

# Level 4 Potential Conservation Area (PCA) Report

Name Porcupine Creek Meadow

Site Code S.USCOHP\*25731

## IDENTIFIERS

Site ID 2254 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 371503N  
State Colorado Longitude 1065118W

<u>Quad Code</u>	<u>Quad Name</u>
37106-C7	Blackhead Peak
37106-B7	Harris Lake

### County

Archuleta (CO)

<u>Watershed Code</u>	<u>Watershed Name</u>
14080101	Upper San Juan

## SITE DESCRIPTION

Minimum Elevation	8,480.00 Feet	2,584.70 Meters
Maximum Elevation	8,860.00 Feet	2,700.53 Meters

### Site Description

Porcupine Creek Meadow site is located in the San Juan National Forest in the east central portion of Archuleta County. Squaretop Mountain rises to the east and the Rio Blanco flows downhill of the site. In a broad, very gently sloping meadow in a shallow, west-facing step in the slope below Squaretop Mountain, a Bebb's willow (*Salix bebbiana*) shrubland co-dominates with a mountain willow (*Salix monticola*) / mesic forb shrubland. The shrubland is in the northern portion of the meadow where an intermittent, unnamed stream flows in an entrenched channel. The meadow and willow shrubland is surrounded by quaking aspen (*Populus tremuloides*), spruce (*Picea* spp.), and subalpine fir (*Abies lasiocarpa*) forests, with a few signs of past logging but not in recent years. Within the shrubland, both willow species are mostly mature plants, with some regenerating plants that are being heavily browsed. The riparian understory is heavily grazed mesic graminoids and forbs, most of which are unidentifiable at their grazed height except where they grow within or between the willow stems. The meadow is also heavily grazed. At the time of the visit the graminoid stubble probably averaged 3 inches or less. It is very difficult to tell how weedy the community is, since it has been so heavily grazed. Many songbirds use the uplands and the willow shrublands for forage and shelter. The local area around the meadow and willow shrubland is used for grazing and for recreation, including OHV use and hunting.

### 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 12/22/2005  
Designer Freeman, K.M.

### Boundary Justification

The boundary encompasses the element occurrence and the immediate watershed for the drainage that supports the occurrence. The boundary also includes an approximate 500 foot buffer, and includes nearby roads, trails, and grazing allotments where surface runoff may contribute excess nutrients, sediment (Karr and Schlosser 1978), and weed invasion. Given that the riparian shrubland is dependent on natural

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hydrological processes associated with the unnamed drainage where it occurs, upstream activities such as logging, roads, water diversions and impoundments, and improper livestock grazing are detrimental to the hydrology of the riparian area. 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 93.38 Acres 37.79 Hectares

## SITE SIGNIFICANCE

Biodiversity Significance Rank B4: Moderate Biodiversity Significance

### Biodiversity Significance Comments

The site supports a fair (C-ranked) occurrence of the globally vulnerable (G3?) and state imperiled (S2) Bebb's willow (*Salix bebbiana*) montane willow carr. In Colorado, Bebb's willow stands are infrequent, forming tall thickets with an open to closed canopy. Bebb's willow stands often occur as a component of larger montane mixed-willow carrs or riparian mosaics with other species such as mountain willow (*Salix monticola*) or thinleaf alder (*Alnus incana*)(Carsey et al. 2003). The site also supports a fair (C-ranked) occurrence of a mountain willow (*Salix monticola*) / mesic forb montane riparian willow carr, a plant community considered globally apparently secure (G4) and vulnerable in the state (S3).

Other Values Rank No Data

### Other Values Comments

No Data

## LAND MANAGEMENT ISSUES

### Land Use Comments

Intensive grazing is occurring within the meadow where the willow carr occurs, and OHV use and hunting is common in the area. OHV trails criss-cross the hillside around the site.

### Natural Hazard Comments

No Data

### Exotics Comments

It is very difficult to tell how weedy the community is, since it has been so heavily grazed and all that remains is stubble. Most forbs and graminoids are unidentifiable. A very large grasshopper population was heavily predated the Colorado false hellebore (*Veratrum tenuipetalum*) and what was left of other forbs in the adjacent meadow after intensive cattle grazing. The mesic forbs within the willow shrubland were also being eaten by grasshoppers, but not to the extent of the upland forbs.

### Offsite

An OHV trail descends the hillside just to the south of the meadow and enters a large private parcel below the National Forest boundary (USDA 2002).

### Information Needs

No Data

## ASSOCIATED ELEMENTS OF BIODIVERSITY

<u>Element</u>			<u>Global Rank</u>	<u>State Rank</u>	<u>Driving Site Rank</u>
<u>State ID</u>	<u>State Scientific Name</u>	<u>State Common Name</u>			
20994	<i>Salix bebbiana</i> Shrubland	Montane Willow Carrs	G3?	S2	Yes
24809	<i>Salix monticola</i> / Mesic Forbs Shrubland	Montane Riparian Willow Carr	G4	S3	No

## REFERENCES

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<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.
193554	USDA, NRCS. 2002. Orthophoto Mosaic for Archuleta County, CO. USDA-NRCS, National Cartography and Geospatial Center, Geospatial Data Branch, Fort Worth, TX.

## ADDITIONAL TOPICS

### Additional Topics

No Data

## VERSION

**Version Date** 12/22/2005  
**Version Author** Freeman, K.M.

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