

Level 4 Potential Conservation Area (PCA) Report

Name Upper Rito Blanco

Site Code S.USCOHP*25733

IDENTIFIERS

Site ID 2256 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 371715N
State Colorado Longitude 1064926W

Quad Code Quad Name
37106-C7 Blackhead Peak

County
Archuleta (CO)

Watershed Code Watershed Name
14080101 Upper San Juan

SITE DESCRIPTION

Minimum Elevation	8,520.00 Feet	2,596.90 Meters
Maximum Elevation	10,120.00 Feet	3,084.58 Meters

Site Description

The Rito Blanco, a montane river in northeast Archuleta County, originates below Blackhead Peak (12,500'), Nipple Mountain (12,060') and Sand Mountain (12,410') on the west side of the Continental Divide, and flows down a steep, V-shaped valley before joining with the Rio Blanco 20 miles downstream. The river flows as a riffle-pool complex, but the steep tributaries consist of more step-pool complexes. The riverbed typically consists of large, rounded cobbles and gravel, but pockets of shale bedrock along its length contribute additional angular bedload material. Steep, narrow topography along the river and its tributaries limits human and cattle access to the river so the riparian forest is fairly pristine. Mature subalpine fir - Engelmann spruce (*Abies lasiocarpa* - *Picea engelmannii*) forests occurs on the valley slopes with stands of quaking aspen (*Populus tremuloides*) on higher slopes, and narrowleaf cottonwood (*Populus angustifolia*) occurring along the floodplain, increasing in frequency as the river drops in elevation. Riparian areas in the floodplain and adjacent to the river and its tributaries typically are lush and dense with riparian shrubs and a high diversity of mesic forbs. Mature and large thinleaf alder (*Alnus incana*) and Drummond's willow (*Salix drummondiana*) co-dominate the shrub layer along the river. The understory is comprised of dense mesic forbs such as bluebells (*Mertensia franciscana* and *M. ciliata*), arrowleaf ragwort (*Senecio triangularis*), Sierra corydalis (*Corydalis caseana* ssp. *brandegeei*), brook saxifrage (*Saxifraga odontoloma*), Carolina tassel-rue (*Trautvetteria carolinensis*), bluejoint grass (*Calamagrostis canadensis*) and very few weeds. Riverbanks are well vegetated in the lower reaches of Rito Blanco, and more sparsely vegetated in the steeper parts of the drainage higher in the watershed. Forest Road 665 generally follows the occurrence, but is typically far uphill from the occurrence due to the steep topography. It crosses several of the tributaries to the Rito Blanco with culverts and several stretches of riparian forest that reach up the tributaries, but the riparian community occurs with vigor both above and below these crossings. Forest Road 735 crosses the Rito Blanco at one point within the occurrence, with a flat concrete road crossing/flow-over, but the community is still vigorous to the edges of the concrete. Songbirds and insects including many types of moths and flies are very common in the riparian community and game trails occur throughout the riparian forest. A good population of Sierra corydalis (*Corydalis caseana* ssp. *brandegeei*), a CNHP watchlisted species, occurs in the upper reaches of the Rito Blanco, especially at the easternmost reach of the site, on a side tributary above and below the Forest Road at about 10,000 feet.

Key Environmental Factors

The majority of the occurrence is mapped on the geologic formation Pre-Ash-Flow Andesitic Lavas, Breccias, Tuffs and Conglomerates (General Age 30-35 million years old). The lowest 0.4 mile on the main stem of the Rito Blanco below Mariposa Creek is mapped as Eocene Prevolcanic Sedimentary Rocks, including mudstones, sandstones and conglomerates (Tweto 1979). Soils within the community are mapped (from the upstream extent downward) as Grenadier loams and Castelleia loam. Small pockets of Igneous outcrop-Cryorthents complex and Muggins cobbly loam occur on several tributaries (USDA 1981). Soils within

Level 4 Potential Conservation Area (PCA) Report

Name Upper Rito Blanco

Site Code S.USCOHP*25733

the riparian zone are alluvial with a thin layer of forest duff on the terraces. Shaley-gravel deposits occur along the length of the community.

Climate Description

No Data

Land Use History

No Data

Cultural Features

No Data

SITE DESIGN

Site Map Y - Yes

Mapped Date 12/21/2005

Designer Freeman, K.M.

Boundary Justification

The boundary encompasses the element occurrence and the immediate watershed for the drainages that support the occurrence. The adjacent steep slopes that would most likely impact the riparian forest if altered are also included. Given that the riparian forest is dependent on natural hydrological processes associated with Rito Blanco and its tributaries, upstream activities such as logging, water diversions, impoundments, and improper livestock grazing are detrimental to the hydrology of the riparian area. The boundary also includes an approximate 500 foot buffer, which includes nearby roads, trails, and grazing allotments where surface runoff may contribute excess nutrients, sediment (Karr and Schlosser 1978), and weed invasion. It should be noted that the hydrological processes necessary to the riparian forest are not fully contained by the site boundaries. This boundary indicates the minimum area that should be considered for any conservation management plan.

Primary Area 864.54 Acres

349.87 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B4: Moderate Biodiversity Significance

Biodiversity Significance Comments

The site supports a large example of a good (B-ranked) occurrence of the globally secure (G5/S5) subalpine fir / thinleaf alder (*Abies lasiocarpa* / *Alnus incana*) montane riparian forest plant association. This plant community may be a late-seral association, representing a slow succession from a deciduous-dominated to coniferous-dominated riparian zone along drainages with infrequent disturbances such as flooding. The dominant understory shrub, thinleaf alder, typically co-dominates with Drummond's willow (*Salix drummondiana*), with the willow becoming more dominant at higher elevations and alder more dominant at lower elevations (Carsey et al. 2003).

Other Values Rank No Data

Other Values Comments

No Data

LAND MANAGEMENT ISSUES

Land Use Comments

Forest Road 665 (Nipple Mountain Road) parallels Rito Blanco, crossing tributaries to Rito Blanco and portions of the element occurrence along its length, but often remaining uphill of the occurrence by 60 to 80 vertical feet. Forest Road 735 crosses Rito Blanco via a concrete road crossing/flow-over, to access Mariposa Creek, and also crosses the element occurrence on Mariposa Creek via culverts. The road is closed by locked gate before it reaches the Mariposa Creek crossing. Recreation in the area is dominated by hiking and hunting, though horse use is probable also. The area is closed to OHV use, but open to snowmobile use in the winter. Grazing, though not witnessed during the site visit, is probable and expected. The steep terrain limits extensive recreational use and probably limits utilization by cattle in some areas.

Natural Hazard Comments

No Data

Exotics Comments

This is a large, vigorous, and fairly pristine community protected from many impacts by steep topography. Few or no weeds occur in the understory of the riparian community.

Offsite

No Data

Level 4 Potential Conservation Area (PCA) Report

Name Upper Rito Blanco

Site Code S.USCOHP*25733

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>
24684	<i>Abies lasiocarpa</i> / <i>Alnus incana</i> Forest	Montane Riparian Forests	G5	S5	Yes

REFERENCES

<u>Reference ID</u>	<u>Full Citation</u>
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.
193633	Freeman, K.M., March, M.A. and D.R. Culver. 2006. Final Report: Survey of Critical Wetlands and Riparian Areas in Archuleta County. Colorado Natural Heritage Program, Fort Collins, CO.
172808	J. R. Karr and I. J. Schlosser. 1978. Water resources and the land-water interface. Science 201: 229-234.
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.
193553	USDA, NRCS. 2005. The PLANTS Database, Version 3.5 (http://plants.usda.gov). Data compiled from various sources by Mark W. Skinner. National Plant Data Center < http://npdc.usda.gov/ >, Baton Rouge, LA 70874-4490 USA. Accessed 2005.
193423	USDA, SCS. 1981. Soil Survey of Piedra Area, Colorado; Parts of Archuleta, Hinsdale, La Plata, Mineral, and Rio Grande Counties. In cooperation with the United States Forest Service and the Colorado Agricultural Experiment Station.
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

VERSION

Version Date	12/21/2005
Version Author	Freeman, K.M.

Disclaimer

Level 4 Potential Conservation Area (PCA) Report

Name Upper Rito Blanco

Site Code S.USCOHP*25733

These data are a product and property of Colorado State University, Colorado Natural Heritage Program (CNHP). These data are strictly "on loan" and should be considered "works in progress". Data maintained in the Colorado Natural Heritage Program database are an integral part of ongoing research at CSU and reflect the observations of many scientists, institutions and our current state of knowledge. These data are acquired from various sources, with varying levels of accuracy, and are continually being updated and revised. Many areas have never been surveyed and the absence of data in any particular geographic area does not necessarily mean that species or ecological communities of concern are not present. These data should not be regarded as a substitute for on-site surveys required for environmental assessments. Absence of evidence is NOT evidence of absence. Absence of any data does not mean that other resources of special concern do not occur, but rather CNHP files do not currently contain information to document this presence. CNHP is not responsible for whether other, non-CNHP data providers have secured landowner permission for data collected.

These data are provided for non-commercial purposes only. Under no circumstances are data to be distributed in any fashion to outside parties. To ensure accurate application of data, tabular and narrative components must be evaluated in conjunction with spatial components. Failure to do so constitutes a misuse of the data. The Colorado Natural Heritage Program shall have no liability or responsibility to the data users, or any other person or entity with respect to liability, loss, or damage caused or alleged to be caused directly or indirectly by the data, including but not limited to any interruption of service, loss of business, anticipatory profits or indirect, special, or consequential damages resulting from the use of operation of the data. Data users hereby agree to hold CNHP, Colorado State University, and the State of Colorado harmless from any claim, demand, cause of action, loss, damage or expense from or related to data users use of or reliance on the data, regardless of the cause or nature thereof, and even in the event that such cause is attributable to the negligence or misconduct of CNHP.

These data are provided on an as-is basis, as-available basis without warranties of any kind, expressed or implied, INCLUDING (BUT NOT LIMITED TO) WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT. Although CNHP maintains high standards of data quality control, CNHP, Colorado State University, and the State of Colorado further expressly disclaim any warranty that the data are error-free or current as of the date supplied