

Level 4 Potential Conservation Area (PCA) Report

Name Fraser River at Granby

Site Code S.USCOHP*25974

IDENTIFIERS

Site ID 2322 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 400455N
State Colorado Longitude 1055631W

Quad Code Quad Name

40105-A8 Granby

County

Grand (CO)

Watershed Code Watershed Name

14010001 Colorado headwaters

SITE DESCRIPTION

Minimum Elevation	7,935.00 Feet	2,418.59 Meters
Maximum Elevation	7,975.00 Feet	2,430.78 Meters

Site Description

The Fraser River is a major tributary in the upper Colorado River watershed. It originates at Berthoud Pass and joins the Colorado River just south of Granby. Near the occurrence, the Fraser River is a type C stream. General geology consists of unconsolidated surficial deposits and rocks of the Quaternary Age, specifically modern alluvium. Alluvial soils consist of large cobble along the stream corridor and silt loams of moderate organic content in backwater sloughs. Soils are saturated to inundated throughout with perennial surface flows along the main drainage and high groundwater levels along sloughs. Canopy layer is dominated by narrowleaf cottonwood (*Populus angustifolia*). The tall shrub layer is dominated by willow species including mountain willow (*Salix monticola*), Geyer's willow (*Salix geyeriana*), greenleaf willow (*Salix lucida*), and narrowleaf willow (*Salix exigua*) with mountain willow being the most common. Herbaceous understory is dominated by mesic graminoids including bluejoint reedgrass (*Calamagrostis canadensis*), beaked sedge (*Carex utriculata*), and clustered field sedge (*Carex praegracilis*). Exotic species are common throughout. Irrigation and residential water supplies remove water from the system at the town of Granby.

Key Environmental Factors

Key environmental factors influencing the biota of this site include perennial surface flows, spring flooding, slope, and valley shape.

Climate Description

Climate likely follows patterns typical of this region of Colorado being generally xeric throughout the year with wet spring seasons and late summer "monsoons".

Land Use History

Surrounding uplands have been developed for many years and the site has been used for cattle grazing in the past.

Cultural Features

No Data

SITE DESIGN

Site Map Y - Yes Mapped Date 12/13/2005

Designer Jones, J.R.

Boundary Justification

Boundaries include approximately 4 miles of the Fraser River near Granby. Boundaries are drawn to include some buffered uplands and to encompass those ecological processes necessary to maintain site hydrology including perennial surface flows, spring flooding, sediment deposition, and groundwater recharge. However, boundaries do not include all ecological processes influencing the site and activities upstream and along adjacent slopes such as improper grazing, water diversion, and development may negatively impact site

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hydrology and biota.

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Primary Area 653.08 Acres 264.29 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B3: High Biodiversity Significance

Biodiversity Significance Comments

This site is drawn for a good (B-ranked) occurrence of the globally vulnerable (G3/S3) plant community, narrowleaf cottonwood (*Populus angustifolia*) / mixed willow (*Salix monticola*, *drummondiana*, *lucida*) shrubland.

Other Values Rank V2 - High values

Other Values Comments

The site provides aesthetics and open space for the developing town of Granby. It also provides important habitat for fish, birds, and amphibians. The Fraser River has been extensively altered in the past due to road maintenance, municipal development, dewatering, and inputs from agriculture, roads, and golf courses; therefore this site is very important to the preservation of natural habitat in the area.

LAND MANAGEMENT ISSUES

Land Use Comments

Land was used for cattle grazing in the past. Cattle have been excluded by fencing and less than 40 cattle are grazed on adjacent uplands.

Natural Hazard Comments

Flooding during spring snow melt may cause dangerous flows and deep pools along main drainage.

Exotics Comments

Exotics are common throughout the surveyed areas. Most common exotic species include Timothy (*Phleum pratense*), Canada thistle (*Cirsium arvense*), smooth brome (*Bromus inermis*), and Kentucky bluegrass (*Poa pratensis*). Other exotics present include common dandelion (*Taraxacum officinale*), whitetop (*Cardaria* sp.), and common mullein (*Verbascum thapsus*). Exotics may be so abundant due to past land uses.

Offsite

There are multiple off-site considerations. Dewatering upstream for municipal use, water treatment facilities just above the site, a golf course within the adjacent floodplain, adjacent highway, and the city of Granby all have impacts on the hydrology and sediment and toxins inputs. As well, cattle are grazed on adjacent uplands within the floodplain.

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>
24808	<i>Populus angustifolia</i> / <i>Salix (monticola, drummondiana, lucida)</i> Woodland	Narrowleaf Cottonwood/Mixed Willows Montane Riparian Forest	G3	S3	Yes

REFERENCES

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<u>Reference ID</u>	<u>Full Citation</u>
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.
193632	Culver, D.R. and Jones, J.R. 2006. Final Report: Survey of Critical Biological Resources in Grand County. Colorado Natural Heritage Program, Fort Collins, CO.
160140	Dorn, R. D. 1997. Rocky Mountain Region Willow Identification Field Guide. Renewable Resources R2-RR-97-01. Denver, CO: USDA, Forest Service, Rocky Mountain Region. 107p.
167224	Hurd, E.G., N.L. Shaw, J. Mastroguiseppe, L.C. Smithman, and S. Goodrich. 1998. Field Guide to Intermountain Sedges. U.S. Department of Agriculture, Rocky Mountain Research Station, Ogden, UT.
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.
193553	USDA, NRCS. 2005. The PLANTS Database, Version 3.5 (http://plants.usda.gov). Data compiled from various sources by Mark W. Skinner. National Plant Data Center < http://npdc.usda.gov/ >, Baton Rouge, LA 70874-4490 USA. Accessed 2005.
172684	Weber, W.A. and R.C. Wittmann. 2001. Colorado Flora: Western Slope, Third Edition. University Press of Colorado, Niwot, CO.

ADDITIONAL TOPICS

Additional Topics

No Data

VERSION

Version Date 12/13/2005

Version Author Jones, J.R.

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