Level 4 Potential Conservation Area (PCA) Report

Name Rio Grande at State Line **Site Code** S.USCOHP*24716

IDENTIFIERS

Site ID 2094 **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** 370159N

State Colorado **Longitude** 1054554W

Quad Code	Quad Name
36105-H6	Ute Mountain
37105-A7	Kiowa Hill
37105-A6	Sky Valley Ranch

County

Conejos (CO)
Costilla (CO)
Taos (NM)

Watershed Code	Watershed Name
13020101	Upper Rio Grande
13010002	Alamosa-Trinchera

SITE DESCRIPTION

Minimum Elevation	7,400.00	**Feet**	2,255.52	**Meters**
Maximum Elevation	7,700.00	**Feet**	2,346.96	**Meters**

Site Description

The Rio Grande, in the San Luis Valley, is a sediment-dominated system. Historically, the Rio Grande was a braided, dynamic, and avulsive system (RGHRP 2001). Structures and diversions associated with irrigation have altered the dynamics of the Rio Grande (RGHRP 2001). For example, near Del Norte the Rio Grande is now confined to two moderately entrenched channels whereas historically the river had constant streamflow through multiple channels. Between Monte Vista and Alamosa, the reach contained with this site, the river is dominated by a single active channel with numerous abandoned or inactive channels, meander scars, and sloughs interspersed in the floodplain (RGHRP 2001). Although channel avulsion, meander cutoff, and overbank flow still occur along this reach, historical dynamics which created the myriad of meanders scars, inactive channels, and sloughs in the area, no longer occur as the river is under capacity (RGHRP 2001). Near Alamosa, the Rio Grande is confined by a series of levees which transport water and sediment through city limits to downstream reaches (RGHRP 2001). The reach downstream of Alamosa is considered to be depositional and has a very flat channel slope (RGHRP 2001). This site occurs near the Colorado / New Mexico state line. The Rio Grande flows through a box canyon through this reach. Streambanks are narrow and often steep, although point bars are scattered along the reach. Development of riparian vegetation in many areas is minimal. Where it has developed, vegetation is patchy and occurs as a mosaic. The riparian vegetation is clearly differentiated between a stand of wooly sedge (Carex pellita) along the immediate banks and a stand of shrubs, consisting of red-osier dogwood (Cornus sericea), sandbar willow (Salix exigua), skunkbrush (Rhus trilobata), wild hops (Humulus lupulus subsp. americanus), and wax currant (Ribes cereum) at a slightly higher elevation from the river. Signs of beaver activity are present, but nothing too recent. Whitetop (Lepidium latifolium) and Canada thistle are prevalent along this reach of the river. The hydrology of the Rio Grande is highly altered due to upstream water diversions, groundwater pumping, livestock use, development, and channelization. The present riparian vegetation is supported by the altered hydrological flows and thus is adapted to the current hydrological regime. If historical flows were present, species composition, structure, and density may be different. The site is not grazed as access is very difficult due to the steep canyon walls.

Key Environmental Factors

No Data

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Climate Description

No Data

Land Use History

No Data

Cultural Features

No Data

SITE DESIGN

Site Map Y - Yes **Mapped Date** 05/04/2004

Designer Rocchio, F.J.

Boundary Justification

The site boundary encompasses a portion of the Rio Grande and adjacent cliffs. Topography within the site is very steep. The site boundary was drawn to incorporate an area where these natural processes would maintain viable populations of the elements. It should be noted that the hydrological processes necessary to the elements are not fully contained by the boundaries established for this site. Given that the elements are closely tied to natural processes associated with the Rio Grande, any upstream activities could detrimentally affect the elements.

Primary Area 2,253.70 **Acres** 912.04 **Hectares**

SITE SIGNIFICANCE

Biodiversity Significance Rank B4: Moderate Biodiversity Significance

Biodiversity Significance Comments

This site supports a fair (C-ranked) occurrence of a globally vulnerable (G3/S3) natural community and a fair (C-ranked) occurrence of a state vulnerable (G4Q/S3) natural community. The globally vulnerable (G3/S3) wooly sedge wet meadow (Carex pellita) is documented from Oregon east to Montana and South Dakota south to Colorado and Kansas. This community has increased in abundance along regulated rivers on the Colorado Western Slope and may have decreased in abundance on streams on the eastern plains of Colorado. Few, pristine high-quality stands are known, and no stands are formally protected. The globally apparently secure (G4Q/S3) foothills riparian shrubland (Cornus sericea) is a common riparian type that occurs in several western states. In Colorado, this is a common association, however, poor livestock management threatens it. This plant association occurs adjacent to stream channels and near seeps on moist toeslopes of canyon walls. It also occurs on narrow benches in ravines and on narrow terraces of wider valleys.

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

[Rocchio 2004:] Control of non-native plants such as whitetop and Canada thistle, should be targeted.

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
21815	*Carex pellita* Herbaceous Vegetation	Montane Wet Meadows	G3	S3	Yes
22992	*Cornus sericea* Shrubland	Foothills Riparian Shrubland	G4Q	S3	Yes

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REFERENCES

Reference ID	Full Citation
184695	RGHRP. 2001. Final Report: Rio Grande Headwaters Restoration Project. Unpublished report prepared for San Luis Valley Water Conservancy District. Prepared by Montgomery Watson Harza, Lidstone and Associates, Inc., Agro Engineering, Inc., and SWCA, Environmental Consultants, Inc.
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

VERSION

Version Date 05/04/2004

Version Author Rocchio, F.J.

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