

# Level 4 Potential Conservation Area (PCA) Report

Name Florissant at Hornbek Homestead

Site Code S.USCOHP\*28193

## IDENTIFIERS

Site ID 2725 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 385453N  
State Colorado Longitude 1051756W

Quad Code Quad Name  
38105-H3 Lake George

County  
Teller (CO)

Watershed Code Watershed Name  
10190001 South Platte Headwaters

## SITE DESCRIPTION

<b>Minimum Elevation</b>	8,240.00	<b>Feet</b>	2,511.55	<b>Meters</b>
<b>Maximum Elevation</b>	8,820.00	<b>Feet</b>	2,688.34	<b>Meters</b>

### Site Description

The site is located within Florissant Fossil Beds National Monument adjacent to a historical homestead that marks the beginning of an era of agriculture in Colorado. Ponderosa pine (*Pinus ponderosa*) woodland covers the hills. Arizona fescue (*Festuca arizonica*) / slimstem muhly (*Muhlenbergia filiculmis*) grassland dominates the adjacent toe slopes. The uplands contain several hiking trails for visitors. Upland soil consists of Guffey very gravelly sandy loam (USDA NRCS 2008). The site's geology consists of Oligocene sedimentary rocks that include the Florissant Lake Beds Formation (Tweto 1979). A population of pale blue-eyed grass (*Sisyrinchium pallidum*) is located in a narrow swale or drainage ditch located below a dam. Within the swale, the dominant plant community is mountain rush (*Juncus arcticus* ssp. *littoralis*) herbaceous vegetation with introduced but non-invasive pasture grasses and forbs. Along the upper bench of the adjacent unnamed tributary, there is a fen dominated by water sedge (*Carex aquatilis*) herbaceous vegetation. The fen's other graminoids include mountain rush, tufted hairgrass (*Deschampsia cespitosa*), slimstem reedgrass (*Calamagrostis stricta*), and patches of analog sedge (*Carex simulata*). Soils within the fen are fibric peat, while surrounding wetlands contain silty clay soil. Immediately downstream from the fen, the tributary empties into Grape Creek. Grape Creek is cutting a new sinuous channel within its downcut stream bed, indicating recovery of the stream's natural geomorphology from historical grazing.

### Key Environmental Factors

Water sedge (*Carex aquatilis*) herbaceous vegetation is common on wide flat montane valleys. The fen it inhabits was formed by groundwater seeping from the adjacent slopes, keeping the soil saturated to slow decomposition of plant matter. Pale blue-eyed grass (*Sisyrinchium pallidum*) inhabits meadows with moist to saturated soils. This population is found on the drier margin of a slough.

### 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>).

### Land Use History

The area was homesteaded in the 1870's. Around 1920, tourism ventures were established with petrified forests and dude ranching as the tourist attractions (NPS Visitor Pamphlet). German prisoners of war later terraced the uplands about 1.5 miles to the southeast of the site to plant potatoes.

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## Cultural Features

The Hornbek Homestead is located within the site.

## SITE DESIGN

Site Map Y - Yes Mapped Date 12/03/2010  
 Designer Shaw, A.E. and D.R. Culver

## Boundary Justification

The site's boundary is drawn to encompass the immediate drainages of the tributaries that serve as a surface water source for pale blue-eyed grass (*Sisyrinchium pallidum*) and the fen. The hill adjacent to the fen provides groundwater and is included within the site. The site includes the segment of Grape Creek adjacent to the fen because it borders other wet meadows and swales that could potentially serve as habitat for pale blue-eyed grass (*Sisyrinchium pallidum*). Private lands were visited with written permission.

Primary Area 1,325.90 Acres 536.57 Hectares

## SITE SIGNIFICANCE

Biodiversity Significance Rank B3: High Biodiversity Significance

## Biodiversity Significance Comments

This site rank is driven by a fair (C-ranked) population of pale blue-eyed grass (*Sisyrinchium pallidum*), a plant that is globally imperiled (G2G3/S2). This species is a regional endemic, ranging from central Colorado to southeastern Wyoming. There is also a good (B-ranked) occurrence of an apparently globally secure (G5/S4) plant association, water sedge (*Carex aquatilis*) herbaceous vegetation.

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 Data

## Offsite

No Data

## Information Needs

No Data

## ASSOCIATED ELEMENTS OF BIODIVERSITY

Element	Global Rank	State Rank	Driving Site Rank
22745 <i>Carex aquatilis</i> Herbaceous Vegetation	G5	S4	No
21615 <i>Sisyrinchium pallidum</i>	G2G3	S2	Yes

## REFERENCES

Reference ID	Full Citation
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.
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.

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## ADDITIONAL TOPICS

### Additional Topics

No Data

## VERSION

Version Date 12/03/2010

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

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