



Douglas Krofta/ARL/R9/FWS/DOI
11/06/2006 06:11 PM

To Maricela Constantino/ARL/R9/FWS/DOI
cc
bcc
Subject Fw: Conservation Groups Challenge Bush Administration Denial of Protection for Arizona's Bald Eagles

----- Forwarded by Douglas Krofta/ARL/R9/FWS/DOI on 11/06/2006 04:10 PM -----

Greg Beatty/R2/FWS/DOI
11/03/2006 11:27 AM

To Douglas Krofta/ARL/R9/FWS/DOI@FWS, Chris Nolin/ARL/R9/FWS/DOI@FWS
cc
Subject Fw: Conservation Groups Challenge Bush Administration Denial of Protection for Arizona's Bald Eagles

Doug and Chris,

I can't recall the woman's name who worked with us on this, can you please forward this to her?,

Greg

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----- Forwarded by Greg Beatty/R2/FWS/DOI on 11/03/2006 01:25 PM -----



Robin Silver
<rsilver@biologicaldiversity.org>
11/03/2006 12:33 PM

To Robin Silver <rsilver@biologicaldiversity.org>
cc
Subject Conservation Groups Challenge Bush Administration Denial of Protection for Arizona's Bald Eagles

For Immediate Release: November 3, 2006

Contact: Robin Silver, M.D., Board Chair, Center for Biological Diversity, 602-246-4170
Bob Witzeman, M.D., Conservation Chair, Maricopa Audubon Society,
602-840-0052
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Conservation Groups Challenge Bush Administration Denial of Protection for Arizona's

Bald Eagles

PHOENIX, Ariz. – The Center for Biological Diversity and Maricopa Audubon Society filed notice yesterday afternoon of their intent to bring a lawsuit against the U.S. Fish and Wildlife Service (USFWS) for failure to adequately protect the Southwestern Desert Nesting Bald Eagle. USFWS failed to follow proper procedures in their August 30, 2006 rejection of a petition to protect the Southwestern Desert Nesting Bald Eagle as an endangered Distinct Population Segment under the Endangered Species Act. The petition was filed October 6, 2004.

The Desert Nesting Bald Eagle is among the rarest birds on Earth. Fewer than 100 survive, according to the Arizona Game and Fish Department's July 2006 data.

The Desert Nesting Bald Eagle is an exclusive resident of the Southwest. A few live in Mexico, but most live in Arizona. Survival of the Southwest's Bald Eagles is challenged by their isolation from all other Bald Eagles, behaviorally, biologically and ecologically. The only Bald Eagles to nest in the desert, they breed earlier in the season to avoid intense summer heat, and essentially never interbreed with Bald Eagles that nest elsewhere.

Yet despite the precarious position of the Southwestern Desert Nesting Bald Eagle, the clear and urgent need to keep it protected under the Endangered Species Act has been lost in a rush to remove Bald Eagles nationwide from the endangered species list.

The Bald Eagle is America's national symbol, and until August 30, 2006, USFWS called the Desert Nesting Bald Eagle a "Treasure of the Southwest." But in its August 30 rejection of the petition to protect the Desert Nesting Bald Eagle, USFWS contradicted itself and asserted that the Southwest's Bald Eagles are not significant enough to protect.

Removing endangered status for Desert Nesting Bald Eagles also removes protection for their habitat, opening more land to development, water diversion and public lands livestock grazing.

"We have already lost more than 90 percent of our riparian habitat in the Southwest. Removal of Endangered Species Act protection for the Desert Nesting Bald Eagle will assure that we will lose much more," said Dr. Silver. "Ultimately, if we fail, we will lose our Desert Nesting Bald Eagles."

"If the Bush Administration's rejection of the petition stands and delisting [removal of Endangered Species Act protection] moves forward, there will be no habitat protection for Arizona's Bald Eagles," said Dr. Robert Witzeman, Maricopa Audubon Society Conservation Chair.

The Raptor Research Foundation expresses similar concerns in their recent comments regarding proposed Bald Eagle delisting:

"[W]e do not believe that the Southwest Bald Eagle population is secure, and we question whether even current numbers can be sustained without active management and habitat protection. USFWS may wish to reconsider the possibilities of designating the Southwest recovery region as a Distinct Population Segment (DPS) and deferring delisting of the Southwest population until data are available that demonstrate the population is sufficiently large and

self-sustaining."

Additionally, in 2003, Arizona Game and Fish Department (AGFD) suppressed a report in which researchers found that "[a]lthough counts of breeding adults increased 4% per year over this period [1977 – 2003], productivity and survivorship estimates led to a model of population dynamics that predicted the population was declining."

Owing to high juvenile and adult mortalities in such a small population, the petition confirms the results of AGFD's suppressed study. Independent of increasing habitat risks, the Desert Nesting Bald Eagle population faces a significant risk of extinction within the next 54 to 87 years.

Today's Notice is the first mandatory step toward Court action to insure Endangered Species Act protection for the Desert Nesting Bald Eagle. The Center and Maricopa Audubon Society intend to file suit in Federal District Court if in 60 days USFWS (1) refuses to reverse rejection of the petition, (2) refuses to undertake a new Desert Nesting Bald Eagle status review, and (3) refuses to terminate its announced intention of removing Endangered Species Act protection for the population.

The Bald Eagle was afforded Endangered Species Act protection in 1978 owing to the inadequacy of habitat protection by the Bald and Golden Eagle Protection Act and the Migratory Bird Act.

#

The Center for Biological Diversity is a non-profit conservation organization with more than 25,000 members dedicated to the protection of imperiled species and their habitats.

Maricopa Audubon Society is an organization of volunteers dedicated to the enjoyment of birds and other wildlife with a primary focus on the protection and restoration of the habitat of the Southwest through fellowship, education, and community involvement.

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WEB: www.biologicaldiversity.org petition to uplist 90 day ruling lawsuit NOTICE 110206 FINAL.pdf



CENTER FOR BIOLOGICAL DIVERSITY

BECAUSE LIFE IS GOOD.

November 2, 2006

SENT VIA CERTIFIED MAIL AND FACSIMILE

Dirk Kempthorne
Secretary of the Interior
1849 "C" Street, NW
Washington, DC 20240
Fax: 202-208-5048

Dale Hall
Director, U.S. Fish and Wildlife Service
1849 "C" Street, NW
Washington, DC 20240
Fax: 202-208-6965

Benjamin Tuggle, Ph.D.
Southwestern Regional Director, U.S. Fish and Wildlife Service
P.O. Box 1306
Albuquerque, NM 87103
Fax: 505-248-6910

Dear Secretary Kempthorne, Director Hall and Regional Director Tuggle:

**RE: Notice of Intent to Sue Over Violations of Section 4 of the Endangered Species Act
with Respect to the Negative 90-day Finding for the Petition to List the Desert
Nesting Bald Eagle**

Pursuant to the citizen suit provision of the Endangered Species Act ("ESA"), 16 U.S.C. § 1540(g)(2), this letter serves as a 60-day notice on behalf of the Center for Biological Diversity and Maricopa Audubon Society (collectively, "the Center") of intent to sue the Department of the Interior and the U.S. Fish and Wildlife Service (collectively, "the Service") for violations of the ESA in regards to the August 30, 2006, 90-day finding that the Center's Petition to list the Desert Nesting Bald Eagle population ("Desert Eagles") as a distinct population segment (DPS) did not present substantial scientific information indicating listing may be warranted. See Petition to List the Sonoran Desert Population of the Bald Eagle as a Distinct Population Segment, List that Distinct Population Segment as Endangered, and Designate Critical Habitat, 71 Fed. Reg. 51549 (August 30, 2006) ("negative 90-day finding").

Executive Summary

The Desert Nesting Bald Eagle (“Desert Eagle”) is one of the rarest birds on Earth. We estimated a population size of 166 individuals in our October 6, 2004, Petition to (1) Recognize the Biologically, Behaviorally and Ecologically Isolated Southwestern Desert Nesting Bald Eagle Population (*Haliaeetus leucocephalus*) as a Distinct Population Segment, (2) to List this Population as Endangered, (3) and to Designate Critical Habitat for this Population (“Petition”).

The Arizona Game and Fish Department (“AGFD”) now estimates a population size considerably less than the 166 individuals estimated by our Petition. As of June 16, 2006, AGFD estimates the existence of only 98 Desert Eagles:

“Our estimates are less than those reported [in the Petition]. As of 2006, we have 41 breeding pairs, which equates to 82 breeding individuals. In addition, we estimate 1/5 as many floaters for 98 individuals.”

See Arizona Game and Fish Department Comments on the Center for Biological Diversity’s Petition to Declare the Bald Eagle in Arizona as Distinct Population Segment, List It as Endangered, and Identify Critical Habitat for the Species, Arizona Game and Fish Department, June 16, 2006

For more than three decades, the Service featured the Desert Eagle as “unique” and “majestic.” It has been the “Treasure of the Southwest.” See Southern Bald Eagle Recovery Team Memo, from William W. Rightmire, to State Supervisor, Phoenix, Arizona and Regional Director, Albuquerque, New Mexico (ES), January 20, 1976. See Bald Eagles, Treasure of the Southwest, They need your help!, U.S. Fish and Wildlife Service and the Southwest Bald Eagle Management Committee, Brochure, 1986. Millions of dollars and thousands of hours have been spent to help it survive.

As of August 30, 2006, however, USFWS no longer considers the Desert Eagle “unique” or the “Treasure of the Southwest.” For USFWS, the desert Southwest is no longer “an ecological setting unique for the taxon,” and the Desert Eagle is not “significant in relation to the remainder of the taxon.” (See Negative 90-day finding.)

For more than three decades, the Service recognized the Desert Eagle as distinct. It is isolated biologically, geographically and behaviorally from all other Bald Eagles. See Southern Bald Eagle Recovery Team Memo, from William W. Rightmire, to State Supervisor, Phoenix, Arizona and Regional Director, Albuquerque, New Mexico (ES), January 20, 1976. See Review and comment for the Critical Habitat Delineation, correspondence from Dr. Walter R. Spofford, Aguila-Rancho, Portal, Arizona, to Mr. Jack Woody, Endangered Species Coordinator, Fish and Wildlife Service, Albuquerque, New Mexico, July 24, 1976. See Arizona is particularly isolated, there being no Bald Eagle nesting pairs of which we are aware in southern California, Nevada, Utah, or New Mexico, correspondence from Director, U.S. Fish and Wildlife Service, Washington, D.C., to Mr. Robert A. Jantzen, Director, Arizona Game and Fish Department, August 4, 1976. See Central Arizona Water Control Study - Formal Consultation Under Section 7 of the Endangered Species Act, Biological Opinion, Memorandum from Regional Director, Region 2 (SW), Albuquerque, New Mexico, to Regional Director, U.S. Bureau of Reclamation Lower Colorado Region, Boulder City, Nevada, March 8, 1983. See Biological Opinion, Fort

McDowell Indian Reservation, Rehabilitation and Betterment Irrigation Project, correspondence from Regional Director, Region 2, U.S. Fish and Wildlife Service, Albuquerque, to Area Director, U.S. Bureau of Indian Affairs, Phoenix Area Office, Phoenix, March 21, 1985. See Flight path encroaches on birds, Phyllis Gillespie, Arizona Republic, April 3, 1989. See Biological Opinion, Cyprus-Bagdad Copper Corporation, Francis Creek Power Line, from Acting Field Supervisor, Arizona, U.S. Fish and Wildlife Service, Phoenix, to Area Manager, Bureau of Land Management, Phoenix District, Kingman Resource Area, Kingman, Arizona, December 2, 1992. See Endangered and Threatened Wildlife and Plants; Reclassify the Bald Eagle From Endangered to Threatened in Most of the Lower 48 States, 59 Fed. Reg. 35584, 35588, July 12, 1994. See Biological Opinion: Wind Turbine at Camp Navajo Army Depot, AESO/SE 02-21-02-F-0503, Field Supervisor, U.S. Fish and Wildlife Service, Phoenix, Arizona, January 27, 2003. See Intra-Service Biological and Conference Opinion - Issuance of a Section 10(a)(1)(B) permit to Salt River Project for Operation of Roosevelt Lake, AESO/SE 2-21-03-F-0003, Field Supervisor, U.S. Fish and Wildlife Service, Phoenix, Arizona, February 21, 2003. See Biological Opinion on Sunrise Park-Big Lake Road - Forest Highway 43, AESO/SE 02-21-97-F-0229, correspondence from Field Supervisor, U.S. Fish and Wildlife Service, Phoenix, AZ, to Mr. Tom Puto, Project Manager, Federal Highway Administration, Lakewood, Colorado, April 27, 2004.

In the negative 90-day petition ruling, the Service states that the Desert Eagle is not distinct. It is “not significant in relation to the remainder of the taxon” because “the Sonoran life zones of the desert Southwest...do not constitute a unique setting for the species.” (See Negative 90-day finding.)

Such abrupt change of position after more than three decades does not pass the “straight face test.” It is grossly arbitrary and capricious.

No other Bald Eagle nests in such a unique ecological setting, namely the arid desert environment of the Southwest. For nearly three decades, the Service recognized the uniqueness of such an unusual ecological setting. See Nomination for Critical Habitat Determination – Bald Eagle Nesting in Southwestern United States, Memorandum to: Director, USFWS, Washington, D.C. (OES); From: Regional Director, Region 2 (SE); September 7, 1978. See Survey of the Southern Bald Eagle in Arizona, U.S. Fish and Wildlife Service, Division of Wildlife Services, Phoenix, Arizona, 1975. See Southern Bald Eagle Recovery Team Memo, from William W. Rightmire, to State Supervisor, Phoenix, Arizona and Regional Director, Albuquerque, New Mexico (ES), January 20, 1976. See Review and comment for the Critical Habitat Delineation, correspondence from Dr. Walter R. Spofford, Aguila-Rancho, Portal, Arizona, to Mr. Jack Woody, Endangered Species Coordinator, Fish and Wildlife Service, Albuquerque, New Mexico, July 24, 1976. See The Status of the Bald Eagle in the U.S. South of Canada: a preliminary report prepared in consideration of the proposal to extend endangered status to the bald eagle throughout the 48 conterminous states, Whitney Tilt, U.S. Fish and Wildlife Service, October 1976. See The Bald Eagle of the Southwest with Special Emphasis on the Breeding Population of Arizona, U.S. Department of the Interior Water and Power Resources Service, Contract No. BR-14-06-300-2674; Robert D. Ohmart and Ronald J. Sell, Department of Zoology and the Center for Environmental Studies, Arizona State University, Tempe, 1980. See Southwestern Bald Eagle Recovery Plan, U.S. Fish and Wildlife Service, Albuquerque, New Mexico, 1982 (“Nesting bald eagles are a unique part of the Sonoran desert.”). See Notes on Meeting – Bald Eagle Recovery Team Leaders Meeting – FWS Endangered Species Recovery

Coordinators Meeting, October 27-28, 1982, Memorandum from Dan James, Office of Endangered Species, U.S. Fish and Wildlife Service, to Participants in the Bald Eagle Recovery Team Leaders – FWS Endangered Species Recovery Coordinators Meetings, February 3, 1983. See Biological Opinion, Fort McDowell Indian Reservation, Rehabilitation and Betterment Irrigation Project, correspondence from Regional Director, Region 2, U.S. Fish and Wildlife Service, Albuquerque, to Area Director, U.S. Bureau of Indian Affairs, Phoenix Area Office, Phoenix, March 21, 1985. See Flight path encroaches on birds, Phyllis Gillespie, Arizona Republic, April 3, 1989. See Ecology of Bald Eagles in Arizona, Report to U.S. Bureau of Reclamation, Contract 6-CS-30-04470, Hunt, W.G., D.E. Driscoll, E.W. Bianchi, R.E. Jackman, “BioSystems Analysis Incorporated, Santa Cruz, CA., 1992. See Central Arizona Water Control Study - Formal Consultation Under Section 7 of the Endangered Species Act, Biological Opinion, Memorandum from Regional Director, Region 2 (SW), Albuquerque, New Mexico, to Regional Director, U.S. Bureau of Reclamation Lower Colorado Region, Boulder City, Nevada, March 8, 1983. See Biological Opinion for rerouting of an existing Navapache Power powerline on the Blue River in Greenlee County, Arizona, 2-21-96-F-136, U.S. Fish and Wildlife Service, Phoenix, Arizona, March 24, 1997. See Bald Eagle by W. Grainger Hunt in Raptors of Arizona, edited by Richard L. Glinski, Arizona Game and Fish Department, University of Arizona Press, 1998. See Status of Nesting Bald Eagles in Arizona, 1987-1993, Daniel e. Driscoll, W. Grainger Hunt, and Ronald E. Jackman, Predatory Bird Research Group, University of California, Santa Cruz, CA, Greg L. Beatty, James T. Driscoll, and Richard L. Glinski, Arizona Game and Fish Department, Phoenix, AZ, Thomas A. Gatz and Robert I. Mesta, U.S. Fish and Wildlife Service, Phoenix, AZ, January 5, 1998. See Biological Opinion for assignment to the City of Scottsdale of CAP [Central Arizona Project] water allocations belonging to Cottonwood Water Works, Inc. (CWW) and the Camp Verde Water System, Inc. (CVWS), 2021-97-F-314, U.S. Fish and Wildlife Service, Phoenix, AZ, March 30, 1998. See Biological Opinion: Alamo Lake Re-operation and Ecosystem Restoration, 2-21-98-F-329, Field Supervisor, U.S. Fish and Wildlife Service, Phoenix, Arizona, March 26, 1999. See Biological Opinion: Blue Point Developed Recreation Site, AESO/SE 2-21-00-F-027, Field Supervisor, U.S. Fish and Wildlife Service, Phoenix, Arizona, June 25, 2000. See CAP Gila Basin Nonnatives Issues, Biological Opinion Reinitiation, AESO/SE 2-21-90-F-119a, U.S. Fish & Wildlife Service, April 17, 2001. See Biological Opinion, Navajo Nation Water Quality Standards, U.S. Fish & Wildlife Service, AESO/SE 2-21-96-F-368, Phoenix, AZ, December 26, 2001. See Biological Opinion: Wind Turbine at Camp Navajo Army Depot, AESO/SE 02-21-02-F-0503, Field Supervisor, U.S. Fish and Wildlife Service, Phoenix, Arizona, January 27, 2003. See Intra-Service Biological and Conference Opinion - Issuance of a Section 10(a)(1)(B) permit to Salt River Project for Operation of Roosevelt Lake, AESO/SE 2-21-03-F-0003, Field Supervisor, U.S. Fish and Wildlife Service, Phoenix, Arizona, February 21, 2003.

On August 30, 2006, everything changed. On August 30, 2006, the Service abruptly changed its position regarding the arid Southwest desert as a unique ecological setting for the Bald Eagle. The Service did so to contrive a scheme to deprive the Desert Eagle of Distinct Population Segment (“DPS”) status. For the U.S. Fish and Wildlife Service, the Desert Eagle is no longer the “Treasure of the Southwest.”

The Service has been expressive of its desire to remove ESA protection from the Bald Eagle nationwide, including from the Desert Eagle for many years. See Proposed Rule To Remove the Bald Eagle in the Lower 48 States From the List of Endangered and Threatened Wildlife, U.S. Fish and Wildlife Service, Department of the Interior, Federal Register, Vol. 64,

No. 128, Page 36454, July 6, 1999. See Removing the Bald Eagle in the Lower 48 States From the List of Endangered and Threatened Wildlife, U.S. Fish and Wildlife Service, Department of the Interior, Federal Register, Vol. 71, No. 32, Page 8238, February 16, 2006. The Desert Eagle's precarious situation and its universal recognition by all respected Desert Eagle scientists as a Distinct Population Segment ("DPS") have been proving to be impediments to the Service's goal of nationwide delisting. The Service's newly contrived scheme of no longer recognizing the desert as a unique ecological setting is nothing more than an unabashed attempt to remove these impediments.

Our Petition presents substantial information reflecting the need for more protection for the Desert Eagle. In addition to contriving the new scheme of no longer recognizing the desert as a unique ecological setting, the Service chooses to (1) ignore substantial information contained in the Petition, and to (2) not to use information in its files supportive of the Petition, while selectively choosing from the Service's files to reject the Petition. In addition, the Service chooses to ignore comments in its files from the Raptor Research Foundation supporting the basic Petition premises. The Raptor Research Foundation "...is a non-profit organization comprised of approximately 900 members who are predominantly scientists who study and help manage birds of prey and their habitats..." See Raptor Research Foundation Comments on Bald Eagle Delisting Documents, August 11, 2006.

The negative 90-day finding relies heavily on the concept that increasing population numbers and occupancy of breeding areas ("BAs") mean that the Desert Eagle is not in danger of extinction in spite of very small population size and high adult and juvenile mortalities. The Service ignores the Population Viability Analyses ("PVAs") from AGFD (2003), from our Petition and from our updated 2006 PVA (found in the Service's files).

The Service's theory of population stability based purely on increasing population numbers, but disregarding small population size and high adult and juvenile mortalities is not scientifically defensible. It is not based on the best scientific data available. See Demographic models of the Northern Spotted Owl (*Strix occidentalis caurina*), Lande, R., *Oecologia* **75**:601–607, 1988. See A demographic model for a population of the endangered Lesser Kestrel in southern Spain, Hiraldo, F., J. J. Negro, J. A. Donazar, and P. Gaona, *Journal of Animal Ecology* **33**:1085–1093, 1996. See Demography and conservation of western European Bonelli's Eagle *Hieraetus fasciatus* populations, Real, J., and S. Manosa, *Biological Conservation* **79**:59–66, 1997. See Avian life history variation and contribution of demographic traits to the population growth rate, B.E. Saether, O. Bakke, *Ecology* **81**, 642–653, 2000. See Modeling the effects of persecution on the population dynamics of Golden Eagles in Scotland, Whitfield, D. P., A. H. Fielding, D. R. A. McLeod, and P. F. Harworth, *Biological Conservation* **119**:319–333, 2004. See Modeling populations of long-lived birds of prey for conservation: a study of Imperial Eagles (*Aquila heliaca*) in Kazakhstan, Katzner, T., E. Bragin, and E. J. Milner-Gulland, *Biological Conservation*, **132**:322–335, 2006.

PVAs are both appropriate and reliable for the analysis of extinction risk for small populations in danger of extinction. Extinction time distributions from stochastic population models are the best available means to translate the uncertainty and variability in vital rates into a range of population outcomes. See Critiques of PVA ask the wrong questions: Throwing the heuristic baby out with the numerical bath water, B.W. Brook, M.A., Burgman, R. Akcakaya, J.J. O'Grady, and R. Frankham, *Conservation Biology* **16**, 262–263, 2002.

Our Petition included a PVA demonstrating a high risk of extinction for the Desert Eagle within the next 57 and 82 years. AGFD had concluded similarly in 2003 in draft form; however, the AGFD PVA was never finalized. AGFD's PVA was never finalized because it did not support the anti-ESA regulatory direction of the of the Arizona Game and Fish Commission to AGFD. See Arizona Bald Eagle Demographic Model Predicts A Decline Whereas Breeding Adult Counts Are Increasing, Linda J. Allison, James Driscoll, and Kenneth Jacobson, Arizona Game and Fish Department, Phoenix, AZ, presentation at the Cooper Ornithological Society, Flagstaff, AZ, May 2, 2003. See Draft Demographic Analysis of the Arizona Bald Eagle Population, L. Allison, J.T. Driscoll, K.V. Jacobson, and J.G. Koloszar, Nongame and Endangered Wildlife Program Technical Report 220, Arizona Game and Fish Department, Phoenix, AZ, 2003.

In 2006, we reconfirmed the validity of our 2004 PVA and AGFD's 2003 draft PVA with updated data. In our 2006 PVA, we found the "[m]edian time to extinction was 75 years." See Desert Nesting Bald Eagle post-fledgling survival analysis 1977-2003, Martin Taylor, Ph.D., Center for Biological Diversity, August 2006. This information is in the Service files.

These PVAs demonstrate significant risk of extinction for the Desert Eagle independent of increasing threats. Unfortunately, threats are increasing.

Our Petition presents substantial information concerning increasing threats to the Desert Eagle. See Conservation Assessment and Strategy for the Bald Eagle in Arizona – Draft, Nongame and Endangered Wildlife Program, Arizona Game and Fish Department, Phoenix, Arizona, September 1999. See Conservation Assessment and Strategy for the Bald Eagle in Arizona – Draft, Nongame and Endangered Wildlife Program, Arizona Game and Fish Department, Phoenix, Arizona, October 2000. See CAP Gila Basin Nonnatives Issues, Biological Opinion Reinitiation, AESO/SE 2-21-90-F-119a, U.S. Fish & Wildlife Service, April 17, 2001.

In addition, cursory review of the Service's files reveals multiple other examples of increasing threats to Desert Eagle habitat in documents acknowledging increasing peril to Desert Eagles and/or to species utilizing the same desert riparian habitat. See CAP Gila Basin Nonnatives Issues, Biological Opinion Reinitiation, AESO/SE 2-21-90-F-119a, U.S. Fish & Wildlife Service, April 17, 2001. See Biological Opinion for the Dos Pobres/San Juan Project, AESO/SE 2-21-99-F-007, Memorandum, from, Field Supervisor, U.S. Fish and Wildlife Service, to Field Office Manager, Safford Field Office, Bureau of Land Management, Safford, AZ, June 11, 2002. See Southwestern Willow Flycatcher (*Empidonax traillii extimus*) Final Recovery Plan, prepared by Southwestern Willow Flycatcher Recovery Team Technical Subgroup for Region 2, U.S. Fish and Wildlife Service, Albuquerque, New Mexico, August 30, 2002. See Roosevelt Habitat Conservation Plan, Gila and Maricopa Counties, Arizona, Volume II of the FEIS, Submitted to: U.S. Fish And Wildlife Service, By: Salt River Project, December 2002. See Biological Opinion: Wind Turbine at Camp Navajo Army Depot, AESO/SE 02-21-02-F-0503, Field Supervisor, U.S. Fish and Wildlife Service, Phoenix, Arizona, January 27, 2003. See Biological Opinion for the Upgrade Corridor Area Fire Protection Project in Grand Canyon National Park, Memorandum from Field Supervisor, U.S. Fish and Wildlife Service, Phoenix, AZ, to Superintendent, Grand Canyon National Park, Grand Canyon, Arizona, AESO/SE 02-21-02-F-0462, March 1, 2004. See Biological Opinion on the Bureau of Reclamation's Approval of Water Exchange by the San Carlos Apache Tribe for Retention in San Carlos Reservoir, R2/ES-TE 02-02-04-F-0001, 02-21-04-F-0077, from Assistant Regional Director, Ecological Services,

U.S. Fish and Wildlife Service, Albuquerque, New Mexico /s/Bryan Arroyo, to Area Manager, Phoenix Area Office, Bureau of Reclamation, Phoenix, Arizona, March 8, 2004. See Biological Opinion on Sunrise Park-Big Lake Road - Forest Highway 43, AESO/SE 02-21-97-F-0229, correspondence from Field Supervisor, U.S. Fish and Wildlife Service, Phoenix, AZ, to Mr. Tom Puto, Project Manager, Federal Highway Administration, Lakewood, Colorado, April 27, 2004. See Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management, AESO/SE 02-21-03-F-0210, from Field Supervisor, U.S. Fish and Wildlife Service, Phoenix, AZ, to State Director, Bureau of Land Management, Phoenix, Arizona, September 3, 2004. See Endangered and Threatened Wildlife and Plants; Listing Gila Chub as Endangered With Critical Habitat, Final Rule, U.S. Fish and Wildlife Service, Department Of The Interior, Federal Register, Vol. 70, No. 211, Page 66664, November 2, 2005. See Endangered and Threatened Wildlife and Plants; 12-Month Finding on a Petition To List a Distinct Population Segment of the Roundtail Chub in the Lower Colorado River Basin and To List the Headwater Chub as Endangered or Threatened With Critical Habitat, U.S. Fish and Wildlife Service, Department of Interior, Federal Register, Vol. 71, No. 85, Page 26007, May 3, 2006. See Proposed Delisting of the Bald Eagle, Correspondence from Robert T. Magill, to Ms. Michelle Morgan, Chief, Branch of Recovery and Delisting, Endangered Species Program, U.S. Fish and Wildlife Service, Arlington, VA, June 17, 2006. See Biological Opinion regarding the Proposed Construction of the Florence-Kelvin Bridge over the Gila River in Pinal County, Arizona, AESO/SE 22410-2006-F-0429, from Field Supervisor, U.S. Fish and Wildlife Service, Phoenix, AZ, to Mr. Robert E. Hollis, Administrator, Arizona Division, Federal Highway Administration, Phoenix, Arizona, June 27, 2006. See Endangered and Threatened Wildlife and Plants; 12-Month Finding on a Petition To List the Northern Mexican Garter Snake (*Thamnophis eques megalops*) as Threatened or Endangered With Critical Habitat, U.S. Fish and Wildlife Service, Department of Interior, Federal Register, Vol. 71, No. 186, Page 56228, September 26, 2006.

In the interim period since filing of our October 6, 2004, Petition, new data found in the Service's files supports the fact that even more protection is necessary to remove the danger of extinction from the Desert Eagle. This new data has also been ignored by the Service.

Mortality in the small Desert Eagle population continues to be dangerously high. Analysis of the 2006 resight data shows that only 11% of Desert Eagles banded as juveniles between 1995 and 2003 are ever seen again. See Fledged nestlings banded 1981 – 2006, AGFD Resight data, August 8, 2006. In addition, AGFD estimates 72% mortality from fledging to breeding age. See Arizona Game and Fish Department Comments on the Center for Biological Diversity's Petition to Declare the Bald Eagle in Arizona as Distinct Population Segment, List It as Endangered, and Identify Critical Habitat for the Species, Arizona Game and Fish Department, June 13, 2006.

Subadults are present in extremely high numbers in breeding pairs. Subadults have accounted for 26% of the breeding Desert Eagle recruitments from 1987 to 2004. See Conservation assessment and strategy for the bald eagle in Arizona, Driscoll, J.T., K.V. Jacobson, G.L. Beatty, J.S. Canaca, and J.G. Koloszar, Nongame and Endangered Wildlife, Program Technical Report 173, Arizona Game and Fish Department, Phoenix, Arizona, 2006. This 26% subadult participation in breeding pairs compares with the known incidence of breeding subadults of 0.02% elsewhere. See Ecology of Bald Eagles in Arizona, Report to U.S.

Bureau of Reclamation, Contract 6-CS-30-04470, Hunt, W.G., D.E. Driscoll, E.W. Bianchi, R.E. Jackman, "BioSystems Analysis Incorporated, Santa Cruz, CA., 1992.

The excessively high presence of subadults in Desert Eagle breeding pairs most likely reflects the population's high adult mortality rates. As AGFD stated in 1994, "The appearance of breeding eagles lacking full-adult plumage suggests an insufficiency of adults in the floating segment..." and that "Hunt *et al.* (1992) concluded that high adult mortality was likely draining the floating adult population toward a critical level..." See Comments on Proposed Rule to Reclassify the Bald Eagle, Letter to U.S. Fish & Wildlife Service, Duane Shroufe, Director, Arizona Game & Fish Department, Phoenix, Arizona, November 3, 1994.

Subadult Desert Eagle breeding success continues to be extremely rare. Only one successful attempt is known, but not without egg rescue, artificial incubation and hatching and ultimately fostering into another nest. See Arizona Game and Fish Department Comments on the Center for Biological Diversity's Petition to Declare the Bald Eagle in Arizona as Distinct Population Segment, List It as Endangered, and Identify Critical Habitat for the Species, Arizona Game and Fish Department, June 16, 2006.

The use of riparian trees and snags is now known to be even more widespread than known in 2004. Our Petition documented 51% prevalence in the use of riparian trees and snags; however, the total is now known to be 59.5%. See Arizona Game and Fish Department Comments on the Center for Biological Diversity's Petition to Declare the Bald Eagle in Arizona as Distinct Population Segment, List It as Endangered, and Identify Critical Habitat for the Species, Arizona Game and Fish Department, June 16, 2006. Senescence and lack of replacement of nesting trees and snags are an increasing concern. In 2006, AGFD has expressed concern for 13 BAs relying solely on riparian trees without the presence of any other nesting substrate. These BAs include Becker, Box Bar, Doka, Fort McDowell, Granite Reef, Needle Rock, Pinto, Rodeo, 76, Sheep, Sycamore, Tonto, and Winkelman. These 13 BAs "have collectively contributed 24% (n=606) of all recorded fledglings from 1971 to 2005..." See Conservation assessment and strategy for the bald eagle in Arizona, Driscoll, J.T., K.V. Jacobson, G.L. Beatty, J.S. Canaca, and J.G. Koloszar, Nongame and Endangered Wildlife, Program Technical Report 173, Arizona Game and Fish Department, Phoenix, Arizona, 2006.

The Service has still not fully corrected its 1995 error in downlisting the Desert Eagle based on lack of isolation. See Final Rule to Reclassify the Bald Eagle From Endangered to Threatened in All of the Lower 48 States, 60 FR 36000, 36004, July 12, 1995. In 1994, prior to publication of the Service's July 12, 1994 proposal to reclassify the Bald Eagle from endangered to threatened in the lower 48 States except in certain portions of the American Southwest and to classify those eagles in adjacent Mexico as endangered, a single new male Bald Eagle from Texas was noted to have entered the breeding population. See Endangered and Threatened Wildlife and Plants; Reclassify the Bald Eagle From Endangered to Threatened in Most of the Lower 48 States, 59 Fed. Reg. 35584, 35588, July 12, 1994. See Status of Nesting Bald Eagles in Arizona, 1987-1993, Daniel e. Driscoll, W. Grainger Hunt, and Ronald E. Jackman, Predatory Bird Research Group, University of California, Santa Cruz, CA, Greg L. Beatty, James T. Driscoll, and Richard L. Glinski, Arizona Game and Fish Department, Phoenix, AZ, Thomas A. Gatz and Robert I. Mesta, U.S. Fish and Wildlife Service, Phoenix, AZ, January 5, 1998.

The single entry in 1994 of the Luna BA male was well known among Desert Eagle biologists. It represented a non-biologically significant genetic contribution the Desert Eagle

population from the outside. It represented 0.7 % of the known breeding interactions at that time. See Fledged nestlings banded 1981 – 2006, AGFD Resight data, August 8, 2006.

The Service's 1995 contention that it believed "this population is not reproductively isolated and should be included with the reclassification of the lower 48 States population" was a lie by omission. See Final Rule to Reclassify the Bald Eagle From Endangered to Threatened in All of the Lower 48 States, 60 FR 36000, 36004, July 12, 1995. Our 2004, Petition presents documentation of the fact that the Desert Nesting population continues to breed in isolation with 99.997% of objectively identified breeding individuals coming from within the Desert Eagle population.

The negative 90-day finding repeats the error that "this population is not reproductively isolated" in spite of the fact that the Service has essentially corrected its error on at least two occasions cited in the Petition. See Biological Opinion: Wind Turbine at Camp Navajo Army Depot, AESO/SE 02-21-02-F-0503, Field Supervisor, U.S. Fish and Wildlife Service, Phoenix, Arizona, January 27, 2003. See Intra-Service Biological and Conference Opinion - Issuance of a Section 10(a)(1)(B) permit to Salt River Project for Operation of Roosevelt Lake, AESO/SE 21-03-F-0003, Field Supervisor, U.S. Fish and Wildlife Service, Phoenix, Arizona, February 21, 2003.

In the interim, the Service has also repeated its essential correction of the 1995 error on at least one other occasion. See Biological Opinion on Sunrise Park-Big Lake Road - Forest Highway 43, AESO/SE 02-21-97-F-0229, correspondence from Field Supervisor, U.S. Fish and Wildlife Service, Phoenix, AZ, to Mr. Tom Puto, Project Manager, Federal Highway Administration, Lakewood, Colorado, April 27, 2004.

Prescott's planned dewatering of the upper Verde River has progressed substantially since filing of the October 4, 2004, Petition. See Pipeline cost jumps to \$170M - Price for Big Chino water more than doubles, Cindy Barks, Prescott Daily Courier, July 12, 2006 ("Prescott and Prescott Valley plan to begin construction by about 2007 and have the pipeline complete by 2009.") The U.S. Geological Survey estimates that approximately 80 to 86 percent of the Upper Verde River's base flow (the stream flow during the driest time of the year) comes from the Big Chino aquifer. See Synthesis of Geologic, Geophysical, Hydrological, and Geochemical Data, L. Wirt, L.; in Wirt, Laurie, DeWitt, Ed, and Langenheim, V.E., eds., *Geologic Framework of Aquifer Units and Ground-Water Flowpaths, Verde River Headwaters, North-Central Arizona*, U.S. Geological Survey Open-File Report 2004-1411-G, 17 p.; 2005.

Prescott's planned dewatering of the upper Verde River alone will definitely harm at least six nests, (Perkinsville, Tower, Oak Creek, Beaver, Ladders, and Coldwater) and "may affect" three others (East Verde Horseshoe and Table Mountain). See Conservation assessment and strategy for the bald eagle in Arizona, Driscoll, J.T., K.V. Jacobson, G.L. Beatty, J.S. Canaca, and J.G. Koloszar, Nongame and Endangered Wildlife, Program Technical Report 173, Arizona Game and Fish Department, Phoenix, Arizona, 2006.

The Service is obviously supremely motivated to strip Desert Eagle habitat from protection no matter best science, professional ethics, or law. Even in the negative 90-day finding, the Service could not resist propagandizing regarding their desire to delist the Bald Eagle and remove protection from its habitat nationwide:

“If this delisting action were to be finalized, we believe other existing regulatory protections afforded the Sonoran Desert bald eagle will provide adequate regulatory protection to this population....protections afforded the bald eagle (including the Sonoran Desert bald eagle) by other Federal wildlife laws, including the Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 688–668d) and the Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703–712).

This is another lie by omission. Neither the Bald and Golden Eagle Protection Act or the Migratory Bird Treaty Act protect habitat. In fact, the Bald Eagle was listed as Threatened and Endangered owing in good part to the inadequacy of existing regulatory mechanisms. Specifically the inadequacy of habitat protection by the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act was the Service’s concern:

“The inadequacy of existing regulatory mechanisms...The Bald Eagle already is protected throughout the United States by the Bald and Golden Eagles Protection Act (16 U.S.C. 668-668d), the Migratory Bird Treaty Act (16 U.S.C. 703-711), and regulations issued thereunder. The protective provisions of section 7 of the Endangered Species Act of 1973, however, have not previously applied to populations of bald eagles that are found in the northern part of the conterminous States.”

See Determination of Certain Bald Eagle Populations as Endangered or Threatened, Federal Register Vol. 43, No. 31, U.S. Fish and Wildlife Service, Department of the Interior, Page 6230, February 14, 1978.

Section 7 of the ESA assures that Federal agencies will seek consultation for activities affecting threatened or endangered species and their habitat. For the Desert Eagle, loss of habitat protection with delisting will be catastrophic. With delisting, habitat protection from ESA Section 7 protection will be lost for 79% (34 of the 43) of territories active in 2006! These territories include Rock Creek, Tonto, Dupont, Pinto, Pinal, Sheep, Perkinsville, Tower, Oak Creek, Beaver, Ladders, Coldwater, East Verde, Horseshoe, Table Mountain, Box Bar, Doka, Fort McDowell, Needle Rock, Rodeo, Granite Reef, Sycamore, Winkelman, Alamo, Ive’s Wash, Coolidge, Granite Basin, Suicide, Talkalai, Cliff/Yellow Cliff, Bartlett, Horse Mesa, Blue Point, and Bull Dog. See Conservation assessment and strategy for the bald eagle in Arizona, Driscoll, J.T., K.V. Jacobson, G.L. Beatty, J.S. Canaca, and J.G. Koloszar, Nongame and Endangered Wildlife, Program Technical Report 173, Arizona Game and Fish Department, Phoenix, Arizona, 2006.

For more than three decades, members of Maricopa Audubon Society have worked to save the Desert Eagle. See Audubon official says Orme Dam to threaten bald eagles, Scottsdale Progress, April 13, 1976 (“Construction of the Central Arizona Project’s Orme Dam will destroy two and possibly three endangered southern bald eagles...The birds are part of a small band of seven nesting pairs, the last remaining bald eagles in an eight state area of the Southwest according to Robert Witzeman, Phoenix physician and president of the Maricopa Audubon Society...”). For nearly two decades, members of the Center for Biological Diversity have also worked to save the Desert Eagle. See Flight path encroaches on birds, Phyllis Gillespie, Arizona Republic, April 3, 1989 (“There are three fluffy bald eagles trying to grow up in a nest near

Bartlett Dam, but the newest members are getting the bejabbers scarred of them...when a military jet recently swooped as low as 50 feet above the ground near the nest...Silver [Dr. Robin Silver] complained about the low-flying jet to the Federal Aviation Administration and Luke Air Force Base...”).

In spite of the increase of known breeding areas, the Desert Eagle merits increased protection, including Critical Habitat designation, owing to its isolation, high adult and juvenile mortality, small population size, high percentage of subadult participation in the breeding population, and increasing habitat threats. The Desert Eagle also merits recognition as a DPS owing to the fact that the Desert Eagle occupies unique Sonoran Desert habitat, and is biologically, behaviorally, and geographically isolated. The Service chooses to do neither in spite of the best available science and the law. Such action is arbitrary and capricious. It is a historic mistake.

The Desert Nesting Bald Eagle is still the “Treasure of the Southwest” for the Center for Biological Diversity and Maricopa Audubon Society and our more than 25,000 members. If the Service fails to correct its callous, unprofessional treatment of the Desert Eagle, we will seek remedy in Court. We will not allow the U.S. Fish and Wildlife Service, or anyone else for that matter, to shove the Desert Eagle over the brink of extinction.

90-day Findings

The Service must, to the “maximum extent practicable, within 90 days of receiving a petition...make a finding as to whether the petition presents substantial scientific or commercial information indicating” that listing the species is warranted. 16 U.S.C. § 1533(b)(3)(A) (“90-day finding”). If the Service issues a positive 90-day finding, it is required to undertake a status review regarding the species and then make a determination as to whether listing is warranted. If, on the other hand, the Service issues a negative 90-day finding, the petition is rejected and no further review is conducted.

When making its 90-day findings, the Service has a single task, namely to determine whether the petition presents substantial scientific information indicating that listing *may be* warranted. The Service’s own implementing regulations define “substantial information” as “that amount of information that would lead a reasonable person to believe that the measure proposed in the petition *may be* warranted.” 50 C.F.R. § 424.14(b)(1) (emphasis added). As the Service itself has stated,

“Our 90-day findings consider whether the petition states a reasonable case for listing on its face. Thus, our finding expresses no view as to the ultimate issue of whether the species should be listed. We reach a conclusion on that issue only after a more thorough review of the species’ status.”

See e.g. Endangered and Threatened Wildlife and Plants; 90-Day Finding on a Petition to List the Gunnison’s Prairie Dog as Threatened or Endangered, 71 Fed. Reg. 6241 (February 7, 2006).

The U.S. District Court in Montana reinforces the legal validity of the “reasonable-person” test. See Defenders of Wildlife v. Kempthorne (D. Mont. 2006) (slip op. dated September 29, 2006.) (“The 90-day finding was in error. Plaintiffs produced substantial

information to support further study and as a result the FWS must conduct a 12-month finding. The threshold for a 12-month finding is not high.”)

The Service’ intentional rejection of the “reasonable-person” test for the Petition is nothing less than deceitful. In rejecting the Petition, the Service chooses to ignore correspondence in its own files from the Raptor Research Foundation that agrees with the Petition’s basic premises. The Raptor Research Foundation is "...is a non-profit organization comprised of approximately 900 members who are predominantly scientists who study and help manage birds of prey and their habitats... "

The Raptor Research Foundation states,

“...the Southwest population appears to be less viable than populations in other parts of the country and may not warrant delisting at this time...”

“Many of the important habitats now used by Bald Eagles are sought for human development and other consumptive uses. For example...water developments in the Southwest threaten the foraging habitat of nesting eagles in Arizona...”

“...Although the Bald and Golden Eagle Protection Act (BGEPA) and the Migratory Bird Treaty Act (MBTA) provide protection to birds, their nests, and eggs, they offer no protection to habitat. We predict that, without mandatory habitat protection measures, removing the Bald Eagle from protection under the ESA will result in a loss of habitat in these and other areas. [There were 43 occupied Desert Nesting Bald Eagle (DNBE) territories in 2006. Of these 29 (67%) will be negatively affected with loss of habitat protection secondary to delisting. DNBE habitat will be lost without increased protection via management of activities with Federal nexus. With delisting, mandatory ESA Section 7 consultations for protection of the habitat of an Endangered Species will be lost.]

“...We continue to be concerned about the viability of the Southwest population of Bald Eagles based on the low number of breeding pairs, relatively low productivity, relatively high adult mortality, and threats of habitat alteration and human disturbance. We are not aware of any data showing a clear, long-term increase in the Southwest Bald Eagle population (Arizona, New Mexico, and Mexico)...”

“...there were 46 occupied breeding territories in Arizona and New Mexico in 2003, and that Arizona's 41 pairs produced an estimated 0.75 young/pair in 2004. This is a relatively small population for such a large geographic area, and productivity is lower than in any other part of the eagle's range. Coupled with relatively low productivity, adult mortality is relatively high: 12-16% of the breeding population per year (Arizona Game and Fish Department 1999). In most eagle populations, natural mortality of adults is usually less than 10% (McCollough 1986, Wood 1992, Bowman et al. 1995)...”

“Compounding conservation difficulties posed by low numbers, lower productivity, and higher adult mortality, the Southwest population is faced with a variety of threats related to rapidly increasing human populations...”

“Significant threats to Arizona Bald Eagles include human developments, recreational disturbance, fishing-line entanglement, and habitat modification due to grazing and flood control (Arizona Game and Fish Department 1999). In summary, we do not believe that the Southwest Bald Eagle population is secure, and we question whether even current numbers can be sustained without active management and habitat protection. USFWS may wish to reconsider the possibilities of designating the Southwest recovery region as a Distinct Population Segment (DPS) and deferring delisting of the Southwest population until data are available that demonstrate the population is sufficiently large and self-sustaining...” [emphasis added]

See Raptor Research Foundation Comments on Bald Eagle Delisting Documents, August 11, 2006.

The Service also chooses to ignore correspondence in the Service’s files from the former Chair of the Southwest Bald Eagle Management Committee and Arizona Game and Fish Department (AGFD) Nongame Birds Program Manager, Robert Magill. Like the Research Raptor Foundation, Mr. Magill supports the basic premises of the Petition. Mr. Magill’s comments are particularly important because he is no longer professionally constrained by the anti-Endangered Species regulation direction of the Arizona Game and Fish Commission that continues to restrain and undermine AGFD biologists to this day.

Mr. Magill writes:

“The Fish and Wildlife Service determined that the southwestern population of bald eagles was important enough to establish its own recovery region. Presumably, this conclusion was determined because of the importance to the geographic distribution to the bald eagle. Other possible or additional reasons are due to the unique setting of this bird in the desert southwest, unique threats facing the eagle in this part of the country and/or its range. For the bald eagle in the southwestern recovery region and in a larger perspective, the southwestern portion of its range, the conclusion that the bald eagle in the southwestern recovery region no longer needs protection from the Endangered Species Act, is incorrect. The bald eagle is still threatened in the southwestern recovery region, across the border in southwestern portion of its range (the area which influences the status of the southwestern recovery region), and current protections are not adequate to protect the bird and its habitat...”

“There is no doubt that throughout the Southwest, species dependent upon water resources are at risk due to past permanent changes to water management and future impacts due to water demands. These issues are not ones which have reversed in trend since the bald eagle has been listed, but have escalated, and are expected to continue to escalate in the future.”

“...there are reasonably foreseeable threats to the habitat of bald eagles in the southwest recovery region and the southwestern portion of the bird’s range that the Service is fully aware of and that existing laws do not exist that adequately protect their habitat. To write otherwise, as the Service has done this proposal [delisting], is ignoring the facts described by the Service, the Department of Interior, the University of Arizona, and the Arizona Game and Fish Department.”

“In addition, to threats to the habitat of bald eagles, there are a myriad of other effects that are occurring that combined are clear sufficient to cause significant impacts to the small population of eagles in this recovery region. These issues range from effects of small populations, parasites, human-caused recreation based impacts, specific habitat impacts, to the widespread presence of toxic levels of heavy metals, etc...”

“...contrary to the claim made by the Service, there is no “significant” statistical difference between the number of eaglets fledged while the eagle was listed as threatened, versus the period where the Service has concluded that numbers are sufficient to warrant delisting.”

“Contrary to the statements made in the proposal on unlimited habitat for the bald eagle in the lower 48 states, there is not unlimited habitat availability for the bald eagle throughout the southwestern portion of the birds range and this is confirmed by the fact of change in the distribution of territories across the region and portion of the birds range.”

See Proposed Delisting of the Bald Eagle, Correspondence from Robert T. Magill, to Ms. Michelle Morgan, Chief, Branch of Recovery and Delisting, Endangered Species Program, U.S. Fish and Wildlife Service, Arlington, VA; June 17, 2006.

The fact that the Raptor Research Foundation and the former Southwest Bald Eagle Management Committee Chair concur with the Petition’s basic premises renders the Service’s failure to respect the mandated “reasonable-person” test fraudulently arbitrary and capricious.

The Negative 90-day Finding for Desert Eagles

The Service, in its negative 90-day finding, reached three conclusions: 1) the Petition contains substantial information that Desert Eagles are discrete from other Bald Eagle populations; 2) the Petition does not present substantial scientific information that Desert Eagles may be significant in relation to the remainder of the taxon; and 3) the Petition fails to provide information on new or escalating threats, countering information regarding the increased number of occupied breeding areas and increased productivity levels, to support changing the Desert Eagles’ status from threatened to endangered.

The negative 90-day finding acknowledges that the “petition presents substantial information on distinct morphological features of the [desert] bald eagles....” 71 Fed. Reg. at 51565. Indeed, “20 years of monitoring have resulted in the determination that no eagles have immigrated to and only one eagle has emigrated from the [desert] bald eagle population.” *Id.* at 51554. Unfortunately, the Service inappropriately concludes that while the Desert Eagle population is discrete, it is not distinct. Such a finding is unfounded and insinuates that losing the entire population of Bald Eagles in the Southwest is allowable and justifiable because the new and errant opinion that the desert nesting population is somehow “not significant to its taxon.”

Moreover, the Service falsely assumes that simply because the Desert Eagles have increased in number, they no longer warrant protection. However, the negative 90-day finding offers no finding that the current numbers of Desert Eagles are sufficient to assure the continued existence of this population. No assessment has yet been completed to determine what constitutes a stable population for this population. Without such information, the Service cannot claim that the current numbers are adequate, especially given the fact that the Service's 1982 Southwestern bald eagle unit recovery criteria (which only address downlisting) is inadequate. See Southwest Bald Eagle Draft Recovery Plan, Memorandum from Director, to Regional Director, Region 2, U.S. Fish and Wildlife Service, May 2, 1979. See Summary of the Bald Eagle Recovery Team Leaders and join Bald Eagle Recovery Team Leaders – FWS Endangered Species Recovery Coordinators Meetings, October 27-28, 1982 in Washington, D.C., Memorandum, from Dan James, Office of Endangered Species, to Participants in the Bald Eagle Recovery Team Leaders – FWS Endangered Species Recovery Coordinators Meetings, February 3, 1983. See Recommendation against downlisting this population at this time, correspondence, from Mike Spear, Regional Director, U.S. Fish and Wildlife Service, Albuquerque; to Richard Glinski, Leader, Southwestern Bald Eagle Recovery Team, Arizona Game and Fish Department, Phoenix, October 15, 1990. See Report on the U.S. Fish and Wildlife Service's Proposal to Downlist the Bald Eagle (Haliaeetus leucocephalus) in the Contiguous United States, Robert Mesta, U.S. Fish and Wildlife Service, Ventura, California, May 19, 1991. See Ecology of Bald Eagles in Arizona, Report to U.S. Bureau of Reclamation, Contract 6-CS-30-04470, Hunt, W.G., D.E. Driscoll, E.W. Bianchi, R.E. Jackman, BioSystems Analysis Incorporated, Santa Cruz, CA., 1992. See Endangered and Threatened Wildlife and Plants; Reclassify the Bald Eagle From Endangered to Threatened in Most of the Lower 48 States, 59 Fed. Reg. 35584, 35588, July 12, 1994. See Request for Funds: Southwestern Bald Eagle Recovery Plan Revision, Memorandum from Regional Director, Region 2; to Director, Fish and Wildlife Service, Washington, D.C. (TE); December 9, 1994. See DELISTING THE BALD EAGLE WORK PLAN, U.S. Fish and Wildlife Service, May 5, 1995. See Bald Eagle Status Review of the Southwestern population (Region 2), U.S. Fish and Wildlife Service, April 14 –15, 1993. See Conservation Assessment and Strategy for the Bald Eagle in Arizona – Draft, Nongame and Endangered Wildlife Program, Arizona Game and Fish Department, Phoenix, Arizona, September 1999. See Conservation Assessment and Strategy for the Bald Eagle in Arizona – Draft, Nongame and Endangered Wildlife Program, Arizona Game and Fish Department, Phoenix, Arizona, October 2000. See Proposed Delisting of the Bald Eagle, Correspondence from Robert T. Magill, to Ms. Michelle Morgan, Chief, Branch of Recovery and Delisting, Endangered Species Program, U.S. Fish and Wildlife Service, Arlington, VA; June 17, 2006.

The Service also ignores the fact that PVAs demonstrate predictable decline in the Desert Eagle population in spite of increasing numbers of breeding adults. The PVAs ignored by the Service include the suppressed AGFD population viability analysis, the PVA included in the Petition, and the Center's updated 2006 PVA. See Arizona Bald Eagle Demographic Model Predicts A Decline Whereas Breeding Adult Counts Are Increasing, Linda J. Allison, James Driscoll, and Kenneth Jacobson, Arizona Game and Fish Department, Phoenix, AZ, presentation at the Cooper Ornithological Society, Flagstaff, AZ, May 2, 2003. See Draft Demographic Analysis of the Arizona Bald Eagle Population, L. Allison, J.T. Driscoll, K.V. Jacobson, and J.G. Koloszar, Nongame and Endangered Wildlife Program Technical Report 220, Arizona Game and Fish Department, Phoenix, AZ, 2003. See Desert Nesting Bald Eagle post-fledgling survival analysis 1977-2003, Martin Taylor, Ph.D., Center for Biological Diversity, August 2006.

The PVA in the petition demonstrated a high risk of extinction for this population within the next 57 and 82 years. The 2006 PVA again confirms this conclusion.

The PVAs consistently show that the Desert Eagle faces a high risk of predictable extinction based on the fact that the juvenile and adult mortalities are high AND this population is small. In the negative 90-day finding, the Service implies that the high mortality rates of Desert Eagle juveniles and adults are not alarming because the mortalities are “similar” to those of other Bald Eagle populations. The Service fails to acknowledge that “similar” mortality means little in the setting a population of under 200 individuals. The suppressed AGFD PVA, our Petition’s ignored PVA, and our updated 2006 PVA all examine this situation in detail specific to the Desert Eagle. All conclude similarly that high mortality levels and small population size places the Desert Eagle in significant danger of extinction.

The negative 90-day petition finding fails completely to address the fact that the Desert Eagle includes a high percentage of subadults in its breeding population. The Petition clearly presents this disturbing fact. The Petition presents the fact that such a high percentage of subadults in the breeding population suggests an insufficiency of adults in the floating (non-breeding) population. (From 1991 to 2003, 22% of breeding Desert Eagles were subadults.) In 2006, AGFD now states that subadults have accounted for 26% of the breeding Desert Eagle recruitments from 1987 to 2004. See Conservation assessment and strategy for the bald eagle in Arizona, Driscoll, J.T., K.V. Jacobson, G.L. Beatty, J.S. Canaca, and J.G. Koloszar, Nongame and Endangered Wildlife, Program Technical Report 173, Arizona Game and Fish Department, Phoenix, Arizona, 2006. This 26% rate of subadults in the breeding population compares the 0.02 percent incidence of subadult participation found by Hunt *et al.* in querying researchers studying other Bald Eagle populations. See Ecology of Bald Eagles in Arizona, Report to U.S. Bureau of Reclamation, Contract 6-CS-30-04470, Hunt, W.G., D.E. Driscoll, E.W. Bianchi, R.E. Jackman, BioSystems Analysis Incorporated, Santa Cruz, CA., 1992.

In spite of clearly identifying increasing risks, PVA demonstrated predicted extinction, excessively high subadult participation in the breeding population, the Service still concludes in the negative 90-day petition finding that “the petitioner did not provide substantial information to indicate that the level of mortality and small population size may place the Sonoran Desert population of bald eagle in danger of becoming extinct.” The Service’ conclusion defies logic.

The negative 90-day finding failed to use the appropriate standards and procedures

In determining that Desert Eagles do not warrant further consideration for listing as an endangered species, the Service applied the wrong legal standard by, for example, illegally requiring that the petition provide conclusive proof that the Desert Eagle population is “significant to its taxon,” as well as provide conclusive proof that the numerous threats the eagles face will lead to the extinction of the species. Courts have consistently found that such conclusive evidence is not required at the 90-day finding stage, nor even for a species to be listed. See e.g. Defenders of Wildlife v. Babbitt, 958 F.Supp. 670 (D.D.C. 1997); Moden v. U.S. Fish and Wildlife Service, 281 F.Supp.2d 1193 (D. Or. 2003). The Petition to list Desert Eagles clearly presents information that would lead a reasonable person to believe that the population *may be* significant to its taxon – and thus constitute a DPS – and that it faces threats that would lead a reasonable person to believe that the DPS may warrant listing as endangered. Nothing

more is required.

Moreover, the fact that the ESA requires a finding regarding a petition “within 90 days” demonstrates Congress’ intent that the Service conduct a limited review of the petition before conducting an in-depth status review. Given the 90-day deadline, the Service cannot realistically review all available data on the species, conduct the mandatory status review, solicit full public comment, or consult with other agencies, states, or independent scientists during this time period. For that reason, the scope of the Service’s 90-day review is limited to the petition and the Service’s files. Here, the Service has violated 90-day finding procedure by picking and choosing which of its files to use at this stage. The Service cannot use files to defeat the petition while simultaneously failing to acknowledge files that support the petition. In other words, at this stage in the proceedings, the Service cannot selectively expand the scope of review to refute information contained in the petition. “Those petitions that are meritorious on their face should not be subject to refutation by information and views provided by selected third-parties....” Center for Biological Diversity v. Morgenweck, 351 F.Supp.2d at 1143.

The Service’s decision essentially conflated a 90-day finding with a 12 month review by selectively choosing to review and discuss information supposedly refuting the information provided in the petition, without similarly reviewing and discussing information tending to support the petitioned action. The Service also failed to seek outside comment and input on its decision. However, a 12 month review requires that the process be opened to the public and independent scientists—“The [Service] simply cannot bypass the initial 90-day review and proceed to what is effectively a 12-month status review, but without the required notice and the opportunity for public comment.” Colo. River Cutthroat Trout v. Kempthorne, 2006 U.S. Dist. LEXIS 63473 (D.D.C. 2006).

The negative 90-day finding also violates the ESA by failing to use the best available science in determining that Desert Eagles do not constitute a valid DPS, and that endangered status for this population is not warranted. See 16 U.S.C. § 1533(a)(1)(A).

The negative 90-day finding erroneously concluded that the Desert Eagle population is not “significant to its taxon”

To be considered a “significant” population under the Service’s DPS policy, FWS considers the following factors, among others: (1) Evidence of the persistence of the population segment in an ecological setting that is unique for the taxon; (2) evidence that loss of the population segment would result in a significant gap in the range of the taxon; (3) evidence that the population segment represents the only surviving natural occurrence of a taxon that may be more abundant elsewhere as an introduced population outside of its historic range; and (4) evidence that the discrete population segment differs markedly from other populations of the species in its genetic characteristics. See Policy Regarding the Recognition of Distinct Vertebrate Population Segments Under the Endangered Species Act, 61 Fed. Reg. 4722 (February 7, 1996). Although the Desert Eagles DPS need only meet one requirement to be determined significant, as explained below, there are several reasons it should be considered “significant.”

Evidence of the persistence of the Desert Eagles in an ecological setting that is unique for the taxon

The negative 90-day finding's focus on Desert Eagles' use of riparian habitat completely overlooks the fact that these Bald Eagles live in an ecological setting unique for the taxon—namely, the desert. While the Service is correct when it points out the obvious (that use of riparian habitat is universal among Bald Eagle populations), the Service fails to address the unique characteristics of this population that are discussed in the Petition, in particular the population's use of and ability to survive in a hot, dry desert environment. The Petition never claims or implies that use of riparian habitat is unique; rather, it asserts that use of a desert ecosystem is unique.

For more than thirty years, the Service has clearly recognized the unique ecological setting occupied by the Desert Eagles:

“...this population occupies a southwest desert habitat not found elsewhere...”

See Nomination for Critical Habitat Determination – Bald Eagle Nesting in Southwestern United States, Memorandum to: Director, USFWS, Washington, D.C. (OES); From: Regional Director, Region 2 (SE); September 7, 1978.

Expressive examples of recognition by the Service and others of the uniqueness of the desert as a Bald Eagle ecological setting are plentiful. See Survey of the Southern Bald Eagle in Arizona, U.S. Fish and Wildlife Service, Division of Wildlife Services, Phoenix, Arizona, 1975 (“Most of the resident bald eagle population occurs with riparian areas of the upper Sonoran Life Zone.”). See Southern Bald Eagle Recovery Team Memo, from William W. Rightmire, to State Supervisor, Phoenix, Arizona and Regional Director, Albuquerque, New Mexico (ES), January 20, 1976 (From our survey work up to this point, these birds appear to reside throughout the year in Arizona and are tied to Sonoran Desert habitat for most of the year. Due to these unique characteristics, I believe a local recovery team is needed.”). See Review and comment for the Critical Habitat Delineation, correspondence from Dr. Walter R. Spofford, Aguila-Rancho, Portal, Arizona, to Mr. Jack Woody, Endangered Species Coordinator, Fish and Wildlife Service, Albuquerque, New Mexico, July 24, 1976 (“I wish to point out that this Arizona population of Bald Eagles is an isolated and unique population, far removed from any other nesting population.”). See The Status of the Bald Eagle in the U.S. South of Canada: a preliminary report prepared in consideration of the proposal to extend endangered status to the bald eagle throughout the 48 conterminous states, Whitney Tilt, U.S. Fish and Wildlife Service, October 1976 (The arid Southwest region is inhabited by a peripheral population of nesting bald eagles.”). See The Bald Eagle of the Southwest with Special Emphasis on the Breeding Population of Arizona, U.S. Department of the Interior Water and Power Resources Service, Contract No. BR-14-06-300-2674; Robert D. Ohmart and Ronald J. Sell, Department of Zoology and the Center for Environmental Studies, Arizona State University, Tempe, 1980 (“The specific characteristics of each region...must be considered if management is to be an effective tool in the preservation of the species. This is especially true in the desert Southwest, where the breeding population is very small and primarily concentrated in a limited area and habitat.”). See Southwestern Bald Eagle Recovery Plan, U.S. Fish and Wildlife Service, Albuquerque, New

Mexico, 1982 (“Nesting bald eagles are a unique part of the Sonoran desert.”). See Notes on Meeting – Bald Eagle Recovery Team Leaders Meeting – FWS Endangered Species Recovery Coordinators Meeting, October 27-28, 1982, Memorandum from Dan James, Office of Endangered Species, U.S. Fish and Wildlife Service, to Participants in the Bald Eagle Recovery Team Leaders – FWS Endangered Species Recovery Coordinators Meetings, February 3, 1983 (“The recovery plan was essentially written in 1978-79, when less was known about this unique desert population than at present...” and “...Each recovery team area has unique problems which require individual attention in the development of a recovery plan, i.e. ...recover of small, desert nesting population (Southwest); etc.”). See Central Arizona Water Control Study - Formal Consultation Under Section 7 of the Endangered Species Act, Biological Opinion, Memorandum from Regional Director, Region 2 (SW), Albuquerque, New Mexico, to Regional Director, U.S. Bureau of Reclamation Lower Colorado Region, Boulder City, Nevada, March 8, 1983 (“More than 40 nests, including active, inactive, and historic sites, have been identified within the Salt and Verde drainage. The Arizona population utilizes this desert riparian habitat for breeding and foraging, and represents the entire bald eagle population known to breed in the Southwest...Because of the limited distribution and small size of the Southwest bald eagle population, its geographic location and relative isolation, and the unique ecological conditions to which it has adapted, this population is important.”). See Biological Opinion, Fort McDowell Indian Reservation, Rehabilitation and Betterment Irrigation Project, correspondence from Regional Director, Region 2, U.S. Fish and Wildlife Service, Albuquerque, to Area Director, U.S. Bureau of Indian Affairs, Phoenix Area Office, Phoenix, March 21, 1985 (“This bald eagle population is considered to be a disjunct population of the southern subspecies. Because of the limited distribution of this population, its relative isolation, and the unique ecological conditions associated with it, considerable importance is given to these resident breeding eagles.”). See Flight path encroaches on birds, Phyllis Gillespie, Arizona Republic, April 3, 1989 (“Arizona naturalists are particularly concerned because the state supports a very small population of desert-nesting bald eagles that isn’t found anywhere else in the country...The southern bald eagle is not a true subspecies, but it does have distinct differences from others of its kind, he [Robert Mesta, a Fish and Wildlife Service biologist who coordinates the Arizona bald eagle nest-watch program] said.”). See Ecology of Bald Eagles in Arizona, Report to U.S. Bureau of Reclamation, Contract 6-CS-30-04470, Hunt, W.G., D.E. Driscoll, E.W. Bianchi, R.E. Jackman, “BioSystems Analysis Incorporated, Santa Cruz, CA., 1992 (“...occupies habitat drier, warmer, and less vegetated than is typical for the species.” and “The desert environment is truly extreme for the species.”). See Biological Opinion for rerouting of an existing Navapache Power powerline on the Blue River in Greenlee County, Arizona, 2-21-96-F-136, U.S. Fish and Wildlife Service, Phoenix, Arizona, March 24, 1997 (“Bald eagle breeding areas in Arizona are predominantly located in the upper and lower Sonoran life zones...Bald eagles in the Southwest are additionally unique in that they establish their breeding territory in December or January and lay eggs in January or February, which is early compared with bald eagles in more northerly areas. It is believed that this is a behavioral adaptation so chicks can avoid the extreme desert heat of midsummer...”.) See Bald Eagle by W. Grainger Hunt in Raptors of Arizona, edited by Richard L. Glinski, Arizona Game and Fish Department, University of Arizona Press, 1998 (Among the most unusual nesting habitats occupied by the species are those in Arizona, where many of the nests, though near water, are in open desert under conditions of high heat and low humidity that are far from typical of Bald Eagle habitat.”). See Status of Nesting Bald Eagles in Arizona, 1987-1993, Daniel E. Driscoll, W. Grainger Hunt, and Ronald E. Jackman, Predatory

Bird Research Group, University of California, Santa Cruz, CA, Greg L. Beatty, James T. Driscoll, and Richard L. Glinski, Arizona Game and Fish Department, Phoenix, AZ, Thomas A. Gatz and Robert I. Mesta, U.S. Fish and Wildlife Service, Phoenix, AZ, January 5, 1998 (“...The population is small (34 known pairs in 1993), somewhat isolated from other centers of breeding activity, and occupies habitat drier, warmer, and less vegetated than is typical for the species...”). See Biological Opinion for assignment to the City of Scottsdale of CAP [Central Arizona Project] water allocations belonging to Cottonwood Water Works, Inc. (CWW) and the Camp Verde Water System, Inc. (CVWS), 2021-97-F-314, U.S. Fish and Wildlife Service, Phoenix, AZ, March 30, 1998 (“Bald eagle breeding areas in Arizona are predominantly located in the upper and lower Sonoran life zones...Bald eagles in the Southwest are additionally unique in that they establish their breeding territory in December or January and lay eggs in January or February, which is early compared with bald eagles in more northerly areas. It is believed that this is a behavioral adaptation so chicks can avoid the extreme desert heat of midsummer...”). See Biological Opinion: Alamo Lake Re-operation and Ecosystem Restoration, 2-21-98-F-329, Field Supervisor, U.S. Fish and Wildlife Service, Phoenix, Arizona, March 26, 1999 (“Bald eagle breeding areas in Arizona are predominantly located in the upper and lower Sonoran life zones...Bald eagles in the Southwest are additionally unique in that they establish their breeding territory in December or January and lay eggs in January or February, which is early compared with bald eagles in more northerly areas. It is believed that this is a behavioral adaptation so chicks can avoid the extreme desert heat of midsummer...”). See Biological Opinion: Blue Point Developed Recreation Site, AESO/SE 2-21-00-F-027, Field Supervisor, U.S. Fish and Wildlife Service, Phoenix, Arizona, June 25, 2000 (“Bald eagle breeding areas in Arizona are predominantly located in the upper and lower Sonoran life zones...Bald eagles in the Southwest are additionally unique in that they establish their breeding territory in December or January and lay eggs in January or February, which is early compared with bald eagles in more northerly areas. It is believed that this is a behavioral adaptation so chicks can avoid the extreme desert heat of midsummer...”). See CAP Gila Basin Nonnatives Issues, Biological Opinion Reinitiation, AESO/SE 2-21-90-F-119a, U.S. Fish & Wildlife Service, April 17, 2001 (“Bald eagle breeding areas in Arizona are predominantly located in the upper and lower Sonoran life zones...Bald eagles in the Southwest are additionally unique in that they establish their breeding territory in December or January and lay eggs in January or February, which is early compared with bald eagles in more northerly areas. It is believed that this is a behavioral adaptation so chicks can avoid the extreme desert heat of midsummer...”). See Biological Opinion, Navajo Nation Water Quality Standards, U.S. Fish & Wildlife Service, AESO/SE 2-21-96-F-368, Phoenix, AZ, December 26, 2001 (“Bald eagle breeding areas in Arizona are predominantly located in the upper and lower Sonoran life zones...Bald eagles in the Southwest are additionally unique in that they establish their breeding territory in December or January and lay eggs in January or February, which is early compared with bald eagles in more northerly areas. It is believed that this is a behavioral adaptation so chicks can avoid the extreme desert heat of midsummer...”). See Biological Opinion: Wind Turbine at Camp Navajo Army Depot, AESO/SE 02-21-02-F-0503, Field Supervisor, U.S. Fish and Wildlife Service, Phoenix, Arizona, January 27, 2003 (“Bald eagle breeding areas in Arizona are predominantly located in the upper and lower Sonoran life zones...Arizona bald eagles demonstrate unique behavioral characteristics in contrast to bald eagles in the remaining lower 48 states. Eagles in the Southwest frequently construct nests on cliffs...Bald eagles in the Southwest are additionally unique in that they establish their breeding territory in December or January and lay eggs in

January or February, which is early compared with bald eagles in more northerly areas. It is believed that this is a behavioral adaptation so chicks can avoid the extreme desert heat of midsummer...”). See Intra-Service Biological and Conference Opinion - Issuance of a Section 10(a)(1)(B) permit to Salt River Project for Operation of Roosevelt Lake, AESO/SE 2-21-03-F-0003, Field Supervisor, U.S. Fish and Wildlife Service, Phoenix, Arizona, February 21, 2003 (Bald eagle breeding areas in Arizona are predominantly located in the upper and lower Sonoran life zones...Arizona bald eagles demonstrate unique behavioral characteristics in contrast to bald eagles in the remaining lower 48 states. Eagles in the Southwest frequently construct nests on cliffs...Bald eagles in the Southwest are additionally unique in that they establish their breeding territory in December or January and lay eggs in January or February, which is early compared with bald eagles in more northerly areas. It is believed that this is a behavioral adaptation so chicks can avoid the extreme desert heat of midsummer...”).

The fact that the Desert Eagle occupies a unique desert habitat that is not occupied by Bald Eagles anywhere else was recognized by the Service until August 30, 2006, when the Service abruptly chose to deny this reality in the negative 90-day finding. The Petition demonstrates that the population’s use of the desert southwest is highly unique. The 90-day finding’s abrupt change of opinion and failure to provide any real discussion of this issue alone makes the 90-day finding arbitrary.

The Service has previously divulged what “unique” means in the context of examining other species. In assessing whether the West Coast Fisher exists in an ecological setting unique to its taxon, the Service compared the west coast’s climate, topography, and habitat to what is found in the majority of the Fisher’s range. For example, the Service found that the forests inhabited by the Fisher on the west coast differed in their broadleaf hardwood component from those found in the Great Lakes, Canada and east coast regions. Additionally, the west coast terrain is mountainous compared to the level and low lying terrain of the other regions. Based on observations such as these, the Service concluded that the ecological setting of the Fishers on the west coast is unique. See Endangered and Threatened Wildlife and Plants; 90-day Finding for a Petition To List a Distinct Population Segment of the Fisher in Its West Coast Range as Endangered and To Designate Critical Habitat Thursday, 68 Fed. Reg. 41169 (July 10, 2003).

Similarly, in assessing whether the mountain Yellow-legged Frog exists in an ecological setting unique to its taxon, the Service compared the ecological setting of the southern California and Sierra Nevada populations:

“The rugged canyons of the arid mountain ranges of southern California bear little resemblance to the alpine lakes and streams of the Sierra Nevada. The different ecological settings between mountain yellow-legged frogs in southern California and those in the Sierra Nevada distinguish these populations from each other.”

The Service concluded that the ecological setting of the southern California Yellow-legged Frog in the arid mountain ranges of southern California is unique. See Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for the Southern California Distinct Vertebrate Population Segment of the Mountain Yellow-Legged Frog (*Rana muscosa*), 67 FR 44382 (July 2, 2002).

Similarly, the Service has previously found that an ecological setting is unique based on the setting itself and the way the species interacts with it. In evaluating Western Sage Grouse, the Service found that the Columbia Basin constitutes a unique ecological setting because of its geological, climactic, edaphic and plant community components. Furthermore, the Service concluded that due to the unique ecological setting, the population segment of Western Sage Grouse occupying the Columbia Basin utilized the area differently than the population segments in central and southern Oregon. See Endangered and Threatened Wildlife and Plants; 12-Month Finding for a Petition To List the Washington Population of Western Sage Grouse, 66 Fed. Reg. 22984 (May 7, 2001).

In considering whether the Sonoran Desert region is unique, the Service cannot hide behind the fact that riparian habitat is universal to the species. Such logic would, for example, preclude a DPS of any type of fish simply because they all live in water. Rather, as it has done in other DPS determinations, the Service must examine the characteristics of the region in comparison to the rest of the bald eagle's range, namely, characteristics like climate, topography and habitat. Desert Eagles' ability to survive in a harsh, hot and dry desert environment, reflected in their ecologically dependent set of attributes, namely the combination of small size, early season timing of nesting, heat tolerance and heavy reliance on cliffs for nesting – set them apart from other Bald Eagle populations. The Service's conclusion that the Petition failed to present sufficient information to demonstrate that Desert Eagles *may* exist in a unique ecological setting (and thereby satisfy the significance criterion of the DPS policy) is thus arbitrary and capricious.

Evidence that loss of the population segment would result in a significant gap in the range of the taxon

While simultaneously declaring that loss of Desert Eagles would not result in a significant gap in the range of the taxon, the negative 90-day finding states that 1) “should the Sonoran Desert bald eagle population experience a rapid decline, there are few eagles in neighboring southwestern states or Mexico which could serve as a source population for the Sonoran Desert bald eagle population,” 2) “the information from Harmata *et al.* (1999, p. 788) and Hunt *et al.* (1992, p. A-144) supports...the probability that adult bald eagle[s] will not immigrate to the Sonoran Desert bald eagle population from surrounding southwestern states or farther,” and 3) “a decision to release birds into Arizona from elsewhere should be considered only as a last resort, as the introduction of foreign genes into the Sonoran Desert population might disrupt coadapted gene complexes specific to the desert population.” 71 Fed. Reg. at 51553.

As long ago as 1976, the Service stated,

“The arid Southwest region is inhabited by a peripheral population of nesting bald eagles.”

See The Status of the Bald Eagle in the U.S. South of Canada: a preliminary report prepared in consideration of the proposal to extend endangered status to the bald eagle throughout the 48

conterminous states, Whitney Tilt, U.S. Fish and Wildlife Service, October 1976.

In 1978, the Service stated,

“The areas delineated contain the only known active nesting territories for bald eagles in an area encompassing all of Oklahoma, Utah, Nevada, New Mexico, Arizona, west Texas, and southern California. In addition, this population occupies a southwest desert habitat not found elsewhere and utilizes nest sites unique to the species in the contiguous United States. This is all that are known to remain of nesting bald eagles in the broad area previously described.”

See Nomination for Critical Habitat Determination – Bald Eagle Nesting in Southwestern United States, Memorandum to: Director, USFWS, Washington, D.C. (OES); From: Regional Director, Region 2 (SE); September 7, 1978. USFWS 1978 (September 7, 1978). Memorandum; TO: Director, USFWS, Washington, D.C. (OES); FROM: Regional Director, Region 2 (SE); July 20, 1979.

Similar statements or supportive maps are included elsewhere. See Survey of the Southern Bald Eagle in Arizona; U.S. Fish and Wildlife Service, Division of Wildlife Services, Phoenix, Arizona, 1975. See The Status of the Bald Eagle in the U.S. South of Canada: a preliminary report prepared in consideration of the proposal to extend endangered status to the bald eagle throughout the 48 conterminous states, Whitney Tilt, U.S. Fish and Wildlife Service, October 1976. See The Bald Eagle of the Southwest with Special Emphasis on the Breeding Population of Arizona, U.S. Department of the Interior Water and Power Resources Service, Contract No. BR-14-06-300-2674; Robert D. Ohmart and Ronald J. Sell, Department of Zoology and the Center for Environmental Studies, Arizona State University, Tempe, 1980. See Ecology of Bald Eagles in Arizona, Report to U.S. Bureau of Reclamation, Contract 6-CS-30-04470, Hunt, W.G., D.E. Driscoll, E.W. Bianchi, R.E. Jackman, “BioSystems Analysis Incorporated, Santa Cruz, CA., 1992. See Comments on Proposed Rule to Reclassify the Bald Eagle, Correspondence to U.S. Fish & Wildlife Service, Duane Shroufe, Director, Arizona Game & Fish Department, Phoenix, Arizona, November 3, 1994. See Endangered and Threatened Wildlife and Plants; Reclassify the Bald Eagle From Endangered to Threatened in Most of the Lower 48 States, 59 Fed. Reg. 35584, 35588 (July 12, 1994). See Bald Eagle (*Haliaeetus leucocephalus*). In The Birds of North America, No. 506 (A. Poole and F. Gill, eds.). D.A. Buehler, The Birds of North America, Inc., Philadelphia, PA; 2000

The Southwest bald eagle recovery region was not based purely “on geographic location” as alleged in the negative 90-day finding. The Southwest recovery region was set up explicitly to reflect the population’s significance, its behavioral isolation (early nesting as an adaptation to the desert heat; utilization of cliffs or rock pinnacles for nesting) and geographical isolation (Sonoran Desert nesting). See Personal communication with Dr. Robert Witzeman, Maricopa Audubon Society Chair to Dr. Robin Silver, September 1, 2006. See Personal communication to Ron Horjesi, original Recovery Team member, to Dr. Robin Silver, September 2, 2006. See Personal communication with Dr. Robert Ohmart, to Dr. Robin Silver, October 1, 2006. See Survey of the Southern Bald Eagle in Arizona; U.S. Fish and Wildlife Service, Division of Wildlife Services, Phoenix, Arizona, 1975. See The Status of the Bald Eagle in the U.S. South of Canada: a preliminary report prepared in consideration of the proposal to extend endangered

status to the bald eagle throughout the 48 conterminous states, Whitney Tilt, U.S. Fish and Wildlife Service, October 1976. See Proposed Delisting of the Bald Eagle, Correspondence from Robert T. Magill, to Ms. Michelle Morgan, Chief, Branch of Recovery and Delisting, Endangered Species Program, U.S. Fish and Wildlife Service, Arlington, VA, June 17, 2006.

The Service's administrative geography includes the entirety of the States of Arizona, New Mexico, Texas and Oklahoma in its Region 2, Southwest Region. The Southwest Region bald eagle recovery region includes Arizona, New Mexico, southeastern California immediately along the Colorado River, and west Texas and west Oklahoma west of the 100th meridian. The Southwest Region Bald Eagle recovery region does NOT include Oklahoma and Texas east of the 100th meridian as does the USFWS Region 2, Southwest Region. Such statements, information and maps directly contradict the Service's assertion that loss of this population is insignificant because it would not create a significant gap in eagles' range in the United States.

Also important to the "significant gap" analysis is the fact that Desert Eagles are isolated and on the edge of the species' range (including Mexico's Desert Eagles). As the Service has pointed out,

"Within the distribution of every species there exists a peripheral population, an isolate or subpopulation of a species at the edge of the taxon's range. The population is the basic evolutionary and ecological functional unit. The local population is where responses to environmental challenges occur, where adaptations arise, and where genetic diversity is maintained and reshuffled each generation. A species can continue to exist even though many of its populations are destroyed, resulting in a loss of biodiversity and what may be unique genetic or phenotypic traits. Peripheral populations are often located at a species' ecological limits where unique genetic combinations are exposed to and tested by *environmental circumstances that may not be found elsewhere in the range of the species*. When a peripheral population is isolated from gene flow from other populations, the isolated peripheral population may become highly adapted to local conditions. Distinctive traits found in peripheral populations can be important for the survival and evolution of a species as a whole (Meffe *et al.* 1997)."

See Endangered and Threatened Wildlife and Plants; Status Review and 12-Month Finding for a Petition To List the Washington Population of the Western Gray Squirrel; 68 FR 34628 (June 10, 2003).

Because Desert Eagles live in an environment that is highly unique for the species, it is developing adaptations to that environment that may be important for the survival and evolution of a species as a whole. In 1992, Hunt, *et al.* said,

"...The desert environment is truly extreme for the species. Circumstantial evidence suggests that heat stress may impact brood survivorship of some years..., and would no doubt exert powerful selection for genes appropriate to such an environment..."

See Ecology of Bald Eagles in Arizona, Report to U.S. Bureau of Reclamation, Contract 6-CS-30-04470, Hunt, W.G., D.E. Driscoll, E.W. Bianchi, R.E. Jackman, “BioSystems Analysis Incorporated, Santa Cruz, CA., 1992.

While macro genetic analysis has yet to definitively identify the specific genetic areas responsible for such adaptation in the Bald Eagle, much work has been done in other birds. In December 2004, Dr. Irene Tieleman reviewed the physiological, behavioral and demographic adaptations of larks along an aridity gradient at the International Symposium on Ecology and Conservation of Steppe-land Birds. Dr. Tieleman concluded:

“Increasing aridity is correlated with lower levels of basal metabolic rate (BMR) and total evaporative water loss (TEWL) in larks. This pattern cannot be explained by the evolutionary history of larks, or by acclimatization, and is most likely attributable to genetic adaptation.”

See Physiological, behavioral and demographic adaptations of larks along an aridity gradient: a review, B. Irene Tieleman, Department of Biology, University of Missouri, St. Louis, presented at International Symposium on Ecology and Conservation of Steppe-land Birds, December 2004.

In 2006, Dr. Tieleman and her colleagues further confirm their theory:

“A test of the relationship between BMR and aridity using phylogenetic independent constraints was consistent with our previous analysis: BMR decreased with increasing aridity.”

“A combination of low BMR and low TEWL could be favorable in birds from dry hot environments because it reduces food and water requirements and minimizes heat production.”

“In summary, decreasing levels of BMR and TEWL in larks correlate with increasing aridity. These physiological traits may have adaptive significance in the current environment, and natural selection is a likely process to explain our findings.”

See Adaptation of metabolism and evaporative water loss along an aridity gradient, B. Irene Tieleman, Joseph B. Williams and Paulette Bloomer, *Proc. R. Soc. Lond. B* (2003) 270, 207–214, December 10, 2002.

Especially in light of the increasing impacts of global warming, the adaptations of Desert Eagles may become critical to the continued survival of the species as a whole. Regardless, the fact remains that this population is almost entirely isolated from any other bald eagle population and consequently has developed traits that are unique to the species as a whole and likely important for its long term survival. Indeed, as already pointed out, the DPS’s size, behavior and ability to survive in a harsh environment are all evidence of the adaptations of this population. Moreover, agencies have found the loss of an isolated, peripheral population to be “significant” for a number of species. See Endangered and Threatened Species; Final Endangered Status for a Distinct Population Segment of Smalltooth Sawfish (*Pristis pectinata*) in the United States, 68 Fed. Reg. 15674, 15676 (April 1, 2003) (Smalltooth sawfish population significant because it

occupies northernmost habitat of the species in the western hemisphere); Endangered and Threatened Wildlife and Plants; Final Rule to List the Columbia Basin Distinct Population Segment of the Pygmy Rabbit (*Brachylagus idahoensis*) as Endangered, 68 Fed. Reg. 10388, 10397 (March 5, 2003) (significant gap in range of Columbia Basin Pygmy Rabbit caused by loss of northernmost extent of the range); Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for the Southern California Distinct Vertebrate Population Segment of the Mountain Yellow-Legged Frog (*Rana muscosa*), 67 FR 44382 (July 2, 2002) (finding that the loss of the southern California frogs on the periphery of the species' range would create a gap in the range of the taxon); Endangered and Threatened Wildlife and Plants; Determination of Threatened Status for the Northern Population of the Copperbelly Water Snake, 62 Fed. Reg. 4183, 4184 (January 29, 1997) (loss of peripheral isolated northern population of Copperbelly Water Snake considered significant); see also Nat'l Ass'n of Home Builders v. Norton, 340 F.3d 835, 846 (9th Cir. 2003) (“We defer to the [Service’s] interpretation of “a gap at the end of the fence”....Even the loss of a peripheral population, however small, would create an empty geographic space in the range of the taxon.”).

The Service’s recent findings in regard to the Western Snowy Plover are also instructive.

“This apparent lack of interchange between coastal and western interior breeding sites may be explained by the relatively high degree of site fidelity exhibited by this species....

There is no evidence to indicate western interior populations would recolonize the Pacific coast if the listed population were lost. Therefore, such loss would remove 2,000 miles of coastline, stretching from Washington to Baja California, from the subspecies' breeding range. The Pacific coast constitutes the vast majority of coastal breeding habitat used by the subspecies (the rest being in southern Texas and northeastern Mexico), as well as the westernmost extent of the taxon's breeding range....

We conclude that the best available data demonstrate that the likelihood of pair bonding and interbreeding between the Pacific Coast [western snowy plovers] and the interior-nesting western snowy plovers is very low, and that there is no evidence indicating that interior breeding plovers would rapidly reestablish a viable breeding population along the Pacific Coast following the extirpation of the coastal population. Accordingly, loss of the Pacific Coast WSP would result in a significant gap in the breeding range of the taxon. It would constitute the loss of a substantial percentage of the subspecies, curtailing the taxon's current breeding range by 2,000 miles of coast line.”

Endangered and Threatened Wildlife and Plants; 12-Month Finding on a Petition to Delist the Pacific Coast Population of the Western Snowy Plover, 71 Fed. Reg. 20607, 20617-18 (April 21, 2006).

The situation with Desert Eagles is similar. It has extremely high nest site fidelity, and there is no evidence to indicate other bald eagle populations would recolonize the Sonoran Desert region if the Desert Eagles population were lost. Indeed,

such loss would remove a large area, the entire Southwestern deserts including the State of Arizona and Sonora, Mexico, from the species' breeding range. Moreover, the Sonoran Desert region largely constitutes the southernmost extent of the taxon's breeding range.

The cases that have interpreted the “significant portion of the range” language in the ESA are also instructive of significance, especially when determining whether a proposed DPS might be significant to the taxon’s historic range. Pursuant to the ESA, Congress defines a species as endangered or threatened where it is at risk “throughout all or a significant portion of its range” 16 U.S.C. §§ 1532 (6), (20). As discussed in Nat'l Ass'n of Home Builders v. Norton, “Although the ‘significant gap in the range’ analysis required for a DPS is not the same as ‘the significant portion of the range’ analysis required for a listing decision for the entire species, the two analyses are similar and Defenders of Wildlife provides useful guidance here. By analogy, the historical range of a taxon would be reduced ‘if there are major geographical areas in which it is no longer viable but once was.’” 340 F.3d 835, 848-849 (9th Cir. 2003) (quoting Defenders of Wildlife v. Norton, 258 F.3d 1136, 1145 (9th Cir. 2001)). Courts have consistently held that the Service’s decisions are arbitrary and capricious when the agency fails to explain why certain geographic areas do not constitute a significant portion of the species’ range, without respect to any consideration of genetics, morphology, or behavior. Here, the Service failed to address whether the range of the Desert Eagles’ population is a significant portion of bald eagles’ historic range. See Defenders of Wildlife v. Norton, 258 F.3d at 1145-47 (holding that the Service must explain why the species is not endangered when there are major geographical areas where the species is absent).

In sum, the Service failed to correlate the facts with its finding; failed to rationally address whether the range of Desert Eagles is a significant portion of the species’ range; and failed to address why loss of an isolated or peripheral population is not significant. Accordingly, the Service’s conclusion that loss of desert bald eagles would not result in a significant gap in eagles’ range is arbitrary and capricious.

Evidence that the discrete population segment differs markedly from other populations of the species in its genetic characteristics.

It is true that there is currently no absolutely conclusive genetic data indicating that Desert Eagles are distinct from other Bald Eagles. However, the best available science clearly indicates that such genetic distinctions are very likely to exist. Many factors demonstrate this, including Desert Eagles’ small size, their unique behavior such as high frequency of cliff nesting, their adaptation to a unique arid and desert environment, their unique and consistent early migration pattern, and their reproductive isolation.

With respect to migration, Hunt *et al.* state:

“...the relatively small angle subtended by the courses of the 10 migrants, the regularity of diel [course of the day] activities, the rather long distances covered over

short periods, and the course fidelity of some of long distances all indicate a functional migration involving habitat destinations, most likely food-related. The fact that the eagles showed these characteristics while migrating alone is evidence for genetic control of migratory adaptation.”

See Ecology of Bald Eagles in Arizona, Report to U.S. Bureau of Reclamation, Contract 6-CS-30-04470, Hunt, W.G., D.E. Driscoll, E.W. Bianchi, R.E. Jackman, “BioSystems Analysis Incorporated, Santa Cruz, CA., 1992.

As the Service admitted in its discussion of the discrete nature of Desert Eagles, individuals in this population are smaller than other Eagles, nest in an area (cliffs) much more frequently than any other population of Bald Eagle, have unique early migration, and breed/nest at a time of year to best avoid the impacts of the desert heat/dryness. Moreover, basic conservation biology principles indicate that morphological and behavioral differences in a reproductively isolated population are most likely indicators of genetic distinctiveness. Together, these characteristics demonstrate that, at the very least, Desert Eagles most likely differ markedly from other populations in their genetic characteristics. The fact that current genetic information does not conclusively demonstrate such distinctiveness does not mean that it does not exist. On the contrary, the best available scientific deduction demonstrates Desert Eagles’ reproductive isolation and morphological and behavioral adaptations to their harsh and arid environment and unique early migratory pattern. This population has most likely undergone genetic divergence from other eagles. FWS’ conclusion that the petition did not contain information indicating that Desert Eagles may be genetically unique compared to other eagle populations is thus arbitrary and capricious.

Other evidence of significance

While the Service’s DPS Policy suffers from serious problems, it does acknowledge that the above factors are not the only ones that may be considered when determining significance. See 61 Fed. Reg. at 4725 (“it is not possible to describe prospectively all the classes of information that might bear on the biological and ecological importance of a discrete population segment.”) Unfortunately, the negative 90-day finding fails to address morphological, behavioral, nesting, and isolation factors outside the discreteness context and consequently fails to adequately address the fact that the Desert Eagle population is significant in that it has adapted in many ways to its environment—small size, early season breeding and nesting, and frequent use of cliffs as nesting sites. Indeed, as the negative 90-day finding admits, while “bald eagles in other areas may nest on cliffs if suitable trees are not available in Arizona, cliff nesting is common.” 71 Fed. Reg. at 51552. Moreover, in biological opinions discussing Desert Eagles, the Service clearly declared that “Arizona bald eagles are considered distinct behaviorally from bald eagles in the remaining lower 48 states in that they frequently construct nests on cliffs.” See Biological Opinion, Cyprus-Bagdad Copper Corporation, Francis Creek Power Line, correspondence from Acting Field Supervisor, Arizona, U.S. Fish and Wildlife Service, Phoenix, to Area Manager, Bureau of Land Management, Phoenix District, Kingman Resource Area, Kingman, Arizona, December 2, 1992. See Biological Opinion on the Effects to the Bald Eagle from the Operations of Alamo Dam and Alamo Lake, correspondence from Arizona Ecological Services Field Office, Phoenix, to Chief, Constructions-Operations Branch, Department of the

Army, Los Angeles District, Army Corps of Engineers, Los Angeles, California, February 15, 1996. See Biological Opinion for rerouting of an existing Navapache Power powerline on the Blue River in Greenlee County, Arizona, 2-21-96-F-136, U.S. Fish and Wildlife Service, Phoenix, Arizona, March 24, 1997. See Bald Eagle by W. Grainger Hunt in Raptors of Arizona, edited by Richard L. Glinski, Arizona Game and Fish Department, University of Arizona Press, 1998. See Status of Nesting Bald Eagles in Arizona, 1987-1993, Daniel E. Driscoll, W. Grainger Hunt, and Ronald E. Jackman, Predatory Bird Research Group, University of California, Santa Cruz, CA, Greg L. Beatty, James T. Driscoll, and Richard L. Glinski, Arizona Game and Fish Department, Phoenix, AZ, Thomas A. Gatz and Robert I. Mesta, U.S. Fish and Wildlife Service, Phoenix, AZ, January 5, 1998. See Biological Opinion for assignment to the City of Scottsdale of CAP [Central Arizona Project] water allocations belonging to Cottonwood Water Works, Inc. (CWW) and the Camp Verde Water System, Inc. (CVWS), 2021-97-F-314, U.S. Fish and Wildlife Service, Phoenix, AZ, March 30, 1998. See Biological Opinion: Alamo Lake Re-operation and Ecosystem Restoration, 2-21-98-F-329, Field Supervisor, U.S. Fish and Wildlife Service, Phoenix, Arizona, March 26, 1999. See Biological Opinion: Blue Point Developed Recreation Site, AESO/SE 2-21-00-F-027, Field Supervisor, U.S. Fish and Wildlife Service, Phoenix, Arizona, June 25, 2000. See CAP Gila Basin Nonnatives Issues, Biological Opinion Reinitiation, AESO/SE 2-21-90-F-119a, U.S. Fish & Wildlife Service, April 17, 2001. See Biological Opinion, Navajo Nation Water Quality Standards, U.S. Fish & Wildlife Service, AESO/SE 2-21-96-F-368, Phoenix, AZ, December 26, 2001. See Biological Opinion: Wind Turbine at Camp Navajo Army Depot, AESO/SE 02-21-02-F-0503, Field Supervisor, U.S. Fish and Wildlife Service, Phoenix, Arizona, January 27, 2003. See Intra-Service Biological and Conference Opinion - Issuance of a Section 10(a)(1)(B) permit to Salt River Project for Operation of Roosevelt Lake, AESO/SE 2-21-03-F-0003, Field Supervisor, U.S. Fish and Wildlife Service, Phoenix, Arizona, February 21, 2003.

In 1975, the Bureau of Reclamation tried similarly to belittle the uncharacteristically frequent use of cliff nesting sites. The Birds of Arizona author, Gale Monson, criticizes the Bureau's inappropriate similar discounting of Desert Eagle's frequent cliff nesting. This is applicable to the Service's current action:

“The Bureau makes a number of laughable points, such as that if Bald Eagles in Alaska nest on cliffs then, if the Arizona Eagles do likewise, ipso facto, the birds of both must both be of the same ‘stock’...”

See Response to comments of the Bureau of Reclamation's response to recommended critical habitat delineations for the Southern Bald Eagle in Arizona, correspondence from Gale Monson, to Mr. Jack Woody, Endangered Species Coordinator, U.S. Fish and Wildlife Coordinator, Albuquerque, NM, August 25, 1976.

As already discussed, a petition need not provide conclusive evidence of uniqueness, only substantial information indicating that Desert Eagles may be unique and thus significant to the population as a whole. Thus, for the negative 90-day finding to conclude that cliff nesting “is not necessarily a unique trait of Sonoran Desert bald eagles,” is entirely beside the point at this stage in the proceedings. Because the Petition presents substantial information regarding cliff nesting and other aspects of the DPS's biology, a status review is warranted.

There is also a long and well documented history of reproductive isolation for Desert Eagles. In 1982, recognizing the unique aspect of Bald Eagle in the Sonoran Desert region, the Service created a Recovery Plan for what was referred to as the Southwestern Region of the U.S. In 1994, when the Service began considering downlisting all Bald Eagles in the lower 48 states from endangered to threatened status, the Service had this to say about the Southwestern Bald Eagles:

“In addition to threats common with other Recovery regions, such as human disturbance and availability of adequate nesting and feeding habitat, the bald eagles of the Southwestern Recovery Region are subjected to a high adult rate of mortality, *isolation*, heat stress and nest parasites....[T]he high death rate of adults and nestlings and the *lack of gene exchange* with any adjacent nesting populations, which may cause inbreeding to adversely affect the population’s long-term survival, remain limiting.”

59 Fed. Reg. at 35590.

In 1995, the Service reversed course, and erroneously concluded that the Desert Eagle is “part of the same bald eagle population as that of the remaining lower 48 states.” Endangered and Threatened Wildlife and Plants; Final Rule to Reclassify the Bald Eagle From Endangered to Threatened in All of the Lower 48 States, 60 FR 36000, 36004 (July 12, 1995). However, the 1995 determination was based on the finding of one eagle that had originated outside the area. Evidence from the state of Arizona’s Game and Fish Department, which unlike anything cited by the Service is based on a long-term study of Desert Eagles, directly contradicts the 1995 finding:

“However, the Arizona Game and Fish Department (*in prep.*) concluded that ‘evidence from the banding and identification of breeding adults defends the theory that Arizona’s breeding population is not supported or maintained by immigration from other states or regions. Because adults return to the vicinity of their natal origin to breed, the large distance between small populations in the Southwest decreases the chance for movement between neighboring populations. Probably most convincing are the results from banding 256 nestlings over 20 years and identifying 372 breeding adults over 8 years. Only one individual from out-of-state entered the breeding population and one left. Additionally, the proportion of breeding adults with color bands (placed on as nestlings in Arizona) has steadily increased, while the presence of unmarked eagles has decreased. Thus, continued attention to the survivorship of all Arizona bald eagles is vital to the maintenance of our breeding population. We can not depend on immigration to Arizona from nearby states to make up for poor management in Arizona.’”

See Intra-Service Biological and Conference Opinion - Issuance of a Section 10(a)(1)(B) permit to Salt River Project for Operation of Roosevelt Lake, AESO/SE 2-21-03-F-0003, Field Supervisor, U.S. Fish and Wildlife Service, Phoenix, Arizona, February 21, 2003.

In fact, in its discussion of the discreteness element of the DPS Policy, the Service itself admits that “20 years of monitoring have resulted in the determination that no eagles have immigrated to and only one eagle has emigrated from the [Desert Nesting] bald eagle population.” 71 Fed. Reg. at 51554. Yet somehow the Service has concluded that this extreme

isolation is not significant because the genetic data is inconclusive. Again, all the petition had to show was evidence to demonstrate that the Desert Eagle population *may be* significant to the taxon as a whole. Twenty years of data demonstrating extreme isolation clearly meets that standard regardless of the fact that genetic studies are still inconclusive.

Desert Eagles' isolation, coupled with their unique physical and behavioral characteristics, clearly demonstrate that the population is significant to its taxon, not just merely discrete from its taxon. In its determination that the population is discrete, the Service, while not admitting it, demonstrated that Desert Eagles constitute a significant population. FWS' conclusion that the petition did not present information indicating that Desert Eagles may be significant is thus arbitrary.

The negative 90-day finding erroneously concluded that Desert Eagles do not face threats that may warrant listing as endangered

Likely recognizing that its finding in regard to "significance" was unfounded, the Service conducted a threats analysis. However, threats aside, the fact remains that the Service has never explained what constitutes adequate population numbers for this population. In the negative 90-day finding, the Service insinuates that the current numbers of Desert Eagles are adequate simply because they are greater than previous numbers. Without rational criteria for the number of eagles necessary to constitute a recovered population, however, the Service's conclusion that the Desert Eagle population has increased has no meaning. Simply stating that "the number of occupied BAs has increased from a low of 3 in 1971 to a high of 36 in 2004" says nothing about whether this population is endangered, threatened, or recovered. 71 Fed. Reg. at 51551

As the Service has pointed out in recent biological opinions, "even though the bald eagle has been reclassified to threatened, and the status of the birds is on an upward trend, the Arizona population remains small and under threat from a variety of factors." Indeed, the 1982 Recovery Plan downlisting criteria for the Southwestern recovery unit of the bald eagle was explicitly determined to be inadequate in the Service's 1994 Federal Register notice, in which the Service declared that "despite attaining all recovery plan goals, current information indicates that the population is at risk and remains in danger of extinction due to excessively low survival rates and the need for intensive management particularly at nest sites." 59 Fed. Reg. at 35588. In other words, not only has the Service provided no information regarding what would be the numerical basis for a recovered Desert Eagle population, the Service's determinations as to what constitutes criteria necessary for downlisting for the Southwest recovery unit are no longer valid and cannot be used as a basis for a determination that the current numbers are adequate.

The Service's assessment of whether or not the Desert Eagle population is endangered is also premature. As the Service's threats analysis makes plain, the Service based its determinations regarding the population on whether or not the *entire* bald eagle population is stable as opposed to whether Desert Eagles are secure. For instance, the Service asserts in the negative 90-day finding that "[u]nder section 7 of the Act, we have concluded to date that [various] actions would not jeopardize the continued existence of the bald eagle," and "[biological opinions] indicate that, although there may be some level of adverse effects resulting from the agency's action, we do not believe the threats imposed by the various actions, when considered cumulatively with previous actions, were likely to jeopardize the continued existence

of the species.” 71 Fed. Reg. at 51557, 51559-60. However, the Service is required to determine whether Desert Eagles are endangered, not whether the entire bald eagle population in the contiguous United States is endangered. Because the Service does not currently recognize Desert Eagles as a DPS, all of its section 7 consultations have based their jeopardy conclusions on whether or not an action in Arizona would jeopardize the entire bald eagle population in the lower 48 states, not on whether the action would jeopardize the Desert Eagle population itself. Therefore, any conclusions regarding threats to Desert Eagles based on past section 7 jeopardy determinations are meaningless because they are comparing apples and oranges.

The Petition includes the quotation and citation,

“The bald eagle population in Arizona is exposed to increasing hazards from the regionally increasing human population. These include extensive loss and modification of riparian breeding and foraging habitat through clearing of vegetation, changes in groundwater levels, and changes in water quality.”

See Intra-Service Biological and Conference Opinion - Issuance of a Section 10(a)(1)(B) permit to Salt River Project for Operation of Roosevelt Lake, AESO/SE 2-21-03-F-0003, Field Supervisor, U.S. Fish and Wildlife Service, Phoenix, Arizona, February 21, 2003.

In sum, because the Service erred in determining that the Desert Eagle population is not a valid DPS, the Service’s threats analysis of this population in its negative 90-day finding was meaningless. In order to perform a valid assessment as to whether Desert Eagles are endangered, threatened, or recovered, the Service must identify in a recovery plan criteria to indicate these respective conditions of the population, then compare existing numeric and habitat conditions against these criteria. Valid recovery criteria must address habitat conditions and other listing factors as well as numbers of birds.

Additionally, aside from the negative 90-day finding’s failure to offer an explanation of why current Desert Eagle numbers and habitat conditions are adequate for a population on the verge of delisting, the Service’s threats analysis sweepingly concludes that all current threats are somehow insignificant. However, to refute the many threats that face Desert Eagles, the Service relies on what are clearly inadequate measures.

The Service believes that “awareness, collaboration, flexibility, planning, and willingness of all wildlife, land, and recreation managers” will somehow obviate the threats to Desert Eagles. 71 Fed. Reg. at 51557. While it may be true that the “willingness” exists to protect bald eagles, it is the ESA that provides the impetus for actual concrete, quantifiable, and verifiable actions. See Center for Biological Diversity v. Donald H. Rumsfeld, 198 F. Supp. 2d 1139 (D. Ariz. 2002). Otherwise, developers and government agencies have free reign to do as they wish without legal repercussions. In short, while cooperation is important, it alone is inadequate. The Service provides no definitive mechanisms by which this cooperation will actually protect Desert Eagles. Monitoring, public interaction, and assessment of threats are laudable, but only ESA protection legally prevents actions harmful to the population, especially to habitat destruction.

The Service implies that “analyzing ground-water levels in the Pinto BA for possible cottonwood pole plantings,” helping “to implement riparian restoration strategies within the Tonto Creek Riparian Unit,” and the purchase of property for riparian enhancement on Roosevelt Lake” will remedy loss of habitat for 24% of the historical Desert Eagle productivity. This is

ludicrous. Restoration efforts even under the best conditions will take decades under the most ideal circumstances to provide any possible nest replacement trees. As Dr. Julie Stromberg has summarized,

“Biotic restoration techniques includes the planting of "poles" or of rooted cuttings of cottonwood or willow (Anderson and Ohmart 1985; Reiner and Griggs 1989; Pope et al. 1990). These techniques, however, are cost-intensive and have had varying rates of success. Low success rates are often a result of failure to restore natural ecosystem conditions; e.g., low soil salinity, relatively stable water tables, and periodic flooding (Carothers et al. 1990; Oldham and Valentine 1990).”

See Fremont cottonwood-goodding willow riparian forest: a review of their ecology, threats, and recovery potential, J.C. Stromberg, J. Arizona-Nevada Acad. Sci. 27:97-110, 1993.

Many other statements by the Service likewise fail to hold water. For instance, while the Service explicitly acknowledges that loss of trees is currently occurring, it nonetheless attempts to rely on “proposals” and possible “plantings” as evidence that such a threat is nothing to be concerned about. *Id.* Case law states otherwise. See e.g. Oregon Natural Resources Council v. Daley, 6 F. Supp. 2d 1139, 1154 (D. Or. 1998) (“The Secretary may not rely on plans for future actions to reduce threats and protect a species as a basis for deciding that listing is not currently warranted.”); *Id.* at 1155 (“For the same reason that the Secretary may not rely on future actions, he should not be able to rely on unenforceable efforts.”).

Finally, while the Service may “believe that other existing Federal wildlife laws will continue to provide adequate regulatory protections to the Sonoran Desert bald eagle if the bald eagle is delisted,” that is only because the Service fails to acknowledge the full benefits that the ESA provides a listed species. The Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act have no provisions whatsoever that resemble the ESA’s section 7 consultation requirements. Indeed, it is section 7 consultation that has thus far kept Desert Eagles from becoming extinct and even enabled modest population growth. Without ESA protection, Desert Eagles will not receive any consultation benefits when government actions, including any action that requires a government permit, harm the species. Thus, to suggest that the MBTA or BGEPA will fill the regulatory gap is simply false.

The Service seems to believe that in spite of all the threats, because the Desert Eagle population has increased, any concerns are unfounded. However, the fact of the matter is that Bald Eagles in Arizona would be far worse off if not for the ESA and the Arizona Bald Eagle Nestwatch Program, two protections that the petition points out will or at least may soon disappear.

In sum, despite the numerous threats divulged and discussed by the Center’s Petition, the Service erroneously concludes that there is no foundation for listing Desert Eagles as endangered, or indeed even maintaining their current listing as threatened. Instead, it arbitrarily dismisses the threats that even the Service acknowledges are not speculative or insignificant. The Service has fails to adequately analyze whether the *Desert Eagle population itself* is endangered or threatened; indeed, the Service currently lacks the tools to perform such an analysis because it has failed to develop (for a recovered population) or to update (for a threatened population) criteria for determining when the Desert Eagle population and habitat

have attained these status milestones. Therefore, to assume that the current population and habitat conditions are “good enough” even for delisting is unfounded and arbitrary. Moreover, the threats detailed by the petition are very real and the Service’s reliance on future or voluntary actions or other regulatory measures to address those threats is illegal and factually inaccurate.

Conclusion

The Service’s negative 90-day finding is arbitrary, capricious, an abuse of discretion and otherwise not in accordance with the ESA within the meaning of the Administrative Procedure Act, 5 U.S.C. §§ 701-706. The Service should therefore withdraw its negative 90-day finding, and immediately initiate a 12-month status review for Desert Eagles as required by section 4 of the ESA.

Importantly, while it performs the required status review for Desert Eagles, the Service should also refrain from taking any action to delist Desert Eagles until after it has reached a 12-month finding as to whether this population constitutes a valid DPS and whether these Eagles should be listed as Endangered with Critical Habitat under the ESA. Accordingly, this letter also serves to notify the Service pursuant to 16 U.S.C. § 1540(g)(2) that the Center will immediately challenge in court any decision by the Service to delist Desert Eagles before the agency has initiated and completed a status review of this population as requested in the Center’s Petition.

If you have any questions, please contact Justin Augustine, Esq., Staff Attorney at 415-436-9682 ext. 302, or Email: jaugustine@biologicaldiversity.org; or Robin Silver, M.D., Board Chair, Center for Biological Diversity, P.O. Box 39629, Phoenix, AZ 85069-9382; Phone: 602 246 4170; Fax: 602 249 2576; or Email: rsilver@biologicaldiversity.org.

Sincerely,



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