

# Level 4 Potential Conservation Area (PCA) Report

Name Elk Creek at Piedra River

Site Code S.USCOHP\*25711

## IDENTIFIERS

Site ID 2249 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 371625N  
State Colorado Longitude 1071952W

Quad Code Quad Name  
37107-C3 Devil Mountain

County  
Archuleta (CO)

Watershed Code Watershed Name  
14080102 Piedra

## SITE DESCRIPTION

Minimum Elevation	6,700.00 Feet	2,042.16 Meters
Maximum Elevation	8,000.00 Feet	2,438.40 Meters

### Site Description

Elk Creek is located in the northwestern portion of Archuleta County. It is a tributary to the Piedra River and drains west from its headwaters at Devil Mountain, flowing through a moderately steep montane stream channel with very little sinuosity. The stream channel displays pools, narrow channels, and short cascades. There are smaller side channels or rivulets in some reaches where large boulders or downed wood divert water as the topography allows. Within the Elk Creek riparian zone, the tree layer occupies the channel banks and is dominated by conifers including Douglas-fir (*Pseudotsuga menziesii*) and white fir (*Abies concolor*) with scattered narrowleaf cottonwood (*Populus angustifolia*) and boxelder (*Acer negundo*). The stream channel has a dense shrub layer dominated by thinleaf alder (*Alnus incana*) and dense patches of red-osier dogwood (*Cornus sericea*). A vigorous, diverse, and dense to moderately dense canopy cover of native mesic forbs such as tall fringed bluebells (*Mertensia ciliata*), largeleaf avens (*Geum macrophyllum*), and field horsetail (*Equisetum arvense*) occurs within the floodplain, with various mosses growing on the soil and rock surfaces. Channel banks also display vigorous Rocky Mountain maple (*Acer glabrum*) plants in abundance. Surrounding uplands are dominated by spruce - fir (*Picea* spp.- *Abies* spp.) and ponderosa pine (*Pinus ponderosa*) forests. A popular forest road (FR 622, First Fork Road) bisects the site, and Elk Creek passes through a large culvert, dumping onto steep terrain on the downstream (west) side of the road culvert.

### Key Environmental Factors

The Elk Creek channel cuts through the beautiful sedimentary rocks of the Jurassic-age Morrison, Wanakah, Entrada Formation, the Triassic-age Dolores Formation comprised of red siltstone, shale, sandstone, and limestone pellet conglomerate, and the Permian aged Cutler Formation comprised of arkosic sandstone, siltstone and conglomerate (Tweto 1979). First Fork Road passes through the site where the red beds of the Dolores Formation are visible at the road cut. Soils in the riparian area of the site are alluvial with angular cobble and silty loam deposits. Soils are delineated as the Corta series, which are well drained soils derived from interbedded shale and sandstone (USDA 1981).

### Climate Description

No Data

### Land Use History

No Data

### Cultural Features

No Data

## SITE DESIGN

Site Map Y - Yes Mapped Date 10/05/2005  
Designer March, M.A.

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## Boundary Justification

The boundary is drawn to encompass the ecological processes necessary for the viability of the element occurrences. It also identifies a buffer from the road that may contribute excess nutrients, sediments and erosion to the system. It should be noted that not all the hydrologic processes necessary to the element occurrences are contained within the boundary.

Primary Area 202.10 Acres 81.79 Hectares

### SITE SIGNIFICANCE

Biodiversity Significance Rank B3: High Biodiversity Significance

## Biodiversity Significance Comments

The site supports the globally vulnerable (G3G4) and state vulnerable (S3) thinleaf alder - red-osier dogwood (*Alnus incana* - *Cornus sericea*) riparian shrubland in good (B-ranked) condition. This plant association is tolerant of flooding and requires a high water table (Carsey et al. 2003). The site also supports the apparently globally secure (G4) but state imperiled (S2) Douglas-fir / red-osier dogwood (*Pseudotsuga menziesii* / *Cornus sericea*) plant association in good (B-ranked) condition. The Douglas-fir / red-osier dogwood plant association is found in small patches in Colorado. Douglas-fir is not a riparian obligate but can establish in cool air drainages with well-drained colluvial soils (Carsey et al. 2003).

Other Values Rank No Data

## Other Values Comments

No Data

### LAND MANAGEMENT ISSUES

## Land Use Comments

No Data

## Natural Hazard Comments

Western poison ivy (*Toxicodendron rydbergii*) occurs frequently throughout the site.

## Exotics Comments

Few weeds occur within the site and those are mostly localized near roads and trails.

## Offsite

No Data

## Information Needs

No Data

### ASSOCIATED ELEMENTS OF BIODIVERSITY

<u>Element State ID</u>	<u>State Scientific Name</u>	<u>State Common Name</u>	<u>Global Rank</u>	<u>State Rank</u>	<u>Driving Site Rank</u>
24773	<i>Alnus incana</i> / <i>Cornus sericea</i> Shrubland	Thinleaf Alder-Red-osier Dogwood Riparian Shrubland	G3G4	S3	Yes
24989	<i>Pseudotsuga menziesii</i> / <i>Cornus sericea</i> Woodland	Lower Montane Riparian Forests	G4	S2	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.
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.
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.

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## ADDITIONAL TOPICS

### Additional Topics

No Data

## VERSION

Version Date 10/05/2005

Version Author March, M.A

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