

Level 4 Potential Conservation Area (PCA) Report

Name Parachute Creek

Site Code S.USCOHP*22273

IDENTIFIERS

Site ID 1734 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> |
|--------------------|----------------------|----------------------|
| 2470 | S.USCOHP*27039 | Roan |

LOCATORS

Nation United States Latitude 393314N
 State Colorado Longitude 1080640W

| <u>Quad Code</u> | <u>Quad Name</u> |
|------------------|------------------|
| 39108-D1 | Grand Valley |
| 39108-D2 | Red Pinnacle |
| 39108-E1 | Forked Gulch |
| 39108-E2 | Circle Dot Gulch |
| 39108-F1 | McCarthy Gulch |
| 39108-F2 | Cutoff Gulch |
| 39107-E8 | Anvil Points |

County

Garfield (CO)

| <u>Watershed Code</u> | <u>Watershed Name</u> |
|-----------------------|-----------------------------|
| 14010005 | Colorado headwaters-Plateau |
| 14010006 | Parachute-Roan |

SITE DESCRIPTION

Minimum Elevation 5,305.00 Feet 1,617.00 Meters
Maximum Elevation 8,415.00 Feet 2,565.00 Meters

Site Description

This site consists of the Parachute Creek drainage which is roughly 144,000 acres in size. It contains the riparian areas of Parachute Creek, its tributaries and continues upslope ending at the cliff tops of the Roan Plateau. The high quality and undisturbed nature of the plant communities is unique and the area supports a diverse assemblage of rare plant communities. Tributaries lying within the site include the East, West, and Middle Forks of Parachute Creek and Garden, Hayes and Wheeler gulches. Each tributary makes a dramatic plunge off the Roan Plateau over 100 to 200 foot shale cliffs. The gradient remains fairly steep after falling off the plateau, forming a pool-drop creek with steep south and north-facing slopes. Sagebrush (*Artemisia tridentata*), serviceberry (*Amelanchier*), and mountain spray (*Holodiscus dumosus*) dominate the south-facing slopes, while Douglas-fir / spruce - fir (*Psuedotsuga menziesii* - *Picea*) forests dominate the north-facing slopes. There is lush riparian vegetation in the box canyons and the more gentle slopes dropping off the Roan Plateau support high quality grasslands and sagebrush shrublands. Areas directly adjacent to the main stem of Parachute Creek are highly disturbed by irrigated pastures and intense grazing. The high quality riparian habitats support four rare riparian plant communities including cottonwood forests, foothills riparian shrubland, and mountain riparian deciduous forest. The riparian habitats and associated creeks also support four rare animal species including the Colorado River cutthroat trout (*Oncorhynchus clarkii pleuriticus*), Great Basin spadefoot (*Spea intermontana*), western yellowbelly racer (*Coluber constrictor mormon*) and midget faded rattlesnake (*Crotalis viridis concolor*). A rare hanging garden community occurs at East Middle Fork Falls and at higher elevation the south-facing slopes of the shale exposures provide important habitat for four rare plant species. Over 75% of this site is private land with small patches of BLM land spread throughout making up the remainder. Parachute Creek and its tributaries cut through sedimentary rocks of the Tertiary age leaving exposed from cliff tops to the valley bottom a geologic timeline. Found exposed from top to bottom are the lower part and Parachute Creek member of the Green River formation; Wasatch formation claystone, mudstone and sandstone; and finally unconsolidated gravel and alluvial deposits of the Quaternary age along Parachute Creek.

Key Environmental Factors

No Data

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Climate Description

No Data

Land Use History

No Data

Cultural Features

No Data

SITE DESIGN

Site Map P - Partial

Mapped Date 11/14/2000

Designer Sovell, J.R.

Boundary Justification

The site boundaries for Parachute Creek include most of the creek's watershed, including upland slopes and the major tributaries: West Fork, Middle Fork, East Middle Fork, and East Fork. These boundaries will ensure continued natural surface flow and maintain a natural hydroperiod through Parachute Creek, which will maintain a dynamic distribution of riparian plant communities along the drainage and support fish populations. These boundaries also include all the steep south-facing slopes that are important to the rare, endemic plant occurrences on the shale barrens, with a buffer to protect the occurrences from indirect and direct disturbances. The long-term integrity of the upland plant communities are also encouraged by the site boundaries by allowing natural disturbances, such as fire and insects, to maintain the mosaic of communities found within this site. Additionally, the Roan Cliffs blazing star and the sun-loving meadowrue are early successional plants that commonly occur on relatively recent landslides. As the landslides become vegetated, usually with mountain shrubs, the endemic plants disappear. Therefore, it is necessary to include areas in this site that do not currently have the endemic plants but have the conditions for generating new landslides that these plants can occupy.

Primary Area 19,513.09 Acres

7,896.70 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B2: Very High Biodiversity Significance

Biodiversity Significance Comments

This site contains a concentration of 5 excellent or good occurrences of globally vulnerable elements. Most significant are excellent (A-ranked) and good (B-ranked) occurrences of the globally imperiled (G2/S2) Roan Cliffs blazing star (*Mentzelia rhizomata*). This site also contains excellent (A-ranked) occurrences of the globally vulnerable (G3T3/S3) hanging gardens sullivantia (*Sullivantia hapemanii* var. *purpusii*). There are numerous occurrences, including excellent (A-ranked) and good (B-ranked) occurrences, of the globally vulnerable (G3/S3) Utah fescue (*Argillochloa dasyclada*) and the globally vulnerable (G3/S3) sun-loving meadowrue (*Thalictrum heliophilum*), which are oil-shale endemic species. The high quality and undisturbed nature of the plant communities here are unique, and the area supports a diverse assemblage of rare plant communities. The site also supports upland and riparian plant communities in good (B-ranked) condition such as the globally vulnerable (G3/S2) box elder / chokecherry (*Acer negundo* / *Prunus virginiana*) montane riparian deciduous forest and the globally vulnerable (G3/S3) narrowleaf cottonwood / skunkbrush riparian forest (*Populus angustifolia* / *Rhus trilobata*).

Other Values Rank V3 - Moderate values

Other Values Comments

This area has dramatic cliff faces, magnificent waterfalls and visual beauty.

LAND MANAGEMENT ISSUES

Land Use Comments

Two old mining sites, one on Exxon, one on UNOCAL land, have left large scars easily visible on the aerial photographs. Neither of these sites appear to be recoverable, although the site on East Fork has been reseeded with exotic grasses. Portions of West Fork Parachute Creek, near the confluence of Parachute Creek are used as hay meadows and for cattle grazing. The East and Middle Fork tributaries are not grazed in the canyon sections of the creeks. Due to the currently low prices of oil, mining oil is not economical.

Natural Hazard Comments

No Data

Exotics Comments

No Data

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Offsite

No Data

Information Needs

No Data

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> |
| 17361 | <i>Mentzelia rhizomata</i> | Roan Cliffs blazing star | G2 | S2 | Yes |
| 22214 | <i>Sullivantia hapemanii</i> var. <i>purpusii</i> | Hanging Garden sullivantia | G3T3 | S3 | No |
| 17361 | <i>Mentzelia rhizomata</i> | Roan Cliffs blazing star | G2 | S2 | No |
| 17361 | <i>Mentzelia rhizomata</i> | Roan Cliffs blazing star | G2 | S2 | Yes |
| 21414 | <i>Thalictrum heliophilum</i> | sun-loving meadowrue | G2 | S2 | No |
| 18994 | <i>Argilochloa dasyclada</i> | Utah fescue | G3 | S3 | No |
| 17361 | <i>Mentzelia rhizomata</i> | Roan Cliffs blazing star | G2 | S2 | No |
| 18994 | <i>Argilochloa dasyclada</i> | Utah fescue | G3 | S3 | No |
| 17361 | <i>Mentzelia rhizomata</i> | Roan Cliffs blazing star | G2 | S2 | No |
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| 21414 | <i>Thalictrum heliophilum</i> | sun-loving meadowrue | G2 | S2 | No |
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| 24830 | <i>Pinus edulis</i> - <i>Juniperus</i> spp. / <i>Cercocarpus montanus</i> Woodland | Mesic Western Slope Pinyon-Juniper Woodlands | G5 | S4 | No |
| 24860 | <i>Populus angustifolia</i> / <i>Cornus sericea</i> Woodland | Cottonwood Riparian Forest | G4 | S3 | No |
| 17361 | <i>Mentzelia rhizomata</i> | Roan Cliffs blazing star | G2 | S2 | No |
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| 18994 | <i>Argilochloa dasyclada</i> | Utah fescue | G3 | S3 | No |
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| 21414 | <i>Thalictrum heliophilum</i> | sun-loving meadowrue | G2 | S2 | No |
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| 18994 | <i>Argilochloa dasyclada</i> | Utah fescue | G3 | S3 | No |
| 21414 | <i>Thalictrum heliophilum</i> | sun-loving meadowrue | G2 | S2 | No |
| 21414 | <i>Thalictrum heliophilum</i> | sun-loving meadowrue | G2 | S2 | No |
| 18994 | <i>Argilochloa dasyclada</i> | Utah fescue | G3 | S3 | No |
| 17361 | <i>Mentzelia rhizomata</i> | Roan Cliffs blazing star | G2 | S2 | No |
| 24592 | <i>Pseudotsuga menziesii</i> / <i>Symphoricarpos oreophilus</i> Forest | Western Slope Douglas Fir Forests | G5 | S4 | No |
| 24860 | <i>Populus angustifolia</i> / <i>Cornus sericea</i> Woodland | Cottonwood Riparian Forest | G4 | S3 | No |
| 17361 | <i>Mentzelia rhizomata</i> | Roan Cliffs blazing star | G2 | S2 | No |
| 18994 | <i>Argilochloa dasyclada</i> | Utah fescue | G3 | S3 | No |
| 21414 | <i>Thalictrum heliophilum</i> | sun-loving meadowrue | G2 | S2 | No |
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| 21414 | <i>Thalictrum heliophilum</i> | sun-loving meadowrue | G2 | S2 | No |
| 17361 | <i>Mentzelia rhizomata</i> | Roan Cliffs blazing star | G2 | S2 | No |
| 18994 | <i>Argilochloa dasyclada</i> | Utah fescue | G3 | S3 | No |
| 21414 | <i>Thalictrum heliophilum</i> | sun-loving meadowrue | G2 | S2 | No |
| 17361 | <i>Mentzelia rhizomata</i> | Roan Cliffs blazing star | G2 | S2 | No |

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|-------|--|-----------------------------------|----------------|----|-----|
| 22992 | <i>Cornus sericea</i> Shrubland | Foothills Riparian Shrubland | G4Q | S3 | No |
| 22447 | <i>Coluber constrictor mormon</i> | Western Yellowbelly Racer | G5T5 | S3 | No |
| 17361 | <i>Mentzelia rhizomata</i> | Roan Cliffs blazing star | G2 | S2 | Yes |
| 17361 | <i>Mentzelia rhizomata</i> | Roan Cliffs blazing star | G2 | S2 | No |
| 17361 | <i>Mentzelia rhizomata</i> | Roan Cliffs blazing star | G2 | S2 | No |
| 17361 | <i>Mentzelia rhizomata</i> | Roan Cliffs blazing star | G2 | S2 | No |
| 24678 | <i>Acer negundo</i> / <i>Prunus virginiana</i> Forest | Montane Riparian Deciduous Forest | G3 | S2 | No |
| 22214 | <i>Sullivantia hapemanii</i> var. <i>purpusii</i> | Hanging Garden sullivantia | G3T3 | S3 | No |
| 21414 | <i>Thalictrum heliophilum</i> | sun-loving meadowrue | G2 | S2 | No |
| 24678 | <i>Acer negundo</i> / <i>Prunus virginiana</i> Forest | Montane Riparian Deciduous Forest | G3 | S2 | No |
| 17361 | <i>Mentzelia rhizomata</i> | Roan Cliffs blazing star | G2 | S2 | No |
| 24678 | <i>Acer negundo</i> / <i>Prunus virginiana</i> Forest | Montane Riparian Deciduous Forest | G3 | S2 | No |
| 24678 | <i>Acer negundo</i> / <i>Prunus virginiana</i> Forest | Montane Riparian Deciduous Forest | G3 | S2 | No |
| 24678 | <i>Acer negundo</i> / <i>Prunus virginiana</i> Forest | Montane Riparian Deciduous Forest | G3 | S2 | No |
| 24619 | <i>Populus angustifolia</i> / <i>Rhus trilobata</i> Woodland | Narrowleaf Cottonwood/Skunkbrush | G3 | S3 | No |
| 17361 | <i>Mentzelia rhizomata</i> | Roan Cliffs blazing star | G2 | S2 | Yes |

REFERENCES

| Reference ID | Full Citation |
|--------------|---------------|
| - | No Data |

ADDITIONAL TOPICS

| Additional Topics |
|-------------------|
| No Data |

VERSION

| | |
|----------------|--------------|
| Version Date | 11/14/2000 |
| Version Author | Sovell, J.R. |

Disclaimer

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