

Level 4 Potential Conservation Area (PCA) Report

Name Illinois River at Rand

Site Code S.USCOHP*27997

IDENTIFIERS

Site ID 2679 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 402825N
State Colorado Longitude 1061128W

Quad Code Quad Name

40106-D1 Jack Creek Ranch
40106-D2 Rand
40106-E2 Owl Ridge

County

Jackson (CO)

Watershed Code Watershed Name

10180001 North Platte Headwaters

SITE DESCRIPTION

Minimum Elevation	8,420.00 Feet	2,566.42 Meters
Maximum Elevation	8,700.00 Feet	2,651.76 Meters

Site Description

The Illinois River is a tributary of the Michigan River that drains part of the North Park basin south of Walden. Its headwaters are located near Bowen Pass in the Never Summer Range. It flows northward through the valley as a winding stream, past Rand and the Arapaho National Wildlife Refuge, to its confluence with the Michigan at Walden. There are several ditches that take water out of the Illinois River eventually releasing it back through irrigation. These include Ottawa, Macfarlane Ext., Monroe, and Arnold ditches. The riparian shrubland located along the Illinois River and its floodplain has a shared dominant tall shrub layer between Rocky Mountain willow (*Salix monticola*) and Geyer's willow (*S. geyeriana*). Other shrubs with less cover include whiplash (*S. lasiandra*) and thinleaf alder (*Alnus incana*). The understory is dominated by typical riparian forbs such as gooseberry (*Ribes inerme*), twinberry (*Lonicera involucrata*), and shrubby cinquefoil (*Dasiphora floribunda*). Graminoids include beaked sedge (*Carex utriculata*), Nebraska sedge (*C. nebrascensis*), meadow sedge (*C. praegracilis*), timothy (*Phleum pratense*), creeping foxtail (*Alopecurus arundinaceus*), canary reedgrass (*Phalaris arundinaceae*), manna grass (*Glyceria striata*), Baltic rush (*Juncus balticus*), swordleaf rush (*J. ensifolius*) and bluejoint reedgrass (*Calamagrostis canadensis*). There are low areas that hold spring run-off and are completely dominated by sedges with willow along drier edges. Wildlife signs included muskrat (*Ondatra zibethicus*), waterfowl, and Great Blue Heron (*Ardea herodias*). The site supports excellent fish habitat evidenced by the numerous areas of ripples and pools.

Key Environmental Factors

Beaver (*Castor canadensis*) are primary users as well as maintainers to montane 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 11/05/2009

Designer Culver, D.R.

Boundary Justification

Boundaries are drawn to capture the immediate watershed that starts at the confluence of the Illinois River and Jack Creek to the confluence of Willow Creek with the Illinois. The boundaries were developed to include immediate ecological processes. Specifically the primary ecological process is hydrology, especially surface flow (Rondeau 2001). Only private lands with written permission were surveyed.

Primary Area 1,963.41 Acres 794.57 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B3: High Biodiversity Significance

Biodiversity Significance Comments

This site supports an excellent (A-ranked) occurrence of the globally vulnerable (G3/S3) Geyer's willow (*Salix geyeriana*) - Rocky Mountain willow (*Salix monticola*) / mesic forbs shrubland. Imprecise records of wood frog (*Rana sylvatica*), a state vulnerable (G5/S3) amphibian, were historically documented in the site, but current information is needed to verify the frog populations.

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

Canada thistle (*Breca arvensis*) and musk thistle (*Carduus nutans*) are present in the disturbed, drier areas within the site.

Offsite

No Data

Information Needs

Current field surveys are needed to verify populations of wood frog (*Rana sylvatica*).

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>
24573	<i>Salix geyeriana</i> - <i>Salix monticola</i> / Mesic Forbs Shrubland	Geyer's Willow-Rocky Mountain Willow/Mesic Forb	G3	S3	Yes

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.
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 11/05/2009

Version Author Culver, D.R.

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