

Level 4 Potential Conservation Area (PCA) Report

Name Piceance Creek

Site Code S.USCOHP*26598

IDENTIFIERS

Site ID 2383 Site Class PCA
Site Alias Piceance Creek at Rio Blanco

Network of Conservation Areas (NCA)

<u>NCA Site ID</u>	<u>NCA Site Code</u>	<u>NCA Site Name</u>
2469	S.USCOHP*27038	Piceance

County

Rio Blanco (CO)

SITE DESCRIPTION

Site Description

Although the broad valley of Piceance Creek is primarily cultivated for hay, and includes significant oil and gas development, the barren shale hills above the valley are home to several rare plants and plant communities. Bottomlands along Piceance Creek are primarily privately owned, while most of the upland areas are BLM. Undeveloped areas in the main drainage and tributary drainages support a tall shrub community of greasewood (*Sarcobatus vermiculatus*) and basin big sagebrush (*Artemisia tridentata* ssp. *tridentata*). Higher up, light gray shale slopes are sparsely vegetated with Wyoming sagebrush (*Artemisia tridentata* ssp. *wyomingensis*) and other low shrubs, including snakeweed (*Gutierrezia sarothrae*), low rabbitbrush (*Chrysothamnus viscidiflorus*), prickly gilia (*Leptodactylon pungens*), fringed sage (*Artemisia frigida*) and shadscale (*Atriplex confertifolia*). A good diversity of native grasses are mixed with these shrubs, including bluebunch wheatgrass (*Pseudoroegneria spicata*), Indian ricegrass (*Achnatherum hymenoides*), needle and thread (*Hesperostipa comata*), blue grama (*Bouteloua gracilis*) and galleta (*Pleuraphis jamesii*). There are also significant patches of non-native cheatgrass (*Bromus tectorum*). Common forbs are Barneby's thistle (*Cirsium barnebyi*), spearleaf buckwheat (*Eriogonum lonchophyllum*), rayless aster (*Machaeranthera grindelioides*), mountain pepperweed (*Lepidium montanum*), hairy golden aster (*Heterotheca villosa*), white sagebrush (*Artemisia ludoviciana*), Oregon grape (*Mahonia repens*) and twin bladderpod (*Physaria acutifolia*). Upper slopes have pinon - juniper (*Pinus edulis* - *Juniperus osteosperma*) woodlands, with Douglas-fir (*Pseudotsuga menziesii*) in many of the cooler drainages.

Key Environmental Factors

The rare elements are adapted to the dry climate and special edaphic environment of the Green River Shale. The geologic substrates are, from west to east, the Tertiary Uinta Formation, the Parachute member of the Green River Formation, and the lower member of the Green River Formation. Soils have been identified as the Torriorthent-Rock outcrop complex (Baker 1982).

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

The area has been grazed and bottomlands have been cultivated for hay for many years. Recently oil and gas development has made major impacts.

Cultural Features

No Data

Minimum Elevation	5,053.00 Feet	1,540.15 Meters
Maximum Elevation	8,240.00 Feet	2,511.55 Meters

SITE DESIGN

Site Map P - Partial Mapped Date 12/15/2007
Designer Lyon, M.J. and J. Huggins

Boundary Justification

The boundary includes the steep slopes above Piceance Creek that support a suite of rare plants and plant communities. In the northern section, it follows the base of the hills on the east side of Piceance Creek.

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Further south, it encompasses populations of Utah fescue (*Argillochloa dasyclada*). The eastern side includes the drainages flowing west into Piceance Creek, since upland activities may affect the quality of the habitat downstream.

Primary Area 81,746.47 Acres 33,081.76 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B2: Very High Biodiversity Significance

Biodiversity Significance Comments

The Piceance Creek site supports good (B-ranked) occurrences of several globally vulnerable plants and plant communities, including Utah fescue (*Argillochloa dasyclada*, G3/S3), Western Slope grasslands (*Pseudoroegneria spicata* / *Achnatherum hymenoides*, G3G4/SU) and cold desert shrublands (*Atriplex confertifolia* / *Achnatherum hymenoides*, G3/S2, and *Atriplex confertifolia* / *Pseudoroegneria spicata*, G3/S2S3). There is also a good (B-ranked) occurrence of the globally imperiled (G2/S2?) *Pseudoroegneria spicata* herbaceous vegetation community, a fair (C-ranked) occurrence of the globally imperiled (G2/S2) Piceance bladderpod (*Lesquerella parviflora*), an unranked occurrence of the globally vulnerable (G3G4T2/S2) subspecies Fremont's penstemon (*Penstemon fremontii* ssp. *glabrescens*), and a good (B-ranked) occurrence of the state rare (G4G5/S2) mountain wild mint (*Monardella odoratissima*).

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
18994	<i>Argillochloa dasyclada</i>	False ricegrass	G3	S3	N
18994	<i>Argillochloa dasyclada</i>	False ricegrass	G3	S3	N
18994	<i>Argillochloa dasyclada</i>	False ricegrass	G3	S3	N
24683	<i>Atriplex confertifolia</i> / <i>Achnatherum hymenoides</i> Shrubland	Cold Desert Shrublands	G3	S2	N
18994	<i>Argillochloa dasyclada</i>	False ricegrass	G3	S3	N
24522	<i>Atriplex confertifolia</i> / <i>Pseudoroegneria spicata</i> Shrubland	Cold Desert Shrublands	G3	S2	N
24554	<i>Pseudoroegneria spicata</i> - <i>Achnatherum hymenoides</i> Grassland	Western Slope Grasslands	G3G4	S1	N
18994	<i>Argillochloa dasyclada</i>	False ricegrass	G3	S3	N
24522	<i>Atriplex confertifolia</i> / <i>Pseudoroegneria spicata</i> Shrubland	Cold Desert Shrublands	G3	S2	N
24554	<i>Pseudoroegneria spicata</i> - <i>Achnatherum hymenoides</i> Grassland	Western Slope Grasslands	G3G4	S1	N
24683	<i>Atriplex confertifolia</i> / <i>Achnatherum hymenoides</i> Shrubland	Cold Desert Shrublands	G3	S2	N
18994	<i>Argillochloa dasyclada</i>	False ricegrass	G3	S3	N
24522	<i>Atriplex confertifolia</i> / <i>Pseudoroegneria spicata</i> Shrubland	Cold Desert Shrublands	G3	S2	N
24554	<i>Pseudoroegneria spicata</i> - <i>Achnatherum hymenoides</i> Grassland	Western Slope Grasslands	G3G4	S1	N
24426	<i>Penstemon fremontii</i> var. <i>glabrescens</i>	Fremont's beardtongue	G3G4T2	S2	N
18994	<i>Argillochloa dasyclada</i>	False ricegrass	G3	S3	N
18994	<i>Argillochloa dasyclada</i>	False ricegrass	G3	S3	N
19115	<i>Pseudoroegneria spicata</i> Grassland	Western Slope Grasslands	G2	S2	Y
18994	<i>Argillochloa dasyclada</i>	False ricegrass	G3	S3	N
24522	<i>Atriplex confertifolia</i> / <i>Pseudoroegneria spicata</i> Shrubland	Cold Desert Shrublands	G3	S2	N
17776	<i>Monardella odoratissima</i>	mountain wild mint	G4G5	S2	N
24426	<i>Penstemon fremontii</i> var. <i>glabrescens</i>	Fremont's beardtongue	G3G4T2	S2	N
24426	<i>Penstemon fremontii</i> var. <i>glabrescens</i>	Fremont's beardtongue	G3G4T2	S2	N
17683	<i>Physaria parviflora</i>	Piceance bladderpod	G2	S2	N

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17683	<i>Physaria parviflora</i>	Piceance bladderpod	G2	S2	N
23569	<i>Nuttallia multicaulis</i>	Many-stem stickleaf	G3	S3	N
23569	<i>Nuttallia multicaulis</i>	Many-stem stickleaf	G3	S3	N
24426	<i>Penstemon fremontii</i> var. <i>glabrescens</i>	Fremont's beardtongue	G3G4T2	S2	N
18994	<i>Argillochloa dasyclada</i>	False ricegrass	G3	S3	N
17683	<i>Physaria parviflora</i>	Piceance bladderpod	G2	S2	N
18994	<i>Argillochloa dasyclada</i>	False ricegrass	G3	S3	N

LAND MANAGEMENT ISSUES

Land Use Comments

No Data

Natural Hazard Comments

No Data

Exotics Comments

Cheatgrass (*Bromus tectorum*) is abundant in wetter areas along Piceance Creek, in gulches, often the primary grass species occurring with greasewood (*Sarcobatus vermiculatus*), and also in drier areas in patches on shale slopes.

Offsite

No Data

Information Needs

No Data

REFERENCES

Reference ID	Full Citation
195049	BLM, White River Field Office. 2007. Personal communication to Peggy Lyon and Denise Culver of CNHP.
159716	Baker, W. L. 1982. Natural vegetation of the Piceance Basin, Colorado. Appendix D, Pages 1-113 in Peterson, J. S. and W.L Baker, eds., Inventory of the Piceance Basin, Colorado. Unpublished report done for the Bureau Land Management, Craig, Co.
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.
195034	WRCC. 2008. Western Regional Climate Center. Division of Atmospheric Sciences, Desert Research Institute. Reno, Nevada. < http://www.wrcc.dri.edu >.

ADDITIONAL TOPICS

Additional Topics

Original site design by Culver, D.R. 2006-11-01.

LOCATORS

Nation	United States	Latitude	394935N
State	Colorado	Longitude	1080734W

Quad Code Quad Name

39108-G1	No Name Ridge
39108-G3	Rock School
39108-H2	Greasewood Gulch
39108-H3	Square S Ranch
39108-H1	Segar Mountain
39108-G2	Jessup Gulch
39107-G8	Thirteenmile Creek
39107-F8	Rio Blanco
39108-F1	McCarthy Gulch

Watershed Code Watershed Name

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14050006 Piceance-Yellow

VERSION

Version Date 12/15/2007

Version Author Lyon, M.J. and J. Huggins

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