

# Level 4 Potential Conservation Area (PCA) Report

Name Grape Creek

Site Code S.USCOHP\*8060

## IDENTIFIERS

Site ID 465 Site Class PCA

Site Alias Grape Creek at Bear Gulch

## Network of Conservation Areas (NCA)

<u>NCA Site ID</u>	<u>NCA Site Code</u>	<u>NCA Site Name</u>
-		No Data

## LOCATORS

Nation United States Latitude 382011N  
State Colorado Longitude 1052013W

## Quad Code Quad Name

38105-C3 Curley Peak

38105-D3 Royal Gorge

## County

Fremont (CO)

Custer (CO)

## Watershed Code Watershed Name

11020001 Arkansas Headwaters

11020002 Upper Arkansas

## SITE DESCRIPTION

Minimum Elevation 5,700.00 Feet 1,737.36 Meters

Maximum Elevation 8,045.00 Feet 2,452.12 Meters

## Site Description

Grape Creek is a long, perennial drainage that winds through rugged, granitic, lower montane hills west of the north end of the Wet Mountains. The steep canyon slopes above the stream are sparsely covered with rocky pinon - juniper woodland (*Pinus edulis* - *Juniperus* spp.) with mountain mahogany (*Cercocarpus montanus*) and Gambel oak (*Quercus gambelii*) groves. There are small prospect mines in the hills of the stream valley. This perennial stream is recovering from intensive land use in the past (grazing, railroad corridor). It previously washed out annually during high energy spring flooding once water flow resumed after being much reduced in winter by Deweese Reservoir upstream. This repeatedly stripped all vegetation out of the riparian corridor until recent years when the streambank vegetation has held. Intensive land use has been curbed and the riparian vegetation is recovering. Currently, the predominant vegetation within the corridor is the graminoid-dominated streambanks that have been gradually expanding. The entire reach is dotted with Rocky Mountain juniper (*Juniperus scopulorum*) and one seed juniper (*Juniperus monosperma*) individuals interspersed with groves of narrowleaf cottonwood (*Populus angustifolia*) and/or plains cottonwood (*Populus deltoides*). There are some groves of mature cottonwoods where the ground has significant woody debris as well as areas of regenerating cottonwoods that likely will replace the junipers as canopy dominants in the future. Shrubs are sparse along the reach, but show signs of establishment and regeneration in many places. Coyote willow (*Salix exigua*) is the most common, although peachleaf willow (*Salix amygdaloides*) saplings are also present. The herbaceous cover is lush along the banks. Dominant graminoids include pasture grasses like quackgrass (*Elymus repens*) and Kentucky bluegrass (*Poa pratensis*), although native Nebraska sedge (*Carex nebrascensis*), common spikerush (*Eleocharis palustris*), and scouring rush horsetail (*Equisetum hyemale*) are common and abundant. There are scattered forbs throughout, including wild mint (*Mentha arvensis*), water horehound (*Lycopus americana*), and others. Vines such as riverbank grape (*Vitis riparia*) and clematis (*Clematis ligusticifolia*) crawl up and cover rock outcrops and juniper and cottonwood trees in several areas. Tributaries of Grape Creek are moderate to high gradient sandy washes with ephemeral to intermittent flow. Tree canopies, where present, are mixed evergreen-deciduous woodlands, often with sporadic cover.

## Key Environmental Factors

Lower montane elevation; moderate gradient; perennial flow.

## Climate Description

No Data

## Land Use History

A railroad was built through Grape Creek canyon in the late 1800's. It was abandoned and dismantled after

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repeated flooding washed out the tracks. Small mines dot the canyonsides in some areas.

## Cultural Features

No Data

## SITE DESIGN

Site Map Y - Yes

Mapped Date 01/13/2006

Designer Neid, S.L.

## Boundary Justification

The boundary is drawn as a 1 km buffer of the riparian corridor, which roughly approximates the adjacent ridgelines surrounding Grape Creek for immediate watershed protection.

Primary Area 13,093.83 Acres

5,298.90 Hectares

## SITE SIGNIFICANCE

Biodiversity Significance Rank B2: Very High Biodiversity Significance

## Biodiversity Significance Comments

This site encompasses an excellent (A-ranked) and a good (B-ranked) occurrence of a globally imperiled (G2G3/S2S3) riparian natural community, narrowleaf cottonwood - Rocky Mountain juniper (*Populus angustifolia* - *Juniperus scopulorum*) woodland. Additionally, there is a good (B-ranked) occurrence of the globally vulnerable (G3/S2) narrowleaf cottonwood - Douglas-fir (*Populus angustifolia* - *Pseudotsuga menziesii*) woodland and a good to fair (BC-ranked) occurrence of the apparently globally secure but state imperiled (G4/S2) Rocky Mountain juniper / Red-osier dogwood (*Juniperus scopulorum* / *Cornus sericea*) woodland. Several fair (C-ranked) occurrences of a globally imperiled (G2/S2) plant, Arkansas Canyon stickleaf (*Nuttallia densa*), 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

Hydrological processes originating outside of the planning boundary, including water quality, quantity, timing and flow must be managed to maintain site viability.

## 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>
24657	<i>Juniperus scopulorum</i> / <i>Cornus sericea</i> Woodland	Riparian Woodland	G4	S2	No
24692	<i>Populus angustifolia</i> - <i>Pseudotsuga menziesii</i> Woodland	Montane Riparian Forest	G3	S2	No
16858	<i>Nuttallia densa</i>	Arkansas Canyon stickleaf	G2	S2	No
16858	<i>Nuttallia densa</i>	Arkansas Canyon stickleaf	G2	S2	No
24963	<i>Populus angustifolia</i> - <i>Juniperus scopulorum</i> Woodland	Montane Riparian Forest	G2G3	S2S3	Yes
16858	<i>Nuttallia densa</i>	Arkansas Canyon stickleaf	G2	S2	No
24963	<i>Populus angustifolia</i> - <i>Juniperus scopulorum</i> Woodland	Montane Riparian Forest	G2G3	S2S3	Yes

## REFERENCES

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## Full Citation

159580	Kittel, G., R. Rondeau and A. McMullen. 1996. A classification of the riparian vegetation of the Lower South Platte and parts of the Upper Arkansas River basins, Colorado. Unpublished CNHP Report for CO DNR and US EPA, Region VIII. 243 p.
193618	Neid, S.L. 2006. Final Report: Survey of Critical Wetlands and Riparian Areas in Fremont County, Colorado. Colorado Natural Heritage Program, Fort Collins, CO.
169032	Rondeau, R. and A. McMullen. 1995. Colorado Natural Heritage Program Riparian Field Survey of the Arkansas River Basin.

## ADDITIONAL TOPICS

### Additional Topics

Original site design by Kittel, G.M. 1997-04-02.

## VERSION

Version Date 01/13/2006

Version Author Neid, S.L.

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