

ATTACHMENT SS2

REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: Trumpeter swan (<i>Cygnus buccinator</i>)			
Criteria	Rank	Rationale	Literature Citations
1 Distribution within R2	A	Known to nest on several stock dams on Buffalo Gap National Grassland in Jackson County, SD. Once occurred on the Shoshone National Forest at Swamp and Trail Lakes, but has since disappeared from that Forest. Does not occur elsewhere in Region 2. Confidence in Rank High	<ul style="list-style-type: none"> • Peterson 1995 • Verner 1995 • Wyoming GAP
2 Distribution outside R2	B	Moderately widespread with spotty, local distribution. Present range is only a vestige of its once vast range in North America. Today, trumpeter swans are divided into the Pacific Coast, Interior, and Rocky Mountain populations. The Pacific Coast population of Alaska and Canada is healthy and numbers over 15,000 birds. Transplants in the Midwest have been relatively effective, with several scattered, small breeding populations becoming established and helping rebuild the Interior population. The wintering Rocky Mountain population numbers over 2700 birds, primarily in Montana, Wyoming, and Idaho. However, the number of breeding birds in the Rocky Mountain population is still low. In 1932, breeding Rocky Mountain trumpeter swans numbered 37 birds. By 1967 the population had increased to 564. However, since then there has been more than a 30% decline to less than 400 birds. Confidence in Rank Medium	<ul style="list-style-type: none"> • Bellrose 1976 • NAS • NatureServe 2001 • Sojda 2001 • Verner 1995
3 Dispersal Capability	A	The nesting population of Wyoming appears unable to expand into adjacent areas of unoccupied habitats. Confidence in Rank Low	<ul style="list-style-type: none"> • Oakleaf et al. 1996
4 Abundance in R2	B	Classified as sensitive in R2 by Verner (1995), due in part to its rarity. Many of the historical nesting sites are not occupied by nesting pairs or are not productive today. Confidence in Rank Medium	<ul style="list-style-type: none"> • Oakleaf et al. 1996 • Verner 1995
5 Population Trend in R2	A	Populations in Wyoming are declining; many of the historical nesting sites are not occupied by nesting pairs or are not productive. Once occurred on the Shoshone National Forest at Swamp and Trail Lakes, but has since disappeared from that Forest. Increasing mainly in Alaska; other continent-wide expansion due to local reintroduction programs. Confidence in Rank Low	<ul style="list-style-type: none"> • NatureServe 2001 • Oakleaf et al. 1996 • Verner 1995

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6 Habitat Trend in R2	A	Great loss of historical breeding and wintering habitat, and on-going significant loss of habitat. Early spring habitat appears to be one of the primary limiting factors. Confidence in Rank Medium	<ul style="list-style-type: none"> • NatureServe 2001 • Oakleaf et al. 1996
7 Habitat Vulnerability or Modification	B	Serious threats to habitat availability and quality are present for all three major populations. Trumpeter swan habitat lends itself to alternate uses, and human activity levels are increasing dramatically. Housing developments and increased tourism and recreation could render many important swan use sites as worthless. Trumpeter swans are sensitive to grazing and nesting has not been observed on wetlands that have been grazed. The effects of grazing include: 1. Nest abandonment from excessive activity at the nest site. 2. Structures such as fences placed along shorelines and banks that can interfere with flight paths. 3. Overuse of shoreline from livestock can cause increased siltation into the wetland which will reduce the depth and eventually choke the wetland; and reduction of shoreline vegetation that can be used as a nesting site, for nest material and security screen. 4. Draw-down of water for irrigation. Confidence in Rank: Medium	<ul style="list-style-type: none"> • NAS • NatureServe 2001 • Oakleaf et al. 1996 • Verner 1995
8 Life History and Demographics	B	Trumpeters begin nesting between their fourth and sixth year. Clutch size averages five eggs and about 50% fail to hatch. Sensitive to human disturbance and pollution; unusually sensitive to lead poisoning. Human activity may cause nest failure or cygnet loss. Collisions with power lines and fences, and illegal shooting are the two greatest causes of mortality for trumpeter swans in Wyoming (32% and 26% respectively). Virtually all breeding trumpeters of Canada and the Greater Yellowstone Area share the same high elevation winter habitat in the Greater Yellowstone Area. Increasing numbers of wintering swans, concentrating on this limited, harsh winter habitat are vulnerable to catastrophic losses. Reduced flows during drought, heavy ice formation, unusually severe winter weather, disease, or environmental pollution could destroy a large portion of the Rocky Mountain trumpeters during a single winter. Confidence in Rank: Medium	<ul style="list-style-type: none"> • Bellrose 1976 • Clark and Harvey 1989 • NAS • NatureServe 2001 • Oakleaf et al. 1996
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National Forests in the Rocky Mountain Region where species is KNOWN (K) or LIKELY(L)¹ to occur:

<u>Colorado NF/NG</u>	Known	Likely	<u>Kansas NF/NG</u>	Known	Likely	<u>Nebraska NF/NG</u>	Known	Likely	<u>South Dakota NF/NG</u>	Known	Likely	<u>Wyoming NF/NG</u>	Known	Likely
Arapaho-Roosevelt NF			Cimmaron NG			Samuel R.McKelvie NF			Black Hills NF			Shoshone NF		
White River NF						Halsey NF			Buffalo Gap NG	K		Bighorn NF		
Routt NF						Nebraska NF			Ft. Pierre NG			Black Hills NF		
Grand Mesa, Uncompahgre, Gunnison NF						Ogalala NG						Medicine Bow NF		
San Juan NF												Thunder Basin NG		
Rio Grande NF														
Pike-San Isabel NF														
Comanche NG														

REFERENCES

Bellrose, F.C. 1976. Ducks, Geese and Swans of North America. Stackpole Books, Harrisburg, Pa.

Clark, Tim W. and Ann H. Harvey. 1989. Rare, Sensitive, and Threatened Species of the Greater Yellowstone Ecosystem. Northern Rockies Conservation Cooperative, Jackson, Wyoming.

National Audubon Society (NAS). An online species watchlist. Available: <http://www.audubon.org/birdiwatch/trs/trs.html>.

NatureServe: An online encyclopedia of life [web application]. 2001. Version 1.4. Arlington, Virginia, USA: Association for Biodiversity Information. Available: <http://www.natureserve.org/> (Accessed: June 25, 2001.)

Oakleaf, Bob, Andrea O.Cerovski, and Bob Luce. 1996. Nongame Bird and Mammal Plan: A plan for inventories and management of nongame birds and mammals in Wyoming. Wyoming Game and Fish Department.

¹ Likely is defined as more likely to occur than not occur on the National Forest or Grassland. This generally can be thought of as having a 50% chance or greater of appearing on NFS lands.

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Peterson, Richard A. 1995. The South Dakota breeding bird atlas. South Dakota Ornithologists' Union. Jarnestown, ND : NorthernPrairie Wildlife Research Center Home Page. <http://www.npwrc.usgs.gov/resource/distr/birds/sdatlas/sdatlas/sdatlas.htm> (Version 06JUL2000).

Sojda, R.S. 2001. Development of a Decision Support System for Trumpeter Swan Management. Available: http://www.mesc.nbs.gov/projects/dss_trump-swan-general.html.

Verner, Jon E. 1995. Biological Evaluation for the Trumpeter Swan: Rocky Mountain Region.

Wyoming Gap Analysis Program (WY GAP). Online predictive species distribution maps generated by the Wyoming Gap Analysis Program. Available: <http://www.sdvc.uwyo.edu/wbn/atlas/maps/abnig02030.html>.