



**Sarah
Quamme/RO/R2/FWS/DOI**

04/13/2006 05:06 PM

To Susan Jacobsen/RO/R2/FWS/DOI@FWS, Melanie
Ikenson/RO/R2/FWS/DOI@FWS

cc

bcc

Subject bald eagle bp

This is what I ended up with. Please help edit and refine before we send it to the FO.



SW eagle 90-d bp 4-13.doc



SW bald eagle threats discussion 4-13.doc

.....
Sarah Joan Quamme, Endangered Species Biologist
U.S. Fish & Wildlife Service - Ecological Services
P.O. Box 1306, Albuquerque, NM 87103
505/248-6419; (Fax) 505/248-6788

Petition for the Southwestern Population of the Bald Eagle (*Haliaeetus leucocephalus*)
– Threats Discussion

Present or Threatened Destruction, Modification, or Curtailment of the Species' Habitat or Range

- The majority of the breeding areas (BAs) within the proposed DPS are on the Salt and Verde rivers near the Phoenix metropolitan area in Maricopa County, where human population is expected to double to more than six million over the next 30 years. This growth will result in continued housing and infrastructure development, as well as increased water needs. Similar population doublings are expected for Prescott and Prescott Valley on the upper Verde watershed by 2021, Cottonwood on the middle Verde by 2022, and Payson, near Tonto Creek, by 2044.
- Ninety percent of the riparian habitat in the southwest is estimated to have been lost, due to increasing development, dam operations, dewatering via groundwater pumping and diversions, off-road vehicles, woodcutting, agricultural developments, destructive cattle grazing, and lack of vegetation-rejuvenating floods.

AESO Response: While this information appears to be accurate, we question whether there is enough information to reliably predict the effects of these factors on nesting bald eagles. The bald eagle is currently at its highest number ever recorded in Arizona in spite of the above-described habitat pressures. While it is possible that continued human population expansion will eventually result in a declining southwestern eagle population, such a conclusion is speculative as to timing and magnitude of such population-level effects.

Inadequacy of Existing Regulatory Mechanisms

- The petitioners claim that the FWS approved excessive numbers of bald eagle deaths, through take statements in section 7 consultations. They note that AGFD concluded that 30 percent of occupied bald eagle BAs in the Southwest would be adversely affected by planned projects.
- The FWS has reduced protections afforded to the species under the Act by downlisting to threatened, which results in less habitat protection for eagles.

AESO Response: While the above two arguments may be accurate, the bald eagle population has continued to expand to its current record-high level. This indicates that the adverse effects anticipated during section 7 analyses have not affected the southwestern bald eagle at the population level and affirms the non-jeopardy conclusions in these biological opinions.

- The population is dependent on intensive human support and management by the Arizona Bald Eagle Nestwatch Program (ABENWP), which is key in minimizing human impacts on breeding birds. In 1996 and 1997, 13,999 human activities and 4,000 gunshots were recorded within 0.5 mile of 13 different nests. Sixteen percent of all southwest population fledglings were saved by direct human intervention since 1983. This figure

has been as high as 60 percent for a single year's nestlings. Funding for this program will likely be reduced should the species be delisted, making its protections less adequate.

AESO Response: Again, this conclusion seems speculative and does not indicate that endangered status is warranted.

Other Natural or Manmade Factors Affecting the Species' Continued Existence

- The population is small without prospect for significant expansion as there is little remaining unoccupied, suitable riparian habitat. Species with smaller population sizes have a higher likelihood of inbreeding depression.
- Mortality of breeding adults exceeds recruitment, resulting in population instability.
- AGFD notes that most (15 out of 39) known replacements of adult eagles in breeding pairs have been subadult eagles, indicating an insufficient number of adults in the floating population.
- Mortality for fledglings is excessive with 41% of the fledglings between 1987 and 1998 failing to reach subadulthood.
- A population viability analysis (PVA) demonstrated a high risk for extinction for the population within the next 57 to 82 years. The study found that the number of nestlings per BA that survive to fledgling stage would decline over time. Annual adult survival was estimated at 0.877, while survival from fledging to age 4 (maturity) was estimated at 0.28.
- Eggshell thinning continues to be a problem, due to unknown causes.
- Reproductive rates are lower for the southwestern population than for the rest of the United States.

AESO Response: The above-mentioned demographic observations are inconclusive as to the prospects for bald eagle persistence in the southwest. We are unaware of any manifestation of these alleged demographic deficiencies in the southwestern population.

- Recreational pressures near existing BAs are increasing due to expansion of the Phoenix metropolitan area and the scarcity of water-based recreational opportunities in the desert southwest.
- Agricultural developments have resulted in impacts to available habitat on the lower Verde River
- Some researchers have concluded that fish diversity was a crucial component to suitable breeding habitat for the southwestern population. The native fishery on which the southwestern population depends continues to decline (Desert Fishes Team 2003).

- Contaminants continue to pose various threats, including on-going pesticide use, DDE (lower Verde River BA, 1997), and mercury (Verde, Salt, and Gila Rivers, Tonto Creek, and Alamo and Pleasant lakes).
- Since 1986, 62 separate instances and 19 BAs have had fishing line and/or tackle in nests or entangling individuals. Fishing line and tackle are confirmed to have killed at least two nestlings.
- Heat stress, due to high temperatures and low humidities, is the leading cause of nestling mortality. The Southwest is currently experiencing drought conditions which are expected to exacerbate these conditions for several years.
- Noise disturbance from private, military, and emergency aircraft is expected to persist and will likely increase due to expanding human populations. Past section 7 consultations have attributed loss of eagles and eggs, and anticipated disturbances each breeding season to aircraft disturbance.

AESO Response: The AESO has evaluated the effects of these types of actions for many years, always concluding that such activities are not likely to jeopardize the continued existence of the species. These opinions have been borne out by the continued persistence of the bald eagle in the southwest.

DATE: April 14, 2006

STATE: AZ

BRIEFING FOR THE DIRECTOR

PREPARED BY: Steve Spangle, Field Supervisor, Arizona Ecological Services Office

SUBJECT: Petition for the Southwestern Population of the Bald Eagle (*Haliaeetus leucocephalus*)

BACKGROUND: On October 6, 2004, the Arizona Ecological Services Office (AESO) received the above- referenced petition from the Center for Biological Diversity (CBD) to list the “Southwestern Desert Nesting Bald Eagle” (hereafter southwestern population) as endangered with critical habitat. Upon reviewing the petition and conferring with the AESO, the Regional Office requested that CBD clarify the geographic extent of the population to be analyzed for consideration as a Distinct Population Segment (DPS). CBD provided clarification for the DPS analysis from CBD on March 9, 2005. We were unable to work on the 90-day finding during fiscal year 2005 due to court-ordered deadlines for other listing actions and budget limitations. On January 19, 2006, the AESO received a copy of the Notice of Intent (NOI) to sue for failure to issue a 90-day or a 12-month finding on the petition. On March 27, 2006, the CBD and Maricopa County Audubon Society filed a complaint in the District Court of Arizona.

PETITION INFORMATION: The CBD petition raised three areas for analysis, including designation of the “Southwestern Desert Nesting Bald Eagle” as a DPS, reclassifying that DPS to endangered, and designating critical habitat for the DPS. In order to make a positive finding, we would have to find that the petition presents substantial information that the southwest population is (1) discrete, (2) significant, and (3) that the threats to the DPS indicate that listing as endangered may be warranted. Since the petition does not present substantial information to indicate listing as endangered may be warranted, as discussed below, we do not find it necessary to make a finding on the DPS issue.

The petition argues that threats to the continued existence of the southwestern population are increasing, requiring reclassification of the southwestern population to endangered. Grouped by the relevant three out of five listing factors, their arguments are as follows:

Present or Threatened Destruction, Modification, or Curtailment of the Species’ Habitat or Range. Human populations within the proposed DPS are expected to double over the next 30 years. This growth will result in continued housing and infrastructure development, as well as increased water needs.

Inadequacy of Existing Regulatory Mechanisms. The petitioners claim that the Service authorized excessive take of bald eagles through section 7 consultations and has reduced protections afforded to the species under the Act by downlisting to threatened. In addition, this population is dependent on intensive human support and management (e.g., Arizona Bald Eagle Nestwatch Program), which is key in minimizing impacts on breeding birds.

Other Natural or Manmade Factors Affecting the Species' Continued Existence. The proposed DPS encompasses a small population which experiences high mortality of multiple life stages. A population viability analysis demonstrated a high risk of extinction for this population within the next 57 to 82 years. Additionally, on-going threats include eggshell thinning, low reproductive rates as compared to other populations, declining native fisheries, and contaminants.

SERVICE EVALUATION OF THE INFORMATION: While this information appears to be reliable, we question whether there is enough information to reliably predict the effects of these factors on nesting bald eagles. The information presented discusses threats to bald eagles, but does not indicate that reclassification from threatened to endangered may be warranted. In addition, the proposed rule to delist the bald eagle in the lower 48 states (71 FR 8238) discusses specifically that the bald eagle in the southwest is exceeding the reclassification goals outlined in the recovery plan.

MAIN DECISION OR MESSAGE: While we believe threats are continuing, we conclude at this time, based on the information in the petition, that the level of threats present does not place the southwestern population in danger of becoming extinct. The 90-day finding is funded this fiscal year, therefore we recommend pursuing a settlement in this case to establish a deadline for the 90-day finding.

CONTACT: Steve Spangle, Field Supervisor, Arizona Ecological Services Office, Phoenix, Arizona, 602/242-0210