

Level 4 Potential Conservation Area (PCA) Report

Name Crystal Spring

Site Code S.USCOHP*27996

IDENTIFIERS

Site ID 2678 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 405204N
State Colorado Longitude 1061514W

Quad Code Quad Name

40106-G2 Eagle Hill
40106-G3 Cowdrey

County

Jackson (CO)

Watershed Code Watershed Name

10180001 North Platte Headwaters

SITE DESCRIPTION

Minimum Elevation	8,020.00 Feet	2,444.50 Meters
Maximum Elevation	8,080.00 Feet	2,462.78 Meters

Site Description

Crystal Springs is a groundwater discharge west of the North Park Sand Dunes area. The water likely percolates down from the Medicine Bow Mountains and flows west through the eolian deposits. Crystal Springs supports an area of open water that is ringed with graminoids such as Nebraska sedge (*Carex nebrascensis*), beaked sedge (*C. utriculata*), analogue sedge (*C. simulata*), brook grass (*Catabrosa aquatica*), swordleaf rush (*Juncus ensifolius*), and Baltic rush (*J. balticus*). Forbs include Brewer's bittercress (*Cardamine breweri*), seep monkey flower (*Mimulus guttatus*), fringed willowherb (*Epilobium ciliatum*), and American speedwell (*Veronica americana*). Soils are very sandy; no peat formation was documented. Hummocks are present on both sides of Crystal Spring Creek that support shrubby cinquefoil (*Dasiphora floribunda*), pussy toes (*Antennaria rosea*), bedstraw (*Galium septentrionale*), meadow zizia (*Zizia aperta*), wind flower (*Anemone cylindrical*), and silvery primrose (*Primula incana*). Uplands are dominated by mountain phlox (*Phlox austromontana*) in more mesic areas with silver sagebrush (*Artemisia cana*), while drier areas support mountain sagebrush (*Artemisia tridentata* ssp. *pauciflora*) with Sandberg bluegrass (*Poa secunda*).

Key Environmental Factors

The presence of groundwater discharge.

Climate Description

The site is located in an intermountain basin that is enclosed on most sides by mountains that create precipitation shadows for air and moisture. Climate records for Walden indicate a mean annual precipitation of 10.53 inches (WRCC 2009). Annual mean for snowfall is 57.1 inches. The lowest average temperature (Jan.) is 3.9 degrees F and the highest average temperature (July) is 78.5 degrees F.

Land Use History

No Data

Cultural Features

No Data

SITE DESIGN

Site Map Y - Yes Mapped Date 11/05/2009

Designer Culver, D.R.

Boundary Justification

Boundaries are drawn to capture the immediate watershed that starts at the spring discharge area. The boundaries were developed to include immediate ecological processes. Specifically the primary ecological process is hydrology, especially spring discharge. Only private lands with written permission were surveyed.

Primary Area	114.13 Acres	46.19 Hectares
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SITE SIGNIFICANCE

Biodiversity Significance Rank B3: High Biodiversity Significance

Biodiversity Significance Comments

The site supports a fair (C-ranked) occurrence of the globally imperiled (G2G3/S2) pale blue-eyed grass (*Sisyrinchium pallidum*), a good (B-ranked) occurrence of the state imperiled (G4/S1) slender thelypody (*Thelypodium sagittatum*), and a good (B-ranked) occurrence of the state imperiled (G4/S1) Rocky Mountain ragwort (*Packera debilis*). In addition, there are extant occurrences of the state imperiled (G5/S1) Willet (*Catoptrophorus semipalmatus*) and the state rare northern leopard frog (*Rana pipiens*).

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

Canada thistle (*Breca arvensis*) and musk thistle (*Carduus nutans*) are present.

Offsite

No Data

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>
21615	<i>Sisyrinchium pallidum</i>	pale blue-eyed grass	G2G3	S2	Yes
17443	<i>Thelypodium sagittatum</i>	slender thelypody	G4	S1	No
22365	<i>Packera debilis</i>	Rocky Mountain ragwort	G4	S1	No
17407	<i>Catoptrophorus semipalmatus</i>	Willet	G5	S1B	No
18389	<i>Rana pipiens</i>	Northern Leopard Frog	G5	S3	No

REFERENCES

<u>Reference ID</u>	<u>Full Citation</u>
198407	Culver, D.R., K. Decker, J. Parker, J. Bell, J. Sovell, and J. Huggins. 2010. CNHP Final Report: Identification and Assessment of Important Wetlands within the North Platte Watershed, CO. Colorado Natural Heritage Program, Fort Collins, CO.
198320	Western Regional Climate Center. 2009. Record Climate Summaries. Accessed in 2009. http://www.wrcc.dri.edu/

ADDITIONAL TOPICS

Additional Topics

No Data

VERSION

Version Date 11/05/2009

Version Author Culver, D.R.

Disclaimer

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