Level 4 Potential Conservation Area (PCA) Report

Name Trinchera Creek below Smith Reservoir **Site Code** S.USCOHP*24713

IDENTIFIERS

Site ID 2091 **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** 372250N

State Colorado **Longitude** 1053347W

Quad Code	Quad Name
37105-D5	Blanca
37105-C5	Blanca SE

County

Costilla (CO)

Watershed Code	Watershed Name
13010002	Alamosa-Trinchera

SITE DESCRIPTION

Minimum Elevation 7,650.00 **Feet** 2,331.72 **Meters**

Maximum Elevation 7,720.00 **Feet** 2,353.06 **Meters**

Site Description

This site encompasses a portion of Trinchera Creek occurring just below Smith Reservoir. The creek has a narrow channel and is cutting across (and now confined by) agricultural fields of potatoes, hay, and wheat. Smith Reservior sits behind a dam on Trinchera Creek in a basalt canyon. Downstream of the dam there is a small irrigation dam impounding the creek once again. The surrounding hills are covered with rabbitbrush (Chrysothamnus greenii) and blue grama (Bouteloua gracilis), farmhouses, barns, fields, and equipment. The riparian area consists of a narrow band of vegetation along the streambanks. Strapleaf willow (Salix ligulifolia) and sandbar willow (S. exigua) are dense and have an understory of wooly sedge (Carex pellita), scratchgrass (Muhlenbergia asperifolia), Baltic rush (Juncus balticus), and numerous mesic forbs. The hydrology of the site is highly altered due to the presence of the upstream dam, irrigation dam downstream, and a multitude of water diversions along the creek. However, the current hydrology is supporting the riparian plant community. A change in hydrology may shift riparian species composition. There is little direct perturbation to the riparian vegetation. Some non-native species and native increasers are present along the periphery of the riparian plant community.

Key Environmental Factors

No Data

Climate Description

No Data

Land Use History

No Data

Cultural Features

No Data

SITE DESIGN

Site Map P - Partial **Mapped Date** 05/04/2004

Designer Rocchio, F.J.

Boundary Justification

The boundaries incorporate an area that will allow natural hydrological processes such as seasonal flooding, sediment deposition, and new channel formation to maintain viable populations of the element along Trinchera Creek. The boundaries also provide a small buffer from nearby trails where surface runoff may contribute excess nutrients and sediment. The hydrological processes necessary to the elements are not fully contained by the site boundaries. An altered hydrological regime supports the riparian plant community at this site. Thus, should hydrology change, a corresponding change in riparian vegetation would be expected. This

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boundary indicates the minimum area that should be considered for any conservation management plan.

Primary Area 683.86 **Acres** 276.75 **Hectares**

SITE SIGNIFICANCE

Biodiversity Significance Rank B3: High Biodiversity Significance

Biodiversity Significance Comments

The site supports a fair (C-ranked) occurrence of a globally imperiled (G2G3/S2S3) natural community. The montane willow carr (Salix exigua-S. ligulifolia) is a newly described association known only from Colorado, but it is expected to occur in New Mexico. This plant association occurs in the wettest part of the riparian area, usually adjacent to the channel on low point bars, islands, low streambanks and overflow channels. The streams are broad and meandering with sandy beds or braided channels. This plant association can produce abundant, high quality forage for livestock. Season-long grazing, especially late summer and early fall browsing, should be avoided to maintain the vigor of woody species (Hansen et al. 1995). Overuse by livestock may cause the site to dry and become dominated by introduced grass species such as Kentucky bluegrass (Poa pratensis) or smooth brome (Bromus inermis) (Manning and Padgett 1995). With continued overuse, the willow species will decline and eventually become eliminated from the site (Hansen et al. 1995). Beaver are important in maintaining this plant association. Beaver dams raise the water table, which is beneficial to willow and sedge species as well as other hydrophytic plants. Beaver dams also help control bank erosion, channel downcutting, and the loss of sediment downstream (Hansen et al. 1995).

Other Values Rank No Data

Other Values Comments

No Data

LAND MANAGMENT 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

Element State ID	State Scientific Name	State Common Name	Global Rank	State Rank	Driving Site Rank
24788	*Salix exigua - Salix ligulifolia* Shrubland	Strapleaf Willow-Coyote Willow	G2G3	S2S3	Yes

REFERENCES

Reference ID	Full Citation
167028	Hansen, P. L., R. D. Pfister, K. Boggs, B. J. Cook, J. Joy, and D. K. Hinckley. 1995. Classification and management of Montana's riparian and wetland sites. Montana Forest and Conservation Experiment Station Miscellaneous Publication No. 54. The University of Montana, Missoula, MT.
165556	Manning, Mary E., and Wayne G. Padgett. 1995. Riparian Community Type Classification for Humboldt and Toiyabe National Forests, Nevada and Eastern California. United States Department of Agriculture, Forest Service, Intermountain Region. 306 pages.
184706	Rocchio, J. 2004. Final Report: Survey of Critical Wetlands and Riparian Areas in Southern Alamosa and Costilla Counties, San Luis Valley, Colorado. Colorado Natural Heritage Program, Fort Collins, CO.

ADDITIONAL TOPICS

Additional Topics

No Data

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VERSION

Version Date 05/04/2004

Version Author Rocchio, F.J.

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