

# Level 4 Potential Conservation Area (PCA) Report

Name Morrison Creek at Lone Cone

Site Code S.USCOHP\*25291

## IDENTIFIERS

Site ID 2176 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 375103N  
 State Colorado Longitude 1081955W

Quad Code Quad Name  
 37108-G3 Groundhog Reservoir

County  
 Dolores (CO)

Watershed Code Watershed Name  
 14030002 Upper Dolores

## SITE DESCRIPTION

Minimum Elevation - Feet - Meters  
 Maximum Elevation - Feet - Meters

### Site Description

Morrison Creek at Lone Cone site surrounds Morrison Creek and an unnamed tributary within the Lone Cone State Wildlife Area. The site surrounds a moderately narrow montane valley that harbors multiple beaver ponds, an open meadow with drier soils, and shrublands. The Morrison Creek Valley contains a lush riparian system where willow carrs form dense thickets with herbaceous vegetation and ponds interspersed. Colorado blue spruce (*Picea pungens*) individuals are scattered throughout the wetland, however, shrubs account for the majority of the vegetation canopy cover. Mountain willow (*Salix monticola*) dominates beaver enhanced wetlands interspersed with herbaceous vegetation dominated by beaked sedge (*Carex utriculata*). Associated graminoids include common spikerush (*Eleocharis palustris*), redtop (*Agrostis gigantea*), reed canary grass (*Phalaroides arundinacea*), common reed (*Phragmites australis*), and Baltic rush (*Juncus balticus*). Cattails (*Typha latifolia*) occur in patches in open water with mare's tail (*Hippuris vulgaris*), burreed (*Sparganium* sp.), and great bladderwort (*Utricularia macrorhiza*). A dense stand of willows on drier soils is dominated by Bebb's willow (*Salix bebbiana*). Associated shrubs include twinberry (*Lonicera involucrata*), Wood's rose (*Rosa woodsii*), and gooseberry (*Ribes inerme*). A diverse mix of forbs occur in patches up to 5% herbaceous canopy cover and include, veronica (*Veronica americana*), field mint (*Mentha arvensis*), checker mallow (*Sidalcea candida*), geranium (*Geranium richardsonii*), orange sneezeweed (*Dugaldia hoopesii*), large leafed avens (*Geum macrophyllum*), cowbane (*Oxypolis fendleri*), goldenglow (*Rudbeckia ampla*), mountain parsley (*Pseudocymopterus montanus*), false Solomon's seal (*Maianthemum stellatum*), small grass of Parnassus (*Parnassia parviflora*), bog orchid (*Limnorchis hyperborea*), sky pilot (*Polemonium foliosissimum*), little gentian (*Gentianella heterosepala*), strawberry (*Fragaria vesca* subsp. *bracteata*), Canada goldenrod (*Solidago canadensis*) and others. Weedy species within the wetland area include Canada thistle (*Cirsium arvense*), hounds tongue (*Cynoglossum officinale*), and hay grasses, Kentucky bluegrass (*Poa pratensis*) and timothy (*Phleum pratense*). Highlighting the biodiversity within the site, a small stand of bog birch (*Betula glandulosa*) in tall stature (6 - 8 ft.), occupies the edge of a solid bulrush (*Schoenoplectus lacustris*) patch with Colorado blue spruce occupying the outer most edge of the valley bottom. Soils in the graminoid-dominated stand are saturated, exhibiting a thin layer of organic soils over gleyed clay. Otherwise, soils vary greatly, depending on geomorphic position throughout the site. A tributary to Morrison Creek contained within the site boundaries, flows through an open valley where river hawthorn (*Crataegus rivularis*) dominates the shrub layer in an open canopy. The adjacent uplands are dominated by oak (*Quercus gambelii*) woodlands interspersed with Thurber's fescue (*Festuca thurberi*) grasslands. The river hawthorn stands and herbaceous understory appear to be recovering from heavy grazing in the past. For example, there are dense stands of Canada thistle (*Cirsium arvense*) interspersed with native vegetation and many of the shrubs are "mushroom-shaped" from intense browsing. The herbaceous understory is dominated by hay grasses, Kentucky bluegrass (*Poa pratensis*), and timothy (*Phleum pratense*). Associated species include field sedge (*Carex praegracilis*), wild iris (*Iris missouriensis*), vetch (*Vicia americana*), and musk thistle (*Carduus nutans*). Seeps interspersed along the hill slopes are dominated by dense stands of Baltic rush (*Juncus balticus*) and beaked sedge (*Carex*

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utriculata). Uplands surrounding the site are forested with ponderosa pine (*Pinus ponderosa*), Douglas-fir (*Pseudotsuga menziesii*) and white fir (*Abies concolor*) interspersed with oak (*Quercus gambelii*) and aspen (*Populus tremuloides*) woodlands and Thurber's fescue (*Festuca thurberi*) grasslands. Weedy species within the wetland area include Canada thistle (*Cirsium arvense*), hounds tongue (*Cynoglossum officinale*), and hay grasses, Kentucky bluegrass (*Poa pratensis*) and timothy (*Phleum pratense*). Soils vary greatly, depending on geomorphic position throughout the site. Soils sampled in the graminoid-dominated stand are saturated and comprised of a thin layer of peat at the surface, 12 cm of humus rich soil, and gleyed clay to an unknown depth (40+ cm).

## 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 11/16/2004

Designer March, M.A.

## Boundary Justification

The boundary encompasses the element occurrences and immediate adjacent area to buffer hydrological processes necessary to the viability of the elements. Natural fluvial processes such as seasonal flooding, sediment deposition and beaver activity will help maintain succession and viable populations of the elements along Morrison Creek (Sanderson and Kettler 1996.). The boundaries also provide a buffer from nearby trails, and roads where surface runoff may contribute excess nutrients, sediment and weed invasion. It should be noted that the hydrological processes necessary to the element are not fully contained by the site boundaries.

Primary Area 349.49 Acres

141.43 Hectares

## SITE SIGNIFICANCE

Biodiversity Significance Rank B3: High Biodiversity Significance

## Biodiversity Significance Comments

The site supports a good (B-ranked) occurrence of the globally vulnerable (G3?), imperiled in the state (S2), montane riparian willow carr (*Salix bebbiana* shrubland); a good (B-ranked) occurrence of the globally vulnerable (G3/S3) montane riparian willow carr (*Salix monticola*/*Carex utriculata*); and a fair (C-ranked) occurrence of the globally imperiled (G2Q/S2) montane riparian shrubland (*Crataegus rivularis*).

Other Values Rank No Data

## Other Values Comments

No Data

## LAND MANAGEMENT ISSUES

### Land Use Comments

Area has been grazed by cattle in recent past; area is used annually for hunting.

### Natural Hazard Comments

No Data

### Exotics Comments

Dense patches of *Cirsium arvense* found in stream channels, swales, mesic hill slopes, along trails.

### Offsite

No Data

### Information Needs

No Data

## ASSOCIATED ELEMENTS OF BIODIVERSITY

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<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>
24882	<i>Salix monticola</i> / <i>Carex utriculata</i> Shrubland	Montane Riparian Willow Carr	G3	S3	Yes
20994	<i>Salix bebbiana</i> Shrubland	Montane Willow Carrs	G3?	S2	Yes
24755	<i>Crataegus rivularis</i> Shrubland	Foothills Riparian Shrubland	G2Q	S2	No

## REFERENCES

<u>Reference ID</u>	<u>Full Citation</u>
191166	Hansen, P. L., R. D. Pfister, K. Boggs, B. J. Cook, J. Joy, and D. K. Hinckley. 1995. Classification and management of Montana's riparian and wetland sites. Montana Forest and Conservation Experiment Station, School of Forestry, University of Montana, Miscellaneous Publication No. 54. 646 pp. + posters.
192742	March, M.A. 2005. Final Report: Natural Heritage Wetland Inventory of Dolores County. Colorado Natural Heritage Program, Fort Collins, CO.
158563	Sanderson, J. and S. Kettler. 1996. A preliminary wetland vegetation classification for a portion of Colorado's West Slope. Unpublished final report submitted to the Colorado Department of Natural Resources and the U.S. Environmental Protection Agency. Colorado Natural Heritage Program, Fort Collins.

## ADDITIONAL TOPICS

### Additional Topics

No Data

## VERSION

Version Date 11/16/2004

Version Author March, M.A.

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