



THE SECRETARY OF THE INTERIOR  
WASHINGTON

## Record of Decision

### Platte River Recovery Implementation Program

September 2006

Approved

  
DIRK KEMPTHORNE

9-27-06  
Date

# **Record of Decision**

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//signed// Dirk Kempthorne  
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September 27, 2006  
Date

**U.S. Department of the Interior**  
**Record of Decision**  
**Platte River Recovery Implementation Program**  
**Final Environmental Impact Statement**  
**September 2006**

**I. Introduction**

The Platte River originates in the mountains of Wyoming and Colorado and, as it flows through Nebraska, provides important habitat for the whooping crane, piping plover, interior least tern, and pallid sturgeon (target species) that are listed as threatened or endangered under the Endangered Species Act (ESA). Fifty-four miles of the river and adjacent lands in Nebraska have been designated as critical habitat for the whooping crane. Habitat for the target species in Nebraska has been significantly altered by water development and by other changes that have come with extensive settlement and development throughout the Platte River Basin (Basin).

Fifteen major dams and reservoirs have been constructed in the Basin to provide water for millions of acres of irrigated farmland, production of hydroelectric power, and municipal supply to about 3.5 million people. The river and these water storage projects also provide for important flood control, recreation, and fish and wildlife habitat.

Since the late 1970s, the U.S. Fish and Wildlife Service (Service) has issued “jeopardy biological opinions” (BO) for virtually all Federal actions that deplete water in the Basin. These biological opinions, rendered pursuant to section 7(a)(2) of the ESA, cite new and/or continued water depletions as contributing factors toward jeopardizing the continued existence of the target species and adversely modifying designated critical habitat for the whooping crane. Significant time and money was being expended during the ESA consultation processes and in developing alternatives to avoid jeopardizing the continued existence of the target species.

In an effort to address the issues raised in these jeopardy biological opinions, and provide greater certainty for water users in the Basin, the U.S. Department of the Interior (Interior) and the States of Wyoming, Colorado, and Nebraska signed a *Cooperative Agreement for Platte River Research and Other Efforts Relating to Endangered Species Habitats Along the Central Platte River, Nebraska* (Cooperative Agreement) on July 1, 1997.<sup>1</sup> In this agreement, the signatories agreed to pursue a Basinwide, cooperative effort to improve and maintain habitat for the target species associated with the central and lower Platte rivers in Nebraska. The Cooperative Agreement established a Governance Committee consisting of the signatories, along with water user groups and environmental organizations, to develop the Basinwide, cooperative Platte River Recovery Implementation Program (Program).<sup>2</sup>

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<sup>1</sup> Available at <<http://www.platteriver.org>>.

<sup>2</sup> A recovery implementation program is a set of actions to address aspects of the Service’s recovery plan for a threatened or endangered species. A recovery implementation program aims to help recover the species, while not necessarily addressing all threats to a species throughout its range.

The Federal action analyzed and disclosed in the Final Environmental Impact Statement (FEIS) (*Platte River Recovery Implementation Program, Final Environmental Impact Statement*, U.S. Department of the Interior, April 2006) and approved in this Record of Decision (ROD) is implementation of the Program in conjunction with ongoing operation of certain existing and future water-related activities in the Basin. The Governance Committee Alternative represents the Program and is described in detail in the FEIS and summarized below. The objectives of the Program are to ensure compliance with the ESA, to assist in the recovery of the target species, to implement relevant aspects of the recovery plans for the target species, and to allow for existing and certain future water uses affecting the target species and their habitat to continue in the Basin during the first 13 years of implementation of the proposed Program (Program's First Increment).

To achieve the species and habitat objectives, the Program was developed to:

- Provide additional or modified river flows through the Central Platte Habitat Area.
- Protect and restore areas of suitable land habitat between Lexington and Chapman, Nebraska.
- Mitigate impacts to the target species and their habitat resulting from new water development activities in the Basin.

In compliance with the procedural requirements of the National Environmental Policy Act (NEPA) and the regulatory requirements of the ESA, Interior prepared a FEIS and BO to analyze and disclose the environmental consequences of the Program's First Increment. The effects of the Program are assessed in conjunction with the continued operation of existing and certain future water-related activities in the Basin. The FEIS was filed with the U.S. Environmental Protection Agency (EPA) on May 18, 2006, and is hereby incorporated by reference.

This ROD culminates more than 20 years of scientific research and analysis, including review by the National Academy of Sciences, and documents Interior's selection of actions determined to be necessary and appropriate to avoid jeopardizing the continued existence of the target species; to avoid adversely modifying or destroying designated critical habitat; and to implement relevant aspects of the species' recovery plans. These actions, along with alternative actions, have been described in detail and fully evaluated in the Draft Environmental Impact Statement (DEIS) and FEIS. This ROD describes the rationale used by Interior to select the Preferred Alternative for implementation.

The Bureau of Reclamation (Reclamation) projects included in the Federal action are authorized and operated under Reclamation law to provide water supply, hydroelectric power, and other benefits. Reclamation's projects and the other existing water projects subject to ESA consultation, as well as those likely to use the Program to provide compliance for their effects on the target species in Nebraska, are described in Table 3 in *The ESA Section 7 Consultation Process With and Without a Cooperative Program* attached to the FEIS.

Congress has delegated statutory responsibility to the Secretary of the Interior (Secretary) for administration of the ESA for the purpose of conserving species and the ecosystems upon which they depend. Section 2(c)(2) of the ESA declares as congressional policy that Federal agencies shall cooperate with state and local agencies to resolve water resource issues in concert with conservation of endangered species. Section 4 requires the Secretary to establish and implement a program to conserve fish, wildlife, and plants. Section 4(f)(1) directs the Secretary to develop and implement recovery plans for the conservation and survival of endangered and threatened species.

The Program has been designed to implement and harmonize these statutory responsibilities. Reclamation and the Service are joint leads for NEPA compliance activities associated with the development and implementation of the Program. In addition to complying with the procedural and regulatory requirements of the NEPA and ESA, the FEIS was prepared pursuant to the “Council on Environmental Quality’s Regulations for Implementing the Procedural Provisions of NEPA” (40 CFR Parts 1500 through 1508); Interior policies; and Reclamation and Service NEPA Handbooks.

For the reasons expressed in this ROD, Interior agencies are directed to implement the Governance Committee Alternative. Development and analysis of this alternative are based on the best available scientific information and best meets the obligations of Interior to conserve and protect threatened and endangered species while continuing to provide water supplies for Reclamation projects and Service activities.

## **II. Need for the Federal Action**

Various parts of the Platte River in Nebraska provide important habitat for the target species (Service, 1978, 1988, 1990, 1993, and 1994 and National Research Council, 2005). Federal agencies are responsible under the ESA for ensuring that their actions, or the actions for which they provide funding or permits, are not likely to jeopardize the continued existence of threatened or endangered species or adversely modify or destroy designated critical habitat.

Historically, the Platte River from Lexington to Chapman, Nebraska (referred to as the Central Platte Habitat Area) was a very broad and shallow river with few islands. The riverbed lacked permanent vegetation with many thousands of acres of open sandbar and shallow water habitat. These conditions provided suitable roost and forage habitat for migrating whooping crane and nesting habitat for the interior least tern and piping plover. Key habitat characteristics were extensive wet meadows near the river; an abundance of wide, unvegetated stretches of river providing roosting areas in shallow water with long sight distances for the whooping crane; and secure nest sites on sandbars high enough to remain dry during the summer nesting season for the interior least tern and piping plover. Key characteristics of the habitat were sufficient river flows during spring migration to provide secure roost sites in the river for the whooping crane, high spring river flows to maintain the open channel and build high sandbars for tern and plover nesting, and sufficient river flows during the summer to maintain fish populations upon which terns feed.

Today, the width of the river channel has been reduced by as much as 80 to 90 percent. Where 80 to 95 percent of the historic river channel was free of permanent vegetation, today roughly the same percentage is covered with riparian forest and shrublands. Wet meadows near the river are estimated to have been reduced by nearly 75 percent. Significant portions of the Central Platte Habitat Area are no longer used by the three target bird species for roosting, nesting, or foraging.

Due to the lack of sediment transport into the Central Platte Habitat Area and because clear water inflows from canal returns comprise one-half of the annual flow into the habitat area, the river channel continues to erode particularly in the upper half of the habitat area reach. This further deepens and narrows the river's channels and degrades habitat.

*The Platte River Management Joint Study* (1990) was initiated by Reclamation and the Service in cooperation with the States of Wyoming, Colorado, and Nebraska to develop a fish and wildlife management plan for the Platte River system in central Nebraska that would offset adverse project-related impacts on the whooping crane and its designated critical habitat. The study recommended that 29,000 acres of habitat for the whooping crane, interior least tern, and piping plover be protected and/or restored along the Central Platte River from Lexington to Chapman, Nebraska.

The Service also determined objectives for the maintenance of river flows in the Central Platte River for the three target bird species. Currently, river flows fall short of these flow targets by roughly 417 thousand acre-feet (kaf) on an average annual basis. Achieving these flow targets would require significant increases in river flows, especially during spring and summer.

Based on this information, Interior proposed a phased Program to address habitat restoration with the Program's First Increment achieving roughly one-third of these land and river flow improvements (10,000 acres of habitat land and 130 to 150 kaf of flow improvements) while allowing for monitoring and research to increase understanding of the species' needs and the most effective ways to provide habitat improvements.

### **III. Purpose of the Federal Action**

The purpose of the Federal action is to implement the Program's First Increment and thereby offset some of the impacts to the target species and their habitat located along the central and lower Platte River corridor caused by the continuation of existing and certain new water-related activities. This would be accomplished through implementation of land and water management actions that restore, create, and/or enhance the target species' habitat.

The Program will assist in the conservation and recovery of the target species in the Basin and implement relevant parts of the recovery plans thereby providing ESA regulatory compliance for effects to the target species' river habitats from existing and certain new water-related activities in the Basin upstream of the Loup River confluence.

The Program will also provide a means to ensure that certain new water uses in the Basin do not undermine the Program's habitat and species' benefits and that compliance with the ESA is achieved for those water uses.

The Program also has a goal to reduce the need to list more species under the ESA.

While Program purposes for State, Federal, and private participants in the Program are similar, there are specific requirements that the Program must meet to address the responsibility of Federal agencies under the ESA. The Program is designed to:

- **Serve as the ESA Reasonable and Prudent Alternative (RPA) to Avoid Jeopardy for Previously Completed Consultations:** The Program serves as the RPA for those Federal actions that have previously been subject to ESA consultation and have received a “jeopardy” BO under section 7(a)(2) of the ESA for the target species found in the central and lower Platte rivers.
- **Provide ESA Offsetting Measures:** Where the ongoing operations of Federal water projects in the Basin have not yet completed ESA consultation, the Program is to provide sufficient benefits for the target species in and along the Platte River in Nebraska so that the adverse impacts of those projects’ operations will be sufficiently offset to avoid jeopardizing the continued existence of the target species or adversely modifying designated critical habitat when consultation occurs.

In accomplishing these first two requirements, the Program will also provide for a more streamlined and efficient process for completing hundreds of existing or pending consultations on the target species.

- **Focus on Impacts of Federal Actions:** In serving as the ESA RPA, or in providing offsetting measures for project impacts to the target species, the Program must offset impacts to the target species’ habitats that have been adversely affected by the Federal actions, in kind and in place, especially where designated critical habitat is involved.
- **Meet Obligations for Species Conservation:** The Program will assist each Federal agency in meeting its obligations under section 7(a)(1) of the ESA to help conserve the target species and other listed species.
- **Address Cumulative Impacts:** In order to ensure the effectiveness of the Program in meeting these Federal objectives, the Program addresses cumulative impacts on species’ habitat due to existing and future private water depletions. The Program will further ensure that contributions of water to the Program by individual water projects are not diverted or subverted by the actions of others in the Basin.

Interior believes that a Basinwide, cooperative effort to improve and maintain habitat for the target species is essential to meeting these purposes and needs for the following reasons:

- **Effectiveness for the Species:** The cooperative approach will be more effective than a project-by-project approach. A key purpose of the Program is to provide improved flows through the Central Platte Habitat Area to offset depletions caused by upstream Federal reservoirs and irrigation projects, in some cases hundreds of miles away. Water moved from those upstream projects to the Central Platte Habitat Area often crosses state lines

and always passes many diversion points. Without the cooperation and assistance of the states and other water users, much of the water being moved to the Central Platte Habitat Area could be diverted or stored by other projects. Similarly, improvement of land habitat for the species will be more effective if all participants pool resources and acquire and manage land in a coordinated fashion. Without a cooperative approach, many projects and agencies will literally compete for both water and land to improve habitat. This will lead to a fragmented, less-effective, and substantially more costly effort.

- **Managing Cumulative Effects:** A cooperative Program is able to address effects on the habitat in a more comprehensive fashion than what would be accomplished under separate project compliance with the ESA. Under the Cooperative Agreement, the states and the Federal Government have each committed to undertake a depletion management plan. These plans will address the cumulative effect of Federal and non-Federal actions on species' target flows and protect the flows from future depletions-even depletions from actions not subject to section 7 consultation. This cooperative effort by the states would not occur under separate project compliance with the ESA.
- **Coordination of Program Operations:** Effectively improving flows for the target species requires coordinating operations of many water facilities throughout the Basin. A cooperative approach bringing all of the major system operators together can employ Program resources much more efficiently and effectively.
- **Monitoring and Adaptive Management:** A cooperative Program also enables comprehensive monitoring of habitat restoration efforts. This, in turn, allows for scientific evaluation of actions and improvement of those actions through an adaptive management approach. The commitment of all parties to an adaptive management approach means that the Program's effectiveness can be increased as more knowledge and experience is gained. This cooperative effort would not occur under separate project consultations.
- **Equitable Distribution of Effort:** A cooperative effort among all major water users in the Basin allows for a more equitable distribution of effort than what might occur under separate project consultations. Separate project consultations do not focus on issues of equity and fair share, but rather focus only on offsetting the effects of the project currently in consultation.

#### IV. The Federal Projects

The Reclamation and Service projects and activities that will be provided ESA coverage for their effects on the target species throughout the Basin, other listed species in the central and lower Platte rivers, and designated critical habitat for the whooping crane are described in Attachment A.



## **V. ESA Consultation History**

The history of ESA consultation on water projects in the Basin operated by Federal agencies, or for which a Federal authorization was required, and which have been determined to affect one or more of the target species, is described in Attachment B.

## **VI. The Cooperative Agreement Process**

As described in the previous section, the many ESA consultations on water projects in the Basin made evident by the early 1990s that there was a need for a comprehensive, cooperative approach to addressing the species' needs and provide ESA compliance for existing and certain new water uses in the Basin. Negotiations among the three states, water users, environmental organizations, and Interior led to the July 1, 1997, signing of the Cooperative Agreement by the Secretary and Governors of the States of Wyoming, Colorado, and Nebraska.

The Cooperative Agreement outlined the purpose and objectives of the Program and the contributions of each party to meet those purposes. The Program outlined by the Cooperative Agreement is a phased approach to meeting the species' needs during the Program's First Increment. The Program will use an adaptive management approach with initial objectives established for the Program's First Increment with extensive monitoring and research during this phase to guide adjustment of methods and objectives based on the latest information. The Cooperative Agreement also established several principals for the Program's implementation (e.g., all acquisition of land or water must be from willing sellers).

The Cooperative Agreement established a Governance Committee with representatives from the states, Federal agencies, water users, and environmental groups in the Basin to complete a proposal for the Program. The Governance Committee was also charged with obtaining the participation and input from local groups, organizations, and individuals as it completed its tasks. During development of the Program proposal, the Governance Committee held hundreds of public meetings and working sessions throughout the Basin and had several standing committees with local membership and participation.

## **VII. The National Academy of Sciences Review**

In 2003, the Governance Committee requested that the Secretary fund the National Academy of Sciences, National Research Council (NRC), to conduct a review of the science related to the need for the Program. In January 2003, a NRC review panel began an 18-month investigation of the relevant science focusing on the importance of the Platte River to the target species and their recovery; the habitat and flow objectives established by the Service for the species; and Interior's conclusions regarding the sediment, flow, and vegetation processes affecting the river's geomorphology. Twenty-six independent experts participated in the review panel's work and in a peer review of the review panel's report that was published in May 2005.

The NRC report, *Endangered and Threatened Species of the Platte River* (2005), supported Interior's conclusions about the effect of loss of Platte River habitat on the species and the importance of the habitat to the species' recovery. The report concluded that the Service's flow

and habitat objectives were based on the best data available at the time of their development. The report also concluded that Interior's analysis of the factors affecting the physical Platte River habitat was a sound basis for decisionmaking. Recommendations were provided for updating and improving the existing state of knowledge about the species and the Platte River during the Program.

## VIII. The Decision

Based on the analyses contained in the DEIS, FEIS, NRC review, and public comments received on the DEIS, Interior has selected the Governance Committee Alternative for implementation. This ROD describes the rationale for this decision, describes the alternatives considered in reaching the decision, and identifies those measures that have been, and will be, taken to minimize environmental harm from implementation of the selected alternative in accordance with 40 CFR §1502.2.

This ROD approves the following Federal actions:

- Interior's approval of and signature on the Platte River Recovery Implementation Program Cooperative Agreement.
- Funding and implementation of the Program by Reclamation and the Service in cooperation with the States of Wyoming, Colorado, and Nebraska and the other participating organizations subject to required Congressional authorization and appropriations. The complete description of the Program is found in the *Platte River Recovery Implementation Program*, Platte River Endangered Species Partnership Governance Committee, December 7, 2005 (Program Document) (inclusive of all documents in the Program Document's list of attachments) that is hereby incorporated into this ROD by reference. The Preferred Alternative and Program approved and adopted in this ROD will be implemented in accordance with the Program Document and the BO.
- Appointment of the Platte River Recovery Implementation Program Governance Committee to act as a recovery implementation team pursuant to section 4(f)(2) of the ESA<sup>3</sup>.

I hereby direct all participating Interior officials to work together and put into place such agreements as needed to achieve the species conservation actions identified in this Program.

The Preferred Alternative complies with existing law and relevant interstate compacts. Legislation is being proposed to authorize implementation of and appropriations for the Program as necessary. The proposed legislation authorizes \$157 million to be appropriated that represents

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<sup>3</sup> Under section 4(f)(2) of the ESA, 16 U.S.C. 1533(f), the Secretary of the Interior is directed to develop and implement plans for the conservation of endangered species. The Secretary of the Interior may procure the services of public and private agencies, individuals, and institutions in developing and implementing the recovery plans. Recovery teams appointed pursuant to this subsection are not subject to the Federal Advisory Committee Act.

the Federal share of costs for the Program's First Increment. The other Program participants will provide an equivalent contribution in funds, water, and land.

## **IX. The National Environmental Policy Act Process**

The Governance Committee completed a draft Program proposal for NEPA analysis in December 2003. The DEIS analyzing the environmental consequences of the Governance Committee's proposal and three additional alternatives was released for public review in January 2004. Public comments were received until September 22, 2004. Based on public comments and an analysis of the Governance Committee's proposal by the Service in August, 2004, the Governance Committee modified its proposal. A final draft Program proposal was published by the Governance Committee in December 2005. The complete description of the proposed Program can be found in the Program Document. The proposal, i.e., the Governance Committee Alternative, was analyzed along with three additional action alternatives and a no action alternative in the FEIS. The FEIS was filed with EPA on May 18, 2006, and a "Notice of Availability" was published in the *Federal Register* on May 24, 2006.

## **X. Alternatives Considered**

The FEIS was prepared by Reclamation and the Service to evaluate and disclose the environmental effects of implementing alternatives for the Program. The alternatives addressed in the FEIS are those that Reclamation and the Service determined would meet the purpose of and need for the Federal action and represented a range of reasonable alternatives.

Each alternative:

- Improves the achievement of river flows defined by the Service as providing good habitat for the target species ("flow targets") for the species in the Central Platte River in Nebraska.
- Provides a means to manage Program water to create improved conditions for the species.
- Provides Program land in the Central Platte Habitat Area for the species.
- Protects, restores, and manages those lands to create additional suitable habitat for the species.
- Provides extensive monitoring of Program actions, habitat changes, and the species' response.
- Provides research to address the most important uncertainties about habitat restoration for the species.
- Provides an adaptive management process for guiding the Program and decisionmaking.

### **A. Governance Committee Alternative (Preferred Alternative)**

As described in the Program Document, this alternative would provide 10,000 acres of Central Platte River habitat land under Program management and improves achievement of species and annual pulse flow targets by 130 to 150 kaf on an average annual basis.

The Preferred Alternative provides land to be managed and restored as habitat for the target species in the Central Platte Habitat Area. This includes a significant focus on restoring wet meadow and channel habitat. It also includes a significant amount of channel widening through removal of wooded islands and maintenance of channel width through continued reintroduction of sand from islands and banks to offset current channel erosion.

The Preferred Alternative provides 130 to 150 kaf of water to contribute to meeting target flows in the Central Platte River. This alternative provides nearly-annual pulse flows through the habitat area to build sandbars for interior least tern and piping plover nesting and to scour new annual vegetation. This alternative provides additional management of ponds at inactive sand and gravel mines along the river to provide protected areas for interior least tern and piping plover nesting.

### **B. Full Water Leasing Alternative**

This alternative provides nearly all of the Program water through water leasing and replaces the “Water Leasing Alternative” analyzed in the DEIS that incorporated a smaller amount of leased water. This alternative provides 10,000 acres of Central Platte River habitat land under Program management and improves achievement of species and annual pulse flow targets by 137 kaf on an average annual basis.

### **C. Wet Meadow Alternative**

This alternative focuses on restoring wet meadow areas near the river. This alternative explores the benefits to the species from substantial increases in nonriverine habitat, but with reduced quantities of water to achieve target flows. This alternative provides 17,053 acres of Central Platte River habitat land under Program management and improves achievement of species and annual pulse flow targets by 116 kaf on an average annual basis.

### **D. Water Emphasis Alternative**

This alternative focuses on acquiring water for the Program. There is less emphasis on land habitat management. This alternative explores the benefits to the target species of substantial increases in Program water supplies, particularly in reservoir storage, but reduces management of nonriverine habitat. This alternative provides 7,400 acres of Central Platte River habitat land under Program management and improves achievement of species and annual pulse flow targets by 184 kaf on an average annual basis. Habitat benefits related to river flows are similar to the Preferred Alternative, although maintenance of channel width is somewhat less due to the smaller amount of river channel managed under this alternative.

## E. No Action Alternative

The alternative to a Basinwide collaborative approach to addressing ESA issues is to continue with project-by-project ESA consultations. The impacts of selecting the No Action Alternative are described in detail in *The ESA Section 7 Consultation Process With and Without a Cooperative Program* attached to the FEIS.

## XI. Basis for Selection of the Preferred Alternative for Program Implementation

The selection of the Preferred Alternative for the Program is based on three general factors: benefits to the species, extent of adverse consequences, and feasibility of implementation.

The benefits to the species are based primarily on:

- **Whooping Crane Roost Habitat:** The extent to which suitable areas of open, wide, shallow river channels are created and maintained.
- **Whooping Crane Forage Habitat:** The amount of additional wet meadow areas created and maintained for whooping crane foraging.
- **Interior Least Tern and Piping Plover Nesting Habitat:** The extent to which suitable areas of wide, open channels with unvegetated sandbars for nesting are increased and secure from inundation during summer rainfall events.
- **Pallid Sturgeon Habitat:** All alternatives provide the same program of research on the pallid sturgeon and a commitment to implement habitat improvements based on the research.
- **Research and Monitoring:** All alternatives provide a full program of monitoring and research to guide Program implementation.

The extent of adverse consequences is reflected primarily in:

- **Recreation:** The effects on water levels and fisheries at Basin reservoirs.
- **Economic Consequences:** The effects of the alternatives primarily on hydropower generation, agricultural production, and regional economic impacts.
- **Social Consequences:** The potential effects on public health concerns, flooding, and land use issues.

The feasibility of implementation of each alternative is influenced by:

- **Program Costs:** The total cost of the Program.

- **Support of the Participants:** The states and other Program participants must be able to actively support and implement the Preferred Alternative.

## **A. Comparison of Alternatives**

Every alternative provides monitoring, research, an adaptive management plan, and a research program for pallid sturgeon. Each provides Federal and State plans to manage future river depletions to avoid impacts to target flows.

### ***1. Governance Committee Alternative (Preferred Alternative)***

**Benefits to the Species:** The Preferred Alternative improves target flows by 130 to 150 kaf and provides 10,000 acres of managed and restored habitat. The area of wide river channel is increased. The rate of channel degradation due to erosion is substantially reduced. Nearly-annual pulse flows are created to help maintain river sandbar habitat. However, the highest peak flows through the Central Platte Habitat Area are reduced.

**Adverse Effects:** The Preferred Alternative lowers water levels somewhat at four major reservoirs on the North Platte River: Seminoe, Pathfinder, and Glendo reservoirs in Wyoming and Lake McConaughy in Nebraska. This reduces the quality of the associated fisheries and reduces average fishing visitation at the Wyoming reservoirs by one percent and the Nebraska reservoir by six percent.

The Preferred Alternative brings significant new expenditures into the Basin to acquire water and land for the Program. However, the alternative reduces Basin agricultural production by roughly \$8 million annually.

Effects on regional economic indicators are measured for multicounty regions in the Basin. The impact of the Preferred Alternative on annual sales, depending on assumptions and the specific region considered, ranges from a positive \$1,776,000 to a negative \$693,000. Under all assumptions, the effect of the alternative on an area's economy (sales, taxes, jobs) is less than or equal to one-tenth of one percent of the current level of economic activity in that multicounty region.

The Preferred Alternative increases annual hydropower generation by one percent and four percent in the North Platte and Central Platte systems, respectively. Hydropower generation dependable capacity is reduced in the North Platte system by six percent in the summer with no change in the winter. Hydropower generation dependable capacity is reduced in the Central Platte system by four percent in the summer and three percent in the winter.

Some individuals suggest the Program would create breeding areas for mosquitoes and also increase the prevalence of waterfowl (migratory or resident ducks and geese) that might create a nuisance in urban areas or pollute local lakes and ponds. However, analysis of these issues indicates that none of the alternatives create habitat that will have standing water during mosquito breeding season, and none of the alternatives will increase either the migratory or local waterfowl populations.

**Feasibility of Implementation:** The Preferred Alternative is supported by the three states and the other participants on the Governance Committee. The FEIS-estimated cost for those elements of the alternative that produce environmental impacts is \$108,597,000.

## ***2. Full Water Leasing Alternative***

**Benefits to the Species:** This alternative provides 10,000 acres of Central Platte River habitat under Program management and improves achievement of species and annual pulse flow targets by 137 kaf on an average annual basis. Because nearly all of the Program's water supply is provided through leasing of water from agricultural producers, the overall demand on Basin reservoirs is significantly reduced and reservoir levels are maintained closer to the Present Condition. This also means that the alternative does not significantly reduce the occurrence of the highest peak flows through the Central Platte Habitat Area that help maintain the river channel. These desirable features are offset by the fact that this alternative does not produce the level of annual pulse flows for sandbar building and vegetation scouring or the level of improvement in achievement of target flows as compared to the Preferred Alternative.

**Adverse Effects:** This alternative avoids any significant impact on lake levels and reservoir fisheries and recreation. However, because of the large scale of water leasing, this alternative has the greatest effect on agricultural water use and production reducing gross revenues in the Basin by roughly \$28 million annually. Across the economic subregions, annual impacts on area sales range from a positive \$1 million to a negative \$2.8 million.

The Full Water Leasing Alternative increases annual hydropower generation by six percent in the Central Platte system with no effect on the North Platte system. Hydropower generation dependable capacity is reduced in the North Platte system by eight percent in the summer with a four percent increase in the winter. Dependable capacity is reduced in the Central Platte system by five percent in the summer and increased by 13 percent in the winter.

**Feasibility of Implementation:** The FEIS-estimated cost for those elements of the alternative that produce environmental impacts is \$355 million - three times greater than the Governance Committee Alternative. Additionally, this alternative requires new institutional arrangements to make practical the leasing of water from Reclamation's North Platte Project where many irrigation districts share reservoir storage, as well as possible changes in state law and policy to enable extensive leasing of water in Colorado for Program purposes. Such institutional changes are not supported in Colorado.

## ***3. Wet Meadow Alternative***

**Benefits to the Species:** Because of the focus on wet meadow creation and less emphasis on flow improvement, this alternative produces the least improvement in target flows. The creation of annual pulse flows is also smaller, and the creation of open channel habitat is smaller. A significantly greater area of wet meadows is managed and restored. However, the habitat value gained through the additional wet meadow restoration is tempered by the likely challenges in recreating functioning wet meadows at this considerable scale.

**Adverse Effects:** Adverse impacts on reservoir levels and recreation are similar to the Preferred Alternative. Impacts on agricultural production are smaller than for the Preferred Alternative because the alternative employs no water leasing.

The Wet Meadow Alternative increases annual hydropower generation by one percent in both the Central and North Platte systems. Hydropower generation dependable capacity is reduced in the North Platte system by four percent in the summer and one percent in the winter. Dependable capacity is reduced in the Central Platte system by one percent in the summer and nine percent in the winter.

**Feasibility of Implementation:** The FEIS-estimated cost is less than the Preferred Alternative primarily due to the reduced water supply provided. However, in general, the participants in the Program do not support this alternative.

#### ***4. Water Emphasis Alternative***

**Benefits to the Species:** This alternative creates the greatest increase in achievement of target flows for the species. However, lands protected and managed in habitat complexes are reduced to 6,674 acres compared to the 10,000 acres in the Preferred Alternative due to the focus on Program water.

**Adverse Effects:** Impacts on recreation and fisheries are similar to the Preferred Alternative for the Wyoming reservoirs with slightly better conditions at Lake McConaughy in Nebraska. The Water Emphasis Alternative increases annual hydropower generation by two percent in the North Platte system and by six percent in the Central Platte system. Hydropower generation dependable capacity in the North Platte system is reduced by seven percent in the summer and by less than one percent in the winter. Dependable capacity is reduced in the Central Platte system by three percent in the summer and increased by 17 percent in the winter.

**Feasibility of Implementation:** The FEIS-estimated cost for those elements of the alternative that produce environmental impacts is \$182 million - substantially greater than the Preferred Alternative primarily due to the greater amount of water leasing. This alternative poses the same institutional challenges as the Full Water Leasing Alternative in supporting greater water leasing in Wyoming and Colorado. This alternative is not supported by the participants in the Program.

#### ***5. No Action Alternative***

As described in the “Specific Federal Purposes” section of this ROD, the alternative to a Basinwide, cooperative approach to addressing ESA issues is to continue with individual project ESA consultations. As described in the Preferred Alternative, a coordinated, cooperative approach to habitat restoration will lead to substantially greater benefits to the species quicker than separate project consultations and offsetting measures that are not coordinated and protected through joint action.

While it is not possible to estimate the costs that the consultations would create for each project prior to completion of those consultations, the burden in time, money, land, and water would be



much greater than that required for the Preferred Alternative. Further, based on the long history of conflict in this Basin over endangered species issues, the lengthy time required to complete previous consultations and the potential for continued legal challenges, it seems most likely that project-by-project consultations, while costly and time-consuming, would not produce significant improvements in the species' habitat over the next 13 years.

## **B. Selection of the Preferred Alternative**

The Governance Committee Alternative is chosen as the Preferred Alternative due to:

- The benefits it produces for the species and its ability to address the Program purpose and need.
- The limited extent of adverse impacts.
- The support for implementation from the states and other Program participants including contribution of funds, land, and water for the Program.

The Preferred Alternative has significantly greater benefits to the target species compared to the No Action Alternative that involves separate project consultation and mitigation on more than 300 projects.

## **C. Environmentally Preferred Alternative**

The Council on Environmental Quality's (CEQ) regulations require the ROD to identify all alternatives considered to be *environmentally preferred*. The environmentally preferred alternative is the alternative(s) that causes the least damage to the biological and physical environment and best protects, preserves, and enhances historic, cultural, and natural resources. For the Program, where the purpose of the Federal action is habitat restoration to aid the recovery of listed species, all of the action alternatives provide environmental enhancement.

In situations where all of the action alternatives provide net environmental benefits, selection of the environmentally preferred alternative is less obvious. Each of the action alternatives promotes recovery of the target species resulting in varying degrees of mostly positive environmental effects. The principal differences among the action alternatives are their relative effects on reservoir fisheries and agricultural economies. The principal environmental objectives are achieved in all of the action alternatives.

The CEQ's regulations provide for such a situation by allowing more than one alternative to be considered environmentally preferred, and identifying more than one environmentally preferred alternative may be appropriate for this ROD. Nevertheless, I believe identifying the Full Water Leasing Alternative as the environmentally preferred alternative most closely meets CEQ requirements because this alternative provides higher surface elevations for reservoirs on the North Platte River and maintains natural peak flows through the Central Platte Habitat Area somewhat better than the preferred alternative.

I did not select the Full Water Leasing Alternative as the preferred alternative due to:

- The substantially higher cost of the alternative making it more difficult to implement.
- The greater adverse economic effects.
- The significant institutional hurdles to its implementation associated with the increased level of Program water leasing that would be required in Wyoming and Colorado.
- The lack of support for this alternative from the Program's non-federal participants.
- The sufficiency of the Governance Committee Alternative in meeting the Program purpose and need.

#### **D. Alteration of Project Plan in Response to Public Comments**

One letter containing substantive comments on the FEIS was received during the 30-day waiting period. A copy of the letter responding to these comments that was sent to this individual may be obtained by contacting Mark Andersen, Public Affairs Officer, Great Plains Region, Bureau of Reclamation, at 406-247-7609. Public comments on the FEIS did not result in changes to the proposed action or in the selection of the Preferred Alternative.

## **XII. Environmental Impacts, Commitments, and Mitigation**

The Preferred Alternative for the Program improves environmental conditions for the target species and, in doing so, also improves conditions for other species that require open river channel areas, increased river flows, and lowland grasslands. Where mitigation is required under Federal law, the participating Interior agencies will ensure that it is implemented. Both Reclamation and the Service are participants in the formulation and implementation of the specific Program actions and will monitor the compliance with Federal laws and regulations as needed along with the other responsible Federal agencies such as EPA and the Corps of Engineers (Corps). The Service will prepare an annual report on Program progress on habitat restoration. The Program includes extensive monitoring and tracking of Program actions.

### **A. Migratory Birds**

A small percentage of the woodland habitat in the Central Platte Habitat Area will be removed to create improved conditions for the target species but this loss of woodland habitat will not be large enough to create significant adverse impacts on woodland species or migratory birds. Woodland clearing will be conducted outside of the breeding, nesting, and rearing seasons to minimize unintentional take and adverse impacts to migratory birds. Site-specific NEPA compliance will examine additional measures to reduce adverse impacts to migratory birds. Reclamation and the Service have determined that Program actions comply with Executive Order 13186, "Responsibilities of Federal Agencies to Protect Migratory Birds."

## **B. Reservoir Fisheries**

The Preferred Alternative reduces average elevations of the four large reservoirs on the Platte River in Wyoming and Nebraska. Some reduction in reservoir levels is an unavoidable consequence of providing water for the Program. Average impacts are modest for both fisheries and fishing and boating recreation. The State of Wyoming has entered into an agreement to fund the Wyoming Game and Fish Department to implement mitigation measures for fishery impacts in the event of severe drought that could magnify Program impacts on fisheries.

## **C. Regional Economies**

Adverse impacts on regional economies are minor and in some cases positive. Economic dislocations are avoided by requiring that all land and water be acquired from willing sellers or lessors.

## **D. Adjacent Lands**

The possibility that habitat restoration on Program lands would have adverse impacts on adjacent land owners is addressed by the Program's Good Neighbor Policy that specifies several principles and procedures to ensure that such impacts are avoided or addressed promptly. The land management activities will be overseen by a Land Committee that will include local landowners.

## **E. Monitoring and Adaptive Management**

The possibility of negative effects of Program actions is reduced by the use of the adaptive management process that initially tests Program measures on a small scale and with careful monitoring before increasing the scale of actions. The Program will implement the Adaptive Management Plan and Integrated Monitoring and Research Plan as described in the Program Document.

## **F. ESA Compliance and Site-specific Compliance with NEPA and Other Laws**

Reclamation and the Service were provided a programmatic BO on the Federal action from the Service dated June 16, 2006. The BO evaluated the effects of the Governance Committee Alternative on federally listed threatened and endangered species and designated critical habitat in the action area. The action area consists of endangered and threatened species' habitats potentially-affected by the Program in the Basin. The evaluation included effects of water-related activities (including Reclamation projects and Service activities in the Basin) on the target species and other listed species associated with the central and lower Platte rivers as well as Program effects on other federally listed species and designated critical habitat in the action area.

The BO concludes that the Federal action, as described, is not likely to jeopardize the continued existence of the federally endangered whooping crane, interior least tern, and pallid sturgeon, or the federally threatened Great Plains population of the piping plover, bald eagle, or western

prairie fringed orchid. The Federal action is also not likely to destroy or adversely modify designated critical habitat for the whooping crane.

Reclamation and the Service commit to comply with and implement the reasonable and prudent measures and terms and conditions of the incidental take statement. The FEIS notes that the specific location of certain Program actions, such as land acquisition and restoration as well as construction of certain Program facilities, depends on willing sellers or the results of further feasibility studies. These actions will not be undertaken until site-specific environmental evaluations have been completed. Site-specific environmental evaluation of actions proposed to be undertaken with Federal funds or approval will include the appropriate NEPA and ESA compliance that will tier from the FEIS and programmatic BO. Where necessary, consultation with the Service and state game and fish agencies will occur under the Fish and Wildlife Coordination Act.

The FEIS defines and commits to a process for proceeding with analysis of site-specific channel restoration activities pursuant to executive orders 11988 and 11990 and sections 401 and 404 of the Clean Water Act as well as other water quality permitting. General procedures have been discussed with the Corps regarding how specific land restoration plans will be evaluated under section 404, but the need for any mitigation will not be established until specific land parcels are acquired or leased by the Program. In general, where opportunities exist to avoid or minimize adverse environmental effects while implementing the habitat restoration program, the Program will seek to do so.

In addition to the general Program monitoring of environmental conditions, the FEIS specifically commits the Program to assess and avoid the likelihood of increasing input of selenium into the Platte River from nearby waters or lands. The Program will continue to monitor for copper, lead, and nickel.

### **G. Indian Trust Assets**

Consultation with Native American Tribes in the Basin did not disclose Indian trust assets (ITA) that may be adversely impacted by the Governance Committee Alternative. The FEIS defines, and this ROD commits to, a process for proceeding with assessment of potential impacts to ITAs associated with Program actions.

### **H. Cultural Resources**

This ROD commits the Program to develop programmatic agreements (PA) that will define processes for determining and addressing effects to cultural resources. Appropriate Federal agencies, State historic preservation officers, Tribes, State agencies, the Advisory Council on Historic Preservation, and other interested parties will be signatories to the PAs.

**I. Environmental Justice**

The programmatic analysis of alternatives in the FEIS did not identify any potential for disproportionate adverse impacts to low-income or minority communities in the Basin. Reclamation and the Service conclude that the Program complies with Executive Order 12898.

**J. Prime Farmland**

The FEIS indicates that small acreages of agricultural lands identified as prime farmland may be temporarily converted from agricultural use to lowland grassland and wet meadow habitat. Some prime farmland may be converted by off-channel reservoir inundation and operation. During future site-specific environmental compliance, the Program will coordinate with the Natural Resources Conservation Service to identify prime agricultural lands and will avoid and/or minimize conversion of prime farmlands to other uses. The Program is committed to minimize conversion of prime farmlands.

**XIII. Implementing the Decision**

Following enactment of Federal authorizing and funding legislation, the Program will be implemented with funding, water, and land contributed by the three states, the Federal Government, and water user organizations. The Program implementation will be directed by a Governance Committee with the following membership:

State of Wyoming	One vote
Upper North Platte River Water Users	One vote
State of Nebraska	One vote
Downstream Water Users	One vote
State of Colorado	One vote
Colorado Water Users	One vote
Environmental Groups	Two votes
Department of the Interior	Two votes

The Governance Committee will attempt to operate by informal consensus. Votes will be taken when appropriate. For the purpose of voting on any issue, a quorum shall consist of the representative or alternate appointed by each governor, the representatives or alternates of Reclamation and the Service, and two other representatives or their alternates. Nine of the ten representatives to the Governance Committee, including the representative or alternate appointed by each governor and the representatives or alternates for Reclamation and the Service, must vote in the affirmative for the Governance Committee to act. For votes related to financial

matters, the affirmative vote by a Governance Committee representative or alternate of a signatory constitutes authorization to use that signatory's funds.

The Governance Committee will hire an Executive Director to guide day-to-day operations of the Program and to supervise staff and contracts. The Governance Committee will also contract with a Financial Management Entity to hold and disburse the funds contributed by the parties to the Program and with a Land Interest Holding Entity to hold title to Program lands.

## Literature Cited

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- Platte River Management Joint Study. 1990. Final Report of the Biology Workgroup. July 20, 1990. 131 pp.
- U.S. Fish and Wildlife Service. 1978b. Biological opinion on a Federal loan guarantee for the proposed construction of Grey Rocks Dam and Reservoir Project. Letter from the U.S. Fish and Wildlife Service, Washington D.C. to the Rural Electrification Administration, Washington D.C., dated December 8, 1978. 21 pp.
- U.S. Fish and Wildlife Service. 1978c. Biological opinion on section 404 permit action for the proposed construction of the Grey Rocks Dam and Reservoir Project. Letter from the U.S. Fish and Wildlife Service, Washington D.C., to the U.S. Army Corps of Engineers, Washington D.C., dated December 8, 1978. 21 pp.
- U.S. Fish and Wildlife Service. 1983a. Biological opinion on the proposed construction of the Narrows Unit Project. Memorandum from the U.S. Fish and Wildlife Service, Denver CO to the Bureau of Reclamation, Denver CO dated January 20, 1983. 17 pp.
- U.S. Fish and Wildlife Service. 1978a. Biological opinion for Riverside Irrigation District.
- U.S. Fish and Wildlife Service. 1978b. Biological opinion on a Federal loan guarantee for the proposed construction of Grey Rocks Dam and Reservoir Project. Letter from the U.S. Fish and Wildlife Service, Washington D.C. to the Rural Electrification Administration, Washington D.C., dated December 8, 1978. 21 pp.
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- U.S. Fish and Wildlife Service. 1997. Biological opinion on the Federal Energy Regulatory Commission's preferred alternative for the Kingsley Dam Project (Project No. 1417) and North Platte/Keystone Dam Project (Project No. 1835). Letter from the U.S. Fish and Wildlife Service to the Federal Energy Regulatory Commission dated July 25, 1997. 164 pp. + app.

## Attachment A. The Federal Projects

The following Reclamation and Service projects, with their associated operations and activities, are provided ESA coverage for their effects on the target species throughout the Basin, other listed species in the central and lower Platte rivers, and designated critical habitat for the whooping crane.

### A. General Description of Reclamation Projects

- **North Platte Project:** The North Platte Project serves thirteen irrigation districts and provides irrigation water to over 335,000 acres along the North Platte River in southeastern Wyoming and western Nebraska. The project also produces hydroelectric power. Major project facilities on the North Platte River include Pathfinder Dam and Reservoir; Guernsey Dam, Reservoir, and Powerplant; and Whalen Diversion Dam. Lake Alice, Lake Minatare, Little Lake Alice, and Lake Winters Creek (the Inland Lakes) are important off-channel project storage facilities located in western Nebraska. The project includes over 2,000 miles of canals, laterals, and drains with their associated operational structures.
- **Kendrick Project:** The Kendrick Project produces hydroelectric power and provides irrigation water to approximately 24,000 acres in the Casper-Alcova Irrigation District. Major features of the project are located in central Wyoming and include Seminoe Dam, Reservoir, and Powerplant; Alcova Dam, Reservoir, and Powerplant; and the Casper Canal, laterals, and drains with their associated operational facilities.
- **Kortes Unit:** The Kortes Unit of the Pick-Sloan Missouri Basin Program provides hydroelectric power and minimum river releases from the dam. Major features of the project include Kortes Dam, Reservoir, and Powerplant that are located in central Wyoming in a narrow gorge of the North Platte River two miles below Seminoe Dam of the Kendrick Project and about 60 miles southwest of Casper, Wyoming.
- **Glendo Unit:** The Glendo Unit of the Pick-Sloan Missouri Basin Program provides irrigation, power generation, re-regulation, flood control, and other benefits. Major unit features include Glendo Dam, Reservoir, and Powerplant; Fremont Canyon Powerplant; and Gray Reef Dam. Unit features are located on the North Platte River in eastern and central Wyoming.
- **Colorado-Big Thompson Project:** The Colorado-Big Thompson Project is one of the most complex projects undertaken by Reclamation. It includes more than 100 water and power facilities which store, regulate, and divert water from the west slope of the Rockies under the Continental Divide to 125 water user organizations and municipalities on the east slope. In 1990, the project provided irrigation water for about 632,000 acres of farmland which produced nearly \$331 million worth of crops. It also provided municipal water to 445,000 people in communities of the South Platte River Basin. Its six powerplants are capable of producing 184 megawatts of power.



## **B. Service Activities**

The ten national wildlife refuges (NWR) managed by the Service in the Basin are:

- Arapaho NWR (Colorado)
- Bamforth NWR (Wyoming)
- Crescent Lake NWR (Nebraska)
- Hutton Lake NWR (Wyoming)
- Mortenson Lake NWR (Wyoming)
- North Platte NWR (Nebraska)
- Pathfinder NWR (Wyoming)
- Rocky Flats NWR (Colorado)
- Rocky Mountain Arsenal NWR (Colorado)
- Two Ponds NWR (Colorado)

The Service has implemented some new water-related activities in the Basin since the Cooperative Agreement was signed in 1997 and anticipates that similar activities will be implemented during the Program's First Increment. These have included (or may include in the future):

- New wildlife ponds at Arapaho NWR (Colorado).
- Additional well drilling and/or water impoundments for wetland maintenance within the Rainwater Basin Wetland Management District (Nebraska).
- New or enlarged impoundments, or modified management of existing impoundments at the Rocky Flats NWR (Colorado).
- New water supply wells, ponds, or wetland impoundments at the Rocky Mountain Arsenal NWR (Colorado).
- Water supply well for the Black-footed Ferret Conservation Center (Colorado).
- Wetland restoration and enhancement projects implemented in cooperation with private landowners throughout the Basin.

## Attachment B. Endangered Species Act Consultation History

The history of ESA consultation on water projects in the Basin operated by Federal agencies, or for which a Federal authorization was required, and which have been determined to affect one or more of the target species, is described in detail in the Program biological opinion as well as in the FEIS. A brief synopsis follows.

Since 1978, the Service has consistently found that Federal agency actions resulting in water depletions to the Platte River system are likely to jeopardize the continued existence of one or more of the target species and adversely modify designated and/or proposed critical habitat. The Service's conclusion of the effects of Platte River depletions is well documented in a number of biological opinions resulting from formal Section 7 consultations with other Federal agencies. Some of the more notable consultations involving major Federal actions are described below.

- **Gray Rocks Dam:** The first such Federal action which generated this finding was the Basin Electric Power Cooperative's proposed Gray Rocks Dam and Reservoir Project on the Laramie River in Wyoming. A major purpose of this \$1.6 billion project was to provide cooling water for a coal-fired, electric-generating station. Following an out-of-court settlement over a lawsuit among the Basin Electric Power Cooperative, State of Nebraska, and National Wildlife Federation, the Service issued a jeopardy biological opinion to both the U.S. Army Corps of Engineers (Corps) and the Rural Electrification Administration on December 8, 1978 (Service, 1978a and 1978b). This jeopardy biological opinion was issued for project-related impacts stemming from 23,250 acre-feet (af) of annual water depletions and their negative effects on the whooping crane and associated critical habitat on the Central Platte River, located over 300 miles downstream from the project site. Included within this jeopardy biological opinion was a RPA, which called for the project to establish a \$7.5 million trust fund for maintaining and protecting whooping crane habitat. This RPA was one of several conditions included as part of the aforementioned settlement which, among other things, led to the establishment of the Platte River Whooping Crane Critical Habitat Maintenance Trust, Inc.
- **Narrows Dam:** Less than 5 years after the Gray Rocks Dam jeopardy biological opinion was issued, the Service provided a biological opinion to Reclamation on January 20, 1983 (Service, 1983a), for the proposed Narrows Unit Project on the South Platte River in northeastern Colorado. The Service determined that the proposed multipurpose project would result in an annual depletion of 91,900 af to the Central Platte River, and like the Gray Rocks Project, would likely jeopardize the continued existence of the whooping crane and adversely modify its critical habitat in Nebraska, approximately 300 miles downstream from the project site. As a result of this Section 7 consultation, the Platte River Management Joint Study (1990) was initiated by Reclamation and the Service in cooperation with the States of Wyoming, Colorado, and Nebraska. The intent of the Platte River Management Joint Study was to develop a fish and wildlife management plan for the Platte River system in central Nebraska, which encompassed alternatives that would offset adverse project-related impacts on the whooping crane and the species' designated critical habitat.

- **Deer Creek Dam:** On July 20, 1987, the Service issued a “not likely to jeopardize” biological opinion to the Corps on the Wyoming Water Development Commission’s (WWDC) proposed Deer Creek Dam and Reservoir Project (Service, 1987a). However, in order to preclude the likelihood of a situation involving jeopardy for the whooping crane and adverse modification of designated critical habitat, the Service agreed to accept the WWDC formal offer to fund the acquisition, restoration, and maintenance of a 24-acre whooping crane habitat area along the Central Platte River (the “Wyoming Water Development Commission Property”).
- **Two Forks Dam:** Shortly after the Section 7 consultation was completed on the Deer Creek Dam and Reservoir Project, the Service issued another biological opinion to the Corps on October 14, 1987 (Service, 1987b), for the Denver Water Department’s proposed Two Forks Dam Project on the South Platte River at the base of Colorado’s Front Range. The intended purpose for the proposed dam and 1.1-million-acre-foot reservoir was to provide a source of water for future growth and development in the Denver metropolitan area. The Service’s biological opinion concluded that the project would not likely jeopardize the bald eagle, interior least tern, piping plover, or whooping crane or adversely modify designated critical habitat for the whooping crane. The determination that the proposed project would not likely jeopardize the whooping crane or adversely modify the species’ designated critical habitat was predicated upon the Service’s acceptance of the Denver Water Department’s formal offer to offset the anticipated adverse effects that would result from the project’s water depletions to the Central Platte River through implementation of conservation measures described in the biological opinion.
- **Front Range Projects:** On June 2 and July 1, 1994, the Service issued final biological opinions to the U.S. Forest Service (USFS) for its proposals to re-authorize special use permits for six water-related projects in the Arapaho-Roosevelt National Forests of Colorado’s Front Range (Service, 1994a-f). These biological opinions concluded that water depletions resulting from the existing projects were likely to jeopardize the continued existence of the whooping crane, interior least tern, piping plover, and pallid sturgeon. The Service also determined that the projects were likely to adversely modify whooping crane critical habitat along the Central Platte River in Nebraska.

The RPAs included in the six biological opinions called for each of the permittees to make an annual contribution of money (over an interim period) toward the acquisition, conservation, recovery, and maintenance of aquatic and terrestrial habitats for federally listed species and other fish and wildlife resources occurring along the Central Platte River in Nebraska until a recovery implementation program was implemented to serve as the RPA. At that time, the anticipated habitat and flow improvement actions would provide the measures to achieve ESA compliance for existing water projects and certain future projects subject to ESA review that elect to participate in a program and annual contributions could then cease. The majority of these biological opinions would require re-initiation of consultation if a program was not adopted.

- **Small Depletions:** During the course of informal consultations with other Federal agencies that began in 1994, the Service learned that there were over 1,000 projects that might require formal consultation in the future. For example, the USFS determined that approximately 600 individual livestock grazing permits might require formal consultation. Informal consultations with the USFS, Natural Resources Conservation Service (NRCS), Bureau of Land Management, and the Corps revealed that most of the actions that might require formal consultation in the immediate future were likely to result in individual project depletions of 25 af or less per year. On June 13, 1996, the Service issued a biological opinion on the impacts to federally listed species and designated critical habitat resulting from Federal agency actions that individually result in annual water depletions of 25 af or less to the Platte River system. The Service concluded that these minor water depletions were likely to jeopardize the continued existence of the target species and adversely modify whooping crane critical habitat along the Platte River in Nebraska. The biological opinion was subsequently amended on May 21, 1997, and September 22, 1999, and revised on March 11, 2002. The RPAs identified in the biological opinion included replacement of water depleted from the Platte River or funding of land and water conservation measures in the Central Platte River area.

In addition to the interim funding of conservation measures described above, and the RPAs for the USFS projects consulted on in 1994, the majority of subsequent biological opinions included participation in a Basinwide research and recovery program for the target species as part of the RPA. This participation developed into the proposed action addressed by the biological opinion. Without implementation of a program, those biological opinions that rely upon a program as part of their RPA would be subject to re-initiation of consultation.

- **Nebraska Federal Energy Regulatory Commission Projects:** On July 25, 1997, the Service issued a final biological opinion to the Federal Energy Regulatory Commission (FERC) for its proposal to re-license hydroelectric projects owned and operated by the Central Nebraska Public Power and Irrigation District and the Nebraska Public Power District (Service, 1997). The Service concluded that water depletions resulting from the FERC projects were likely to jeopardize the continued existence of the target species and result in adverse modification of whooping crane critical habitat along the Central Platte River in Nebraska. The RPA for the proposed re-licensing action relied on implementation of a Memorandum of Agreement and the Cooperative Agreement that was signed by the Secretary and the governors of the three Basin states on June 10, 1994, and July 1, 1997, respectively, and ultimately, the implementation of the Program. Without implementation of the Program, the biological opinion would be subject to re-initiation of consultation.
- **Reclamation North Platte Projects:** Reclamation began informal consultation with the Service as part of an effort to evaluate existing Reclamation projects on the North Platte River and their effects on listed species beginning in approximately 1989. Reclamation's Wyoming Area Office initiated and led in the development of the North Platte River Water Utilization Model in order to have the analytic tools to evaluate their system operations including simulation of reservoir operations, natural flow segregation, storage

ownership accounting, and flow estimation on the North Platte River for ESA Section 7 consultation purposes. From 1994 to present, the focus of the informal Section 7 consultation changed with the negotiation and signing of the Cooperative Agreement to develop the Program. In recognition of the ongoing development of a cooperative program to provide for Reclamation's ESA compliance, in 1998 the Congress extended water service or repayment contracts for the Glendo Unit concurrent with the term of the Cooperative Agreement. Both the Cooperative Agreement and the Glendo contracts have been extended several times. Most recently, the contracts have been extended to December 31, 2007, to allow time to finish formulation of the Program and complete NEPA analysis and contract negotiations. Because the Program became the focus of resolving the ESA issues, Reclamation did not enter into formal consultation prior to 2004, and the Service did not previously complete evaluations to determine Reclamation's impacts to the target species, nor determine any RPAs to the projects' operations. This activity will be re-initiated and completed if the Program is not implemented.

- **Recovery Implementation Program:** On July 6, 2004, Reclamation and the Service requested initiation of formal consultation pursuant to section 7(a)(2) of the ESA on the proposed participation of Interior in funding and implementing the Program and on the continuing operation of existing and certain new Federal water-related activities dependent on the proposed Program for ESA compliance for the target species and other listed species inhabiting the central and lower Platte River. The request was amended on December 27, 2005, and February 15, 2006. The DEIS, dated December 2003, served as the biological assessment of the effects of the proposed action and accompanied the request for consultation.

The FEIS updates, and also serves as the biological assessment of, the Preferred Alternative. The FEIS was transmitted to the Service with the updated request for consultation on the Preferred Alternative on December 27, 2005.

- **Biological Opinion for the Platte Recovery Implementation Program**

A biological opinion (and accompanying Incidental Take Statement) on the effects of the Governance Committee Alternative, as illustrated and analyzed in the FEIS, was prepared by the Service in accordance with section 7 of the ESA and the Interagency Cooperation Regulations (50 CFR 402). The biological opinion was issued on June 16, 2006.

The biological opinion evaluated the effects of the preferred alternative on federally listed threatened and endangered species and designated critical habitat in the action area. The action area comprised endangered and threatened species' habitats potentially affected by the Program in the Platte River basin. The evaluation included effects of water-related activities (including Reclamation projects and Service activities in the Basin) on the target species and other listed species that rely on the central and lower Platte River habitats, as well as Program effects on other federally listed species and designated critical habitat in the action area.

The biological opinion concludes that the Federal action, as described, is not likely to jeopardize the continued existence of the federally endangered whooping crane, interior least tern, and pallid sturgeon, or the federally threatened Great Plains population of the piping plover, bald eagle, or western prairie fringed orchid. The Federal action is also not likely to destroy or adversely modify designated critical habitat for the whooping crane.