

# Level 4 Potential Conservation Area (PCA) Report

Name The Ant Hill

Site Code S.USCOHP\*1617

## IDENTIFIERS

Site ID 1123 Site Class PCA  
Site Alias Nichols Draw

## 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 372326N  
State Colorado Longitude 1070900W

<u>Quad Code</u>	<u>Quad Name</u>
37107-D2	Oakbrush Ridge
37107-C2	Chris Mountain
37107-C1	Pagosa Springs
37107-D1	Pagosa Peak

## County

Archuleta (CO)  
Hinsdale (CO)

<u>Watershed Code</u>	<u>Watershed Name</u>
14080102	Piedra

## SITE DESCRIPTION

Minimum Elevation	7,800.00 Feet	2,377.00 Meters
Maximum Elevation	8,800.00 Feet	2,682.00 Meters

## Site Description

The Ant Hill site consists of gentle to steep slopes of the Mancos shale formation. Rare plants are found in somewhat disturbed areas with mixed grasses and forbs. Common associated species include curlyhead goldenweed (*Pyrocoma crocea*), fringed sage (*Artemisia frigida*), trailing fleabane (*Erigeron flagellaris*), rosy pussytoes (*Antennaria rosea*), hairy golden aster (*Heterotheca villosa*), shrubby cinquefoil (*Pentaphylloides floribunda*), wooly cinquefoil (*Potentilla hippiana*), and baby goldenrod (*Solidago nana*). Upper slopes are dominated by ponderosa pine (*Pinus ponderosa*), Gambel oak (*Quercus gambelii*) and Arizona fescue (*Festuca arizonica*). It includes the O'Neal Hill Special Botanical Area, designated by the USFS for the protection of the Pagosa bladderpod. This area was the site of the largest known population of the plant, and is being monitored for changes in the population size. Although thousands of plants were present in 2001, there were few in 2002 and 2003. Simultaneously, a large increase in the prairie dog colony was noted. It was originally thought that the plants' decline was due to drought. However, other nearby populations of the bladderpod appear to be healthy in 2003. Further investigation and monitoring are critical to determine the causes of the population decline of the Pagosa bladderpod at this site.

## 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 encompasses the populations of Pagosa bladderpod and Pagosa phlox, and provides a buffer to allow for additional habitat that may become colonized by these species in the future. It includes the O'Neal Hill Special Botanical Area and a conservation easement for the bladderpod held by The Nature

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Conservancy. Adjacent private property with suitable habitat for the bladderpod is included, although it has not been surveyed. The boundary is also intended to represent the area needed to protect the prairie dog population and allow for suitable areas into which the population can expand. The boundary includes the grasslands 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 5,972.40 Acres 2,416.95 Hectares

## SITE SIGNIFICANCE

Biodiversity Significance Rank B2: Very High Biodiversity Significance

### Biodiversity Significance Comments

This rank is based on an excellent (A-ranked) and an excellent to good (AB-ranked) occurrence of the Pagosa bladderpod (*Lesquerella pruinos*), a globally imperiled (G2/S2) plant species. The Pagosa bladderpod is restricted to soils derived from Mancos shale and currently known from 16 occurrences, all within a small area in Archuleta County, Colorado and one recently discovered population in New Mexico. Habitat destruction is the biggest threat to *L. pruinos*, especially considering its limited range. Residential growth and development around the city of Pagosa Springs could threaten nearby populations of the bladderpod. Although the element occurrence rank of the population at O'Neal Hill may have to be revised if the plants fail to recover, the site would remain the same. There is also an occurrence of the Pagosa phlox (*Phlox caryophylla*), a plant considered vulnerable (G4/S3) in Colorado, last seen at this location in 1985. There is also an excellent (A-ranked) occurrence of the Gunnison's prairie dog (*Cynomys gunnisoni*), a species that is globally secure (G5/S5). Gunnison's prairie dogs are endemic to the southwestern United States and have a broad distribution within Arizona, Colorado, New Mexico and Utah. Gunnison's 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). Plague is probably the greatest threat at this time. Gunnison's prairie dog is a keystone species upon which many other prairie species depend (Miller and Cully 2001). The Burrowing Owl (*Athene cunicularia*), hawks, fox and coyote are among those animals that are found in greatest numbers on prairie dog towns.

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

Further surveys during the flowering season (April and May) of the Pagosa phlox could reveal that the population is more extensive.

## 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>
18375	<i>Phlox caryophylla</i>	Pagosa phlox	G4	S3	No
18927	<i>Lesquerella pruinos</i>	Pagosa bladderpod	G2	S2	Yes
18927	<i>Lesquerella pruinos</i>	Pagosa bladderpod	G2	S2	Yes
21389	<i>Cynomys gunnisoni</i>	Gunnison's Prairie Dog	G5	S5	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.
166839	Lyon, P. 2001. Colorado Natural Heritage Program Field Surveys.

## 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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