

Level 4 Potential Conservation Area (PCA) Report

Name Russell Lakes

Site Code S.USWRO1*1308

IDENTIFIERS

Site ID 1478 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>
2043	S.USCOHP*16597	San Luis Valley Playa Lake

LOCATORS

Nation United States Latitude 375618N
State Colorado Longitude 1060701W

<u>Quad Code</u>	<u>Quad Name</u>
37106-H2	Swede Corners
37106-H1	Harrence Lake

County

Saguache (CO)

<u>Watershed Code</u>	<u>Watershed Name</u>
13010004	Saguache

SITE DESCRIPTION

Minimum Elevation	7,525.00 Feet	2,294.00 Meters
Maximum Elevation	7,650.00 Feet	2,332.00 Meters

Site Description

The Russell Lakes site is nearly flat in relief, and ranges from 7,525 to 7,650 feet in elevation. Highest elevations are at the western margin and Russell Creek drains eastward through the site. A shallow underground water table and mildly undulating topography allow for expansive freshwater wetlands to flourish interspersed with meadows, alkali shrublands, and ephemerally wet basins. Vegetation within the wetlands varies considerably along salinity and moisture gradients. The larger lakes, which are predominantly freshwater, support well developed aquatic and shoreline emergent vegetation, such as pondweeds (*Potamogeto* spp.), spikerush (*Eleocharis palustris*), hardstem bulrush (*Scirpus acutus*), broadleaf cat-tail (*Typha latifolia*), and American three-square (*Scirpus pungens*). Near Russell Springs, along Russell Creek, and around the outer margins of the large freshwater lakes are meadows of slimstem reedgrass (*Calamagrostis stricta*) and woolly sedge (*Carex lanuginosa*). Smallbeak sedge (*Carex simulata*) becomes locally abundant around springs towards the western edge, and Baltic rush (*Juncus balticus*) is common where soils are slightly saline. Basins with irregular or short duration flooding accumulate salts due to evaporation, contain saltgrass (*Distichlis spicata*), alkali cordgrass (*Spartina gracilis*), and/or western wheatgrass (*Pascopyrum smithii*) meadows. Spikerush may also dominate these ephemeral wetlands if moisture is sufficient. Adjacent alkali flats and dunes are dominated by greasewood (*Sarcobatus vermiculatus*) and rabbitbrush (*Chrysothamnus* spp.) vegetation, respectively. The rare slender spiderflower (*Cleome multicaulis*) forms extensive stands. This annual plant flourishes on alkali soils which remain moist throughout the growing season. Stands can be seen throughout the Russell Lakes site, usually growing in rings around the wetland basins at about the same microelevation as Baltic rush. Russell Springs, the water source for the Russell Lakes site, occur at the western edge, and form the headwaters of one branch of the Closed Basin playa lake system. In addition, the hydrology is augmented by a series of artesian wells. Hardstem bulrush stands along the margins of the lakes provide excellent habitat for nesting White-faced Ibis (*Plegadis chihi*), Black-crowned Night Heron (*Nycticorax nycticorax*), Snowy Egret (*Egretta thula*), Cattle Egret (*Bubulcus ibis*), Marsh Wren (*Cistothorus palustris*), and perhaps the occasional migrating Great Egret (*Casmerodius albus*). The perennial lakes also provide habitat for chorus frog (*Pseudacris triseriata*), Great Plains toad (*Bufo cognatus*), introduced carp (*Cyprinus carpio*) and Rio Grande chub (*Gila pandora*), which serve, among other things, to feed the abundance of nesting birds.

Key Environmental Factors

No Data

Climate Description

No Data

Land Use History

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No Data

Cultural Features

No Data

SITE DESIGN

Site Map P - Partial

Mapped Date 02/15/1998

Designer Wunder, M.B.

Boundary Justification

The boundaries for this site were drawn using a satellite image at a scale of 1:100,000 and encompass the spring origin, the lakes, the surrounding wetlands, and adjacent irrigated hay meadows. We considered these components to be the most critical for the long-term persistence of the elements present at the site.

Primary Area 8,961.72 Acres

3,626.70 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B2: Very High Biodiversity Significance

Biodiversity Significance Comments

This site contains one of the largest populations known (A and B-ranked occurrences) of the globally imperiled (G2G3/S2S3) slender spiderflower (*Cleome multicaulis*), an alkaline wetland specialist with less than 20 occurrences worldwide. In addition, this is the only substantial nesting area in Saguache County for many state rare waterbirds. The slender spiderflower has a fairly large global range from southern Wyoming to central Mexico. In spite of its large geographic range, the plant is spatially limited by its specific habitat requirements. It requires moist, alkaline soils for germination and growth. In addition to stringent moisture and alkaline needs, the slender spiderflower appears to do well with some form of soil disturbance. These discriminating restrictions limit the slender spiderflower to the edges of alkaline playa lakes and wetlands. The Closed Basin of Colorado contains the most numerous, largest, and healthiest populations of the slender spider-flower known in the world. Russell Lakes is unique to Saguache County in that it represents the best known breeding habitat for four state-rare wetland- dependent species of birds (White-faced Ibis, Black-crowned Night-heron, Snowy Egret, and Marsh Wren).

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

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>
22395	<i>Astragalus bodinii</i>	Bodin milkvetch	G4	S2	No
16887	<i>Carex simulata</i> Herbaceous Vegetation	Wet Meadow	G4	S3	No
20637	<i>Plegadis chihi</i>	White-faced Ibis	G5	S2B	No
19189	<i>Gila pandora</i>	Rio Grande Chub	G3	S1?	No
17271	<i>Egretta thula</i>	Snowy Egret	G5	S2B	No
40645	<i>Calamagrostis stricta</i> Herbaceous Vegetation [Provisional]	Slimstem Reedgrass	GU	S1?	No
24424	<i>Sisyrinchium demissum</i>	blue-eyed grass	G5	S2	No
21817	<i>Himantopus mexicanus</i>	Black-necked Stilt	G5	S3B	No

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Name	Russell Lakes		Site Code	S.USWRO1*1308	
18080	<i>Cleome multicaulis</i>	slender spiderflower	G2G3	S2S3	Yes
21815	<i>Carex pellita</i> Herbaceous Vegetation	Montane Wet Meadows	G3	S3	No
18080	<i>Cleome multicaulis</i>	slender spiderflower	G2G3	S2S3	No
20637	<i>Plegadis chihi</i>	White-faced Ibis	G5	S2B	No
18080	<i>Cleome multicaulis</i>	slender spiderflower	G2G3	S2S3	No
18080	<i>Cleome multicaulis</i>	slender spiderflower	G2G3	S2S3	Yes

REFERENCES

Reference ID	Full Citation
161191	Ryder, R. R., and D. E. Manry. 1994. White-faced Ibis (<i>Plegadis chihi</i>). No. 120 in A. Poole and F. Gill, editors. The Birds of North America. The Academy of Natural Sciences, Philadelphia and The American Ornithologists' Union, Washington, D.C.

ADDITIONAL TOPICS

Additional Topics

No Data

VERSION

Version Date	02/15/1998
Version Author	Wunder, M.B.

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