 percent slopes. Valley soils are classified as Jode loam, 0 to 6 percent slopes and Corpen-High complex, 5 to 25 percent slopes (USDA NRCS).

Key Environmental Factors

Key factors that influence biota at this site are physical characteristics, especially topography that is characterized as cliff habitat and hydrology specifically seeps and springs that originate from cliff habitat.

Climate Description

Although the site is located in the montane zone the climate is somewhat dry. At this site at an elevation of 7,970 feet coldest temperatures occurred in January with an average maximum of 37.83 °F and a minimum of 6.75 °F. Warmest temperatures occurred in July with an average maximum of 78.04 °F and an average minimum of 45.28 °F. Annual average maximum precipitation was 15.40 inches. July and August were the wettest months of the year with 2.59 and 2.93 inches of precipitation respectively. Driest months are December, January and February with 0.39, 0.38 and 0.41 inches of precipitation respectively. March through June and September through November have intermediate amount of precipitation (Prism 2010).

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Land Use History

No Data

Cultural Features

No Data

SITE DESIGN

Site Map Y - Yes

Mapped Date 01/11/2011

Designer Malone, D.G.

Boundary Justification

This site was drawn to encompass the known elements and potential breeding and foraging habitat specifically for the Peregrine Falcon and northern leopard frog. Additional habitat was delineated for: sufficient landscape to enable ecological processes including hydrological processes and biological processes particularly habitat for a prey base; and a buffer to protect the elements from disturbance. Only those areas with landowner permission were surveyed. In Colorado, Peregrine Falcons breed on cliffs and rock outcrops from 1,370 m to more than 2,740 m (4,500-9000 ft) in elevation. They most commonly choose cliffs that lie within pinon - juniper and ponderosa pine zones and hunt in adjacent open meadows, forested tree top areas, around lakes and rivers, and shrubsteppe (Partners in Flight 2010). It is important to protect not only nesting habitat, but also foraging habitat and a prey base. Northern leopard frogs live in the vicinity of springs, slow streams, marshes, bogs, ponds, canals, flood plains, reservoirs, and lakes; usually they are in or near permanent water with rooted aquatic vegetation. In summer, they commonly inhabit wet meadows and fields. The frogs take cover underwater, in damp niches, or in caves when inactive. Wintering sites are usually underwater, though some frogs possibly overwinter underground. Available information indicates that individual ranids occasionally move distances of several km but most individuals stay within a few kilometers of their breeding sites (NatureServe 2010).

Primary Area 1,095.23 Acres

443.23 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B5: General Biodiversity Interest

Biodiversity Significance Comments

The site was drawn for an extant occurrence of the state rare (G4/S2B) Peregrine Falcon (*Falco peregrinus*) and for an extant occurrence of the state rare (G5/S3) northern leopard frog (*Rana pipiens*). Peregrine Falcon are listed as sensitive by the USFS, and Partners in Flight identifies Peregrine Falcon as a high priority species in the Southern Rocky Mountain Region which includes this site. Bird species, such as Peregrine Falcon, that use cliff/rock habitat for nesting are highly specialized and may be more susceptible to loss of nesting habitat than many other species because they rely completely on cliffs as nest sites. Thus, the number of suitable nest sites is finite and because all suitable nest sites in some areas may be used, every usurpation of a nest site by humans result in a direct reduction in the population (Partners in Flight 2010). Northern leopard frog populations have appeared to have declined, especially in the Rocky Mountains of Colorado, Wyoming, and Montana where the species no longer is extant in most localities where historically it occurred (NatureServe 2010).

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

No weeds were observed in cliff habitat. Aliens in agricultural and grazed fields include yellow sweetclover (*Melilotus officinalis*), Kentucky blue grass (*Poa pratensis*), white clover (*Trifolium repens*), red clover (*Trifolium pratense*), woolly mullein (*Verbascum thapsus*), Russian thistle (*Salsola iberica*), tumble mustard (*Sisymbrium altissimum*), bindweed (*Convolvulus arvensis*) and jointed goatgrass (*Aegilops cylindrical*).

Offsite

No Data

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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>
18389	<i>Rana pipiens</i>	Northern Leopard Frog	G5	S3	Yes
21725	<i>Falco peregrinus anatum</i>	American Peregrine Falcon	G4T4	S2B	Yes

REFERENCES

<u>Reference ID</u>	<u>Full Citation</u>
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.
198314	NatureServe Explorer (Web Page). Accessed 2010. An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. http://www.natureserve.org/explorer .
198647	Partners in Flight (Web Page). Accessed 2010. Colorado: Land Bird Conservation Plan. http://www.rmbo.org/pif/bcp
198649	Prism Climate Group (Web Page). Accessed 2010. Spatial Climate Analysis. http://www.prism.oregonstate.edu/
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.

ADDITIONAL TOPICS

Additional Topics

No Data

VERSION

Version Date	01/11/2011
Version Author	Malone, D.G.

Disclaimer

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