

# Level 4 Potential Conservation Area (PCA) Report

Name Haynes Creek

Site Code S.USCOHP\*22035

## IDENTIFIERS

Site ID 578 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 382118N  
 State Colorado Longitude 1041735W

<u>Quad Code</u>	<u>Quad Name</u>
38104-C3	North Avondale
38104-D3	North Avondale NE

County  
 Pueblo (CO)

<u>Watershed Code</u>	<u>Watershed Name</u>
11020005	Upper Arkansas-Lake Meredith

## SITE DESCRIPTION

<b>Minimum Elevation</b>	4,600.00	<b>Feet</b>	1,402.00	<b>Meters</b>
<b>Maximum Elevation</b>	4,850.00	<b>Feet</b>	1,478.00	<b>Meters</b>

### Site Description

Haynes Creek is a small, meandering, ephemeral, Great Plains stream occurring within a mosaic of shortgrass prairie, sandsage prairie, and greasewood shrubland. The landscape context of the creek is relatively intact. The creek originates at springs on the Transportation Technology Center and private property and flows through the eastern undeveloped portion of Pueblo Chemical Depot (PCD) then back to private property and towards the Arkansas River. The site encompasses the Haynes Creek springs, the PCD reach of the creek, and the reach downstream from PCD for about a mile. On the Pueblo Chemical Depot, the width of the creek supporting riparian vegetation ranges from about 5 to 50 feet. The vegetation is a mosaic of threesquare bulrush (*Scirpus pungens*) and saltgrass (*Distichlis spicata*) communities. Along two miles of the occurrence, the creek has no entrenchment, is completely vegetated, and is relatively free of non-native species. Saltgrass is the dominant species in this reach with some patches of common spikerush (*Eleocharis palustris*) in the wider areas. Near the IL Road crossing, the channel is entrenched and the vegetation is mainly threesquare bulrush with small patches of common spikerush, Baltic rush (*Juncus balticus*), and alkali bulrush (*Bolboschoenus maritimus*). In this lower reach, saltgrass is the dominant plant in the floodplain. Weedy species in the channel include curlycup gumweed (*Xanthium strumarium*), dock (*Rumex* sp.), and a few scattered tamarisk (*Tamarix ramosissima*). Terrestrial insects abundant in Haynes Creek and surrounding uplands are robber flies, grasshoppers, and wasps. Aquatic insects collected from a temporary pond on the creek include predaceous diving beetles (*Agabus disintegratus* and *Hygrotus nubilis*), water boatmen (*Corisella tarsalis* and *Sigara alternata*), and midge larvae (*Chironomus* sp. and *Procladius* sp.) (Kondratieff and Durfee 1999). Birds observed in the vicinity include Killdeer, Western Kingbird, Lark Bunting, Western Meadowlark, Northern Harrier, and Ferruginous Hawk. Mountain Plover use the adjacent shortgrass uplands. Small mammal trapping in the shortgrass prairie surrounding Haynes Creek resulted in the following species: deer mouse (*Peromyscus maniculatus*), kangaroo rat (*Dipodomys ordii*), western harvest mouse (*Reithrodontomys megalotis*), silky pocket mouse (*Perognathus flavus*), northern grasshopper mouse (*Onychomys leucogaster*), hispid pocket mouse (*Chaetodipus hispidus*), and spotted ground squirrel (*Spermophilus spilosoma*) (Colorado Natural Heritage Program 2001b). Hydrologic investigations by Romero (1992) indicate that Haynes Creek is part of the larger Chico Creek/Black Squirrel Creek system and creek discharge is from shallow groundwater recharged by precipitation over the entire watershed (Pueblo and El Paso counties). The hydrologic regime of the creek appears to be nearly intact. The springs at the headwaters are developed and a small retention dam was built to supply a privately owned ranch residence and headquarters. The retention pond likely alters the hydrologic regime by moderating flows and increasing evaporative losses. Only two roads cross the creek within the site, the Department of Transportation (DOT) Highway near the headwaters and the IL Road along the eastern boundary of PCD. The land history of the depot property is complex. From at least the early 1900's to 1941, the depot property was a mixture of private and state owned parcels with ranching as the primary use. In 1941, the Department of Defense acquired the

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land and by 1942 had built a munitions storage facility. In 1994, all but a small portion of the munitions were removed. Though bunkers and other buildings were constructed over most of the depot, the Haynes Creek portion was never developed and remains in relatively intact condition. Grazing has been excluded from the PCD portion of the site since 1998 (M. Canestorp, pers. comm., PCD) and fire is suppressed throughout the region.

## Key Environmental Factors

No Data

## Climate Description

No Data

## Land Use History

The land history of the depot property is complex. From at least the early 1900's to 1941, the depot property was a mixture of private and state owned parcels with ranching as the primary use. In 1941, the Department of Defense acquired the land and by 1942 had built a munitions storage facility. In 1994, all but a small portion of the munitions were removed. Though bunkers and other buildings were constructed over most of the depot, the Haynes Creek portion was never developed and remains in relatively intact condition. Grazing has been excluded from the PCD portion of the site since 1998 (M. Canestorp, pers. comm., PCD) and fire is suppressed throughout the region.

## Cultural Features

No Data

### SITE DESIGN

Site Map Y - Yes

Mapped Date 06/18/2001

Designer Doyle, G.A.

## Boundary Justification

The boundary encompasses the springs at the headwaters of the creek and a portion of the surrounding uplands. The site could be expanded to include a greater proportion of the groundwater recharge area necessary to maintain the springs and seeps supporting the riparian plant communities along Haynes Creek.

Primary Area 2,598.61 Acres

1,051.63 Hectares

### SITE SIGNIFICANCE

Biodiversity Significance Rank B3: High Biodiversity Significance

## Biodiversity Significance Comments

This site contains a good (B-ranked) occurrence of a globally vulnerable to apparently secure (G3G4/S3) threesquare bulrush (*Scirpus pungens*) riparian plant community on a small, intact Great Plains stream. The non-weedy and non-entrenched condition is unusual for the plains. The site also supports a good (B-ranked) occurrence of the state rare (G5/S3) salt meadows (*Distichlis spicata*) community.

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

<u>Element</u>			<u>Global Rank</u>	<u>State Rank</u>	<u>Driving Site Rank</u>
<u>State ID</u>	<u>State Scientific Name</u>	<u>State Common Name</u>			

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17188	<i>Distichlis spicata</i> Herbaceous Vegetation	Salt Meadows	G5	S3	No
18654	<i>Schoenoplectus pungens</i> Herbaceous Vegetation	Bulrush	G3G4	S3	Yes

## REFERENCES

<u>Reference ID</u>	<u>Full Citation</u>
169085	Doyle, G.A. 2000. Colorado Natural Heritage Program Field Survey of Wetland and Riparian Areas in Pueblo and El Paso Counties.
162855	Doyle, G.A., J. Gionfriddo, D. Anderson, and D. Culver. 2000. Final Report: Survey of Critical Wetlands and Riparian Areas in El Paso and Pueblo Counties, Colorado. Colorado Natural Heritage Program, Fort Collins, CO.

## ADDITIONAL TOPICS

### Additional Topics

No Data

## VERSION

<b>Version Date</b>	09/16/2003
<b>Version Author</b>	Spackman, S.C.

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