

Level 4 Potential Conservation Area (PCA) Report

Name Saint Charles River at 3R

Site Code S.USCOHP*21845

IDENTIFIERS

Site ID 966 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 380140N
 State Colorado Longitude 1045656W

Quad Code Quad Name

38104-A8 Beulah

County

Pueblo (CO)

Watershed Code Watershed Name

11020002 Upper Arkansas

SITE DESCRIPTION

Minimum Elevation	6,060.00	Feet	1,847.00	Meters
Maximum Elevation	7,100.00	Feet	2,164.00	Meters

Site Description

The St. Charles River begins in the Wet Mountains and flows northeast toward Pueblo and the Arkansas River. The site encompasses the riparian area in the lower montane zone. In the lower portion of the site, the river cuts a narrow canyon through some 100 feet of Dakota sandstone creating impressive towering cliffs (Scott et al., 1978). The stream is perennial and the bed is rocky and sandy with large boulders. The plant community in this lower montane portion of the canyon is primarily narrowleaf cottonwood (*Populus angustifolia*) with alder (*Alnus incana*) and coyote willow (*Salix exigua*). In the narrower portions of the canyon, narrowleaf cottonwood is absent and alder and coyote willow dominate. Other tree and shrub species within the riparian zone in the canyon include Rocky Mountain juniper (*Juniperus scopulorum*), one-seeded juniper (*J. monosperma*), ponderosa pine (*Pinus ponderosa*), peach-leaf willow (*Salix amygdaloides*), Gambel's oak (*Quercus gambelii*), lead plant (*Amorpha fruticosa*), bluestem willow (*Salix irrorata*), and snowberry (*Symphoricarpos* sp.). The grass and forb understory is a mixture of native and pasture species. Native species include field horsetail (*Equisetum arvense*), scouring-rush (*Hippochaete* sp.), various rushes (*Juncus* spp.) and sedges (including *Carex lanuginosa* and *C. simulata*). Pasture species include orchardgrass (*Dactylis glomerata*), Kentucky bluegrass (*Poa pratensis*), redtop (*Agrostis gigantea*), timothy (*Phleum pratense*), clover (*Trifolium* spp.), and alfalfa (*Medicago sativa*). The stream has overhanging vegetation in many reaches and duckweed (*Lemna minor*) and speedwell (*Veronica* sp.) are common on gravel bars in the channel. Small fishes are present in ponded areas and aquatic insects noted include mayfly and caddisfly larvae, water striders, and water boatmen. Songbirds including cliff swallow and canyon wrens are abundant in the canyon and raptors soar overhead. Large mammals using the canyon include mountain lion, black bear, and deer. The canyon walls are vegetated primarily with one-seeded juniper, ponderosa pine, Gambel's oak, mountain mahogany (*Cercocarpus montanus*), and blue grama (*Bouteloua gracilis*). The benches above the canyon walls are irrigated pasture used for haying and cattle grazing on the south bench and primarily non-irrigated grazing land on the north bench. The land use in the area is primarily agricultural with cattle grazing. The ranch owners on the south bench practice "holistic resource management" where the entire herd is kept as a unit and pastures are grazed intensively but for a very short period. For example, the riparian area and canyon bottom are grazed once or twice a year for a few days each (Brown, 2000, personal communication). There is little evidence of human-caused alteration of the hydrological processes upstream of the occurrence and within the watershed. The stream undergoes flooding as is evidenced by debris in the riparian vegetation and a wide range of age classes for narrowleaf cottonwood. Most of the upstream watershed is forested and managed by the U.S. Forest Service. Lake Isabel occurs near the headwaters at an elevation of 8,474 feet, and an irrigation ditch conveying water to the 3R Ranch diverts a portion of the flow at the 3R Road. Upstream from the potential conservation area, breeding Mexican spotted owl (*Strix occidentalis lucida*) occur on U.S. Forest Service property in forests of Engelmann spruce (*Picea engelmannii*), white fir (*Abies concolor*), Douglas-fir (*Pseudotsuga menziesii*), and quaking aspen (*Populus tremuloides*) (Johnson, 1977). Mexican spotted owls are classified as a federally threatened species and are generally found in steep

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canyons with old growth conifers.

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Key Environmental Factors

No Data

Climate Description

No Data

Land Use History

No Data

Cultural Features

No Data

SITE DESIGN

Site Map Y - Yes

Mapped Date 02/21/2001

Designer Doyle, G.A.

Boundary Justification

The boundary encompasses the riparian community and adjacent benches in the lower end and a portion of the upstream watershed to account for continued surface flow and periodic flooding. These processes are necessary for the viability of the occurrence and maintenance of ecological functions. A much larger area including the full upstream watershed of St. Charles River needs to be considered when developing a plan for the long-term viability of this site.

Primary Area 810.93 Acres

328.17 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B3: High Biodiversity Significance

Biodiversity Significance Comments

This site contains a good (B-ranked) example of a globally vulnerable (G3?) lower montane riparian woodland, narrowleaf cottonwood/thinleaf alder (*Populus angustifolia*/*Alnus incana*) community.

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>
24541	<i>Populus angustifolia</i> / <i>Alnus incana</i> Woodland	Montane Riparian Forest	G3	S3	Yes

REFERENCES

<u>Reference ID</u>	<u>Full Citation</u>
162701	Johnson, C. L. 1997. Distribution, Habitat, and Ecology of the Mexican Spotted Owl in Colorado. Masters Thesis, University of Northern Colorado, Greeley.
168452	Scott, G.R., R.B. Taylor, R.C. Epis, and R.A. Wobus. Geologic map of the Pueblo 10 x 20 quadrangle, south-central Colorado. U.S.G.S. Map I-1022.

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ADDITIONAL TOPICS

Additional Topics

No Data

VERSION

Version Date 09/16/2003

Version Author Spackman, S.C.

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