

Level 4 Potential Conservation Area (PCA) Report

Name East Sand Creek Fen

Site Code S.USCOHP*27994

IDENTIFIERS

Site ID 2676 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 404554N
State Colorado Longitude 1060629W

Quad Code Quad Name
40106-G1 Shipman Mountain

County
Jackson (CO)

Watershed Code Watershed Name
10180001 North Platte Headwaters

SITE DESCRIPTION

Minimum Elevation	8,000.00 Feet	2,438.40 Meters
Maximum Elevation	8,280.00 Feet	2,523.74 Meters

Site Description

East Sand Creek Fen site is located between the Canadian River and the base of East Sand Dunes. The fen is perched above the Canadian River in a natural basin that is fed by numerous groundwater discharge areas or springs. The fen is dominated by analogue sedge (*Carex simulata*) with pockets of standing water that supports broadleaf cattail (*Typha latifolia*). Sageleaf willow (*Salix candida*) is found scattered throughout the wetland with Booth's willow (*S. boothii*) and Geyer's willow (*S. geyeriana*). The site is defined as a fen due to the presence of water logged spongy ground and the formation of at least 40 cm of organic soils or histosols. Histosols are organic soils formed by slow accumulation of plant debris in waterlogged situations where it cannot decompose and accumulates as peat. There are several areas that "quake" as one walks upon the suspended vegetation. The outer ring of the wetland consists of Nebraska sedge (*C. nebrascensis*), beaked sedge (*C. utriculata*), and tufted hairgrass (*Deschampsia cespitosa*). Stripped chorus frogs (*Pseudacris triseriata*) were heard during the 2009 survey. The uplands are typical montane sagebrush (*Artemisia tridentata* ssp. *pauciflora*) shrublands.

Key Environmental Factors

The presence of groundwater discharge and the peat formation.

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

SITE DESIGN

Site Map Y - Yes Mapped Date 11/05/2009
Designer Culver, D.R.

Boundary Justification

The boundary includes East Sand Creek from the East Sand Dunes to its confluence with the Canadian River. The boundary is intended to capture the immediate groundwater discharge area that supports the fen. Only private lands with written permission were surveyed.

Primary Area 509.14 Acres 206.04 Hectares

SITE SIGNIFICANCE

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Biodiversity Significance Rank B4: Moderate Biodiversity Significance

Biodiversity Significance Comments

The site supports an excellent (A-ranked) occurrence of a state rare (G4/S3) *Carex simulata* wet meadow community and an excellent (A-ranked) occurrence of a state rare (G5/S2) plant, sageleaf willow (*Salix candida*). This willow is fairly common in more northern (boreal) latitudes of North America, but is also found in rare isolated populations in Colorado, Wyoming, and South Dakota. In these areas, the species has remained as a relic from the previous glaciations, when what is now typical boreal vegetation was found much further south on the continent. Throughout its range, *Salix candida* is typically associated with fens, bogs, marshes, and other areas of permanently saturated soils where peat is present.

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

<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>
16887	<i>Carex simulata</i> Herbaceous Vegetation	Wet Meadow	G4	S3	Yes
22645	<i>Salix candida</i>	hoary or silver willow	G5	S2	No

REFERENCES

<u>Reference ID</u>	<u>Full Citation</u>
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.
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 11/05/2009
Version Author Culver, D.R.

Disclaimer

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