

Level 4 Potential Conservation Area (PCA) Report

Name Upper Troublesome Creek

Site Code S.USCOHP*25852

IDENTIFIERS

Site ID 2277 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 401407N
State Colorado Longitude 1061847W

| <u>Quad Code</u> | <u>Quad Name</u> |
|------------------|------------------|
| 40106-B3 | Gunsight Pass |
| 40106-C3 | Hyannis Peak |

County

Grand (CO)

| <u>Watershed Code</u> | <u>Watershed Name</u> |
|-----------------------|-----------------------|
| 14010001 | Colorado headwaters |

SITE DESCRIPTION

| | | |
|-------------------|---------------|-----------------|
| Minimum Elevation | 7,880.00 Feet | 2,401.82 Meters |
| Maximum Elevation | 9,200.00 Feet | 2,804.16 Meters |

Site Description

Site encompasses the upper reaches of Troublesome Creek, a second order tributary of the Colorado River. Geology along the majority of the drainage is composed of igneous rocks of the Tertiary Age, with lower reaches of the stream being part of the Troublesome Formation. Soils are xeric and clayey along the Troublesome Formation and uplands are dominated by big sagebrush (*Artemisia tridentata*) shrubland communities. Higher elevation and upper reaches of the drainage are dominated by lodgepole pine (*Pinus contorta*) forest communities with mixed subalpine fir (*Abies lasiocarpa*) and Engelmann spruce (*Picea engelmannii*) at the highest reaches. Riparian areas are variable throughout and include quaking aspen (*Populus tremuloides*) and narrowleaf cottonwood (*Populus angustifolia*) woodlands, willow (*Salix*) and thinleaf alder (*Alnus incana*) dominated tall shrublands, and meadows of mesic graminoids.

Key Environmental Factors

Key environmental factors include snow melt, gentle slopes and solar exposure, seasonal flooding, groundwater discharge, and clay soils. Snow pack is likely not important at lower reaches of drainage due to gentle topography where snow is melted by solar exposure throughout the winter, but is more important at upper reaches where snow pack is retained until later in the season.

Climate Description

Area likely follows typical Colorado weather patterns being generally xeric throughout the year with wetter spring seasons and later summer "monsoons".

Land Use History

Ownership varies from public to private with large areas of the upper reaches being part of a BLM Wilderness Study Area. BLM property is located within a grazing allotment. A majority of the private property has been irrigated and either cultivated for hay production or used for livestock grazing.

Cultural Features

No Data

SITE DESIGN

Site Map Y - Yes Mapped Date 11/12/2005
Designer Jones, J.R.

Boundary Justification

Boundaries incorporate a large area of the upper reaches of Troublesome Creek and some of its tributaries that contain a number of high quality communities. Boundaries were drawn to encompass those hydrologic functions necessary to the maintenance of these elements including spring flooding, groundwater recharge, sediment movement, and surface water levels. The boundaries do not encompass all hydrologic and ecologic

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processes that maintain site elements. Upstream activities, such as improper livestock grazing, water diversion, and development may be deleterious to the elements.

Primary Area 2,086.89 Acres

844.54 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B2: Very High Biodiversity Significance

Biodiversity Significance Comments

This site is drawn for a good (B-ranked) occurrence of a globally imperiled (G2?/S2) community, American mannagrass (*Glyceria grandis*). The site also supports five good (B-ranked) occurrences of globally vulnerable (G3/S3) communities: montane willow (*Salix monticola*) / water sedge (*Carex aquatilis*), Drummond's willow / bluejoint reedgrass (*Calamagrostis canadensis*), thinleaf alder (*Alnus incana*) - Drummond's willow (*Salix drummondiana*), thinleaf alder / mesic forbs, and narrowleaf cottonwood (*Populus angustifolia*) / thinleaf alder. In addition, it supports a fair (C-ranked) occurrence of the globally vulnerable (G3/S3) community, thinleaf alder / mixed willow (*Salix monticola, lucida, ligulifolia*).

Other Values Rank V2 - High values

Other Values Comments

Other values include aesthetic and recreational values. The habitat created by the wetland areas in an otherwise xeric landscape is very important for wildlife species including the Greater Sage-grouse (*Centrocercus urophasianus*) which is dependent on wetland areas for rearing its young.

LAND MANAGEMENT ISSUES

Land Use Comments

Upper reaches are designated specifically for research. Non-motorized use is allowed. Downstream areas are used for livestock grazing and agriculture.

Natural Hazard Comments

No Data

Exotics Comments

Exotic species are prevalent in some areas where livestock grazing is intense or was in the past. Impacted riparian areas tend to support common exotics such as Kentucky bluegrass (*Poa pratensis*), smooth brome (*Bromus inermis*), and Canada thistle (*Cirsium arvense*), which all indicate disturbance from grazing. Other species such as meadow foxtail (*Alopecurus pratensis*) and meadow barley (*Hordeum brachyantherum*) are found within some wetland areas.

Offsite

Off-site disturbances to Upper Troublesome Creek include water diversion, agriculture, and livestock grazing.

Information Needs

No Data

ASSOCIATED ELEMENTS OF BIODIVERSITY

| <u>Element 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> |
|-------------------------|---|--|--------------------|-------------------|--------------------------|
| 24743 | <i>Alnus incana</i> - <i>Salix drummondiana</i> Shrubland | Montane Riparian Shrubland | G3 | S3 | No |
| 24912 | <i>Alnus incana</i> - <i>Salix (monticola, lucida, ligulifolia)</i> Shrubland | Thinleaf Alder-Mixed Willow Species | G3 | S3 | No |
| 24473 | <i>Salix drummondiana</i> / <i>Calamagrostis canadensis</i> Shrubland | Lower Montane Willow Carrs | G3 | S3 | No |
| 19090 | <i>Glyceria grandis</i> Herbaceous Vegetation | American Mannagrass | G2? | S2 | Yes |
| 24645 | <i>Alnus incana</i> / Mesic Forbs Shrubland | Thinleaf Alder/Mesic Forb Riparian Shrubland | G3 | S3 | No |
| 24965 | <i>Salix monticola</i> / <i>Carex aquatilis</i> Shrubland | Montane Riparian Willow Carr | G3 | S3 | No |
| 24541 | <i>Populus angustifolia</i> / <i>Alnus incana</i> Woodland | Montane Riparian Forest | G3 | S3 | No |

REFERENCES

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| <u>Reference ID</u> | <u>Full Citation</u> |
|---------------------|---|
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ADDITIONAL TOPICS

Additional Topics

No Data

VERSION

Version Date 11/12/2005

Version Author Jones, J.R.

Disclaimer

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