

# Level 4 Potential Conservation Area (PCA) Report

Name East Douglas Creek

Site Code S.USCOHP\*21708

## IDENTIFIERS

Site ID 704 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 393735N  
State Colorado Longitude 1084200W

<u>Quad Code</u>	<u>Quad Name</u>
39108-E6	Calf Canyon
39108-F6	Brushy Point

## County

Garfield (CO)  
Rio Blanco (CO)

<u>Watershed Code</u>	<u>Watershed Name</u>
14010005	Colorado headwaters-Plateau
14010006	Parachute-Roan
14050007	Lower White

## SITE DESCRIPTION

**Minimum Elevation** - Feet - Meters  
**Maximum Elevation** - Feet - Meters

## Site Description

East Douglas Creek is a narrow, eroding, sinuous stream that is cutting sharply into steep-sided valley walls. Blue spruce (*Picea pungens*) is the dominant species along the creek in the upper portion of the site. Further downstream, river birch (*Betula occidentalis*) becomes co-dominant. Along point bars and in small, saturated backwater areas, horsetail (*Equisetum arvense*), alkali crowfoot (*Halerpestes cymbalaria* subsp. *saximontana*), beaked sedge (*Carex utriculata*), spikerush (*Eleocharis palustris*), wild mint (*Mentha arvensis*), and redtop (*Agrostis gigantea*) are common. Narrowleaf cottonwood (*Populus angustifolia*) also occurs in scattered locations along the creek. Adjacent, partially-shaded, upland slopes are dominated by Douglas-fir (*Pseudotsuga menziesii*), Utah serviceberry (*Amelanchier utahensis*), and snowberry (*Symphoricarpos oreophilus*) whereas pinyon pine (*Pinus edulis*), juniper (*Juniperus osteosperma*), and Gambel's oak (*Quercus gambelii*) dominate drier, higher slopes. Stream-flow in East Douglas Creek is maintained by numerous small seeps and springs scattered throughout the area. These seeps and springs emerge from the Green River shale formation that outcrops throughout most of the site. These areas are dominated by beaked sedge, Nebraska sedge (*Carex nebrascensis*), monkshood (*Aconitum columbianum*), fowl mannagrass (*Glyceria striata*), and alkali crowfoot. There is a unique stand of mature narrowleaf cottonwoods that has established at the base of a large shale cliff, where many small springs had or were emerging. The stand is linear, extensive, and obviously delineates the locations of numerous springs. Most of the springs show no signs of recent grazing, whereas riparian areas downstream have been grazed in recent months. The springs are extremely alkaline at their source, having a water pH ranging from 8.0 to 8.5. This is extremely high and cattle may purposely stay away from such areas due to the high alkalinity. Downstream riparian areas are not as alkaline, probably due to the spring waters being diluted from various sources such as litter decomposition within the stream channel and reaction with stream sediments and wetland soils. Although no rare butterflies were observed at this site, the dense herbaceous vegetation associated with the seeps and springs support a large population of butterflies including numerous fritillary and crescents (Family Nymphalidae), whites and sulphurs (Family Pieridae), skippers (Family Hesperidae), and swallowtails (Family Papilionidae). At the confluence of Bear Park Creek and East Douglas Creek there is a large wet meadow in a park-like setting. Near the downstream end of the meadow, there appears to be a remnant of a natural dam that once blocked drainage, in a similar fashion as a beaver dam. The dam, which may have been the result of a landslide, probably created this wet meadow by slowing and/or blocking stream-flow. This resulted in the deposition of many layers of sediments. Evidence for this is suggested by the presence of large dead and dying blue spruce trees located throughout the meadow. The distribution pattern of these trees suggests that they originally

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established along a historical streambank, whose channel is no longer visible due to the accumulation of sediment in this area. It is likely that the fine soils that have accumulated behind the dam retain a locally high water table which may have stressed and killed the spruce trees. Soils on which the globally imperiled blue spruce/river birch montane riparian woodland occurs are mapped as the Silas series. These soils are fine-loamy, mixed, Cumulic, Cryoborolls and are deep, moderately well drained soils formed in alluvium derived from sedimentary bedrock (Soil Conservation Service 1985). Soils at spring sources often have histic epipedons near the soil surface. A functional assessment was also conducted for this site, please see report (Survey of Critical Wetlands and Riparian Areas of Garfield County, Rocchio, J. 2000)

## 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

This site encompasses the headwaters of East Douglas Creek, including Bear Park Creek and East Park Creek and numerous seeps and springs, to ensure that hydrological processes, such as maintenance of stream-flow and continued channel meandering, supporting the element are not disrupted.

Primary Area 7,977.30 Acres

3,228.31 Hectares

### SITE SIGNIFICANCE

Biodiversity Significance Rank B3: High Biodiversity Significance

## Biodiversity Significance Comments

This site supports a fair (C-ranked) occurrence of the globally imperiled (G2/S2) blue spruce/river birch (*Picea pungens*/*Betula occidentalis*) montane riparian woodland. This plant community appears to mainly occur in foothill canyons of the Colorado Front Range. The occurrence at this site is the only one, thus far, documented on the western slope. This site also harbors some of the most intact and pristine seeps and springs that were observed in western Garfield County during the course of this inventory.

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 State ID	State Scientific Name	State Common Name	Global Rank	State Rank	Driving Site Rank
24654	<i>Picea pungens</i> / <i>Betula occidentalis</i> Woodland	Montane Riparian Woodland	G2	S2	Yes

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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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