

# Level 4 Potential Conservation Area (PCA) Report

Name Quinlan Gulch

Site Code S.USCOHP\*28194

## IDENTIFIERS

Site ID 2726 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 390446N  
State Colorado Longitude 1050640W

Quad Code Quad Name  
39105-A1 Mount Deception

County  
Teller (CO)

Watershed Code Watershed Name  
10190002 Upper South Platte

## SITE DESCRIPTION

Minimum Elevation	7,760.00 Feet	2,365.25 Meters
Maximum Elevation	8,200.00 Feet	2,499.36 Meters

### Site Description

The site is located 0.8 miles from the southeastern edge of the 2002 Hayman burn. A U.S. Forest Service access road crosses the site as it heads southwest from Painted Rocks Campground. The north-facing slope adjacent to the wetland is a forest of Douglas-fir (*Pseudotsuga menziesii*), and the south-facing slope consists of relatively dense ponderosa pine (*Pinus ponderosa*) woodland with an intervening strip of fringed sage (*Artemisia frigida*), cheatgrass (*Bromus tectorum*), and smooth brome (*Bromus inermis*). The soil is Pendant extremely gravelly loam (USDA NRCS 2008). The geology is Arkosic sandstone from the Fountain formation (Tweto 1979), which is visible in several hoodoos. An intermittent stream enters the site from a sparsely-populated housing development that has several water detention ponds. It flows eastward through Douglas-fir forest, dropping steeply as it enters the site's gentle gradient. There is water year-round where a constructed spring in the center of the site empties into the stream. This has allowed the development of a wide water birch (*Betula occidentalis*) / mesic graminoids shrubland. The soil is moist in the southern half of the water birch (*Betula occidentalis*) / mesic graminoid shrubland, and it fades into a shrubby cinquefoil (*Dasiphora fruticosa* ssp. *floribunda*) / mountain rush (*Juncus arcticus* ssp. *littoralis*) shrubland near the forest margin. The soil is inundated in the northern half and grades into a tiny peatland. In the eastern end of the site where grazing occurs, the wetland narrows to a defined stream corridor dominated by Bebb's willow (*Salix bebbiana*).

### Key Environmental Factors

The site's hydrology is altered but intact enough to maintain peat in a small area. The shrubland is probably not grazed much, because the dominant graminoids are sedges, indicating a high groundwater table, rather than introduced grasses (Carsey et al. 2003). The peat area and dense thicket of shrubs probably deter cattle from entering and degrading the wetland. Northern leopard frogs (*Rana pipiens*) live in wet meadows, ponds, and streams. They are preyed upon by fish and, at lower elevations, bullfrogs (*Rana catesbeiana*) (Hammerson 1999). The intermittent nature of the stream may protect the population from the fish of Manitou Park Lake downstream.

### Climate Description

Teller County is cool and 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>).

# Level 4 Potential Conservation Area (PCA) Report

Name Quinlan Gulch

Site Code S.USCOHP\*28194

## Land Use History

No Data

## Cultural Features

No Data

### SITE DESIGN

Site Map Y - Yes

Mapped Date 12/03/2010

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

## Boundary Justification

The site boundary is drawn to incorporate the downstream section of Quinlan Gulch, separated from the inhabited upstream section by a steep drop-off. The upstream section is not included because it has been developed. The boundaries are drawn to the ridgeline on either side of Quinlan Gulch to protect the groundwater that maintains the water birch (*Betula occidentalis*) / mesic graminoid shrubland. The downstream boundary is a road that separates the site from a weedy willow carr adjacent to Teller County Road 67.

Primary Area 240.78 Acres

97.44 Hectares

### SITE SIGNIFICANCE

Biodiversity Significance Rank B4: Moderate Biodiversity Significance

## Biodiversity Significance Comments

The site contains a fair viability (C-ranked) occurrence of a plant association, water birch (*Betula occidentalis*) / mesic graminoid shrubland, that is globally vulnerable (G3/S2). Two northern leopard frogs (*Rana pipiens*) were observed at the site, but no systematic animal survey was performed. Therefore it is ranked as an extant occurrence of a species that is globally demonstrably secure (G5) but vulnerable in Colorado (S3). This species spans the continental U.S. but is increasingly rare in Colorado. It has been impacted by bullfrog (*Rana catesbiana*) introduction, drought, water diversions, flood control structures, and/or fish stocking (Hammerson 1999). During the 2010 survey Veery (*Catharus fuscescens*), currently watchlisted by CNHP, was observed.

Other Values Rank No Data

## Other Values Comments

Three Veeries (*Catharus fuscescens*) were observed nesting along Trout Creek less than a mile southeast of the site. Veeries nest in dense riparian thickets (Kingery 1998), so they may well be present at Quinlan Gulch given its riparian shrubland and proximity to documented nests. The Quinlan Gulch site was not drawn to accommodate the Veery, but may provide valuable Veery habitat nonetheless.

### LAND MANAGEMENT ISSUES

## Land Use Comments

No Data

## Natural Hazard Comments

No Data

## Exotics Comments

Many non-native plants occupy the drier edges of the wetland, including butter-and-eggs (*Linaria vulgaris*), common mullein (*Verbascum thapsus*), cheatgrass (*Bromus tectorum*), and Canada thistle (*Cirsium arvense*).

## 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>
24637	<i>Betula occidentalis</i> / Mesic Graminoids Shrubland	Lower Montane Riparian Shrublands	G3	S2	Yes
18389	<i>Rana pipiens</i>	Northern Leopard Frog	G5	S3	No

### REFERENCES

# Level 4 Potential Conservation Area (PCA) Report

Name Quinlan Gulch

Site Code S.USCOHP\*28194

## 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.
104501	Hammerson, G. A. 1999. Amphibians and reptiles in Colorado. Second edition. University Press of Colorado, Boulder. xxvi + 484 pp.
162919	Kingery, H. E., editor. 1998. Colorado Breeding Bird Atlas. Colorado Bird Atlas Partnership and Colorado Division of Wildlife, Denver, CO. 636 pp.
198642	Teller County (Web Page). Accessed 2010. 2008 Teller County Multi-Hazard Mitigation Plan. <a href="http://www.co.teller.co.us/OEM/tellercopdm_plan.pdf">http://www.co.teller.co.us/OEM/tellercopdm_plan.pdf</a>
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.

## ADDITIONAL TOPICS

### Additional Topics

No Data

## VERSION

Version Date 12/03/2010

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

## Disclaimer

These data are a product and property of Colorado State University, Colorado Natural Heritage Program (CNHP). These data are strictly "on loan" and should be considered "works in progress". Data maintained in the Colorado Natural Heritage Program database are an integral part of ongoing research at CSU and reflect the observations of many scientists, institutions and our current state of knowledge. These data are acquired from various sources, with varying levels of accuracy, and are continually being updated and revised. Many areas have never been surveyed and the absence of data in any particular geographic area does not necessarily mean that species or ecological communities of concern are not present. These data should not be regarded as a substitute for on-site surveys required for environmental assessments. Absence of evidence is NOT evidence of absence. Absence of any data does not mean that other resources of special concern do not occur, but rather CNHP files do not currently contain information to document this presence. CNHP is not responsible for whether other, non-CNHP data providers have secured landowner permission for data collected.

**These data are provided for non-commercial purposes only.** Under no circumstances are data to be distributed in any fashion to outside parties. To ensure accurate application of data, tabular and narrative components must be evaluated in conjunction with spatial components. Failure to do so constitutes a misuse of the data. The Colorado Natural Heritage Program shall have no liability or responsibility to the data users, or any other person or entity with respect to liability, loss, or damage caused or alleged to be caused directly or indirectly by the data, including but not limited to any interruption of service, loss of business, anticipatory profits or indirect, special, or consequential damages resulting from the use of operation of the data. Data users hereby agree to hold CNHP, Colorado State University, and the State of Colorado harmless from any claim, demand, cause of action, loss, damage or expense from or related to data users use of or reliance on the data, regardless of the cause or nature thereof, and even in the event that such cause is attributable to the negligence or misconduct of CNHP.

These data are provided on an as-is basis, as-available basis without warranties of any kind, expressed or implied, INCLUDING (BUT NOT LIMITED TO) WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT. Although CNHP maintains high standards of data quality control, CNHP, Colorado State University, and the State of Colorado further expressly disclaim any warranty that the data are error-free or current as of the date supplied