Upper Rio Grande Basin Water Operations Review and EIS
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	Geomorphology		Socioeconomics
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Comments/Summary:

RIP-92

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018–AF21

Endangered and Threatened Wildlife and Plants; Proposed Rule To Remove the Bald Eagle in the Lower 48 States From the List of Endangered and Threatened Wildlife

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the Fish and Wildlife Service (the Service), propose to remove the bald eagle (*Haliaeetus leucocephalus*), from the List of Endangered and Threatened Wildlife in the lower 48 States of the United States. We propose this action because the available data indicate that this species has recovered. The recovery is due in part to habitat protection and management actions initiated under the Endangered Species Act. It is also due to reduction in levels of persistent organochlorine pesticides such as DDT occurring in the environment. Section 4(g) of the Act requires the Service to monitor recovered species for at least 5 years following delisting. This rule describes our proposed post-delisting monitoring plan for bald eagles. Removal of the bald eagle as a threatened species under the Act will not affect the protection provided under the Bald and Golden Eagle Protection Act, the Migratory Bird Treaty Act, and many other state laws.

DATES: Comments from all interested parties concerning the proposal to delist the bald eagle in the lower 48 States must be received by October 5, 1999. Public hearing requests must be received by August 20, 1999.

Comments from all interested parties on the collection of information from the public during the 5-year monitoring period will be considered if received on or before September 7, 1999. The Office of Management and Budget (OMB) has up to 60 days to approve or disapprove information collection but may respond after 30 days. Therefore, to ensure maximum consideration, your comments should be received by OMB by August 5, 1999.

ADDRESSES: Send your comments and other information concerning the proposal to delist the bald eagle in the lower 48 States to: Jody Gustitus Millar, Bald Eagle Recovery Coordinator, U.S. Fish and Wildlife Service, 4469–48th Avenue Court, Rock Island, IL 61201 or comments may be sent through our web site at www.fws.gov/r3pao/eagle.

Also send your comments and suggestions on specific information collection requirements to Rebecca Mullin, Service Information Collection Clearance Officer, U.S. Fish and Wildlife Service, MS 224 ARLSQ, 1849 C Street, NW., Washington, DC 20240.

FOR FURTHER INFORMATION CONTACT: Jody Gustitus Millar, Bald Eagle Recovery Coordinator at the above address, telephone 309/793–5800 ext. 524, or refer to our website at www.fws.gov/r3pao/eagle.

SUPPLEMENTARY INFORMATION:

Background

The bald eagle, *Haliaeetus leucocephalus*, is well known as our Nation's symbol. Its large and powerful appearance is distinguished by its white head and tail contrasting against its dark brown body. Though once endangered, the bald eagle population in the lower 48 States has increased considerably in recent years. Regional bald eagle populations in the northwest, Great Lakes, Chesapeake Bay, and Florida have increased 5-fold in the past 20 years. Bald eagles are now repopulating areas throughout much of the species' historic range that were unoccupied only a few years ago.

Note: Unless otherwise noted with specific citations, the following life history information is derived from our 5 recovery plans for the bald eagle and from Gerrard and Bortolotti (1988), see References.

The bald eagle ranges throughout much of North America, nesting on both coasts from Florida to Baja California, Mexico in the south, and from Labrador to the western Aleutian Islands, Alaska in the north. The earliest known record of a bald eagle comes from a cave in Colorado. Deposits from that cave are dated at 670,000 to 780,000 years old (Dr. Steve Emslie, University of North Carolina, pers. comm. 1998). An estimated quarter to a half million bald eagles lived on the North American continent before the first Europeans arrived.

Haliaeetus leucocephalus (literally, sea eagle with a white head) is the only species of sea eagle native to North America. It was first described in 1766 as *Falco leucocephalus* by Linnaeus. This South Carolina specimen was later renamed as the southern bald eagle, subspecies *Haliaeetus leucocephalus leucocephalus* (Linnaeus) when Townsend identified the northern bald eagle as *Haliaeetus leucocephalus alascanus* in 1897 (Peters 1979). By the time the bald eagle was listed throughout the lower 48 States under the Endangered Species Act in 1978, the subspecies were no longer recognized by ornithologists (American Ornithologists Union 1983).

The bald eagle is a bird of aquatic ecosystems. It frequents estuaries, large lakes, reservoirs, major rivers, and some seacoast habitats. Fish is the major component of its diet, but waterfowl, seagulls, and carrion are also eaten. The species may also use prairies if adequate food is available. Bald eagle habitats encompass both public and private lands.

Bald eagles usually nest in trees near water, but are known to nest on cliffs and (rarely) on the ground. Nest sites are usually in large trees along shorelines in relatively remote areas that are free of disturbance. The trees must be sturdy and open to support a nest that is often 5 feet wide and 3 feet deep. Adults tend to use the same breeding areas year after year, and often the same nest, though a breeding area may include one or more alternate nests. A 35-year old nest at Vermilion, Ohio, measured 8½ feet across at the top and 12 feet deep before it blew down in 1925 (Herrick 1932). In winter, bald eagles often congregate at specific wintering sites that are generally close to open water and offer good perch trees and night roosts.

Bald eagles are long-lived. The longest living bald eagle known in the wild was reported near Haines, Alaska as 28 years old (Schempf 1997). Bald eagles from Arizona are known to have exceeded 12 years of age (Hunt et al. 1992). In captivity, bald eagles may live 40 or more years.

It is presumed that once they mate, the bond is long-term, though documentation is limited. Variations in pair bonding are known to occur. If one mate dies or disappears, the other will accept a new partner. The female bald eagle usually weighs 10 to 14 pounds in the northern sections of the continent and is larger than the male, which weighs 8 to 10 pounds. The wings span 6 to 7 feet. The northern birds are larger and heavier than southern birds, with the largest birds in Alaska and Canada, and the smallest in Arizona or Florida.

Bald eagle pairs begin courtship about a month before egg-laying. In the south, courtship occurs as early as September, and in the north, as late as May. The nesting season lasts about 6 months. Incubation lasts approximately 35 days and fledging takes place at 11 to 12 weeks of age. Parental care may extend 4 to 11 weeks after fledging (Wood, Collopy, and Sekerak 1998). The fledgling bald eagle is generally dark brown except the underwing linings which are primarily white. Between fledging and adulthood, the bald eagle's

appearance changes with feather replacement each summer. Young dark bald eagles may be confused with the golden eagle, *Aquila chrysaetos*. The bald eagle's distinctive white head and tail are not apparent until the bird fully matures, at 4 to 5 years of age.

As they leave their breeding areas, some bald eagles stay in the general vicinity while most migrate for several months and hundreds of miles to their wintering grounds. Young eagles may wander randomly for years before returning to nest in natal areas.

Northern bald eagles winter in areas such as the Upper Mississippi River, Great Lakes shorelines and river mouths in the Great Lakes area. For mid-continent bald eagles, wintering grounds may be the southern States, and for southern bald eagles, whose nesting occurs during the winter months, the non-breeding season foraging areas may be Chesapeake Bay or Yellowstone National Park during the summer. Eagles seek wintering (non-nesting) areas offering an abundant and readily available food supply with suitable night roosts. Night roosts typically offer isolation and thermal protection from winds. Carrion and easily scavenged prey provide important sources of winter food in terrestrial habitats far from open water.

The first major decline in the bald eagle population probably began in the mid to late 1800s. Widespread shooting for feathers and trophies led to extirpation of eagles in some areas. Shooting also reduced part of the bald eagle's prey base. Big game animals like bison, which were seasonally important to eagles as carrion, were decimated. Waterfowl, shorebirds and small mammals were also reduced in numbers. Carrion treated with strychnine, thallium sulfate and other poisons were used as bait to kill livestock predators and ultimately killed many eagles as well. These were the major factors, in addition to loss of nesting habitat from forest clearing and development, that contributed to a reduction in bald eagle numbers through the 1940s.

In 1940, the Bald Eagle Protection Act (16 U.S.C. 668–668d) was passed. This law prohibits the take, possession, sale, purchase, barter, or offer to sell, purchase or barter, transport, export or import, of any bald eagle, alive or dead, including any part, nest, or egg, unless allowed by permit (16 U.S.C. 668(a)). "Take" includes pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb (16 U.S.C. 668c; 50 CFR 22.3). The Bald Eagle Protection Act and increased public awareness of the bald eagle's status resulted in partial recovery or at least a slower rate of decline of the species in most areas of the country.

In the late 1940s, shortly after World War II, the use of dichloro-diphenyl-trichloroethane (DDT) and other organochlorine compounds became widespread. Initially, DDT was sprayed extensively along coastal and other wetland areas to control mosquitos (Carson 1962). Later it was used as a general crop insecticide. As DDT accumulated in individual bald eagles from ingesting prey containing DDT and its metabolites, reproductive success plummeted. In the late 1960s and early 1970s, it was determined that dichlorophenyl-dichloroethylene (DDE), the principal breakdown product of DDT, accumulated in the fatty tissues of the adult female bald eagles. DDE impaired calcium release necessary for normal egg shell formation, resulting in thin shells and reproductive failure.

In response to this decline, the Secretary of the Interior, on March 11, 1967 (32 FR 4001), listed bald eagles south of the 40th parallel as endangered under the Endangered Species Preservation Act of 1966 (16 U.S.C. 668aa–668cc). Bald eagles north of this line were not included in that action primarily because the Alaskan and Canadian populations were not considered endangered in 1967. On December 31, 1972, DDT was banned from use in the United States by the Environmental Protection Agency. The following year, the Endangered Species Act of 1973 (the Act) (16 U.S.C. 1531–1544) was passed.

Nationwide bald eagle surveys, conducted in 1973 and 1974 by us, other cooperating agencies, and conservation organizations, revealed that the eagle population throughout the lower 48 States was declining. We responded in 1978 by listing the bald eagle, *Haliaeetus leucocephalus*, throughout the lower 48 States as endangered except in Michigan, Minnesota, Wisconsin, Washington, and Oregon, where it was designated as threatened (43 FR 6233, February 14, 1978). Sub-specific designations for northern and southern eagles were dropped.

The Act contains provisions for listing, protection, and recovery of imperiled species. An endangered species is defined under the Act as a species that is in danger of extinction throughout all or a significant portion of its range. A threatened species is defined as any species that is likely to become endangered within the foreseeable future throughout all or a significant portion of its range. The Act and its implementing regulations prohibit the take of any listed species. Take is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt any of these acts. It also prohibits shipment in interstate commerce in the course of commercial activity, or sale or offer for sale in interstate or foreign commerce. The Act requires review of all activities funded, permitted or conducted by Federal agencies to consider impacts to endangered and or threatened species. The purpose of the Act is to restore endangered and threatened animals and plants to the point where they are again viable, self-sustaining components of their ecosystems.

To facilitate the recovery of the bald eagle and the ecosystems upon which it depends, we divided the lower 48 States into 5 recovery regions. Separate recovery teams composed of experts in each geographic area prepared recovery plans for their region. The teams established goals for recovery and identified tasks to achieve those goals. Coordination meetings were held regularly among the 5 teams to exchange data and other information.

What Are the Five Recovery Regions Established for the Bald Eagle and the Dates of Their Approved Recovery Plans?

Recovery region	Date of recovery plan	States
Chesapeake Bay	1982, rev. 1990	Virginia east of the Blue Ridge Mountains, Delaware, Maryland, the eastern half of Pennsylvania, the "panhandle" of West Virginia, and the southern two-thirds of New Jersey.
Pacific	1986	Idaho, Nevada, California, Oregon, Washington, Montana, and Wyoming.
Southeastern	1984, rev. 1989	Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, and eastern Texas.

Recovery region	Date of recovery plan	States
Southwestern	1982	Oklahoma and Texas west of the 100th meridian, New Mexico, Arizona, and that area of California bordering the Lower Colorado River.
Northern States	1983	All remaining 25 States and parts thereof.

Recovery Accomplishments

The Service and other Federal, State, tribal, and local cooperators from across the Nation have funded and carried out many of the tasks described within the recovery plans. Annual expenditures for the recovery and protection of the bald eagle by public and private agencies have exceeded $1 million each year for the past decade (Service records). State fish and wildlife agencies have played a vital role in restoring eagles to areas from which they were extirpated or in which their numbers were greatly reduced. These activities include conducting annual surveys of breeding and productivity, purchasing lands for the protection of bald eagle habitat, reintroduction and habitat management programs, and public outreach.

A partial survey conducted by the National Audubon Society in 1963 reported on 417 active nests in the lower 48 States, with an average of 0.59 young produced per nest. Surveys we coordinated in 1974 resulted in a population estimate of 791 occupied breeding areas for the lower 48 States.

Breeding and productivity surveys have been conducted annually on a State-by-State basis since the early 1980s. Data collection methods vary somewhat from State to State but generally include surveys by aircraft or visits to the site each year during the breeding season to determine the number of occupied breeding areas, and a second survey just before fledging to count the number of young produced at the site. Some States conduct the surveys themselves with agency personnel, others collate data from partners (including cooperating agencies), while some data is collected by personal interviews with reliable sources. Though the data collection methods may vary, most States agree that the data provided to us is a minimum number.

Since the development and implementation of the recovery plans, the bald eagle's population growth has exceeded most of the goals established in the various plans. In 1994, our cooperators reported about 4,450 occupied breeding areas with an estimated average young per occupied territory of 1.16. Compared to surveys conducted in 1974, the number of occupied breeding areas in 1994 in the lower 48 States had increased by 462 percent (Figure 1). Between 1990 and 1994, there was a 47 percent increase.

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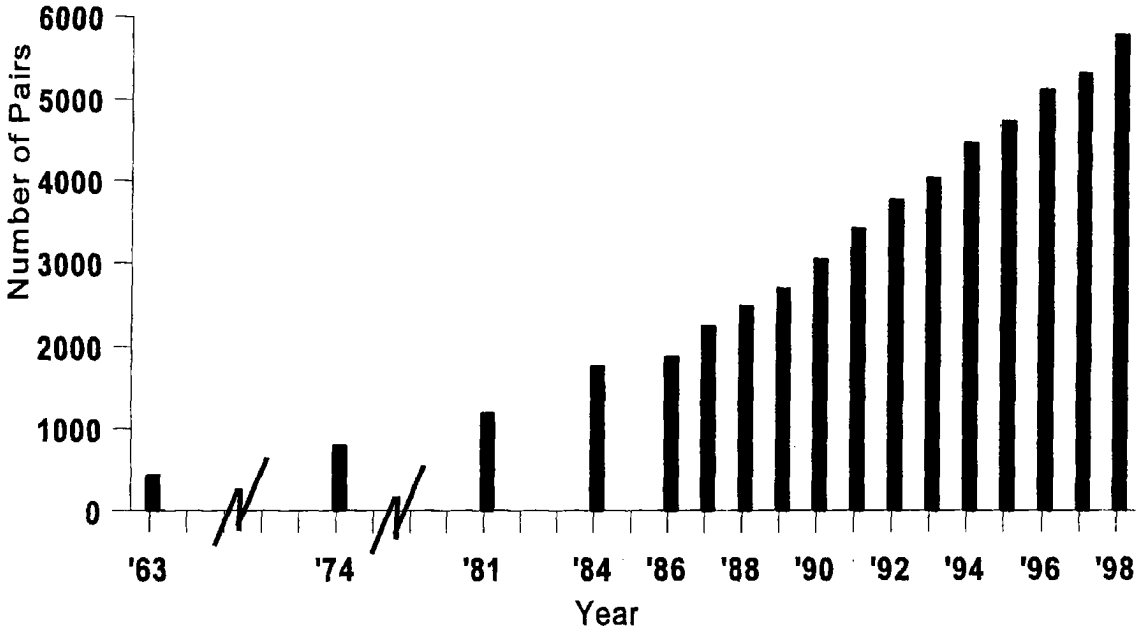

Figure 1. Number of bald eagle pairs in lower 48 states from 1963 through 1998.

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The bald eagle was reclassified in 1995 from endangered to threatened as a result of the significant increase in numbers of nesting pairs, increased productivity and expanded distribution (60 FR 36000, July 12, 1995).

Recovery continues to progress at an impressive rate. In the past 10 years, the bald eagle's nesting population has increased at an average rate of about 8

percent per year (Figure 1). The current nesting population in the lower 48 States constitutes more than a tenfold increase from the known population level in 1963. We estimate that the breeding population exceeded 5,748 occupied breeding areas in 1998. The bald eagle population has essentially doubled every 7 to 8 years during the past 30 years.

Recovery has been broadly distributed throughout the bald eagle's range. In 1984, 13 states had no nesting pairs of bald eagles. By 1998, all but 2 of the lower 48 States supported nesting pairs. In 1984, the 6 States of Florida, Wisconsin, Michigan, Minnesota, Washington and Oregon contained 73 percent of all nesting pairs in the lower 48 States. By 1998, these six States had a reduced share of 56 percent of all nesting pairs, due to increased nesting in other states. Much of the greater distribution of nesting sites is due to reoccupancy of vacant nesting habitat where competition for nest sites is minimal and an adequate prey base exists.

An expanding population requires the successful production of young. Reproduction has generally met or exceeded target values established by recovery teams nationally for the past 10 years. Certain geographically restricted areas still have contamination threats, such as southern California, the Columbia River, along the Great Lakes and parts of Maine (see *E.* under the Summary of Factors Affecting the Species section). Because the adults are long-lived, a minimum of 0.7 young per occupied breeding area is necessary to maintain a stable population (Sprunt, *et al.* 1973). With a national average of more than one fledgling per occupied breeding area since 1990, the eagle population continues to increase in overall size and maintain a healthy reproductive rate.

Recovery within recovery regions has also been successful. Recovery plans and objectives were designed to guide and measure recovery efforts. They are intended to be general goals rather than absolute numeric targets. We discuss recovery goals for the 5 regions and the bald eagle's attainment of those goals discussed below.

What Are the Goals for Bald Eagle Recovery in Each Recovery Region and What Has Been Achieved?

Chesapeake Recovery Region

Delisting Goals: Sustain 300–400 pairs with an average productivity of 1.1 young per active nest over 5 years with permanent protection of sufficient habitat to support this nesting population and enough roosting and foraging habitat to support population levels commensurate with increases throughout the Atlantic coastal area.

Achievements: Numeric delisting goals were met in 1996 with more than 300 occupied breeding areas estimated since 1992 and average productivity of 1.1 young per occupied breeding area. In 1998, 538 occupied breeding areas were estimated with an average productivity of 1.21. Habitat protection work continues.

Protecting bald eagle habitat remains a concern in the Chesapeake Recovery Region. The area contains large, expanding human population centers contributing to rapid development pressures and high land values that can conflict with bald eagle habitat needs. However, since 1990, occupied breeding areas for the bald eagle have doubled in the Chesapeake Recovery Region. This increase is greater than that found in any other recovery region. This indicates that adequate habitat is still available for an increasing population of bald eagles despite land development pressures. The Endangered Species Act has been a key factor in protecting eagle habitat in the Chesapeake area, particularly through the application of buffer zones around nest trees.

Northern States Recovery Region

Delisting Goals: 1,200 occupied breeding areas distributed over a minimum of 16 states with an average annual productivity of at least 1.0 young per occupied nest.

Since reclassification, the Northern States Recovery Team has reconvened to review the plan. The team supported the numerical goals established in 1983 but emphasized continued habitat protection concerns.

Achievements: Delisting goals were met in 1991 with 1,349 occupied breeding areas distributed over 20 States and an estimated average productivity since 1991 of greater than 1.0. In 1998 the estimated number of occupied breeding areas for the Northern States Recovery Region exceeded 2,204. Some of the most rapidly expanding areas of bald eagle nesting are in states with the majority of their lands held in private ownership. For example, between 1990 and 1998, the bald eagle population in Iowa increased from 8 to 83 occupied breeding areas. In this same period, Missouri has gone from 11 to 45 occupied breeding areas; Illinois increased from 8 to 43 occupied breeding areas; and Oklahoma has gone from 0 to 26 occupied breeding areas. The Northern States Recovery Region includes large tracts of federally owned land that is prime bald eagle habitat. The three States with the largest bald eagle populations in the Northern States Recovery Region (Minnesota, Wisconsin, and Michigan) contain large proportions of public land, and eagle numbers did not quite double during the same 8-year span. Thus, habitat on private property has proven to be very important for the continued expansion of the bald eagle population in this region.

Pacific Recovery Region

Delisting Goals: A minimum of 800 nesting pairs with an average reproductive rate of 1.0 fledged young per occupied breeding area, and an average success rate for occupied breeding areas of not less than 65% over a 5 year period are necessary for recovery. Attainment of breeding population goals should be met in at least 80% of management zones. Wintering populations should be stable or increasing.

Achievements: Numeric delisting goals have been met since 1995. Productivity has averaged about 1.0 young per occupied breeding area since 1990. The average success rate for occupied breeding areas has exceeded 65 percent for the past five years. For 1998, six of the seven Pacific region States reported an average success rate of 75 percent. However, the plan goal for distribution among management zones is not yet fully achieved for all areas. The number of occupied breeding areas exceeded 800 in 1990 and has continued to increase. In 1998, 1,480 occupied breeding areas were estimated. Twenty-eight of 37 (76%) management zone targets have been met. The zone targets were based on a best estimate for each area at the time, and several management zones that still lack nesting bald eagles may not contain preferred habitat. Of the 28 zones where target levels have been met, at least 11 have more than doubled the established goal. Wintering populations have been tracked in the Pacific and many other States using the mid-winter bald eagle surveys. However, wintering populations are difficult to assess because concentrations are dependent on weather and food supply and thus can be quite variable from year to year.

Southeastern Recovery Region

Delisting goals: Consider delisting if the recovery trend continues for 5 years after reclassification goals are met. Develop the criteria for delisting when the species is reclassified from endangered to threatened.

After the reclassification to threatened in 1995, the Southeastern States Bald Eagle Recovery Team reconvened to

consider criteria for delisting. The most recent recommendations of the recovery team are to achieve an average of 1,500 occupied breeding areas over the most recent 3-year period, with an average production of greater than 0.9 young per occupied breeding area over the same 3 year period, and 8 of 11 states meeting their nesting and productivity goals.

Achievements: Reclassification goals have been met and exceeded from 1991 through the most current data year of 1998. At the current rate of increase, the team expects the southeastern region to exceed 1,500 pairs in 1999 and meet the newly recommended delisting criteria by the year 2000. Production since 1991 averaged 1.17 young per occupied territory, exceeding the goal of greater than 0.9. In 1998, 1,485 occupied breeding areas were estimated with a productivity of 1.15 per occupied breeding area. Newly revised individual state goals are expected to be met by 6 of 11 States by the year 2000.

Southwestern Recovery Region

Delisting Goals: None given. Reclassification Goals: 10–12 young per year over a 5-year period; population range has to expand to include one or more river drainages in addition to the Salt and Verde Systems.

Achievements: 40 occupied breeding areas were reported for 1998 with 36 of those in Arizona and 4 in New Mexico. Productivity was estimated at 0.63 per occupied breeding area. Breeding has expanded beyond the Salt and Verde Systems into the Gila, Bill Williams, and San Carlos River systems in Arizona and the Rio Grande in New Mexico. The number of breeding pairs has more than doubled in the last 15 years.

Bald eagle recovery team members met in 1996 and discussed delisting criteria for the region. Potential reduction of support for the Arizona Nestwatch Program is a significant regional concern. Since the 1980's, the Nestwatch Program has rescued 48 eagles and eggs, and documented 52 cases of fishing line or tackle posing a threat to the nesting eagles and eaglets. At least 15 percent of the bald eagle production is due to the assistance provided by Nestwatch volunteers and staff. The State of Arizona is working with us and other partners to develop a Conservation Agreement which would insure the longevity of the Nestwatch Program.

Previous Federal Action

On July 12, 1995, we published the final rule to reclassify the bald eagle from threatened in 5 States and endangered in the remaining lower 48 States, to threatened throughout the lower 48 States (60 FR 36000). With that action, the Service recognized one population of bald eagles in the lower 48 States. Previous to that action, the proposed rule to reclassify the bald eagle was published on July 12, 1994, (59 FR 35584) and an advanced notice of a proposed rule was published on February 7, 1990 (55 FR 4209). Listing actions are discussed in the Background section.

Summary of Factors Affecting the Species

Section 4 of the Act and the regulations (50 CFR part 424) promulgated to implement its listing provisions, set forth the procedures for listing, reclassifying, and delisting species on the Federal lists. A species will be listed if the Secretary of the Interior determines that one or more of 5 factors listed in section 4(a)(1) of the Act threatens the continued existence of the species. A species may be delisted, according to 50 CFR 424.11(d), if the best scientific and commercial data available substantiate that the species is neither endangered nor threatened for one of the following reasons: (1) Extinction; (2) recovery; or (3) original data for classification of the species were in error.

The bald eagle is proposed for delisting due to recovery. Discussion of the 5 listing factors and their application to the recovery of the bald eagle are discussed below.

A. The Present or Threatened Destruction, Modification, or Curtailment of Its Habitat or Range

Nesting and wintering habitats are both critical to the continued survival of the bald eagle. Based on increasing population trends, neither nesting nor wintering habitats appear to be limiting, and there are no indications that availability of these habitats will limit the bald eagle population in the near future. Bald eagle habitat on Federal lands will remain protected under the regulatory mechanisms listed in factor D below, though to a lesser degree. Activities on private lands involving a Federal action will be subject to many of the laws listed in factor D. With the knowledge of habitat management gained through the recovery process, we expect that federal actions that result in a loss of habitat will be at an acceptable level and will not affect the population's stability.

B. Over-Utilization for Commercial, Recreational, Scientific, or Educational Purposes

There is no legal commercial or recreational use of bald eagles. We consider future legal and enforcement measures sufficient to protect the bald eagle from illegal activities, including trade. We exercise very strict control over the use of bald eagles or their parts for scientific, educational, and Native American religious activities. To respond to the religious needs of Native Americans, we have established the National Eagle and Wildlife Property Repository in Commerce City, Colorado, which serves as a collection point for dead eagles. As a matter of policy, all Service units transfer salvaged bald eagle parts and carcasses to this center. Members of Federally recognized tribes can obtain a permit from us authorizing them to receive and possess whole eagles, parts, or feathers from the repository for religious purposes. After removal from protection under the Endangered Species Act, we will still issue permits for limited exhibition and educational purposes, selected research work, and other special purposes consistent with the Bald and Golden Eagle Protection Act (16 U.S.C. 668–668d). We will not issue these permits if the status of the bald eagle will be adversely effected.

C. Disease or Predation

Predation is not a significant problem for bald eagle populations. Incidents of mortality due to territorial disputes have been reported by National Wildlife Health Research Center pathologists based on examination of carcasses.

Diseases such as avian cholera, avian pox, aspergillosis, tuberculosis, Mexican chicken bug, and botulism may affect individual eagles, but are not considered to be a significant threat to the population. According to the National Wildlife Health Research Center in Madison, Wisconsin, only 2.7 percent of bald eagles submitted to the Center between 1985 and 1990 died of infectious disease. Its widespread population distribution generally helps to protect the bald eagle from these catastrophic events.

From 1994–1999, 58 eagles died at man-made lakes in Arkansas from apparent avian brain lesion syndrome (also referred to as vacuolar myelinopathy), and more recently, the disease has been detected in eagles in North Carolina. At present, this is a poorly understood disease and is present in other avian species (primarily coots and recently found in several species of waterfowl) in the southeast. While a toxic agent is suspected in the deaths of the eagles and other avian species, cooperative efforts are underway to determine the prevalence of this disease and its origin. Although these mortalities can have a localized

impact on bald eagles, there is currently no evidence that the overall recovery of the population is affected.

D. The Inadequacy of Existing Regulatory Mechanisms

After removal from the list of species protected by the Act, the bald eagle remains fully protected by the following Federal wildlife laws in the United States. We believe these laws and related State statutes are adequate to protect and sustain a recovered bald eagle population.

The Bald and Golden Eagle Protection Act (16 U.S.C. 668–668d) prohibits without specific authorization take, possession, selling, purchase, barter, offer to sell, purchase, or barter, transport, export or import, of any bald or golden eagle, alive or dead or any part, nest or egg thereof. Use of bald eagles for falconry is prohibited. Take under this act is defined as "to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb" (50 CFR 22.3).

The Migratory Bird Treaty Act (16 U.S.C. 703–711) prohibits, without specific authorization, the possession, transport, or take of any migratory bird (including bald eagles), their parts, nests or eggs. Take prohibitions under this statute includes actions to pursue, hunt, take, capture, kill, possess, sell, barter, purchase, ship, export or import protected species.

The Lacey Act (16 U.S.C. 3372 and 18 U.S.C. 42–44) among other provisions, makes it unlawful to export, import, transport, sell, receive, acquire, or purchase any bald eagle, (1) taken or possessed in violation of any law, treaty, or regulation of the United States or in violation of any Indian tribal law or (2) to be taken, sold, or transported in interstate or foreign commerce, in violation of any law or regulation of any State or in violation of any foreign law.

In addition to Federal laws governing the taking of bald eagles within the United States, international agreements govern the transport of bald eagles across international borders. International trade in bald eagles to and from the United States is strictly regulated. The Convention on International Trade in Endangered Species (CITES) is an international treaty for the regulation of trade in species threatened with extinction and those that may become threatened if trade is not regulated. The bald eagle is currently listed under Appendix I of CITES, and, as a result, international trade in bald eagles not otherwise prohibited is restricted by the United States and 145 other signatory nations.

Section 101 (a) of the Clean Water Act (33 U.S.C. 1251–13287) states that the objective of this law is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters and provides the means to assure the "protection and propagation of fish, shellfish, and wildlife" (section 101 (a)(2)). This statute contributes in a significant way to the protection of bald eagles and their food supply through provisions for water quality standards, protection from the discharge of harmful pollutants, contaminants (section 303(c), section 304(a), and section 402) and discharge of dredge or fill material into all waters, including wetlands (section 404).

Another important regulatory mechanism affecting bald eagles is the requirement that pesticides be registered with the Environmental Protection Agency. Under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136), the Environmental Protection Agency requires environmental testing of new pesticides. Testing the effects of pesticides on representative wildlife species before the pesticide is registered is specifically required. It is meant as a safeguard to avoid the type of environmental catastrophe that occurred from organochlorine pesticides which led to the listing of this species.

The Federal Land Policy and Management Act (43 U.S.C. 1701–1784) requires that public lands be managed to protect the quality of scientific, ecological, and environmental qualities and to preserve and protect certain lands in their natural condition to provide food and habitat for fish and wildlife.

The Fish and Wildlife Coordination Act (16 U.S.C. 661–666c) requires that Federal agencies sponsoring, funding, or permitting activities related to water resource development projects request review of these actions by us and the State natural resources management agency. These comments must be given equal consideration with other project purposes.

The National Environmental Policy Act (42 U.S.C. 4321–4370d) requires the Federal agencies to evaluate the potential effects of their proposed actions on the human environment and requires the preparation of an environmental impact statement whenever projects may result in significant impacts. Federal agencies must identify adverse environmental impacts of their proposed actions and develop alternatives that undergo the scrutiny of other public and private organizations as a part of their decision making process.

Recovery actions developed under the Endangered Species Act have provided the baseline of knowledge for management of bald eagles. Recommendations for management and protection of bald eagles will continue to be made in accordance with all applicable environmental laws.

Removal of the bald eagle from the Federal list of endangered and threatened species will not affect its status under State laws as a threatened or endangered species or suspend any other legal protections provided by State law. States may have more restrictive laws protecting wildlife, and these will not be affected by this Federal action. Also, some States may choose to remove the bald eagle from their list of threatened and endangered species.

Finally, the Endangered Species Act remains an important regulatory mechanism should an unexpected decline in bald eagle numbers occur. In the event that a significant decrease in the bald eagle population occurs, we could relist the species through normal or emergency procedures as a threatened or endangered species.

E. Other Natural or Manmade Factors Affecting Its Continued Existence

Bald eagles are subject to direct and indirect mortality from a variety of human related activities. Intentional shooting, poisoning, and smuggling still occur, as well as deaths due to electrocution and strikes by wind turbines. Death and reproductive failure resulting from exposure to pesticides and secondary lead poisoning are well documented.

In recent years, the use of harmful chemicals known to impair reproduction in bald eagles has declined throughout the United States. A few areas still exist where concentrations of these chemicals impair reproductive success. However, these areas are geographically restricted and have not prevented recovery of the population nationally. There is no evidence to indicate that the use of harmful organochlorines in Latin America impact the bald eagle since the eagle's southern range is not known to extend south of northern Mexico.

The pesticide DDT came into widespread use after World War II. DDT ingested through the eagle's diet of fish, waterfowl, gulls, and other prey resulted in egg shell thinning. As a result, many eggs broke when incubated by the parent, while others suffered embryonic mortality and failed to hatch. By the early 1960s, recruitment had dropped and population numbers plummeted. In response to human health risks associated with DDT it was banned from

use in 1972. Reductions in DDT levels in freshwater fish over time have coincided with a steady increase in bald eagle numbers (Figure 2).

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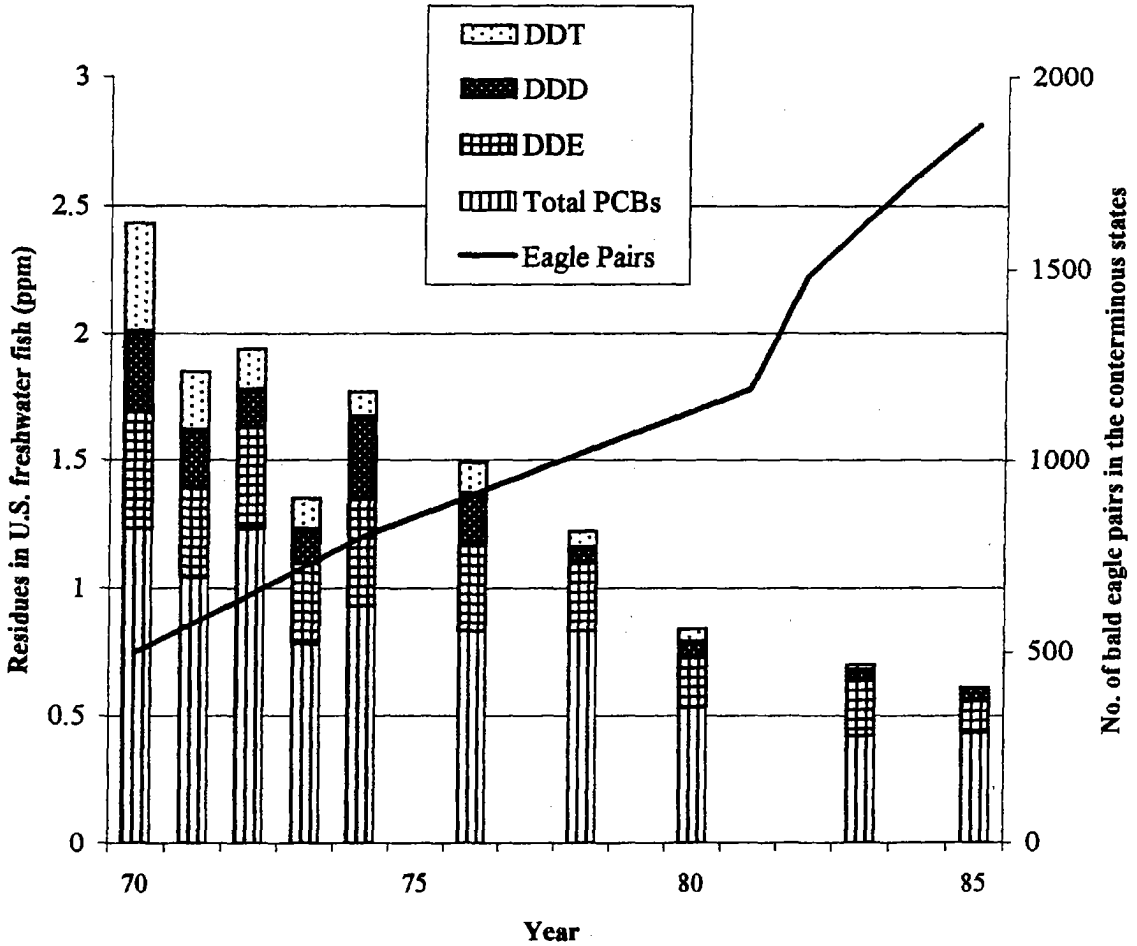

Figure 2. Mean concentrations of DDT and its primary metabolites, DDE and DDD, and of total polychlorinated biphenyls (PCBs) in fish, 1970-86. Also shown are the estimated number of bald eagle pairs in the conterminous United States during the same period. (From: Schmitt and Bunck 1995).

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By 1976, registrations of dieldrin, heptachlor, chlordane, and other toxic persistent pesticides, were canceled for all but the most restricted uses in the United States. Most uses of PCBs were restricted in 1977 and continued to be phased out during the 1980s (Schmitt and Bunck 1995).

During the 1970s, the Service implemented a monitoring program to examine the long-term trends in the presence of pesticides and other harmful chemicals in fish and wildlife (Schmitt and Bunck 1995). Fish, starlings and duck wings were collected nationwide between 1972 and 1985. The program tracked a downward trend of DDT concentrations in fish, starlings, and duck wings paralleled by declining DDE (a degradation product of DDT) concentrations in bald eagle eggs and increasing eagle eggshell thickness (Wiemeyer *et al.* 1993). Concentrations of other persistent insecticides such as heptachlor, dieldrin, endrin, and chlordane were also documented as declining nationally in fish, starlings and duck wings.

While there has been a national decline in concentrations of these harmful organochlorine compounds, some areas of the country still harbor high concentrations and reproduction of bald eagles in these areas is depressed. For instance, the Channel Islands area of southern coastal California continues to have severe problems related to DDE impacts to bald eagle productivity (Garcelon 1994, Sharpe and Garcelon 1999). The Palos Verdes Shelf is contaminated from historic releases from a nearby manufacturing plant. Bald eagles in the Channel Islands are present only through reintroduction efforts. Wiemeyer *et al.* (1993) found that addled bald eagle eggs collected from the Klamath Basin and Cascade Lakes region in Oregon ranked second (behind Maine) in DDE concentrations among the fifteen States sampled, indicating potential residual problems. Coastal areas which were sprayed for mosquitos and for cotton and orchard

pests still have higher concentrations of DDE than other lands (Schmitt and Bunck 1995). DDE concentrations along the Great Lakes remain a concern for that area.

Residues of PCBs, which are persistent and toxic much like DDT, have also declined throughout the United States (Figure 2). They remain a problem in some areas, most notably the Great Lakes. Atmospheric transport and the internal cycling of contaminants already present in these lakes will likely keep PCB concentrations elevated (Schmitt and Bunck 1995). Bowerman (1993) has documented lower reproduction among eagles nesting along the coasts of the Great Lakes in Michigan compared to those nesting further inland. The severity of the problem along the Great Lakes coast apparently is being compensated for by eagles produced from the interior of the State seeking territories along the Great Lakes coast. Michigan's bald eagle population has increased, though at a slower rate than other states with major bald eagle populations.

High concentrations of mercury cause a variety of neurological problems in bald eagles. Flight and other motor skills can be significantly altered. High mercury concentrations may also reduce the hatching rate of eggs. Concentrations of mercury in fish declined significantly from 1969 through 1974 as a result of restriction on its uses, but concentrations have not changed appreciably since 1974. Recent findings have highlighted the importance of atmospheric transport in the maintenance of elevated concentrations and the accumulation of mercury in certain areas, such as Lake Champlain and the Florida Everglades (Schmitt and Bunck 1995).

The most important source of lead affecting bald eagles is waterfowl wounded with lead shot. The requirement in 1991 to use non-toxic shot for waterfowl hunting has greatly reduced the threat of lead poisoning to bald eagles.

New chemicals are entering the environment and though they may not be as persistent as their predecessors, many are toxic and their breakdown products are poorly understood. Maintaining a contaminant profile of bald eagles nationwide will be an integral part of our monitoring program. It will serve as a safeguard to reduce the possibility of population level effects from harmful contaminants.

The shooting of bald eagles was prohibited in 1918 with the Migratory Bird Treaty Act, and again in 1940 with the Bald Eagle Protection Act (golden eagles were added in 1962). Large-scale mortality from unregulated shooting, like that which occurred early in this century, has been significantly reduced. Hunter education courses routinely include bald eagle identification material to educate hunters about bald eagles and the protections that the species is afforded. Although some illegal shooting of eagles is likely to occur, this is no longer considered a significant threat to the survival of species.

Other causes of mortality to individual eagles continue to occur. Many electrical power lines have been configured to reduce electrocution to raptors, though electrocutions still occur. Problem power lines still need to be identified and modified to prevent electrocutions. Areas where road-killed animals are left near the highway can result in car collisions with bald eagles, particularly in winter when eagles feed on carrion more frequently. Efforts to reduce these mortalities are being undertaken locally.

Human disturbance of bald eagles is a continuing threat which may increase as numbers of bald eagles increase and human development continues to expand into the rural areas. Numerous studies have documented that most bald eagles will flush from the nest site if disturbed by human presence. If the disturbance occurs frequently, nesting can fail, and the adults may or may not nest again. Through the Endangered Species Act recovery process, management guidelines have been developed for bald eagle nesting and wintering sites in various portions of the species' range. Specific conservation measures and recommendations have also been developed through the section 7 consultation process to reduce disturbance at feeding sites. In areas throughout the country, land management practices have been successfully modified to reduce human disturbance to bald eagles. We will make these guidelines readily available to agencies and the public to promote their widespread use.

Human-related impacts will continue after the bald eagle is removed from protection under the Endangered Species Act, and may increase locally with the continued growth of the eagle population and subsequent conflicts with expanding human activities. However, through remaining statutes, knowledge gained and partnerships developed in the recovery process, many of these conflicts can be avoided or minimized.

Conclusion of Recovery Analysis and Status Review

Due to the wide distribution of the bald eagle, we established five recovery regions to outline recovery planning goals and needs on a regional basis leading to the development of five separate recovery plans for the species. The five plans, originally developed in the 1980s, described a variety of numerical target levels for breeding pairs and productivity for different regions to measure recovery success and to set criteria for reclassification and/or delisting. In 1994, after the implementation of the five recovery plans and steady increases in the population, the status of the bald eagle was reviewed. The analysis included an assessment of known movement and migratory patterns among and between recovery regions, and concluded that a rangewide status of "threatened" for a single population of bald eagles throughout the lower 48 States was appropriate. The bald eagle was then formally reclassified as a threatened species on that basis in 1995. Treating the bald eagle as a single listed population is consistent with our 1996 "Policy Regarding the Recognition of Distinct Vertebrate Population Segments under the Endangered Species Act" (61 FR 4722).

This proposal is based on an internal status review of bald eagle recovery achievements conducted in 1998 and 1999, including an assessment of long-term nesting and productivity data (U.S. Fish and Wildlife Service, 1999, unpublished data), coordination with States and Tribes, an analysis of the five listing factors, and the definition of a "threatened" species under the Act. Decisions regarding the status of the overall bald eagle population as listed, take into consideration all of the regional recovery plan goals and established criteria, but ultimately address the status and the degree of remaining threats on a rangewide level.

Bald eagle recovery goals have generally been met or exceeded for the species on a rangewide basis. There is no sizeable area in the lower 48 states where we have not seen substantial increases in eagle numbers. Conversely, there is no sizeable area where eagle numbers continue to decline. We believe the surpassing of recovery targets over broad areas and on a regional basis, and the continued increase in eagle numbers since reclassification, effectively compensates for any local shortfall in meeting targets in a few recovery sub-areas or units.

Recovery planning for wide ranging species such as the eagle, involves

assumptions about habitat suitability and carrying capacity over large areas. In practice, the response of a species to management protections and subtle differences in habitat quality should be expected to vary across a large landscape, in this case involving many States and physiographic regions. Although we acknowledge that not every sub-area recovery target has been met for each plan, we conclude that recovery as outlined for the species as a whole, has been achieved.

We have reviewed the best available scientific and commercial data and conclude the following:

(1) A widespread reduction in use of persistent pesticides and their adverse effects on the bald eagle is evident.

(2) Other threats are not currently of sufficient magnitude, individually or collectively, to place the species at risk of extinction.

(3) Sufficient knowledge has been gained through the recovery process to properly manage the bald eagle in the future.

(4) Widespread trends in the population indicate that the bald eagle has recovered and no longer in danger of extinction nor is it likely to become in danger of extinction within the foreseeable future throughout all or a significant portion of its range.

For these reasons we propose to remove the bald eagle from the List of Endangered and Threatened Wildlife.

Effects of This Rule

This rule as proposed will remove the protection afforded the bald eagle under the Endangered Species Act. The provisions of the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act including prohibitions on the taking of bald eagles will remain in place. Bald eagles are prohibited for use in falconry under provisions of the Bald and Golden Eagle Protection Act (50 CFR 22.24). These and other laws affecting bald eagles are discussed in factor D above. This rule will not affect the bald eagle's status as a threatened or endangered species under State laws or suspend any other legal protections provided by State law. States may have more restrictive laws protecting wildlife, and these will not be affected by this Federal action. However, this rule may prompt some States to remove protection for the bald eagle under their endangered species laws.

Future Conservation Measures

Section 4(g)(1) of the Act requires that the Secretary of the Interior, through the Service, monitor species for at least 5 years after removal from the list of endangered and threatened species. If evidence acquired during this monitoring period shows that the bald eagle should be relisted to prevent it from becoming threatened with extinction, we may use the normal or emergency listing authority, as appropriate, provided for by the Act. At the end of the 5-year monitoring period, we intend to coordinate with our partners regarding bald eagle monitoring and will review all available information to determine if relisting is appropriate.

Monitoring Plan

The bald eagle was listed under the Act in 1978. Since that time bald eagle nesting and productivity have been monitored throughout the lower 48 States. The monitoring has provided us with information regarding the status and health of the bald eagle population. At a minimum, monitoring included a census of the number of occupied breeding areas, defined as a pair defending a nesting territory in nesting season, and the number of young produced, which has been censused near the age of fledging. This effort has produced an excellent data set and forms the basis of this delisting proposal. If the historic population monitoring effort is continued following bald eagle delisting, we believe that monitoring for contaminants may be the only additional effort needed.

In preparation of this rule, we requested each State to indicate its intentions regarding post-delisting monitoring should this rule become final. More than 80 percent of all States in the lower 48 intend to continue the same monitoring effort for at least 5 years post-delisting. Many of our Federal partners have also indicated a willingness to continue bald eagle monitoring.

As a result of the strong support from our partners, we will work to ensure that nationwide monitoring of bald eagle nesting continue annually for the 5 years following delisting. The monitoring will be the same as it has been through the time the bald eagle has been listed following the guidelines set forth in the recovery plans. It includes the following:

(1) Number of Occupied Breeding Areas. We will work with partners to monitor numbers of occupied breeding areas in each state annually and collate the data. This will continue the extensive data set that has been developed over the past 20 years.

(2) Number of Young Produced. This requires a second visit to the nesting site near time of fledging. Number of young fledged is an important indicator of reproductive health and may act as an early warning for problems such as disease, contaminant effects, lack of adequate habitat, disturbance, etc.

(3) Contaminant Analysis and Archiving. We are proposing to examine contaminant effects on reproduction by collecting addled eggs from those areas having past problems and where present or suspected problems occur. The eggs would be taken every year for the first 5 years, and possibly a reduced number of collections would be made thereafter. Collections should be taken from the same immediate nest site area. We are also proposing to sample blood from a small subset of nesting pairs covering a broad geographic range and a broad range of human influences. All eggs and blood will be archived by freezing at −80°C. In the event contamination or poisoning is suspected, archived samples will be withdrawn and properly analyzed by Service-approved laboratories. In addition, a subset of the egg samples will be analyzed each year for organochlorines which are known to adversely impact bald eagle reproductive success. A subset of blood samples will be analyzed where contaminant exposure is suspected.

Five-Year Post-Delisting Assessment

(4) At the end of 5 years post-delisting, we will review the most current bald eagle data set for the lower 48 States, assess the results and make this information available to the public. We will also consult with States and other partners to determine the need for future monitoring efforts which may include consideration of national or regional monitoring protocols.

(5) At the end of 5 years post-delisting, we will also consider evidence of any factors significantly affecting the population which may indicate that a serious decline is occurring and that relisting should be considered. These factors include but are not limited to the following: a) contaminant-related concerns which result in mortality or effects on breeding activities; b) declining numbers of occupied breeding areas; c) declining reproduction; and d) significant changes in distribution.

Public Comments Solicited

We request comments on three aspects of this proposed rulemaking:

A. Proposed Delisting

We are soliciting comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning this proposed rule. Send your comments to the Service's bald eagle recovery

coordinator (see **ADDRESSES** section). We are particularly seeking comments concerning:

(1) Biological, commercial trade, or other relevant data concerning any threat (or lack thereof) to this species;

(2) Additional information concerning the range, distribution, and population size of this species;

(3) Current or planned activities in the range of this species and their possible impacts on this species;

(4) Data on population trends;

(5) Information and comments pertaining to the proposed monitoring program contained in this proposal.

The final decision on this proposal for the bald eagle will take into consideration comments and additional information we receive during this comment period.

The Endangered Species Act provides for one or more public hearings on this proposal, if requested. Requests must be received within 45 days of the date of publication of this proposal. Such requests must be made in writing and sent to the Service's bald eagle recovery coordinator (see **ADDRESSES** section).

B. Executive Order 12866

Executive Order 12866 requires agencies to write regulations that are easy to understand. We invite your comments on how to make this proposal easier to understand including answers to questions such as the following.

(1) Is the discussion in the "Supplementary Information" section of the preamble helpful in understanding the proposal?

(2) Does the proposal contain technical language or jargon that interferes with its clarity?

(3) Does the format of the proposal (groupings and order of sections, use of headings, paragraphing, etc.) aid or reduce its clarity? What else could the Service do to make the proposal easier to understand?

(See **ADDRESSES** *section)*

C. Paperwork Reduction Act

OMB regulations at 5 CFR 1320, which implement provisions of the Paperwork Reduction Act of 1995 (Public Law 104–13, 44 U.S.C. 3501 *et seq.*) require that interested members of the public and affected agencies have an opportunity to comment on agency information collection and record keeping activities (see 5 CFR 1320.8(d)). We intend to collect information from the public during the 5-year monitoring period following delisting of the bald eagle. A description of the information collection burden and the comments requested on this collection are included in the Paperwork Reduction Act section below.

Paperwork Reduction Act

Simultaneous with publication of this proposed delisting rule, we have submitted an application for information collection approval from OMB. We may not conduct or sponsor, and a person is not required to respond to a collection of information, unless it displays a currently valid OMB control number.

Section 4(g) of the Endangered Species Act requires that all species that are delisted due to recovery be monitored for a minimum of 5 years. A general description of the information that will be collected during the monitoring period was provided above in the Monitoring section of this proposal.

We intend to collect information from States, researchers and land managers associated with a variety of organizations and agencies. Some of the information gathered will be part of already ongoing State, Federal, or private monitoring programs. We will also use information from other study areas where appropriate data are available.

The information collected will allow us to detect any failure of the species to sustain itself following delisting. If during this monitoring period we determine that the species is not sufficiently maintaining its recovered status, we could relist the species as endangered or threatened under the Endangered Species Act.

We estimate approximately 60 respondents to requests for information on the status of the bald eagle per year. Different respondents may provide one or more types of information. A total of 125 burden hours per year is estimated for these 60 respondents.

OMB regulations at 5 CFR part 1320, which implement provisions of the Paperwork Reduction Act, require that interested members of the public and affected agencies have an opportunity to comment on information collection and record keeping activities (see 5 CFR 1320.8(d)). Comments are invited on (1) whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility; (2) the accuracy of the agency's estimate of the burden of the collection of information; (3) ways to enhance the quality, utility, and clarity of the information to be collected; and (4) ways to minimize the burden of the collection of information on respondents, including through the use of appropriate automated, electronic, mechanical, or other technical collection techniques or other forms of information technology. Send comments on information collection to OMB and the Service's Information Collection Clearance Officer (see **ADDRESSES** section).

National Environmental Policy Act

We have determined that an Environmental Assessment or Environmental Impact Statement, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. We published a notice outlining the Service's reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244).

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Author. The primary author of this proposed rule is Jody Gustitus Millar, U.S. Fish and Wildlife Service, Rock Island Field Office (see **ADDRESSES** section).

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Proposed Regulation Promulgation

Accordingly, we propose to amend part 17, subchapter B of chapter I, Title 50 of the Code of Federal Regulations, as set forth below:

PART 17—[AMENDED]

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C. 4201-4245; Pub. L. 99–625, 100 Stat. 3500; unless otherwise noted.

§ 17.11 [Amended]

2. Section 17.11(h) is amended by removing the entry for "Eagle, bald, *Haliaeetus leucocephalus*" under "BIRDS" from the List of Endangered and Threatened Wildlife.

§ 17.41 [Amended]

3. Section 17.41 is amended by removing and reserving paragraph (a).

Dated: June 21, 1999.

Jamie Rappaport Clark,

Director, Fish and Wildlife Service.

[FR Doc. 99–16924 Filed 7–2–99; 8:45 am]

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