

Level 4 Potential Conservation Area (PCA) Report

Name Rio Grande at Trinchera Creek

Site Code S.USCOHP*24715

IDENTIFIERS

Site ID 2093 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 371805N
State Colorado Longitude 1054305W

Quad Code Quad Name

37105-C6 Lasaus

County

Costilla (CO)

<u>Watershed Code</u>	<u>Watershed Name</u>
13010002	Alamosa-Trinchera

SITE DESCRIPTION

Minimum Elevation	7,500.00	Feet	2,286.00	Meters
Maximum Elevation	7,500.00	Feet	2,286.00	Meters

Site Description

This site occurs on the eastern side of the Rio Grande a bit south of where Trinchera Creek merges with the Rio Grande. Most of the wetlands appear to be hydrologically supported by the local alluvial aquifer, which is present due to the convergence of Trinchera Creek, Conejos River, and the Rio Grande. Floodplain wetlands are plentiful on both sides of the Rio Grande in this area. Fresh and saline wet meadows and marshes occur within the site. Agricultural fields surround the wetlands on the eastern side. 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 in 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). Hardstem bulrush (*Scirpus acutus*), common threesquare (*S. pungens*), and common spikerush dominate in the marshes. Saline wet meadows surround the marshes and are dominated by saltgrass (*Distichlis spicata*), sea blite (*Suaeda calceoliformis*), and Baltic rush (*Juncus balticus*). Greasewood (*Sarcobatus vermiculatus*) is also scattered throughout these areas. The globally imperiled slender spiderflower (*Cleome multicaulis*) is found in these saline wet meadows.

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 05/04/2004
Designer Rocchio, F.J.

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Boundary Justification

The site boundary encompasses a portion of the Rio Grande's floodplain. Topography within the site is very flat. Important hydrologic inputs include alluvial groundwater which is associated with water levels in the river, surface water runoff from rain events, and periodic overbank flooding of the Rio Grande. The site boundary was drawn to incorporate an area where these natural processes would maintain viable populations of the elements. The boundary provides a buffer from nearby agriculture fields and roads where surface runoff may contribute excess nutrients and/or herbicides/pesticides that could be detrimental to the elements. The site contains oxbows and sloughs that could provide a source for recruitment for species associated with 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, Conejos River, and Trinchera Creek, any upstream activities in these drainages could detrimentally affect the elements.

Primary Area 918.16 Acres 371.57 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B3: High Biodiversity Significance

Biodiversity Significance Comments

This site supports a fair (C-ranked) occurrence of a globally imperiled (G2S3/S2S3) plant species and fair (C-ranked) occurrences of state rare natural communities. The slender spiderflower (*Cleome multicaulis*) has a global range from southern Wyoming to central Mexico. The San Luis Valley contains the most numerous, largest, and healthiest populations in the world. Slender spiderflower has a limited distribution due to its requirement of moist alkaline soil along with periodic soil disturbance, such as pocket gopher (*Thomomys talpoides*) diggings. These habitat requirements limit the slender spiderflower to the edges of alkaline wet meadows and playas. The San Luis Valley contains the most numerous, largest, and healthiest populations in the world. The globally apparently secure (G3G4) common threesquare herbaceous vegetation occurs in Colorado, Kansas, Montana, Nebraska, South Dakota, Utah, Wyoming, and Saskatchewan. Few of these are large or in pristine condition. This plant association forms small low-stature (1-3 ft, or 0.3-1 m) marshes in low-lying swales, abandoned channels, and overflow channels where the soils remain saturated. The water table is generally at or near the surface. This association also occurs on silt and sandbars within the active channel where the water velocity is lowest.

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

Element State ID	State Scientific Name	State Common Name	Global Rank	State Rank	Driving Site Rank
18080	<i>Cleome multicaulis</i>	slender spiderflower	G2G3	S2S3	Yes
18080	<i>Cleome multicaulis</i>	slender spiderflower	G2G3	S2S3	No
18080	<i>Cleome multicaulis</i>	slender spiderflower	G2G3	S2S3	No
18080	<i>Cleome multicaulis</i>	slender spiderflower	G2G3	S2S3	No
24564	<i>Schoenoplectus acutus</i> - <i>Typha latifolia</i> - (<i>Schoenoplectus tabernaemontani</i>) Sandhills Herbaceous Vegetation	Great Plains Marsh	G4	S2S3	No

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18654 *Schoenoplectus pungens* Herbaceous Vegetation Bulrush G3G4 S3 No

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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