

Level 4 Potential Conservation Area (PCA) Report

Name North Fork of North Platte River

Site Code S.USCOHP*27981

IDENTIFIERS

Site ID 2668 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 404839N
State Colorado Longitude 1063246W

<u>Quad Code</u>	<u>Quad Name</u>
40106-G5	Boettcher Lake
40106-H5	Pearl
40106-F4	Delaney Butte
40106-F5	Pitchpine Mountain
40106-G4	Lake John

County

Jackson (CO)

<u>Watershed Code</u>	<u>Watershed Name</u>
10180001	North Platte Headwaters

SITE DESCRIPTION

Minimum Elevation	8,500.00 Feet	2,590.80 Meters
Maximum Elevation	8,800.00 Feet	2,682.24 Meters

Site Description

The North Fork of the North Platte site is located on the western edge of North Park between the eastern slope of the Park Range and Sheep Mountain. The North Fork headwaters are located to the northwest of the site at the base of Red Elephant Mountain. The North Fork meanders south along the granitic outcrop of Sheep Mountain before heading east to the confluence with the North Platte at Lake John. Several first order streams confluence with the North Fork throughout the site. They include Goose, Hill, Lake, Ute, Brown, and Lone Pine creeks. The alluvium deposited by eons of deposition from the Park Range has created a gravelly floodplain that supports an almost contiguous riparian corridor of willows. The dominant willows include Rocky Mountain willow (*Salix monticola*), Geyer's willow (*S. geyeriana*), Bebb's willow (*S. bebbiana*) and coyote willow (*S. exigua*) with thinleaf alder (*Alnus incana*) and river birch (*Betula occidentalis*) along the river banks. The understory consists of bluejoint reedgrass (*Calamagrostis canadensis*), water sedge (*Carex aquatilis*), beaked sedge (*C. utriculata*), silvery sedge (*C. canescens*), and hay grasses. The willow carr is interspersed with wet meadows, hay fields, and open stream channels. There are no major hydrological alterations on the North Fork within the site, however several irrigation ditches are located throughout the site. The riparian shrubland along the river provides excellent fish habitat. The upland vegetation consists of lodgepole pine (*Pinus contorta*) forests that have been severely impacted by the mountain pine beetle (*Dendroctonus* spp.).

Key Environmental Factors

Beaver are primary users as well as maintainers to riparian shrublands. Beaver activity forms ponds that slow spring runoff and flooding and retain water that will be released slowly during the growing season. The primary abiotic ecological process to maintain viability is hydrology and more specifically surface flow. Annual and episodic flooding is important in maintaining riparian shrublands (Rondeau 2001).

Climate Description

The site is located in an intermountain basin that is enclosed on most sides by mountains that create precipitation shadows for air and moisture. Climate records for Walden indicate a mean annual precipitation of 10.53 inches (WRCC 2009). Annual mean for snowfall is 57.1 inches. The lowest average temperature (Jan.) is 3.9 degrees F and the highest average temperature (July) is 78.5 degrees F.

Land Use History

No Data

Cultural Features

No Data

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SITE DESIGN

Site Map Y - Yes

Mapped Date 10/26/2009

Designer Culver, D.R.

Boundary Justification

Boundaries are drawn to capture the immediate watershed that starts below Red Elephant Mountain. The eastern boundary is the top of Sheep Mountain and the west boundary incorporates several of the tributaries of the North Fork. The boundaries were developed to include immediate ecological processes such as flooding and wildlife habitat. Only private lands with written permission were surveyed.

Primary Area 10,733.95 Acres

4,343.89 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B3: High Biodiversity Significance

Biodiversity Significance Comments

The site supports a good (B-ranked) occurrence of a globally vulnerable (G3/S3) *Salix geyeriana* - *Salix monticola* / *Calamagrostis canadensis* montane willow carr and a fair (C-ranked) occurrence of a globally vulnerable (G3/S3) *Salix geyeriana* / *Carex aquatilis* montane willow carr. Riparian shrublands dominated by *Salix geyeriana* appear to be stable and long-lived, especially if the water table does not drop below 3 feet of the surface (Carsey et al. 2003). Wild chives (*Allium schoenoprasum* var. *sibiricum*) (G5T5/S1) is a globally common, state rare plant that has been historically documented in the area, but current surveys are needed to precisely locate populations.

Other Values Rank No Data

Other Values Comments

No Data

LAND MANAGEMENT ISSUES

Land Use Comments

Current owner is removing willow to allow easier access for fishing. Caution is suggested for the willows also maintain the hydrology and food chain support necessary for a viable trout population.

Natural Hazard Comments

No Data

Exotics Comments

There are non-native hay grasses.

Offsite

No Data

Information Needs

Current field surveys are needed to verify populations of wild chives (*Allium schoenoprasum* var. *sibiricum*).

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>
24658	<i>Salix geyeriana</i> / <i>Carex aquatilis</i> Shrubland	Montane Willow Carr	G3	S3	No
24489	<i>Salix geyeriana</i> - <i>Salix monticola</i> / <i>Calamagrostis canadensis</i> Shrubland	Montane Willow Carrs	G3	S3	Yes

REFERENCES

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Full Citation

160903	Carsey, K., D. Cooper, K. Decker, D. Culver, and G. Kittel. 2003. Statewide wetlands classification and characterization: Wetland plant associations of Colorado. Prepared for Colorado Department of Natural Resources, Denver, CO by Colorado Natural Heritage Program, Fort Collins, CO.
198407	Culver, D.R., K. Decker, J. Parker, J. Bell, J. Sovell, and J. Huggins. 2010. CNHP Final Report: Identification and Assessment of Important Wetlands within the North Platte Watershed, CO. Colorado Natural Heritage Program, Fort Collins, CO.
190863	Rondeau, R. 2001. Ecological system viability specifications for Southern Rocky Mountain ecoregion. First Edition. Colorado Natural Heritage Program, Colorado State University, Fort Collins, CO. 181 pp.
198320	Western Regional Climate Center. 2009. Record Climate Summaries. Accessed in 2009. http://www.wrcc.dri.edu/

ADDITIONAL TOPICS

Additional Topics

No Data

VERSION

Version Date 10/26/2009

Version Author Culver, D.R.

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