

# Level 4 Potential Conservation Area (PCA) Report

Name Boston Creek Fen

Site Code S.USCOHP\*1369

## IDENTIFIERS

Site ID 1409 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 403751N  
State Colorado Longitude 1055118W

Quad Code Quad Name  
40105-F7 Boston Peak

County  
Larimer (CO)

Watershed Code Watershed Name  
10180010 Upper Laramie

## SITE DESCRIPTION

Minimum Elevation	8,920.00 Feet	2,718.82 Meters
Maximum Elevation	8,920.00 Feet	2,718.82 Meters

### Site Description

The Boston Creek fen is a glaciated basin that is bordered on each side by moraines. The site encompasses a small fen that is located on glacial drift during the Pinedale and Bull Lake glaciation. The herbaceous-dominated wetlands surround open water ponds. The wetlands are dominated by sedges (*Carex lasiocarpa*, *C. diandra*, *C. aquatilis*, *C. limosa*, *C. utriculata*). The uplands surrounding the wetland complex are dominated by lodgepole pine (*Pinus contorta*) and Engelmann spruce (*Picea engelmannii*). The hydrology of the area is driven primarily by melting snowpack that trickles down through glacial strata and emerges on the surface as groundwater discharge. The site is defined as a fen due to the presence of water logged spongy ground and the formation of organic soils or histosols. Histosols are organic soils formed by slow accumulation of plant debris in waterlogged situations where it cannot decompose and accumulates as peat. The upland vegetation consists of lodgepole pine (*Pinus contorta*) forests that have been severely impacted by the mountain pine beetle (*Dendroctonus* spp.).

### Key Environmental Factors

Groundwater discharge and peat formation.

### Climate Description

No Data

### Land Use History

No Data

### Cultural Features

No Data

## SITE DESIGN

Site Map P - Partial Mapped Date 09/12/1994  
Designer Pague, C.A.

### Boundary Justification

The boundary includes the immediate watershed that includes the wetland dependent occurrences and a narrow upslope buffer to protect the natural processes. The hydrology is likely dependent on groundwater discharge and any impacts within the larger watershed would affect the viability of the fen.

Primary Area 28.24 Acres 11.43 Hectares

## SITE SIGNIFICANCE

Biodiversity Significance Rank B4: Moderate Biodiversity Significance

### Biodiversity Significance Comments

The site supports a good (B-ranked) occurrence of the state critically imperiled (G5/S1) livid sedge (*Carex*

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*livida*) and good (B-ranked) occurrences of two state imperiled (G5/S2) plants: hoary willow (*Salix candida*) and mud sedge (*Carex limosa*). In addition, there are unranked occurrences of the state critically imperiled (G5/S1) lesser panicled sedge (*Carex diandra*) and slender sedge (*Carex lasiocarpa*). The hoary willow is fairly common in more northern (boreal) latitudes of North America, but is also found in rare isolated populations in Colorado, Wyoming, and South Dakota. In these areas, the species has remained as a relic from the previous glaciations, when what is now typical boreal vegetation was found much further south on the continent. Throughout its range, *Salix candida* is typically associated with fens, bogs, marshes, and other areas of permanently saturated soils where peat is present.

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</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>
22645	<i>Salix candida</i>	hoary or silver willow	G5	S2	No
22458	<i>Carex limosa</i>	mud sedge	G5	S2	No
21581	<i>Carex diandra</i>	lesser panicled sedge	G5	S1	No
21314	<i>Carex livida</i>	livid sedge	G5	S1	Yes
23259	<i>Carex lasiocarpa</i>	slender sedge	G5	S1	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.

## ADDITIONAL TOPICS

### Additional Topics

Site updated by Pague, C.A. in 1995.

## VERSION

Version Date	11/12/2009
Version Author	Culver, D.R.

## Disclaimer

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