

Level 4 Potential Conservation Area (PCA) Report

Name Pinon Mesa Canyons

Site Code S.USCOHP3*3658

IDENTIFIERS

Site ID 1885 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>
883	S.USWRO1*1045	Colorado National Monument

LOCATORS

Nation United States Latitude 385344N
State Colorado Longitude 1085826W

Quad Code Quad Name
38108-H8 Bieser Creek

County
Mesa (CO)

Watershed Code Watershed Name
14030001 Westwater Canyon

SITE DESCRIPTION

Minimum Elevation	7,200.00 Feet	2,195.00 Meters
Maximum Elevation	8,440.00 Feet	2,573.00 Meters

Site Description

The Pinon Mesa Canyons site encompasses five canyons and their side canyons, which drain north off Pinon Mesa. The site is mostly underlain by Precambrian igneous rock in the canyons and the Triassic Chinle Formation on steep canyon slopes. The site includes a mosaic landscape of riparian areas, and gentle to precipitous canyon slopes with a variety of intact plant associations. At the canyon rims, on moderately sloping uplands there are nearly pure patches of greenleaf manzanita (*Arctostaphylos patula*), a plant association that rarely occurs in Colorado, this being the eastern edge of its range. At the edges of nearly monotypic greenleaf manzanita patches, one can observe Gambel's oak (*Quercus gambelii*), pinon pine (*Pinus edulis*), ponderosa pine (*Pinus ponderosa*), or mountain big sagebrush (*Artemisia tridentata*). Pinon pine may also be scattered in greenleaf manzanita stands. On deeper soils along gently sloping canyon rims, there are patches of grasslands dominated in places by non-native pasture grasses, but sometimes consisting of nearly pure needle-and-threadgrass (*Hesperostipa comata*). Other shrubs that may occur, and even co-dominate, include serviceberry (*Amelanchier utahensis*) and squaw apple (*Peraphyllum ramosissimum*). At the bottom of these V-shaped canyons lie narrow riparian zones with predominantly shrubby vegetation. Shrubs such as river birch (*Betula occidentalis*), red-osier dogwood (*Cornus sericea*), thin leaf alder (*Alnus incana*), and mountain willow (*Salix monticola*) occur immediately adjacent to the creek, with a band of wild cherry (*Prunus virginiana*) and occasionally oaks just above the riparian zone. Parts of this site remain in excellent condition, while other areas are more or less impacted by human activities including cattle grazing and recreation. The site is not impacted by housing development at this time, however it is somewhat fragmented by roads. Recreational impacts are concentrated along public access roads and include litter and off-road vehicle tracks. Non-native species are far more common along roads than elsewhere in the site. While there is some grazing in the canyons, parts of them are steep and inaccessible, and therefore less impacted. Soils along drainages are derived from alluvium. Most of the site is functioning as expected.

Key Environmental Factors

No Data

Climate Description

No Data

Land Use History

While detailed historical records are not available for this site, it is known that Native Americans used the area, probably for hunting and fishing. Beginning in around 1920, the site was converted to pasture for domestic livestock. An old homestead site with an apple orchard above McKenzie Canyon attests to the presence of settlers in and around the site.

Cultural Features

No Data

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SITE DESIGN

Site Map Y - Yes Mapped Date 03/15/1996

Designer Kettler, S.M. and M.J. Lyon

Boundary Justification

Boundaries are drawn to encompass the ecological processes believed necessary for long term viability of the elements. These boundaries will ensure continued natural surface flow and thus allow fluvial processes such as flood scouring, lateral flow, and channel meandering, to maintain a dynamic distribution of riparian and wetland plant associations along the drainage.

Primary Area 3,813.70 Acres 1,543.36 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B2: Very High Biodiversity Significance

Biodiversity Significance Comments

This site supports multiple occurrences of upland and riparian plant associations vulnerable throughout their range (G3). The presence of four or more globally vulnerable communities in excellent and good condition merits this very high biodiversity significance rank. The globally vulnerable (G3/S1S2) river birch / red-osier dogwood (*Betula occidentalis* / *Cornus sericea*) shrubland is known from streams at low elevations (4,730 - 6,020 feet), on loam or clay soils throughout the western U.S. Good (B-ranked) and fair (C-ranked) occurrences of this community are within the site. The site also supports an excellent (A-ranked) occurrence of the globally vulnerable (G3/S3) mesic western slope pinon - juniper woodland (*Pinus edulis* - *Juniperus osteosperma* / *Cercocarpus intricatus*), a good (B-ranked) occurrence of the globally vulnerable (G3/S2) *Arctostaphylos patula* / *Ceanothus velutinus* - *Ceanothus prostratus* montane shrubland and a good (B-ranked) occurrence of the globally vulnerable *Quercus gambelii* - *Cercocarpus montanus* / (*Carex geyeri*) mixed mountain shrubland. Numerous occurrences of globally common communities have also been documented.

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</u>	<u>State Scientific Name</u>	<u>State Common Name</u>	<u>Global Rank</u>	<u>State Rank</u>	<u>Driving Site Rank</u>
24876	<i>Betula occidentalis</i> / <i>Cornus sericea</i> Shrubland	Lower Montane Riparian Shrublands	G3	S1S2	Yes
24829	<i>Pinus edulis</i> - <i>Juniperus osteosperma</i> / <i>Cercocarpus intricatus</i> Woodland	Mesic Western Slope Pinyon-Juniper Woodlands	G3	S3	Yes
24791	<i>Quercus gambelii</i> / <i>Symphoricarpos oreophilus</i> Shrubland	Mixed Mountain Shrublands	G5	S3S4	No
24846	<i>Artemisia tridentata</i> ssp. <i>vaseyana</i> / <i>Hesperostipa comata</i> Shrubland		GNR	SU	No
24791	<i>Quercus gambelii</i> / <i>Symphoricarpos oreophilus</i> Shrubland	Mixed Mountain Shrublands	G5	S3S4	No
24830	<i>Pinus edulis</i> - <i>Juniperus</i> spp. / <i>Cercocarpus montanus</i> Woodland	Mesic Western Slope Pinyon-Juniper Woodlands	G5	S4	No
24791	<i>Quercus gambelii</i> / <i>Symphoricarpos oreophilus</i> Shrubland	Mixed Mountain Shrublands	G5	S3S4	No

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20496	<i>Arctostaphylos patula</i> / <i>Ceanothus velutinus</i> - <i>Ceanothus prostratus</i> Shrubland	Montane Shrublands	G3	S2	Yes
24876	<i>Betula occidentalis</i> / <i>Cornus sericea</i> Shrubland	Lower Montane Riparian Shrublands	G3	S1S2	No
40638	<i>Artemisia tridentata</i> ssp. <i>tridentata</i> / <i>Hesperostipa</i> <i>comata</i> Shrubland	Western Slope Sagebrush Shrubland	G4?	S3?	No
24773	<i>Alnus incana</i> / <i>Cornus sericea</i> Shrubland	Thinleaf Alder-Red-osier Dogwood Riparian Shrubland	G3G4	S3	No
24549	<i>Populus tremuloides</i> / <i>Symphoricarpos oreophilus</i> / <i>Carex geyeri</i> Forest	Persistent Aspen Forests	G5	S5	No
24867	<i>Picea pungens</i> / <i>Cornus sericea</i> Woodland	Montane Riparian Forest	G4	S2	No
24685	<i>Quercus gambelii</i> - <i>Cercocarpus montanus</i> / (<i>Carex geyeri</i>) Shrubland	Mixed Mountain Shrublands	G3	S3	Yes
24686	<i>Betula occidentalis</i> / <i>Maianthemum stellatum</i> Shrubland	Foothills Riparian Shrubland	G4?	S2	No

REFERENCES

Reference ID	Full Citation
173289	Lyon, P., C. Pague, R. Rondeau, L. Renner, C. Slater, and C. Richard. 1996. Final Report: Natural Heritage Inventory of Mesa County, Colorado. Colorado Natural Heritage Program, Fort Collins, CO.

ADDITIONAL TOPICS

Additional Topics

No Data

VERSION

Version Date	03/15/1996
Version Author	Kettler, S.M. and M.J. Lyon

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