

Level 4 Potential Conservation Area (PCA) Report

Name Gunnison Basin

Site Code S.USCOHP*23582

IDENTIFIERS

Site ID 919 Site Class PCA
 Site Alias Gunnison Megasite

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 382714N
 State Colorado Longitude 1065226W

<u>Quad Code</u>	<u>Quad Name</u>
38106-B8	Rock Creek Park
38106-B7	Cold Spring Park
38106-B6	Cochetopa Park
38107-D3	Sapinero
38107-D2	Carpenter Ridge
38107-D1	Big Mesa
38106-D8	Iris NW
38106-D7	Iris
38106-D6	Houston Gulch
38106-D5	Doyleville
38106-D4	Sargents
38107-F1	Squirrel Creek
38106-F8	Flat Top
38106-F7	Almont
38106-F6	Crystal Creek
38107-C3	Poison Draw
38107-C2	Gateview
38107-C1	Powderhorn
38106-C8	Spring Hill Creek
38106-C7	Sawtooth Mountain
38106-C6	Razor Creek Dome
38106-C5	West Baldy
38106-C4	Sargents Mesa
38107-E3	Little Soap Park
38107-E2	West Elk Peak SW
38107-E1	McIntosh Mountain
38106-E8	Gunnison
38106-E7	Signal Peak
38106-E6	Parlin
38106-E5	Pitkin
38106-E4	Whitepine
38107-G1	Mount Axtell
38106-G8	Crested Butte
38106-G7	Cement Mountain
38106-A7	Elk Park
38106-A6	Saguache Park

County

<u>Watershed Code</u>	<u>Watershed Name</u>
14020003	Tomichi
14020002	Upper Gunnison

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14020001 East-Taylor

SITE DESCRIPTION

Minimum Elevation 7,500.00 Feet 2,286.00 Meters

Maximum Elevation 11,465.00 Feet 3,495.00 Meters

Site Description

"The Gunnison Basin is an intermontane basin that includes parts of Gunnison and Saguache counties, Colorado. The current GUSG range is approximately 593,000 acres, roughly centered around the town of Gunnison. Elevations in the area range from 7,500 to 9,500 feet. Uplands are moderately to steeply rolling and are dissected by permanent and intermittent stream drainages. Shallow eroded gulches are common on upland slopes and steep-sloped mesas occur in several parts of the Basin. Big sagebrush dominates upland vegetation and has a highly variable growth form depending on local site conditions. On dry south slopes the sagebrush is short and widely spaced and on wetter sites it can be tall and vigorous. Generally, sagebrush rangelands below 8,500 feet are older stands with little understory. Higher elevation stands receive more moisture and have healthier understories, though many of these stands are monotypic with dense, closed canopies. Most of the valley bottoms along the major stream corridors have been converted to hay and pastureland" (GSGRSC 2005). The Gunnison Basin site is best characterized as rolling hills of sagebrush shrublands with dissecting rivers and creeks. Many of the hilltops are windblown free of snow and represent a more xeric landscape dominated by either dwarf sagebrush shrublands (sagebrush steppe) or montane grasslands. All of these ecological systems are extremely important for the Gunnison Sage Grouse, a sagebrush specialist. The sagebrush shrublands are winter and nesting habitat, while the xeric hilltops are lek sites, and the rivers and creeks are brood-rearing habitat. This site represents the world's largest remaining habitat and population for the Gunnison Sage Grouse (Gunnison Sage Grouse Conservation Plan 1997), one of Colorado's rarest birds. Numerous species of sagebrush dominate these shrublands, but Wyoming sagebrush (*Artemisa tridentada* ssp. *wyomingensis*) is usually the dominant below 8,500 feet in elevation, while mountain sagebrush (*A. tridentada* ssp. *vaseyana*) is dominant above 8,500 feet. The dwarf sagebrush shrublands on the windswept slopes and ridges may be black sagebrush (*A. nova*) or low sagebrush (*A. arbuscula*). The dominant grasses in the grasslands vary with elevation as well. The riparian areas along the creeks and rivers vary significantly depending on elevation, stream gradient, stream volume, and floodplain width. The most significant riparian areas within this site are those dominated by shrubs, including willows (*Salix* spp.) and alder (*Alnus incana*), that also have high grass and forb cover during the summer months when grouse are present.

Key Environmental Factors

No Data

Climate Description

No Data

Land Use History

No Data

Cultural Features

No Data

SITE DESIGN

Site Map P - Partial Mapped Date 05/01/2006

Designer Gaughan, C.R.

Boundary Justification

The site boundary was provided by CDOW (NDIS overall range) drawn to encompass the entire nesting area, including known leks, of the Gunnison Sage Grouse and surrounding habitat containing potential or known roost and nesting locations (CDOW 2005). This boundary represents all known lek sites within the Gunnison Basin, as well as nesting habitat, critical winter habitat, and the rivers and creeks used for brood rearing. There are areas within this site that have concentrations of lek sites and high quality habitat as well as areas that have been developed and no longer serve as sage grouse habitat. This boundary includes nearly all of what the Colorado Division of Wildlife has identified as the Gunnison Sage Grouse overall habitat in Gunnison Basin. In addition, this boundary represents nearly the entire world's population of Gunnison milkvetch. It was modified slightly in 2009 to include all known occurrences of the Gunnison milkvetch.

Primary Area 602,757.26 Acres 243,928.18 Hectares

SITE SIGNIFICANCE

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Biodiversity Significance Rank B1: Outstanding Biodiversity Significance

Biodiversity Significance Comments

The Gunnison Basin site supports an excellent (A-ranked) occurrences of the globally critically imperiled (G1/S1) Gunnison Sage Grouse (*Centrocercus minimus*), designated a species of special concern by the Colorado Division of Wildlife and a candidate for listing under the Federal Endangered Species Act. This site represents the largest and most likely to succeed population of the grouse. Within the Gunnison Sage Grouse range (i.e., southwestern Colorado and southeastern Utah), only Gunnison County has a secure population (Gunnison Sage Grouse Conservation Plan 1997). In 1995, the spring population of sage grouse in the Gunnison Basin was about 2,200 birds (Gunnison Sage Grouse Conservation Plan 1997). Factors clearly implicated in the long-term decline of sage grouse are habitat loss, habitat fragmentation (caused by roads, powerlines, reservoirs, land conversion, land treatments, etc.), and habitat degradation caused by land treatments and other uses which have changed grass, forb, and sagebrush composition, reduced organic material in the soil, and increased the loss/movement of soil resulting in changes in water table levels, and basic soil productivity. Sage grouse are specialists of sagebrush ecosystems and have not adapted to changing land uses. This site also supports the entire world's population of the Gunnison milkvetch (*Astragalus anisus*) (G2G3/S2S3), including all precisely mapped records (minutes and seconds records) known for this species. The Gunnison Basin site also contains another site with outstanding biodiversity significance (B1), the South Beaver Creek site, which supports the entire world's population of Skiff milkvetch (*Astragalus microcymbus*).

Other Values Rank No Data

Other Values Comments

No Data

LAND MANAGEMENT ISSUES

Land Use Comments

"Approximately 51% of the delineated GUSG range is managed by the BLM, 14% by the USFS, 2% by the NPS, 2% by the CDOW, 1% by the Colorado State Land Board, and 31% is privately owned. Land-use is primarily ranching and hay production, but residential subdivision development has been expanding out from Gunnison in the past 25 years." (GSGRSC 2005)

Natural Hazard Comments

No Data

Exotics Comments

No Data

Offsite

No Data

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>
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3	No
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3	No
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3	No
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3	No
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3	No
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3	No
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3	No
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3	No
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3	No
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3	No
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3	No
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3	No
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3	No
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3	No

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23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3 No
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3 No
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3 No
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3 No
17758	<i>Centrocercus minimus</i>	Gunnison Sage Grouse	G1	S1 No
17758	<i>Centrocercus minimus</i>	Gunnison Sage Grouse	G1	S1 No
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3 No
17758	<i>Centrocercus minimus</i>	Gunnison Sage Grouse	G1	S1 No
17758	<i>Centrocercus minimus</i>	Gunnison Sage Grouse	G1	S1 No
17758	<i>Centrocercus minimus</i>	Gunnison Sage Grouse	G1	S1 No
23921	<i>Machaeranthera coloradoensis</i>	Colorado tansy-aster	G3	S3 No
17758	<i>Centrocercus minimus</i>	Gunnison Sage Grouse	G1	S1 No
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3 No
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3 No
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3 No
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3 No
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3 No
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3 No
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3 No
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3 No
17758	<i>Centrocercus minimus</i>	Gunnison Sage Grouse	G1	S1 No
17758	<i>Centrocercus minimus</i>	Gunnison Sage Grouse	G1	S1 No
17758	<i>Centrocercus minimus</i>	Gunnison Sage Grouse	G1	S1 No
17758	<i>Centrocercus minimus</i>	Gunnison Sage Grouse	G1	S1 No
23921	<i>Machaeranthera coloradoensis</i>	Colorado tansy-aster	G3	S3 No
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17758	<i>Centrocercus minimus</i>	Gunnison Sage Grouse	G1	S1 No
17758	<i>Centrocercus minimus</i>	Gunnison Sage Grouse	G1	S1 Yes
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3 No
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3 No
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3 No
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3 No
23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3 No
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23983	<i>Astragalus anisus</i>	Gunnison milkvetch	G2G3	S2S3 No
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REFERENCES

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Reference ID

Full Citation

194308	Colorado Division of Wildlife. 2005. Gunnison Sage Grouse Overall Range. Fort Collins, CO. GIS data online at http://ndis.nrel.colostate.edu/ftp/index.html
173531	Colorado Sage Grouse Working Group. 1997. Gunnison Sage Grouse conservation plan.
194272	Gunnison Sage-grouse Rangewide Steering Committee (GSGRSC). 2005. Gunnison sage -grouse rangewide conservation plan. Colorado Division of Wildlife, Denver, Colorado, USA.

ADDITIONAL TOPICS

Additional Topics

Original site design by Rondeau, R.J. 2002-11-12.

VERSION

Version Date	05/01/2006
Version Author	Gaughan, C.R.

Disclaimer

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