

Level 4 Potential Conservation Area (PCA) Report

Name Trail Creek

Site Code S.USCOHP*28218

IDENTIFIERS

Site ID 2738 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 390233N
State Colorado Longitude 1051525W

<u>Quad Code</u>	<u>Quad Name</u>
39105-A3	Hackett Mountain
39105-A2	Signal Butte

County

Teller (CO)

<u>Watershed Code</u>	<u>Watershed Name</u>
10190001	South Platte Headwaters
10190002	Upper South Platte

SITE DESCRIPTION

Minimum Elevation	8,480.00	Feet	2,584.70	Meters
Maximum Elevation	9,510.00	Feet	2,898.65	Meters

Site Description

The site's underlying geology consists of Pikes Peak granite (Tweto 1979). Ponderosa pine (*Pinus ponderosa*) forest dominates the southeast to southwest-facing slopes. The Hayman Fire in 2002 destroyed portions of the forest. The northwest-facing slopes support mature Engelmann spruce (*Picea engelmannii*) forest, while the slopes affected by fire have been colonized by quaking aspen (*Populus tremuloides*). A narrow strip of blue spruce (*Picea pungens*) trees are found along the toeslope, but some have died from beaver-induced flooding. The lower-most pond on the west side of the road was installed by the landowner, but other ponds within the site are maintained by beaver (*Castor canadensis*). Planeleaf willow (*Salix planifolia*) / water sedge (*Carex utriculata*) shrubland surrounds the ponds. Elk (*Cervus canadensis*) browse is evident on willows (*Salix* spp.). Riparian soils consist of muck to mucky peat. Garber very gravelly coarse sandy loam dominates upland soils (USDA NRCS 2008). Trail Creek Road may introduce excessive sediment into the creek and limit lateral movement of Trail Creek. Within the site, the road serves as the southeastern boundary of the Hayman Fire. Erosion and weed infestations are severe downstream where both sides of Trail Creek Road burned.

Key Environmental Factors

Planeleaf willow (*Salix planifolia*) and water sedge (*Carex utriculata*) dominate saturated soils such as shallow pond margins (Carsey et al. 2003). Waterwort (*Elatine triandra*) also grows in shallow water (Weber and Wittmann 2001). Decker (2006) lists hydrological alteration allowing saturated peat soils (in this case mucky peat) to dry out and decompose as the primary threat to autumn willow (*Salix serissima*) in the southern Rocky Mountains.

Climate Description

Teller County is cool and relatively dry considering that Pikes Peak has the topographic relief to cool humid air and initiate precipitation. Average annual precipitation is 10.5-16.2 inches (<http://www.worldclimate.com>), depending upon exact location within the county. Snowfall is greatest in April and May. Monsoon rains peak in July. Spring and summer therefore have the greatest precipitation, and sunny fall weather dries out the landscape. Teller County has the second highest rate of lightning strikes nationwide, an annual average of 5,700 strikes that reach the ground. (Precipitation timing and lightning information was taken from Teller County 2008). Average maximum temperature is lowest, 30 °F (-1.1 °C), in January, and highest, 75.4 °F (24.1 °C), in July. Average minimum temperature is lowest, -2.8 °F (-19.4 °C), in January, and highest, 45.9 °F (7.7 °C) in July (<http://www.worldclimate.com>).

Land Use History

No Data

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Cultural Features

No Data

SITE DESIGN

Site Map Y - Yes

Mapped Date 12/17/2010

Designer Shaw, A.E. and D.R. Culver

Boundary Justification

The downstream boundary is drawn to include a series of beaver ponds that could potentially serve as habitat for the two plants of biodiversity interest. The rest of the site boundary is drawn at the ridgelines that separate the drainage that feeds into these waterways from adjacent drainages. This boundary should protect the surface water flows that maintain the beaver ponds.

Primary Area 3,227.40 Acres 1,306.09 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B4: Moderate Biodiversity Significance

Biodiversity Significance Comments

The site supports a good (B-ranked) occurrence of planeleaf willow (*Salix planifolia*) / water sedge (*Carex utriculata*) shrubland, a plant association that has not yet been ranked globally (GNR) but is rare in Colorado (S2). There is also a fair (C-ranked) population of the state rare (G4/S1) autumn willow (*Salix serissima*) and a fair (C-ranked) population of the state rare (G5/S1) aquatic plant, longstem water-wort (*Elatine triandra*).

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

Common mullein (*Verbascum thapsus*), Canada thistle (*Cirsium arvense*), and butter-and-eggs (*Linaria vulgaris*) occur in moist soil between the ponds and uplands.

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>
17561	<i>Salix serissima</i>	autumn willow	G4	S1	No
23209	<i>Elatine triandra</i>	longstem water-wort	G5	S1	No
24576	<i>Salix planifolia</i> / <i>Carex utriculata</i> Shrubland	Diamondleaf Willow / Beaked Sedge	GNR	S2	Yes

REFERENCES

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Reference ID

Full Citation

159854	Carsey, K., G. Kittel, K. Decker, D. Cooper, and D. Culver. 2003. Field guide to the wetland and riparian plant associations of Colorado. Prepared for the Colorado Department of Natural Resources, Denver, CO by the Colorado Natural Heritage Program, Fort Collins, CO.
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.
198639	Decker, K. 2006. Salix serissima (Bailey) Fern. (autumn willow): A Technical Conservation Assessment. [Online]. USDA Forest Service, Rocky Mountain Region. Teller County (Web Page). Accessed 2010. 2008 Teller County Multi-Hazard Mitigation Plan. http://www.co.teller.co.us/OEM/tellercopdm_plan.pdf
198642	
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.
198640	USDA Natural Resource Conservation Service. 2008. Soil Survey Geographic (SSURGO) Database for Teller-Park Area, Parts of Teller and Park Counties, Colorado. Fort Worth, TX: United States Department of Agriculture, Natural Resource Conservation Service.
159628	Weber, W. and R. Wittmann. 2001. Colorado Flora: Eastern Slope. Third edition.

ADDITIONAL TOPICS

Additional Topics

No Data

VERSION

Version Date 12/17/2010

Version Author Shaw, A.E. and D.R. Culver

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