

Level 4 Potential Conservation Area (PCA) Report

Name East Rifle Creek

Site Code S.USCOHP*21709

IDENTIFIERS

Site ID 1253 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

LOCATORS

Nation United States Latitude 394323N
State Colorado Longitude 1074048W

Quad Code Quad Name

39107-F6 Rifle Falls

County

Garfield (CO)

Watershed Code Watershed Name

14010005 Colorado headwaters-Plateau

SITE DESCRIPTION

Minimum Elevation	7,000.00	Feet	2,134.00	Meters
Maximum Elevation	9,000.00	Feet	2,743.00	Meters

Site Description

This site consists of a narrow box canyon surrounded by sheer vertical limestone cliffs. The riparian area is dominated by box elder (*Acer negundo*) and red-osier dogwood (*Cornus sericea*). The understory in this community is lush and exhibits high species diversity. Common understory species include: gooseberry (*Ribes* sp.), red raspberry (*Rubus idaeus*), Wood's rose (*Rosa woodsii*), baneberry (*Actaea rubra* subsp. *arguta*), false-Solomon's seal (*Maianthemum stellatum*), monkshood (*Aconitum columbianum*), Richardson's geranium (*Geranium richardsonii*), black-eyed Susan (*Rudbeckia ampla*), cow parsnip (*Heracleum sphondylium* var. *montanum*), blue wild rye (*Elymus glaucus*), large-leaved avens (*Geum macrophyllum*), and yellow avens (*G. aleppicum*). A few non-native species, such as orchard grass (*Dactylis glomerata*) and Kentucky bluegrass (*Poa pratensis*) are common along trails within the riparian area. Sandbar willow (*Salix exigua*) and common reed (*Phragmites australis*) are common in open wetland areas. There are numerous springs discharging along this stretch of East Rifle Creek. These springs discharge from the Leadville Limestone, which has been shown to be a major local aquifer (Teller 1983). This aquifer is recharged via precipitation, snowmelt, and stream-flow and has a general subsurface flow toward the south, west, and northwest away from the White River Uplift (Teller 1983). Hanging garden sullivania (*Sullivantia hapemanii* var. *purpusii*) and oil shale columbine (*Aquilegia barnebyi*) are found growing near seeps located on the canyon walls. A few of these seeps occur in alcoves nestled into the limestone walls. Numerous springs also discharge at the base of the steep limestone walls where they have formed small marshes before discharging into East Rifle Creek. These marshes are mainly dominated by watercress (*Nasturtium officinale*), beaked sedge (*Carex utriculata*), and monkeyflower (*Mimulus guttatus*). The Colorado Division of Wildlife has developed a few of these stream-level springs to supply the Rifle State Fish Hatchery, which is located just downstream from this site, with clear, fairly warm water (the spring water is 55 degrees C and slightly warmer than the stream-water from East Rifle Creek) high in calcium carbonate. As a result, many of the springs are currently dry or are discharging less water than prior to development. Common reed is fairly common in these disturbed areas. Upstream, above where the creek enters the narrow limestone canyon, the riparian community mainly consists of blue spruce (*Picea pungens*), red-osier dogwood, and various willow (*Salix*) species. Downstream from the Rifle State Fish Hatchery, there is an increase in non-native species in the understory, with reed canary grass (*Phalaris arundinacea*) and common reed becoming very abundant along the streamsides. At one time, a large colony of Black Swifts occupied the canyon, as did a nesting pair of Bald Eagles and Peregrine Falcons. Extensive traffic from recreational climbers, however, caused the abandonment of the swift colony and subsequent migration of both the Bald Eagle and Peregrine Falcon nesting pairs. Soils along the creek bottoms are mapped Torriorthents. These soils formed on colluvial slopes below the steep cliff faces along this drainage. The soils are mostly well drained and vary from loamy to clayey with variable amounts of gravel, cobbles, and stones (Soil Conservation Service 1985). The porous nature of the soils is consistent with the presence of numerous seeps and springs that discharge within the floodplain. A functional assessment was also conducted for this site, please see report (Survey of Critical Wetlands and Riparian Areas of Garfield County,

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Rocchio, J. 2000).

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Key Environmental Factors

No Data

Climate Description

No Data

Land Use History

No Data

Cultural Features

No Data

SITE DESIGN

Site Map Y - Yes Mapped Date 01/15/2001

Designer Rocchio, F.J.

Boundary Justification

The boundaries were drawn to ensure that all or most of the springs and small side drainages would continue to provide a major portion of the hydrological input to the creek and maintain natural water quality conditions, both of which are vital to the viability of the elements. The site boundaries were not intended to encompass the entire upstream watershed, although consideration of these areas is important to ensure adequate hydrological processes.

Primary Area 4,377.59 Acres 1,771.55 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B3: High Biodiversity Significance

Biodiversity Significance Comments

This site supports a good (B-ranked) occurrence of the globally vulnerable (G3/S2) box elder/red-osier dogwood (*Acer negundo*/*Cornus sericea*) montane riparian deciduous forest. This plant association is known from lower montane canyons in Utah and western Colorado. There are less than fifty known global occurrences while there are less than ten stands known in Colorado. There is also an occurrence of the globally vulnerable, western Colorado endemic, hanging garden sullivanian, a plant subspecies restricted to waterfalls, seeps, and moist cliffs of calcareous substrates. A caddisfly, thus far only known from Colorado, has also been documented from the site and is considered a conservation priority for invertebrates by Boris Konradieff, a Professor of Entomology and Curator of the C.P. Gillette Museum of Arthropod Diversity, at Colorado State University.

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

Element <u>State ID</u>	<u>State Scientific Name</u>	<u>State Common Name</u>	<u>Global Rank</u>	<u>State Rank</u>	<u>Driving Site Rank</u>
24831	<i>Acer negundo</i> / <i>Cornus sericea</i> Forest	Montane Riparian Deciduous Forest	G3?	S2	Yes
22214	<i>Sullivantia hapemanii</i> var. <i>purpusii</i>	Hanging Garden sullivanian	G3T3	S3	No

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REFERENCES

<u>Reference ID</u>	<u>Full Citation</u>
160919	Lyon, P. 2000. Colorado Natural Heritage Program Biological Assessment of Garfield County.
160810	Rocchio, J. 2000. Colorado Natural Heritage Program Wetland Inventory/Assessment of Garfield County.

ADDITIONAL TOPICS

Additional Topics

No Data

VERSION

Version Date 01/15/2001
Version Author Rocchio, F.J.

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