

Level 4 Potential Conservation Area (PCA) Report

Name Grand Mesa Lakes

Site Code S.USCOHP*10493

IDENTIFIERS

Site ID 358 Site Class PCA
 Site Alias Grand Mesa Lakes Macrosite

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 390320N
 State Colorado Longitude 1075928W

Quad Code Quad Name

39108-A1	Mesa Lakes
39107-A8	Grand Mesa
38108-H1	Hells Kitchen
39107-A7	Leon Peak

County

Delta (CO)
 Mesa (CO)

Watershed Code Watershed Name

14020005	Lower Gunnison
14010005	Colorado headwaters-Plateau

SITE DESCRIPTION

Minimum Elevation	8,600.00	Feet	2,621.00	Meters
Maximum Elevation	11,189.00	Feet	3,410.00	Meters

Site Description

Grand Mesa, one of the major landmarks of Delta county, is a large flat-topped mountain topped with tertiary volcanic rock. Hundreds of natural and man-made lakes are scattered over the area. Vegetation ranges from gambel's oak woodland to aspen and spruce-fir forest at the highest elevations. At the lower elevations of the site, oak woodland forms a mosaic with aspen forests. Common understory species occurring with the oak include chokecherry, snowberry, aspen daisy, serviceberry, mountain thistle, and osha. Aspen forests on the mesa tend to occupy mesic sites, and have a tall understory of herbaceous plants. These include nettleleaf giant hyssop, tall larkspur, cow parsnip, snowberry, false hellebore, aspen daisy, Canada wildrye, towering jacob's ladder, little sunflower, mountain thistle, wild geranium, tall ragwort, coneflower, tall fleabane, and fendler's waterleaf. With increasing elevation, spruce becomes mixed with the aspen, and finally dominates the canopy. Forests of engelmann spruce and subalpine fir have a variety of understory species, including heartleaf arnica, parrotsbeak, wolf currant, jacob's ladder, sweet cicely, elk sedge, whortleberry, and meadowrue. Forested areas are interspersed with open grassy parks and wetlands. Drier areas have a variety of grasses and forbs such as orange sneezeweed, mountain thistle, skyrocket gilia, blue columbine, little sunflower, aspen daisy, lupine, wild geranium, and white peavine. Common species in wetlands are Rocky Mountain willows, a variety of sedges and rushes, alpine bistort, elephantella, willow herb, veronica, indian paintbrush, edible valerian, whipple penstemon, marsh marigold, bittercress, hairy arnica, to name only a few. The highest areas in the site, such as Crag Crest have some species that occur in alpine tundra, but cannot be considered truly alpine. Abundant along the crest are rockslide fleabane, blue columbine, matted saxifrage, false strawberry, and graylocks hymenoxys (old man of the mountain). This macrosite encompasses a large number of occurrences of both plants and animals. Much of the data on animal species has come from national forest research. The thirteen boreal owl nesting sites listed below were documented in this site in 1993 during forest biodiversity studies (Gray 1994). The owls inhabit both aspen and spruce-fir forests, nesting in cavities or woodpecker holes. They prefer trees on the edges of meadows, near water. The boreal toad observations were made in 1932 and 1954, and therefore cannot be considered in ranking this site. They were reported in a 1994 publication of the Colorado Division of Wildlife (CDOW 1994). The toads are ephemeral, and therefore difficult to locate, so although they have not been recently documented, they may still be extant on the Mesa. There is abundant potential habitat for them, as they breed in subalpine lakes, reservoirs, ponds and creek pools, and eat a variety of invertebrates, including mosquitos, which are plentiful on the Mesa. These toads are most common between 8500-11,000 feet (Hammerson1986). They migrate between aquatic

Level 4 Potential Conservation Area (PCA) Report

Name Grand Mesa Lakes

Site Code S.USCOHP*10493

breeding and terrestrial nonbreeding habitats (CNHP 1997). The Grand Mesa penstemon was found in several locations, usually along roads in sunny, disturbed areas. Surrounding vegetation may be dominated by oak, aspen, or spruce. The penstemon appears to be a poor competitor for sunlight, and is not found in places with much competing vegetation. The purple cinquefoil was found growing on floating mats of peat at Kennicott slough with northwest territory sedge. This is the first known occurrence of this species in Delta county. A previously discovered location is in a similar floating peat bog near the headwaters of Kannah Creek in Mesa county. This ecosystem is rare in western Colorado, and the plant indicates that some very specific environmental characteristics are present. The Kennicott slough population is immediately threatened by the intentional cutting and removal of the floating island in the middle of the reservoir. Cinquefoil was found on chunks of peat left to dry on the shore of the reservoir, as well as on the floating island. The Sierra corydalis, previously considered to be rare, was found to be more common than we had thought. This seemed to be a good year for the plant, perhaps due to high spring precipitation, and it was flourishing in many rocky creek drainages. CNHP has therefore changed its rank from G5S3 to G5S3S4, which means that we will no longer track the species, but keep it on a "watchlist". One good place to see this attractive plant is at the Crag Crest trailhead. Here it grows in wet areas with willows, elderberry, chiming bells, osha, tall larkspur, wild geranium, cow parsnip and nettles. The different leaved groundsel was found in a wet meadow adjacent to a reservoir. Associated species were Rocky Mountain and Drummond's willow, chiming bells, arrowleaf groundsel, tufted hairgrass, and smallwing sedge. The site includes many roads, including a scenic byway. The area is a popular recreation destination for camping and fishing. Most of the site is within the Grand Mesa National Forest, but there are some private inholdings with vacation homes around Ward, Baron, Alexander, Hotel, and Eggleston lakes.

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 12/01/1997

Designer Lyon, M.J.

Boundary Justification

The site includes the lakes area of Grand Mesa, including parts in Mesa county which have additional occurrences of the same species listed above. The estimated foraging range of the boreal owls was included.

Primary Area 55,857.53 Acres 22,604.83 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B3: High Biodiversity Significance

Biodiversity Significance Comments

Biodiversity rank is based on a good (B-ranked) occurrence of a globally vulnerable (G3/S3) plant, Grand Mesa penstemon (*Penstemon mensarum*). There are also numerous occurrences of the state rare (G5/S2) Boreal Owl (*Aegolius funereus*), an excellent (A-ranked) occurrence of a globally common (G5/S5) aspen (*Populus tremuloides*) / tall forbs forest and a historical occurrence of the globally critically imperiled (G4T1Q/S1) boreal toad (*Bufo boreas*).

Other Values Rank No Data

Other Values Comments

No Data

LAND MANAGEMENT ISSUES

Land Use Comments

No Data

Natural Hazard Comments

No Data

Level 4 Potential Conservation Area (PCA) Report

Name Grand Mesa Lakes

Site Code S.USCOHP*10493

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>
24327	<i>Aegolius funereus</i>	Boreal Owl	G5	S2	No
24327	<i>Aegolius funereus</i>	Boreal Owl	G5	S2	No
24717	<i>Populus tremuloides</i> / Tall Forbs Forest	Montane Aspen Forest	G5	S5	No
24327	<i>Aegolius funereus</i>	Boreal Owl	G5	S2	No
24327	<i>Aegolius funereus</i>	Boreal Owl	G5	S2	No
20351	<i>Bufo boreas</i> pop. 1	Boreal Toad (Southern Rocky Mountain Population)	G4T1Q	S1	No
24327	<i>Aegolius funereus</i>	Boreal Owl	G5	S2	No
24327	<i>Aegolius funereus</i>	Boreal Owl	G5	S2	No
24327	<i>Aegolius funereus</i>	Boreal Owl	G5	S2	No
24327	<i>Aegolius funereus</i>	Boreal Owl	G5	S2	No
24327	<i>Aegolius funereus</i>	Boreal Owl	G5	S2	No
24327	<i>Aegolius funereus</i>	Boreal Owl	G5	S2	No
24327	<i>Aegolius funereus</i>	Boreal Owl	G5	S2	No
24327	<i>Aegolius funereus</i>	Boreal Owl	G5	S2	No
24327	<i>Aegolius funereus</i>	Boreal Owl	G5	S2	No

REFERENCES

<u>Reference ID</u>	<u>Full Citation</u>
178765	Lyon, P. and E. Williams. 1997. Final Report: Natural Heritage Biological Survey of Delta County. Colorado Natural Heritage Program, Fort Collins, CO.

ADDITIONAL TOPICS

Additional Topics

No Data

VERSION

Version Date	12/01/1997
Version Author	Lyon, M.J.

Disclaimer

Level 4 Potential Conservation Area (PCA) Report

Name Grand Mesa Lakes

Site Code S.USCOHP*10493

These data are a product and property of Colorado State University, Colorado Natural Heritage Program (CNHP). These data are strictly "on loan" and should be considered "works in progress". Data maintained in the Colorado Natural Heritage Program database are an integral part of ongoing research at CSU and reflect the observations of many scientists, institutions and our current state of knowledge. These data are acquired from various sources, with varying levels of accuracy, and are continually being updated and revised. Many areas have never been surveyed and the absence of data in any particular geographic area does not necessarily mean that species or ecological communities of concern are not present. These data should not be regarded as a substitute for on-site surveys required for environmental assessments. Absence of evidence is NOT evidence of absence. Absence of any data does not mean that other resources of special concern do not occur, but rather CNHP files do not currently contain information to document this presence. CNHP is not responsible for whether other, non-CNHP data providers have secured landowner permission for data collected.

These data are provided for non-commercial purposes only. Under no circumstances are data to be distributed in any fashion to outside parties. To ensure accurate application of data, tabular and narrative components must be evaluated in conjunction with spatial components. Failure to do so constitutes a misuse of the data. The Colorado Natural Heritage Program shall have no liability or responsibility to the data users, or any other person or entity with respect to liability, loss, or damage caused or alleged to be caused directly or indirectly by the data, including but not limited to any interruption of service, loss of business, anticipatory profits or indirect, special, or consequential damages resulting from the use of operation of the data. Data users hereby agree to hold CNHP, Colorado State University, and the State of Colorado harmless from any claim, demand, cause of action, loss, damage or expense from or related to data users use of or reliance on the data, regardless of the cause or nature thereof, and even in the event that such cause is attributable to the negligence or misconduct of CNHP.

These data are provided on an as-is basis, as-available basis without warranties of any kind, expressed or implied, INCLUDING (BUT NOT LIMITED TO) WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT. Although CNHP maintains high standards of data quality control, CNHP, Colorado State University, and the State of Colorado further expressly disclaim any warranty that the data are error-free or current as of the date supplied