

Level 4 Potential Conservation Area (PCA) Report

Name Vogel Canyon

Site Code S.USCOHP*3894

IDENTIFIERS

Site ID 1151 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 374548N
State Colorado Longitude 1033101W

Quad Code Quad Name

37103-G5 La Junta SE

37103-G4 Higbee

County

Otero (CO)

Watershed Code Watershed Name

11020010 Purgatoire

SITE DESCRIPTION

Minimum Elevation	4,300.00 Feet	1,311.00 Meters
Maximum Elevation	4,400.00 Feet	1,341.00 Meters

Site Description

Vogel Canyon is a moderately wide canyon with an ephemeral stream that has two permanent springs in the lower reaches of the canyon. The standing water is dominated by cattail (*Typha domingensis*) and bulrush (*Schoenoplectus pungens*) with infrequent stands of cottonwoods (*Populus deltoides*) and tamarisk (*Tamarix ramosissima*). The mesic meadows on the valley floor adjacent to the stream channel are dominated by western wheatgrass (*Agropyron smithii*), blue grama (*Bouteloua gracilis*) and sideoats grama (*Bouteloua curtipendula*). The rimrock and upper slopes are dominated by communities of oneseed juniper (*Juniperus monosperma*) and skunkbush (*Rhus trilobata*).

Key Environmental Factors

The integrity of the stream channel and the surface and ground water hydrology is important to the continued viability of the cattail (*Typha domingensis*), bulrush (*Schoenoplectus pungens*), and cottonwood (*Populus deltoides*) communities. The viability and quality of the rare communities are vulnerable to the effects of exotic species and heavy recreational use.

Climate Description

The climate is semiarid and is typical of the high plains of southeastern Colorado where approximately 13 inches of precipitation is received annually. Most precipitation occurs between April and September, with May typically being the wettest month. Annually, climate of the area is characterized by cold winters and hot summers with winter temperatures as low as zero on at least several days and temperatures of over 100 °F occurring on many days in July and August (HPRCC 2008).

Land Use History

Land use has historically been dominated by ranching of sheep and cattle since the mid 1800's (Friedman 1985). The site is located on a portion of the Comanche National Grassland where recreation and cattle ranching are the primary land uses.

Cultural Features

No Data

SITE DESIGN

Site Map Y - Yes Mapped Date 03/15/1996
Designer March, M.A.

Boundary Justification

The boundary follows the natural topographic features, encompassing the canyon rimrock, the shrub-dominated slopes, and the Vogel Canyon bottoms. The boundary is intended to protect the rare communities, habitat for potential new occurrences and the ecological processes that support them from

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physical destruction. However, hydrology is particularly important to the elements found on the valley bottom and the site only nominally includes the sphere of hydrologic influence. Hydrologic modifications (e.g. groundwater pumping) have the potential to impact the site hydrology from outside the site boundary.

Primary Area 1,079.87 Acres 437.01 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B3: High Biodiversity Significance

Biodiversity Significance Comments

The Vogel Canyon site supports a fair (C-ranked) occurrence of a globally imperiled (G2G3/S2S3) shrubland community (*Cercocarpus montanus* - *Rhus trilobata* / *Andropogon gerardii*) and a good to fair (BC-ranked) occurrence of a globally vulnerable (G3G4/S3) bulrush community (*Schoenoplectus pungens*).

Other Values Rank No Data

Other Values Comments

No Data

LAND MANAGEMENT ISSUES

Land Use Comments

The current land use of livestock grazing appears compatible with the continued viability of the elements of concern.

Natural Hazard Comments

No Data

Exotics Comments

Management needs to consider the expansion of weedy species, especially cheatgrass (*Bromus tectorum*), Russian thistle (*Salsola australis*) and tamarisk (*Tamarix ramosissima*) which dominates the canyon bottom and stream banks. Short duration, intensive grazing in the canyon bottom may be used as a management tool for control of cheatgrass and other weedy species (Johnston and Reed 1991). The existence of tamarisk in the riparian area may be of concern. Because of tamarisk's ability to outcompete native vegetation and its high rate of proliferation, it is difficult to manage and will present long-term challenges to land managers (Johnston and Reed 1991).

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>
18654	<i>Schoenoplectus pungens</i> Herbaceous Vegetation	Bulrush	G3G4	S3	No
40633	<i>Cercocarpus montanus</i> - <i>Rhus trilobata</i> / <i>Andropogon gerardii</i> Shrubland	Mountain Mahogany - Skunkbush / Big Bluestem Shrubland	G2G3	S2S3	Yes

REFERENCES

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Reference ID

Full Citation

172109	Culver, D., M. A. March, S. Kettler and C. Pague. 1996. Natural Heritage Inventory of Significant Animals and Plants and Classification of Riparian Plant Associations: Timpas Grazing District and Kim Grazing Association. unpub CNHP report for U.S. Forest Service. 215+ p.
195120	Friedman, Paul D. 1985. Final Report of History and Oral History Studies of the Fort Carson Pinon Canyon Maneuver Area, Las Animas, Colorado. USDI. National Park Service, Interagency Archaeological Services Branch, Rocky Mountain Regional Office, Denver, CO.
195121	HPRCC. 2008. High Plains Regional Climate Center Web Page. Based on data from automated weather stations operated by Colorado for southeastern Colorado area. High Plains Regional Climate Center Web Page: < http://www.hprcc.unl.edu >
166461	Johnston, Barry C. and Floyd Reed. 1991. Ecological inventory of Picketwire Canyonlands. USDA Forest Service, Comanche National Grassland. 22pp.
198519	Rondeau, R.J., J.R. Sovell, J.E. Stevens, D. Clark and L. Grunau. 2010. Final Report: Southeast Colorado Survey of Critical Biological Resources 2009. Addendum to the 2007 Survey. Colorado Natural Heritage Program, Fort Collins, CO.

ADDITIONAL TOPICS

Additional Topics

Original site design by Fleming, C.C. 1997-08-29.

VERSION

Version Date 08/29/1997

Version Author Fleming, C.C.

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