

Level 4 Potential Conservation Area (PCA) Report

Name Mill Creek at Pagosa Springs

Site Code S.USCOHP*6863

IDENTIFIERS

Site ID 1531 Site Class PCA
Site Alias Mill Creek

Network of Conservation Areas (NCA)

<u>NCA Site ID</u>	<u>NCA Site Code</u>	<u>NCA Site Name</u>
2467	S.USCOHP*27036	Pagosa Springs

LOCATORS

Nation United States Latitude 371500N
State Colorado Longitude 1065920W

Quad Code Quad Name

37106-B8	Serviceberry Mountain
37106-C8	Jackson Mountain
37107-B1	Oakbrush Hill
37107-C1	Pagosa Springs

County

Archuleta (CO)

Watershed Code Watershed Name

14080101 Upper San Juan

SITE DESCRIPTION

Minimum Elevation	7,120.00 Feet	2,170.00 Meters
Maximum Elevation	7,400.00 Feet	2,256.00 Meters

Site Description

The site encompasses Mancos shale slopes north and south of Pagosa Springs, on both sides of a major highway, Colorado State Highway 84. The area is primarily residential, with some small businesses and the county fairgrounds located within it. The eastern end of the site is more rural, but rapidly developing. Patches of several rare native plants, including the Pagosa skyrocket (*Ipomopsis polyantha*), survive in residential areas, pastures, roadsides and vacant lots, but populations are extremely fragmented and vulnerable to extinction. The plants are restricted to soils derived from the Mancos shale formation that extends in a wide swath from northwest to southeast through the central part of Archuleta County. Natural vegetation of the site is predominantly ponderosa pine forest, with Gambel's oak in the understory. However, much of the natural vegetation has been removed with development of the area.

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 04/22/2003
Designer Lyon, M.J. and J.R. Sovell

Boundary Justification

The boundary is drawn to encompass all known occurrences of Pagosa skyrocket (*Ipomopsis polyantha*) south of Pagosa Springs. It includes much unoccupied habitat between small remnant populations of the plant. Adjacent areas within the city and to the north, that support other rare plant species, and contain suitable habitat for the Pagosa skyrocket are included in the site. Although much of this area is undergoing residential development the boundary also includes some grasslands still being grazed by the cattle, which mimics the historic disturbance processes of fire, and herbivory by bison, natural disturbances that influenced evolution of prairie dogs.

Primary Area	5,102.22 Acres	2,064.80 Hectares
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SITE SIGNIFICANCE

Biodiversity Significance Rank B1: Outstanding Biodiversity Significance

Biodiversity Significance Comments

The site is drawn for the best known (B-ranked) occurrences of Pagosa skyrocket (*Ipomopsis polyantha*), a plant that is critically imperiled (G1/S1) on a global scale. The Pagosa skyrocket is known from only three locations in the world, the best two (globally) are in this site and all are in Archuleta County. Fair (C-ranked) occurrences of Pagosa bladderpod (*Lesquerella pruinoso*), imperiled (G2/S2) globally, good (B-ranked) occurrences of Gray's townsend-daisy (*Townsendia glabella*), imperiled globally (G2/S2), a good (B-ranked) occurrence of Missouri milkvetch (*Astragalus missouriensis* var. *humistratus*) a globally common, but state rare (G5T1S1) plant, and a fair (C-ranked) occurrence of Pagosa phlox (*Phlox caryophylla*), vulnerable (G4/S3) in Colorado, all fall within the site. There is also a good (B-ranked) occurrence of the Gunnison prairie dog (*Cynomys gunnisoni*), a species that is globally secure (G5/S5). Gunnison prairie dogs are endemic to the southwestern United States and have a broad distribution within Arizona, Colorado, New Mexico and Utah. Gunnison prairie dogs are declining throughout their range, although extent of the decline is unknown. Indiscriminate poisoning, habitat conversion, and plague have drastically reduced numbers and range (Miller and Cully 2001, Cully and Williams 2001).

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

<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>
18927	<i>Lesquerella pruinoso</i>	Pagosa bladderpod	G2	S2	No
21389	<i>Cynomys gunnisoni</i>	Gunnison's Prairie Dog	G5	S5	No
18375	<i>Phlox caryophylla</i>	Pagosa phlox	G4	S3	No
18927	<i>Lesquerella pruinoso</i>	Pagosa bladderpod	G2	S2	No
18375	<i>Phlox caryophylla</i>	Pagosa phlox	G4	S3	No
20834	<i>Townsendia glabella</i>	Gray's townsend-daisy	G2	S2	No
18375	<i>Phlox caryophylla</i>	Pagosa phlox	G4	S3	No
18927	<i>Lesquerella pruinoso</i>	Pagosa bladderpod	G2	S2	No
18927	<i>Lesquerella pruinoso</i>	Pagosa bladderpod	G2	S2	No
20834	<i>Townsendia glabella</i>	Gray's townsend-daisy	G2	S2	No
23253	<i>Ipomopsis polyantha</i>	Pagosa skyrocket	G1	S1	Yes
20834	<i>Townsendia glabella</i>	Gray's townsend-daisy	G2	S2	No
22922	<i>Astragalus missouriensis</i> var. <i>humistratus</i>	Missouri milkvetch	G5T1	S1	No
22922	<i>Astragalus missouriensis</i> var. <i>humistratus</i>	Missouri milkvetch	G5T1	S1	No
22922	<i>Astragalus missouriensis</i> var. <i>humistratus</i>	Missouri milkvetch	G5T1	S1	No
20834	<i>Townsendia glabella</i>	Gray's townsend-daisy	G2	S2	No

REFERENCES

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Reference ID

Full Citation

185846	Cully, J. F., Jr., and E. S. Williams. 2001. Interspecific comparisons of sylvatic plague in prairie dogs. <i>Journal of Mammalogy</i> 82:894-905.
167969	Kotliar, N.B., B.W. Baker, A.D. Whicker, G. Plumb. 1999. A critical review of assumptions about the prairie dog as a keystone species. <i>Environmental Management</i> 24:177-192.
185193	Miller, S. D., and J. F. Cully, Jr. 2001. Conservation of Black-tailed Prairie Dogs (CYNOMYS LUDOVICIANUS). <i>Journal of Mammalogy</i> 82:889-893.
193472	Sovell, J., P. Lyon, and L. Grunau. 2003. Final Report: Upper San Juan Biological Assessment. Colorado Natural Heritage Program, Fort Collins, CO.

ADDITIONAL TOPICS

Additional Topics

No Data

VERSION

Version Date 04/22/2003

Version Author Lyon, M.J. and J.R. Sovell

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