

Level 4 Potential Conservation Area (PCA) Report

Name Willow Creek at Groundhog Mountain

Site Code S.USCOHP2*1589

IDENTIFIERS

Site ID 546 Site Class PCA
 Site Alias Cold Creek West

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 374815N
 State Colorado Longitude 1080708W

<u>Quad Code</u>	<u>Quad Name</u>
37108-G1	Dolores Peak
37108-G2	Groundhog Mountain

County

Dolores (CO)

<u>Watershed Code</u>	<u>Watershed Name</u>
14030002	Upper Dolores

SITE DESCRIPTION

Minimum Elevation	9,560.00	Feet	2,914.00	Meters
Maximum Elevation	10,520.00	Feet	3,206.50	Meters

Site Description

The Willow Creek at Groundhog Mountain site encompasses the upper portion of Willow Creek approximately 2.5 miles above its confluence with Fish Creek, a tributary to the Dolores River, and an un-named branch of Cold Creek, also a tributary to the Dolores. Generally, the site is dominated by large stands of aspen (*Populus tremuloides*) on the hillsides, with Willow Creek lying in the bottom of the small valley, running southeast. This upper stretch of Willow Creek was surveyed by CNHP during the wetland survey of the San Miguel and Dolores River drainages in 1991. It contains a series of beaver ponds, and supports an element occurrence of beaked sedge wet meadow (*Carex utriculata*) plant community. Associated species found in the wet meadow include Drummond's willow (*Salix drummondiana*), Rocky Mountain willow (*Salix monticola*), Rocky Mountain rush (*Juncus saximontanus*), fewseeded bog sedge (*Carex microglochin*), fowl mannagrass (*Glyceria striata*), false hellebore (*Veratrum tenuipetalum*), water speedwell (*Veronica anagallis-aquatica*), willow herb (*Epilobium* sp), seep monkeyflower (*Mimulus guttatus*), Fendler's cowbane (*Oxypolis fendleri*), Rocky Mountain hemlockparsley (*Conioselinum scopulorum*), and arrowleaf groundsel (*Senecio triangularis*). A 1% cover of bristly locust (*Robinia hispida* var. *hispida*) was reported. This species, which is native to Appalachian Mountains, apparently is an escape from cultivation. Another riparian community surveyed by CNHP in 1991 is a dense montane riparian willow carr (*Salix monticola*/Mesic graminoid association), on the un-named branch of Cold Creek. This element occurrence is a good quality, extensive example of the community, and at the time of the survey had not been heavily impacted by grazing practices. Dominant species within the occurrence include Rocky Mountain willow, whitestem gooseberry (*Ribes inerme*), chiming bells (*Mertensia ciliata*), and Richardson's geranium (*Geranium richardsonii*). The old Groundhog Stock Driveway, which now serves predominantly as a hiking trail, passes through the site from east to west, and a well-maintained Forest Service road follows Willow Creek northward along the east bank. Impacts from historic cattle grazing in the area, especially near the old stock trail, are still apparent, and hikers tend to trample areas near the trails; however, the wet meadows and willow carrs appear to be relatively intact. Two element occurrences of King's clover (*Trifolium kingii*) are located on the flat areas above the creek, in locations near the Forest Service road that follows Willow Creek. In the northern element occurrence, the species is exhibited in wet areas along the roadside, and additional patches are located nearby along a small tributary stream, continuing up the hillside on north-facing slopes. Taxa associated with the occurrence at this northern location include tufted hairgrass (*Deschampsia cespitosa*), elephant heads (*Pedicularis groenlandica*), northern bog orchid (*Habenaria hyperborea*), water sedge (*Carex aquatilis*), and Fendler's cowbane (*Oxypolis fendleri*). In the larger, southern occurrence of King's clover, thousands of individuals are again located along the road, both sides, and continue up the hillside approximately 50 meters before transitioning into an adjacent false hellebore (*Veratrum tenuipetalum*) community. An overstory of Engelmann spruce (*Picea engelmannii*), subalpine fir (*Abies lasiocarpa*), and aspen is associated with this King's clover occurrence, intermixed with other taxa including wild mountain parsley (*Pseudocymopterus montanus*), false hellebore, large mountain fleabane

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(Erigeron coulteri), sulphur paintbrush (Castilleja sulphurea), and strawberry (Fragaria virginiana).

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 12/08/2004

Designer Lyon, M.J.

Boundary Justification

The site boundary includes the riparian areas of Willow Creek and an un-named tributary of Cold Creek, both of which support occurrences of King's clover. The site also incorporates additional riparian habitat that is suitable for the expansion of these populations

Primary Area 567.99 Acres

229.86 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B4: Moderate Biodiversity Significance

Biodiversity Significance Comments

The Willow Creek at Groundhog Mountain site supports a fair (C-ranked) occurrence of the globally vulnerable (G3/S3) montane riparian willow carr plant community, and an excellent (A ranked) and good (B-ranked) occurrence of King's clover, a plant that is very rare (G5/S1) in Colorado.

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

Hydrological processes originating outside of the planning boundary, including water quality, quantity, timing and flow must be managed to maintain site viability.

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>
24585	<i>Salix monticola</i> / Mesic Graminoids Shrubland	Montane Riparian Willow Carr	G3	S3	Yes
18795	<i>Carex utriculata</i> Herbaceous Vegetation	Beaked Sedge Montane Wet Meadows	G5	S4	No
23550	<i>Trifolium kingii</i>	King's clover	G5	S1	Yes
23550	<i>Trifolium kingii</i>	King's clover	G5	S1	Yes

REFERENCES

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<u>Reference ID</u>	<u>Full Citation</u>
172808	J. R. Karr and I. J. Schlosser. 1978. Water resources and the land-water interface. Science 201: 229-234.
169844	Kittel, G., N. Lederer, M. Condron, and S. Hamer. 1991. Riparian field survey of San Miguel and Dolores River Basins.
192772	Lyon, M.J. 2005. Final Report: Survey of Rare Plants. San Juan Public Lands in Dolores and Montezuma counties, Colorado. Colorado Natural Heritage Program, Fort Collins, CO.
192742	March, M.A. 2005. Final Report: Natural Heritage Wetland Inventory of Dolores County. Colorado Natural Heritage Program, Fort Collins, CO.
165959	Noel, D.S., C.W. Martin and C.A. Federer. 1986. Effects of Forest Clearcutting in New England on Stream Macroinvertebrates and Periphyton. Environmental Management 10: 661-670.
159511	Spackman, S. C. and J. W. Hughes. 1995. Assessment of Minimum Stream Corridor Width for Biological Conservation: Species Richness and Distribution Along Mid-Order Streams in Vermont, USA. Biological Conservation 71:325-332.

ADDITIONAL TOPICS

Additional Topics

Original site design by Kettler, S.M. 1997-06-09.

VERSION

Version Date 12/08/2004

Version Author Lyon, M.J.

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