

Level 4 Potential Conservation Area (PCA) Report

Name Turkey Creek at Stollsteimer

Site Code S.USCOHP*9293

IDENTIFIERS

Site ID 1396 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 370837N
State Colorado Longitude 1072158W

Quad Code Quad Name
37107-B3 Chimney Rock

County
Archuleta (CO)

Watershed Code Watershed Name
14080102 Piedra

SITE DESCRIPTION

Minimum Elevation	6,360.00 Feet	1,939.00 Meters
Maximum Elevation	6,600.00 Feet	2,012.00 Meters

Site Description

The Turkey Creek at Stollsteimer site in southwest Archuleta County occupies a wide valley along Turkey Creek, a tributary of the Piedra River that flows southeast from the foothills of the HD Mountains. Turkey Creek is an intermittent stream within an incised channel, with good but restricted sinuosity due to the channel incision. Along the creek, a rare narrowleaf cottonwood / skunkbush sumac (*Populus angustifolia* / *Rhus trilobata* var. *trilobata*) woodland occurs that has been little disturbed by surrounding land uses. This riparian vegetation is confined to the narrow channel and floodplain, and the terraces above the floodplain. The tree canopy is dominated by narrowleaf cottonwood which becomes more intermittent towards the top of the drainage, and which is typically mature or decadent with little sign of regeneration apart from a few saplings. The shrub layer is dense and relatively diverse with native species, including skunkbush sumac, Colorado barberry (*Berberis fendleri*), Woods' rose (*Rosa woodsii*), silver buffaloberry (*Shepherdia argentea*), currant (*Ribes* sp.), river hawthorn (*Crataegus rivularis*), and black chokecherry (*Prunus virginiana* var. *melanocarpa*). Exotic species such as smooth brome (*Bromus inermis*) and yellow sweetclover (*Melilotus officinalis*) dominate the herbaceous layer, but native forbs are also present including starry false lily of the valley (*Maianthemum stellatum*) and Fendler's meadow-rue (*Thalictrum fendleri*). Ponderosa pine (*Pinus ponderosa*) and Gambel oak (*Quercus gambelii*) woodlands and ponderosa pine savannahs dominate the upslope areas. A two-track Forest Service road runs through the site along Turkey Creek and the area experiences high use by hunters and other recreational users, and from traffic along another adjacent road that accesses a gas well pad located in the drainage. A narrow floodplain provides only limited flood attenuation and storage. Creek banks are eroding, though whether due to past grazing impacts or naturally erosive soils it is not known. Fish habitat is limited due to seasonal fluctuations in water levels, and birds were the only wildlife noted using the area. No other wildlife signs were present.

Key Environmental Factors

No Data

Climate Description

No Data

Land Use History

The area has been grazed in the past but there is no current evidence of grazing.

Cultural Features

No Data

SITE DESIGN

Site Map P - Partial Mapped Date 05/22/1997
Designer Kettler, S.M.

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Boundary Justification

The boundary encompasses the occurrence and includes a buffer of approximately 1,000 feet. Eliminating disturbance within this buffer would assist in maintaining the integrity of the occurrence, and the integrity of the avian, macroinvertebrate and periphyton communities (Noel et al. 1986, Spackman and Hughes 1995) associated with the riparian forest. Maintenance of the buffer would also aid in reducing impacts from sedimentation (Karr and Schlosser 1978) resulting from increased erosion, which occurs in areas where streamside vegetation is removed or degraded.

Primary Area 178.56 Acres 72.26 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B4: Moderate Biodiversity Significance

Biodiversity Significance Comments

The Turkey Creek at Stollsteimer site contains a fair (C-ranked) occurrence of the narrowleaf cottonwood / skunkbush sumac (*Populus angustifolia* / *Rhus trilobata*) woodland, a globally vulnerable (G3/S3) plant community. This deciduous riparian woodland occurs on stream terraces and adjacent floodplains in canyons, mountains, and plateaus of Utah, Colorado, Wyoming and Idaho. This community is one of the drier narrowleaf cottonwood plant associations. The association typically has an open, upper tree canopy that is dominated by narrowleaf cottonwood or lanceleaf cottonwood (*Populus x acuminata*) and a moderately dense to dense short-shrub layer dominated by skunkbush sumac.

Other Values Rank No Data

Other Values Comments

No Data

LAND MANAGEMENT ISSUES

Land Use Comments

The HD Mountains are currently being explored for coalbed methane, and gas wellheads exist in the immediate area. Well-traveled roads that access gas well pads in the area run adjacent to the occurrence. Hunters utilize the forest access through the site frequently during hunting season.

Natural Hazard Comments

No Data

Exotics Comments

Exotic species dominate the herbaceous layer in the riparian zone and the immediately adjacent uplands. Prominent species include smooth brome, yellow sweetclover, American licorice (*Glycyrrhiza lepidota*), cheatgrass (*Bromus tectorum*), and black medick (*Medicago lupulina*). The uplands surrounding the occurrence are dominated by cheatgrass and other exotic species.

Offsite

There is evidence of forest thinning practices upstream of the occurrence in the ponderosa pine forest in the form of old slash piles.

Information Needs

The cottonwood overstory is comprised of mostly mature or decadent trees, and dead stands of small pole-sized cottonwoods were noted as well, with their cause of death unknown. Investigation into causes for the narrowleaf cottonwood dieback and lack of regeneration (e.g., disease, hydrological alterations, recent drought) would help in understanding what management actions may be needed to protect the element occurrence.

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>
24619	<i>Populus angustifolia</i> / <i>Rhus trilobata</i> Woodland	Narrowleaf Cottonwood/Skunkbrush	G3	S3	Yes

REFERENCES

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Reference ID

Full Citation

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.
172808	J. R. Karr and I. J. Schlosser. 1978. Water resources and the land-water interface. Science 201: 229-234.
165959	Noel, D.S., C.W. Martin and C.A. Federer. 1986. Effects of Forest Clearcutting in New England on Stream Macroinvertebrates and Periphyton. Environmental Management 10: 661-670.
170844	Randolph, D., Smith, Kettler, Redders, Roy, and Aitken. 1994. San Juan National Forest Riparian Site Survey.
193472	Sovell, J., P. Lyon, and L. Grunau. 2003. Final Report: Upper San Juan Biological Assessment. Colorado Natural Heritage Program, Fort Collins, CO.
159511	Spackman, S. C. and J. W. Hughes. 1995. Assessment of Minimum Stream Corridor Width for Biological Conservation: Species Richness and Distribution Along Mid-Order Streams in Vermont, USA. Biological Conservation 71:325-332.

ADDITIONAL TOPICS

Additional Topics

No Data

VERSION

Version Date 12/07/2005

Version Author Freeman, K.M.

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