

# Level 4 Potential Conservation Area (PCA) Report

Name Raven Ridge

Site Code S.USCOFO\*27

## IDENTIFIERS

Site ID 828 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

### County

Rio Blanco (CO)

Uintah (UT)

## SITE DESCRIPTION

### Site Description

The Raven Ridge site is located northwest of Rangely, trending northwest to southeast. Approximately 1/3 of the site extends across the Utah/Colorado border. The majority of the area is BLM land, but there is also a small portion of private land. The area covered averages 13 air miles northwest to southeast and 4.75 miles southwest to northeast. A portion of the geology consists of shale barrens of the Green River Formation, a white to tan oil shale layer. Other geology present includes sandstones, shales and coal beds above Segoe Sandstone that are part of the upper Mesa Verde Formation, as well as some exposed Buck Tongue of Mancos Shale and Castlegate Sandstone along with modern alluvium soils along the southern tip. The shale barrens support several rare plants including Graham beardtongue (*Penstemon grahamii*) and White River penstemon (*Penstemon scariosus* var. *albifluvis*), both globally rare plants. These and other rare plants grow within sparsely vegetated desert shrub and pinon - juniper communities on knolls, bluffs, ledges, benches, talus slopes, or dry washes in loose shale soils derived from the shale. Four globally vulnerable plants designated as sensitive species by the BLM occur within the site, including ephedra buckwheat (*Eriogonum ephedroides*), Uinta Basin spring parsley (*Cymopterus duchesnensis*), Rollins' cat's-eye (*Oreocarya rollinsii*), and ligulate feverfew (*Bolophyta ligulata*). Due to the diversity and rarity of the plant life, much of the area has been designated as a BLM Area of Critical Environmental Concern (ACEC) and a State Natural Area. Some common plants associated with this site are as follows: Utah juniper (*Juniperus osteosperma*), shadscale (*Atriplex confertifolia*), winterfat (*Kraschenninnikovia lanata*), littleleaf mountain mahogany, (*Cercocarpus intricatus*), birchleaf mountain mahogany (*Cercocarpus montanus*), Mormon tea (*Ephedra viridis*), Utah greasebush (*Forsellesia meionandra*), littleleaf bricklebrush (*Brickellia microphylla*), lavender-leaf evening primrose (*Calyphus lavandulifolia*), sandaster (*Chaetopappa ericoides*), dwarf pincushion (*Chamaechaenactis scaposa*), roughseed cat's-eye (*Cryptantha flavoculata*), snakeweed (*Gutierrezia sarothrae*), large-flower skeleton-plant (*Lygodesmia grandiflora*), thickleaf penstemon (*Penstemon pachyphyllus*), Mofatt's Penstemon (*Penstemon moffattii*), Hood's phlox (*Phlox hoodii*), prince's plume (*Stanleya pinnata*), thrift mock goldenweed (*Stenotus armerioides*), heartleaf twistflower (*Streptanthus cordatus*), gray horsebrush (*Tetradymia canescens*), Salina wild rye (*Leymus salina*), Sandberg bluegrass (*Poa secunda*), and needle and thread grass (*Hesperostipa comata*).

### Key Environmental Factors

Dry, easily eroded soils and intermittent moisture.

### Climate Description

In the County, summers are warm or hot in most valleys but are much cooler in the mountains. Winters are cold in the mountains. Summer thunderstorms are prevalent; of the total precipitation, 55% usually falls between April and September. Average seasonal snowfall is 74.4 inches, average day time temperature is 45 degrees and average precipitation is 16.5 inches for Meeker between 1948 -2007 (Western Regional Climate Center 2008).

### Land Use History

No Data

### Cultural Features

No Data

Minimum Elevation	5,100.00 Feet	1,554.48 Meters
Maximum Elevation	6,400.00 Feet	1,950.72 Meters

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## SITE DESIGN

Site Map Y - Yes Mapped Date 12/24/2007  
 Designer Lyon, M.J. and J. Huggins

### Boundary Justification

The site extends into Utah. It encompasses the ridge and slopes to the east and west that support rare plants.

Primary Area 36,955.84 Acres 14,955.56 Hectares

## SITE SIGNIFICANCE

Biodiversity Significance Rank B2: Very High Biodiversity Significance

### Biodiversity Significance Comments

There are numerous occurrences of rare plants. Most significant are the fair (C-ranked), extant (unrankable) and historic occurrences of the globally imperiled (G2/S1) Graham's beardtongue (*Penstemon grahamii*). All known occurrences of Graham's beardtongue in Colorado are in this site. *P. grahamii* is endemic to the Uinta Basin of northwestern Colorado and northeastern Utah where it grows in small, scattered occurrences. There is also a fair (C-ranked) occurrence of the globally critically imperiled subspecies (G4T1/S1) White River penstemon (*Penstemon scariosus* var. *albifluvis*) and an excellent (A-ranked) occurrence of ephedra buckwheat (*Eriogonum ephedroides*), a globally vulnerable (G3/S1) species. There is a high likelihood that with further inventory of *Penstemon grahamii* and *Penstemon scariosus* var. *albifluvis*, occurrences of good (B-ranked), or better viability, could be documented.

Other Values Rank No Data

### Other Values Comments

No Data

## ASSOCIATED ELEMENTS OF BIODIVERSITY

Element State ID	State Scientific Name	State Common Name	Global Rank	State Rank	Driving Site Rank
22839	<i>Eriogonum ephedroides</i>	ephedra buckwheat	G3	S1	N
23982	<i>Astragalus duchesnensis</i>	Duchesne milkvetch	G3	S1S2	N
17002	<i>Penstemon grahamii</i>	Graham beardtongue	G2	S1	Y
24829	<i>Pinus edulis</i> - <i>Juniperus osteosperma</i> / <i>Cercocarpus intricatus</i> Woodland	Mesic Western Slope Pinyon-Juniper Woodlands	G3	SU	N
23998	<i>Bolophyta ligulata</i>	ligulate feverfew	G3	S2	N
16966	<i>Penstemon scariosus</i> var. <i>albifluvis</i>	White River penstemon	G4T1	S1	N
18627	<i>Oreocarya rollinsii</i>	Rollins' cat's-eye	G3	S2	N
18627	<i>Oreocarya rollinsii</i>	Rollins' cat's-eye	G3	S2	N
22893	<i>Cymopterus duchesnensis</i>	Uinta Basin spring-parsley	G3	S1	N
17002	<i>Penstemon grahamii</i>	Graham beardtongue	G2	S1	Y
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20827	<i>Seriphidium pygmaeum</i>	pygmy sagebrush	G4	S1	N
17002	<i>Penstemon grahamii</i>	Graham beardtongue	G2	S1	N
17002	<i>Penstemon grahamii</i>	Graham beardtongue	G2	S1	Y

## LAND MANAGEMENT ISSUES

### Land Use Comments

No Data

### Natural Hazard Comments

No Data

### Exotics Comments

There is abundant purple mustard (*Corispora tenella*) in the rare plant habitat.

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## Offsite

No Data

## Information Needs

There are many historical occurrences. More on-site surveys are needed to verify and rank these populations.

### REFERENCES

<u>Reference ID</u>	<u>Full Citation</u>
195049	BLM, White River Field Office. 2007. Personal communication to Peggy Lyon and Denise Culver of CNHP.
172874	Center for Native Ecosystems. 2002. Petition to List Graham's Penstemon (Penstemon grahamii) as Threatened or Endangered under the Endangered Species Act. Office of Endangered Species, U.S. Fish and Wildlife Service, U.S. Department of the Interior.
195026	Culver, D., J. Huggins and P. Lyon. 2008. Final Report: Significant Biological Resources in Rio Blanco County, CO. Colorado Natural Heritage Program, Fort Collins, CO.
162808	Smith, B. C. 1994. Draft management plan and environmental impact statement- White River Resource Area - Bureau of Land Management. October 1994. Prepared by B. Curtis Smith.
195034	WRCC. 2008. Western Regional Climate Center. Division of Atmospheric Sciences, Desert Research Institute. Reno, Nevada. < <a href="http://www.wrcc.dri.edu">http://www.wrcc.dri.edu</a> >.

### ADDITIONAL TOPICS

#### Additional Topics

Original site design by Reid, M. 1991-05-99. Updated by Doyle, G.A. 2005-12-13.

### LOCATORS

<b>Nation</b>	United States	<b>Latitude</b>	400851N
<b>State</b>	Colorado	<b>Longitude</b>	1090058W

<u>Quad Code</u>	<u>Quad Name</u>
40109-A1	Walsh Knolls
40109-B1	Dinosaur
40108-B8	Mellen Hill
40108-A8	Banty Point

<u>Watershed Code</u>	<u>Watershed Name</u>
14050007	Lower White
14060001	Lower Green-Diamond

### VERSION

<b>Version Date</b>	12/24/2007
<b>Version Author</b>	Lyon, M.J. and J. Huggins

### DISCLAIMER

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