

# WASHINGTON STATE RECOVERY PLAN FOR THE SANDHILL CRANE

## RECOVERY OBJECTIVES [Draft 3/15/02]

Under Washington law WAC 232-12-297, Section 4.1, it is stated that “The commission shall delist a wildlife species from endangered, threatened, or sensitive solely on the basis of the biological status of the species being considered, based on the preponderance of scientific data available.” Section 4.2 states that: “A species may be delisted from endangered, threatened, or sensitive only when populations are no longer in danger of failing, declining, are no longer vulnerable, pursuant to section 3.3, or meet recovery plan goals, and when it no longer meets the definitions in sections 2.4, 2.5, or 2.6.”

Objectives to downlist from State Endangered to State Threatened status are:

1. A breeding population of  $\geq 65$  territorial pairs of sandhill cranes, with at least 15 of these at sites outside the Glenwood Valley.
2. An average annual recruitment rate of at least 10% is maintained over a 5-year period.
3. Water management control is improved to allow proper management for breeding sandhill cranes at Conboy Lake National Wildlife Refuge.

Objectives to down-list from State Threatened to State Sensitive are:

1. A breeding population of 130 pairs of sandhill cranes, including at least 40 of these outside the Glenwood Valley.
2. An average annual recruitment rate of 7-10% is maintained over a 10-year period.
3. Habitat used by cranes at the major migration stopover sites in eastern Washington is managed to be compatible with crane use during the migration periods and is protected through management agreements or easements.
4. Secure and manage foraging and roosting habitat sufficient to maintain 2,000 migrant and 500 wintering sandhill cranes on the lower Columbia bottomlands, in Washington.

## Rationale

Considering the longevity and philopatric nature of cranes, a breeding population of 65 territorial pairs (plus subadults would be  $>160$  birds) would probably sustain the state's breeding population and be adequate to downlist it to Threatened. The carrying capacity for breeding greater sandhill cranes within the state is presently unknown, but it appears there may be sufficient breeding habitat in the state to support 175-200 pairs, if properly managed. Presently, sufficient habitat appears available for increase and expansion, but breeding pairs are currently restricted to south-central Washington. It may take decades before breeding pairs expand into other parts of eastern Washington from the Glenwood Valley, eastern Oregon, or British Columbia, but a broader distribution is important to reduce risk of catastrophic losses to the population. The Conboy Lake National Wildlife Refuge could potentially support about 40 breeding pairs, but is important to have a significant component outside the Glenwood Valley in case an

event (e.g. disease, etc.) affects all the birds in the Valley.

Based on an average territory size of 62.5 ac at Malheur National Wildlife Refuge, 4,063 ac would be needed to support 65 crane pairs in south-central Washington. Up to 10,125 ac are potentially available in the Glenwood Valley alone (H. Cole, pers. comm.), but much of it may never be managed in a way that is compatible with crane nesting. Fifteen pairs is a small number, but it would provide a nucleus for colonizing new areas. Maintaining 15 pairs outside the Glenwood Valley would require nearly 1,000 ac of habitat. Recruitment, or the % of the population consisting of fledged young, is calculated using known breeding pairs and counts of fledged young. Growing populations typically have a recruitment rate of 10% or more. The Washington population averaged 11.1% recruitment from 1990-2000.

The establishment of effective water management at Conboy Lake NWR was included because water management has been a problem and Conboy supports most of the breeding population. Complex hydrology, old water control infrastructure, private inholdings, and a shortage of staff prevents effective management of water levels on the Refuge. Owners of some inholdings de-water fields for hay harvest, just when crane chicks are hatching out. Dredging of creeks in 1998 resulted in the abandonment of 2 crane territories.

For down-listing from Threatened to Sensitive, a breeding population of 130 cranes (with subadults would total >325 birds) would be needed. This large a breeding population may require cranes to expand their range well beyond the current sites in south-central Washington. Regions where cranes may re-colonize sites and where crane habitat may need to be assessed include the Okanogan Highlands, southeastern Washington, and the northern Cascades. Habitat for 130 pairs would involve a total of around 8,125 ac, including 2,500 ac outside the Glenwood Valley to support 40 pairs. Recent data suggests that a recruitment rate of 7-9% may allow a population to remain stable.

Important sites in eastern Washington that are consistently used by migrant cranes should be secured with conservation agreements, easements, or acquisition to ensure they are not lost to development, planted to incompatible crops, or converted to non-agricultural uses.

Habitat also needs to be secured for migrant cranes in southwest Washington, and for wintering, assuming sandhills will continue to winter there. Important habitat in the Vancouver area is threatened by development. The Ridgefield/Vancouver bottomland is the only western Washington staging area and the only known traditional stopover site between southeastern Alaska stopover points and California wintering areas for this flock (Littlefield 1999a). The wintering birds there were thought to be part of a coastal segment of the Pacific Flyway Lesser Sandhills (Littlefield 1999a), but new data indicate they may be a population of Canadian sandhills. Little is known about the status of Canadian sandhills in the Pacific Flyway, but existing information suggests it is the smallest population and may be the most imperiled. Pogson and Lindstedt (1991) counted 839 Canadian sandhills at Sauvie Island in the early 1980s, and Campbell et al. (1990) estimated that 1,500 Canadians nested along the British Columbia coast. The Ridgefield/ Sauvie Island area may be a critical staging area for this population. Securing sufficient habitat in Washington to support half the non-breeding cranes that use the area (2,000 migrants/ 500 winterers) is an interim objective. The amount of habitat needed is unknown. Migrant cranes stop for a few short weeks, and a few hundred acres of corn may be sufficient. Wintering 500 birds may require 1,000 to several thousand acres depending on forage and roosting opportunities, and how it is managed. This objective should be revised as additional data is available on habitat needs.