Level 4 Potential Conservation Area (PCA) Report

Name West Saint Louis Creek **Site Code** S.USCOHP*25851

IDENTIFIERS

Site ID 2276 **Site Class** PCA

Site Alias None

Network of Conservation Areas (NCA)

NCA Site ID	NCA Site Code	NCA Site Name
-		No Data

LOCATORS

Nation United States **Latitude** 395348N

State Colorado **Longitude** 1055342W

Quad Code	Quad Name
39105-H8	Bottle Pass

County

Grand (CO)

Watershed Code	Watershed Name
14010001	Colorado headwaters

SITE DESCRIPTION

Minimum Elevation	9,200.00	**Feet**	2,804.16	**Meters**
Maximum Elevation	9,275.00	**Feet**	2,827.02	**Meters**

Site Description

Site occurs along West St. Louis Creek, a second order, glaciated tributary of the Fraser River. General geology consists of unconsolidated surficial deposits and rocks of the Quaternary Age, specifically glacial drift of Pinedale and Bull lakes glaciation. Surrounding uplands are dominated by mixed lodgepole pine (*Pinus contorta*), Engelmann spruce (*Picea engelmannii*), and subalpine fir (*Abies lasiocarpa*) forests. The occurrence is confined to the creek, a small floodplain, and a few backwater sloughs. Surveyed areas are dominated by Engelmann spruce in the canopy and field horsetail (*Equisetum arvense*) in the understory. The tall shrub layer is dominated by Drummond's willow (*Salix drummondiana*) and thinleaf alder (*Alnus incana*) with a short shrub layer consisting of whortleberry (*Vaccinium* sp.). Common graminoids include bluejoint reedgrass (*Calamagrostis canadensis*) and water sedge (*Carex aquatilis*). Common forbs include sweet cicely (*Osmorhiza depauperata*), white panicle aster (*Symphyotrichum lanceolatum* ssp. *hesperium* var. *hesperium*), and subalpine fleabane (*Erigeron peregrinus*). Soils are rich loamy sands along creek edges and cobble along the creek bottom. There are no evident disturbances other than the road which appears to be stable. There is likely seasonal flooding along both drainages which helps to maintain soil moisture and species composition.

Key Environmental Factors

Key environmental factors driving element composition include snow pack and spring flooding, perennial surface flows, and gentle sloping providing perennial soil saturation.

Climate Description

Area likely follows climate patterns typical for Colorado being generally xeric, with wet spring seasons and late summer "monsoons".

Land Use History

Historical land uses include mining and removal of surface water for aqueducts for agricultural and municipal water supplies along Front Range sites.

Cultural Features

No Data

SITE DESIGN

Site Map Y - Yes **Mapped Date** 11/12/2005

Designer Jones, J.R.

Boundary Justification

Boundaries are drawn to encompass portions of West St. Louis Creek and Deadhorse Creek. Boundaries include adjacent buffered uplands and ecological processes important to site hydrology, including seasonal flooding and backwater sloughs. However, not all ecological processes are included within the boundary. Activities upstream such as water diversion or logging could negatively impact the site.

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Primary Area 197.48 **Acres** 79.92 **Hectares**

SITE SIGNIFICANCE

Biodiversity Significance Rank B4: Moderate Biodiversity Significance

Biodiversity Significance Comments

Site is drawn for a good (B-ranked) occurrence of a state rare (G4/S2) community, Engelmann spruce / field horsetail (*Picea engelmannii* / *Equisetum arvense*).

Other Values Rank V3 - Moderate values

Other Values Comments

Site provides moderate other values such as wildlife habitat.

LAND MANAGMENT ISSUES

Land Use Comments

Land use includes USFS research such as hydrologic monitoring and snow pack studies and recreation by bikers, hikers, and backpackers.

Natural Hazard Comments

Spring flooding may be hazardous to road travel along the drainage and adjacent slopes may be subject to avalanche danger.

Exotics Comments

Common dandelion (*Taraxacum officinale*) is present throughout, but does not seem to heavily impact native species distribution. Virginia strawberry (*Fragaria virginiana*) is sometimes considered an increaser species whose abundance is related to disturbance.

Offsite

Off-site considerations include roads adjacent to both drainages which may add sediment and may act as a conduit for non-native species.

Information Needs

No Data

ASSOCIATED ELEMENTS OF BIODIVERSITY

Element State ID	State Scientific Name	State Common Name	Global Rank	State Rank	Driving Site Rank
40545	*Picea engelmannii / Equisetum arvense* Forest	Coniferous Wetland Forests	G4	S2	Yes

REFERENCES

Reference ID	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.
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.
159048	Huckaby, L.S., and W.H. Moir. 1998. Forest communities at Fraser Experimental Forest, Colorado. The Southwestern Naturalist 43(2):204-218.
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.
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

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VERSION

Version Date 11/12/2005

Version Author Jones, J.R.

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