

Chapter I

PURPOSE OF AND NEED FOR THE ACTION

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I. Introduction

Proposed Action

The Bureau of Reclamation (Reclamation) proposes to operate Navajo Dam and Reservoir to meet Endangered Species Act (ESA)-related flow recommendations for the San Juan River, or a reasonable alternative¹ to those recommendations, in a manner which enables both current and future² water depletions to proceed in compliance with the ESA.

This change in reservoir operation would assist in conserving endangered fish in the San Juan River downstream from Farmington, New Mexico, and enabling water development to proceed in the San Juan River Basin (Basin) in compliance with applicable laws, compacts, court decrees, and American Indian (Indian) trust responsibilities. To accomplish this action, Reclamation would continue to operate Navajo Dam to meet the authorized project purposes while modifying reservoir release patterns to meet flow recommendations designed to maintain or improve habitat, in concert with other authorized recovery actions, for the razorback sucker and Colorado pikeminnow.

¹ A reasonable alternative may be determined through discussion with the U.S. Fish and Wildlife Service and the San Juan River Basin Recovery Implementation Program.

² Future water depletions include those which have or will obtain appropriate environmental compliance but are not yet implemented.

This Navajo Reservoir Operations Final Environmental Impact Statement (FEIS) describes and analyzes potential environmental effects resulting from the proposed operational changes to Navajo Dam and Reservoir. This FEIS has been prepared according to provisions of the National Environmental Policy Act of 1969 (NEPA) and other laws and mandates listed at the end of this chapter. The general EIS process is shown in figure I-1.

Scope of the Proposed Action

The effects of the proposed action would encompass Navajo Dam and Reservoir and the surrounding area in southwest Colorado and northwest New Mexico and the San Juan River downstream to Lake Powell near the Utah/Arizona border. Navajo Dam is approximately 38 miles northeast of Farmington, New Mexico, and about 55 miles southeast of Durango, Colorado. Other communities in the area include Bloomfield, Aztec, and Shiprock, New Mexico (the latter on the Navajo Nation Reservation), and Bluff and Mexican Hat, Utah.

It has been suggested that Reclamation treat certain authorized water projects/depletions—those which have a Federal connection but which have not obtained appropriate environmental compliance—within the scope of this FEIS. Reclamation has not adopted this suggestion. The only action which Reclamation is analyzing is the operation of Navajo Dam to implement the Flow Recommendations or a reasonable alternative. Nothing in this document precludes sponsors of future water projects from obtaining appropriate environmental compliance and developing their projects.

Purpose of and Need for the Proposed Action

The purpose of modifying the operations of Navajo Dam and Reservoir, in concert with other authorized recovery actions, is to provide sufficient releases of water at times, quantities, and durations believed to be necessary to conserve the two endangered fish species and their designated critical habitat, as recommended in the San Juan River Basin Recovery Implementation Program (SJRBRIP)³ *Flow Recommendations for the San Juan River* (Flow Recommendations) (Holden, 1999), and subject to consultation with the U.S. Fish and Wildlife Service (Service) through the formal ESA process. Reclamation would maintain the authorized purposes of the Navajo Unit

³ The SJRBRIP is a major cooperative effort among entities interested in the goals of endangered fish recovery and in proceeding with water development in the Basin. In addition to Reclamation, participants include the Service; Bureau of Indian Affairs; Bureau of Land Management; Southern Ute Indian and Ute Mountain Ute Tribes; Navajo and Jicarilla Apache Nations; water development interests; and the States of Colorado and New Mexico. The SJRBRIP consists of three committees dealing with coordination, biology, and hydrology.

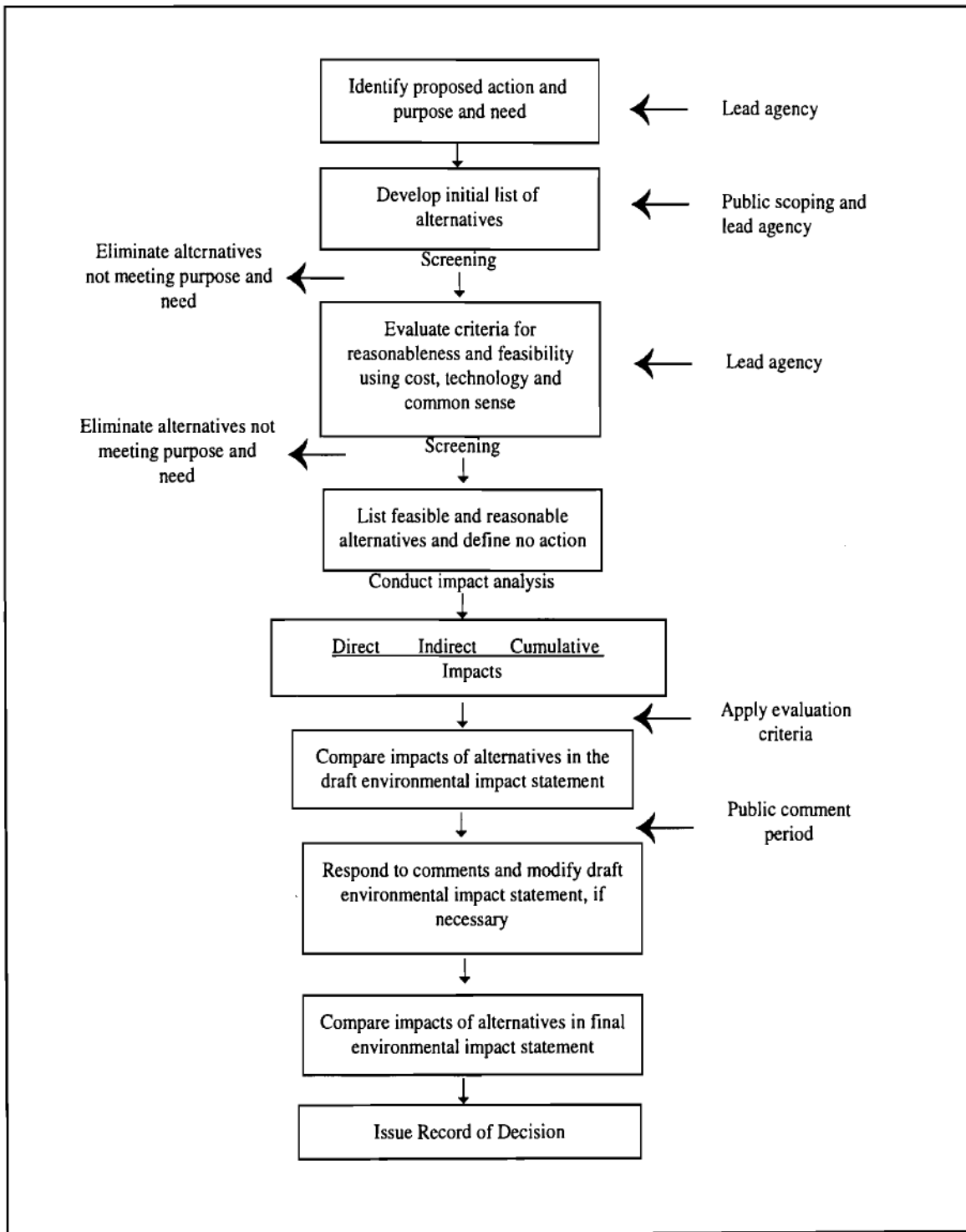


Figure I-1.—General NEPA process.

(Navajo Dam and Reservoir), which include enabling future water development to proceed in the Basin in compliance with applicable laws, compacts, decrees, and Indian trust responsibilities.

The need for a plan to modify operations has resulted from previous ESA consultations with the Service on other Basin projects that affect flows in the San Juan River. Reclamation is required to comply with the ESA for discretionary actions that affect listed species; this could include operation of the facilities of the Colorado River Storage Project (CRSP), which include Navajo Dam. The operation of Navajo Dam is a key element of the SJRBRIP.

The authority to implement an operations regime that is consistent with the Flow Recommendations is found in Section 1 of CRSP Act. This section states:

In order to initiate the comprehensive development of the water resources of the Upper Colorado River Basin, for the purposes, among others, of regulating the flow of the Colorado River, storing water for beneficial consumptive use, making it possible for states of the Upper Basin to utilize, consistently with the provisions of the Colorado River Compact, the apportionments made to and among them in the Colorado River Compact and the Upper Colorado River Basin Compact, respectively, providing for the reclamation of arid and semi-arid land, for the control of floods and for the generation of hydroelectric power, as an incident to the foregoing purposes, the Secretary of the Interior is hereby authorized. . .

The Colorado River Compact of 1922 established an Upper Basin and a Lower Basin within the Colorado River system and apportioned the exclusive beneficial consumptive use of Colorado River water in perpetuity to the Upper and Lower Basins. The Upper Colorado River Basin Compact apportioned the Upper Basin's share of the Colorado River system among the States of Colorado, Utah, Arizona, Wyoming and New Mexico. The CRSP Act was enacted in 1956 to facilitate the development of the water resources of the Upper Basin consistent with the Compacts.

The SJRBRIP was developed in response to the request of States to facilitate the continued development of their Compact apportionments in light of ESA concerns. The goal of the SJRBRIP, therefore, is to recover the listed species of the San Juan River to the point of de-listing, while allowing for the continued operation and development of the water resources of the Basin. The States, agreeing that recovery to the point of de-listing will both facilitate and insure the continued development of their water resources, have signaled their agreement with the principles and goals of the SJRBRIP through their participation and support in SJRBRIP activities. In addition to its recovery objectives, the SJRBRIP also includes an ESA Section 7 agreement, wherein program actions and sufficient progress toward recovery constitute a Reasonable and Prudent Alternative for those existing

and future water depletion activities that may jeopardize the continued existence of endangered species or cause the destruction or adverse modification of critical habitat of those species.

The Flow Recommendations, which were developed by the SJRBRIP, are intended, in concert with other SJRBRIP actions, to conserve and recover the endangered fish. By implementing the Flow Recommendations, Reclamation is taking the steps necessary to avoid jeopardizing the continued existence of the endangered species from the operation of Navajo Reservoir and to voluntarily and cooperatively take steps to facilitate recovery of the fish which, in turn, will support the continued and further utilization of the Federal facilities to aid in the development of the States' Compact apportionments. Thus, consistent with the authorized purposes of CRSP Act, implementation of the Flow Recommendations assists in the recovery of endangered species while, at the same time, supporting the States in the utilization of their compact apportionment. Moreover, that other authorized purposes of the Navajo Unit may not be fully maximized for limited durations in certain year types does not invalidate the actions of the Secretary of the Interior as long as the overall goals of the project are being met.

II. Background

Initial Operation

After completion of the Navajo Unit in 1962, criteria governing releases of water from the dam focused primarily on meeting irrigation needs and providing flood control. However, native⁴ fish populations and their habitat have been adversely affected or modified in part by the construction and subsequent operation of Navajo Dam. Also, Lake Powell's inundation of approximately 30 miles of the lower San Juan River has had significant impact on native fish habitat, as well. Some of the other factors adversely affecting these native fish include the introduction of non-native⁵ fish, the past removal of native fish to create a more desirable recreational fishery, construction of diversion structures, and instream channel modifications. Operating the dam under its historic operating criteria would continue the adverse flow effects. However, over the last decade, the criteria and associated pattern for releasing water from the dam were modified to accommodate endangered fish research and recovery efforts in the San Juan River due to ESA consultations.⁶

⁴ Fish that are indigenous to the Colorado River Basin, of which the San Juan River Basin is a component.

⁵ Fish that evolved in basins outside of the Colorado River Basin but were purposely or accidentally introduced to this Basin.

⁶ Consultation under the ESA is required of Federal agencies for existing and new projects and programs to determine effects on endangered species.

ESA Consultations

The catalyst for changing dam operation criteria came about from consultation with the Service on proposed construction of the Animas-La Plata Project (ALP Project).⁷ On May 7, 1990, the Service issued a draft biological opinion concluding that the ALP Project would jeopardize the continued existence of the Colorado pikeminnow, and no reasonable and prudent alternative (RPA)⁸ to avoid jeopardy was identified at the time. Subsequent hydrologic investigations suggested that the flexibility which existed in the operation of Navajo Dam could help offset the negative impacts of operating the ALP Project. For example, reducing releases during most months could make water available to increase spring peak flows, returning the San Juan River downstream of Farmington to a more natural hydrograph (flow conditions).



The San Juan River below Navajo Dam.

After requesting consultation under the ESA on the operation of Navajo Dam, Reclamation committed to operate the dam in concert with ongoing research to determine hydrologic conditions beneficial to endangered fish and to operate the dam in a manner most consistent with endangered fish recovery for the life of the dam.⁹ The Service concurred with Reclamation's request that the consultation process be initiated and the overall consultation period for the operation of the dam be extended while 7 years of planned research on the needs of the two listed endangered fishes in the San Juan River were conducted.¹⁰

On October 25, 1991, the Service's biological opinion on the ALP Project included an RPA calling for Reclamation to operate Navajo Dam to mimic the natural hydrograph. Since specifics of how to mimic a natural hydrograph were not described for the San Juan River, the RPA included a commitment from Reclamation and others to contribute funding

⁷ Reclamation's ALP Project in southwest Colorado/northwest New Mexico will provide municipal and industrial (M&I) water from the Animas River (largest tributary to the San Juan River) to Colorado Ute Tribes to settle their water right claims and M&I water for the Navajo Nation and non-Indians. It is a water diversion project that includes an offstream reservoir near Durango, Colorado.

⁸ An alternative that avoids jeopardizing the existence of a species and also is reasonable to implement.

⁹ Memorandum to the Service, July 30, 1991.

¹⁰ Memorandum to Reclamation, August 19, 1991.

for approximately 7 years of research. Under the direction of the SJRBRIP, the research was to determine flows that would benefit the endangered Colorado pikeminnow and the razorback sucker (a candidate species that was designated as endangered on October 23, 1991). As a result of the commitment by Reclamation to carry out the terms of the RPA, the Service found that the ALP Project could exercise an average annual depletion allowance of 57,100 acre-feet from the San Juan River without jeopardizing the endangered fish.

On February 26, 1996, another biological opinion was issued by the Service for the ALP Project in relation to newly designated critical habitat and to include the newly listed razorback sucker, placing further restrictions on the allowable depletion for the project. The opinion concluded that a total depletion of 57,100 acre-feet per year could not be exceeded in any one year until all the elements of the RPA were completed and/or implemented. This limitation was modified in case Reclamation lowered winter releases from Navajo Dam to 300 cubic feet per second (cfs) to provide extra flexibility in releases (described in the “Hydrology” section of the 1991 biological opinion). If that condition existed, then the ALP Project could maintain an average annual depletion of 57,100 acre-feet.

A June 2000 biological opinion was prepared in response to a downsized ALP Project. It superseded previous opinions and included the following conservation measure¹¹—the operation of Navajo Reservoir would mimic the natural hydrograph of the San Juan River to benefit endangered fish species and their critical habitat. Mimicry of the natural hydrograph would be achieved by operating Navajo Dam to follow the Flow Recommendations and would be subject to completion of the Navajo Reservoir Operations EIS and Record of Decision.

Biological opinions and ESA compliance for other water projects depend on the re-operation of Navajo Dam—for example, completion of the Navajo Indian Irrigation Project (NIIP), a Public Service of New Mexico (PNM) water contract with the Jicarilla Apache Nation, the Jicarilla Apache Nation Navajo River Water Supply Project (JANNRWSP), Florida and Mancos water contracts, and 3,000 acre-feet per year of unspecified minor depletions in the Basin.

San Juan River Basin Recovery Implementation Program

The SJRBRIP was initiated in 1992 with two goals:

- To conserve populations of Colorado pikeminnow and razorback sucker (figure I-2) in the Basin, consistent with the recovery goals established under the ESA.

¹¹ Action to benefit or promote the recovery of threatened or endangered species that is part of the proposed action.

- To proceed with water development in the Basin in compliance with Federal and State laws, interstate compacts, court decrees, and Federal trust responsibilities to the Southern Ute Indian and Ute Mountain Ute Tribes and the Jicarilla Apache and Navajo Nations.

The SJRBRIP has identified factors limiting the recovery of endangered fish and is implementing actions to meet the physical and biological needs of the two endangered fish species. Ongoing and proposed activities recommended by the SJRBRIP include re-regulation of releases from Navajo Dam to better meet species needs through designated critical habitat, control of non-native fish, augmentation of endangered fish populations, and identification and removal of fish-passage barriers. These elements are designed to work together to help recover the endangered fish.

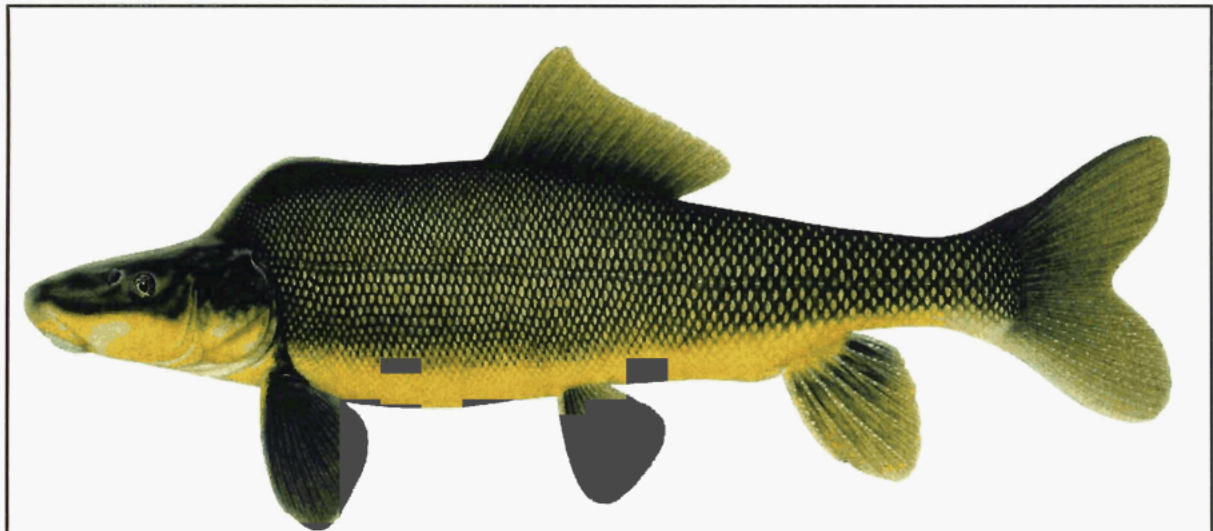
Under the direction of the SJRBRIP, Navajo Dam test releases were conducted and evaluated from 1992-1998. At the completion of the research period, the SJRBRIP completed the Flow Recommendations. The Flow Recommendations include suggested Navajo Dam operating rules for various hydrologic conditions and levels of water development in the Basin. Applying these rules would allow the Flow Recommendations to be met and water development to proceed consistent with the ESA and other applicable laws. Additional depletions in the Basin will increase above the level identified in the 1991 ALP Project biological opinion. Future water development is discussed in chapter II.

The Flow Recommendations define conditions for mimicking a natural hydrograph in terms of magnitude, duration, and frequency of flows in the river downstream from Farmington. Such mimicry is designed to provide the river conditions believed to be required to develop and maintain favorable habitat for the endangered fish and to also provide the necessary hydrologic conditions for the various life stages of the endangered and other native fishes. For example, seasonal high spring flows create conditions for backwater formation while low flows help maintain backwaters which provide important nursery habitat. In addition, seasonal high flows clean cobble bars that are used for Colorado pikeminnow spawning (Holden, 1999). These are the recommendations that Reclamation is proposing to meet by modifying the operations of Navajo Dam.

The Flow Recommendations are based on the best information available as of 1998 and are subject to periodic review and modification through the SJRBRIP based on new information obtained by the program. It is possible that the Flow Recommendations will be modified in the future based on new information, and that these modifications may further affect operation of Navajo Dam. Any re-operation outside of the release range of the alternative selected in this EIS would be subject to further NEPA compliance, including public review and comment.



Colorado pikeminnow



Razorback sucker

Figure I-2.—Colorado pikeminnow and razorback sucker.
(Illustrations copywritten by Joseph R. Tomelleri, printed by permission)

San Juan River Channel Capacity

Representatives from the Corps of Engineers (Corps) and Reclamation observed the San Juan River channel from Navajo Dam to Farmington in late May 1998 to evaluate the river channel with 5,000 cfs flowing and to determine if additional flow could occur without causing major downstream damage. The analysis was requested of Reclamation by the SJRBRIP to help determine long-term flow recommendations.

The results showed that any increase in flow above 5,000 cfs may endanger existing structures along the river. Other impacts identified included channel bank sloughing and erosion, septic system problems, and increased danger to the public resulting from high water flows. (Additional information is available in *Summary Report, Channel Capacity below Navajo Dam*, Reclamation/Corps, 1998a.)

As a result of the above findings, the Corps notified Reclamation¹² that the current river channel capacity for the San Juan River from Navajo Dam to Farmington is 5,000 cfs. The Corps will revise its estimate of the safe channel capacity to 5,000 cfs between the dam and the Animas River, as described in the draft Navajo Dam and Reservoir Water Control Manual, November 1992, to reflect current river channel conditions.¹³

III. Issues and Concerns

Issues raised in the public meetings held in 1999, in written comments and internal scoping, and in comments on the DEIS, are discussed in chapter V. Volume III contains comments from the public hearings on the DEIS. Briefly, the major concerns centered on possible effects to or the occurrence of the following: endangered species, aesthetics and land use, wetland/riparian vegetation, fish and wildlife, flow regimes, water rights, water quality, flooding of lands and facilities, damage to irrigation and water supply facilities, bank erosion, cultural resources, Indian Trust Assets, environmental justice, social and economic resources, and recreation.

IV. Cooperating Agencies

Coordination and consultation with cooperating Federal, State, and local agencies and Tribes and Tribal nations were conducted concurrently with the development of alternatives

¹² Letter to Reclamation, December 5, 2001.

¹³ Ref. *Navajo Dam and Reservoir, San Juan River Basin, Colorado and New Mexico, Report on Reservoir Regulation for Flood Control* (Report on Reservoir Regulation), June 1970.

and preparation of the EIS and are described in greater detail in chapter V. Federal agencies and local, State, and Tribal governments with appropriate expertise or jurisdiction were invited to participate in the NEPA process as cooperating agencies. They include:

Bureau of Indian Affairs, Navajo Indian Irrigation Project, Farmington, New Mexico
Bureau of Indian Affairs, Southwest Region, Albuquerque, New Mexico
Bureau of Land Management, Monticello, Utah
City of Farmington, Farmington, New Mexico
Corps of Engineers, Albuquerque, New Mexico
Colorado Water Conservation Board, Denver, Colorado
Environmental Protection Agency, Dallas, Texas
Federal Energy Regulatory Commission, San Francisco, California
Jicarilla Apache Nation, New Mexico
National Park Service, Glen Canyon National Recreation Area, Page, Arizona
New Mexico Department of Game and Fish, Santa Fe, New Mexico
New Mexico Environment Department, Santa Fe, New Mexico
New Mexico Interstate Stream Commission, Santa Fe, New Mexico
San Juan Water Commission, Farmington, New Mexico
Southern Ute Indian Tribe, Colorado
Southwestern Water Conservation District, Durango, Colorado
The Navajo Nation, Arizona, New Mexico, and Utah
U.S. Fish and Wildlife Service, Albuquerque, New Mexico
Ute Mountain Ute Tribe, Colorado and New Mexico

Status as a cooperating agency does not necessarily imply concurrence with all the conclusions presented in this document.

V. Connected and Related Actions

There are several connected, cumulative, and related actions associated with Navajo Reservoir re-operation. These relations stem from:

- Flow Recommendations developed and approved by the SJRBRIP in 1999
- The 1999 ESA consultation for NIIP (Blocks 9–11), including operation of Navajo Reservoir to meet these Flow Recommendations as a project element
- Reclamation's previous commitment to operate Navajo Reservoir to avoid jeopardy to endangered fish in the Basin as requested in the 1991 and 1996 biological opinions as part of the RPA for the ALP Project. Conservation measures for the ALP Project listed in the 2000 ALP biological opinion

On March 4, 1998, final biological opinions were issued to Reclamation on the Mancos Water Conservancy District's irrigation and municipal and industrial (M&I) water conversion and on the Florida Project's water sales contracts. The biological opinions state:

To avoid jeopardy to the Colorado pikeminnow and razorback sucker. . . Reclamation, in consultation with the Service, will re-operate Navajo Dam to mimic the natural hydrograph of the San Juan River, as agreed to as a result of consultation on the ALP Project.

The Bureau of Indian Affairs (BIA) biological assessment for the completion of NIIP includes a commitment by the BIA for Reclamation to operate Navajo Dam to meet the Flow Recommendations.¹⁴ The change in operation of Navajo Dam is not dependent upon completion of ESA consultations for the ALP Project and NIIP; however, full completion and operation of these projects is dependent upon the re-operation of Navajo Dam to meet the Flow Recommendations.

Other actions related to the operation of Navajo Dam include the following:

- Actions to implement some of the Jicarilla Apache Nation water rights settlement and related water service contracts and projects such as the JANNRWSP
- Actions to develop some of the water rights established in the 1986 Colorado Ute Indian Water Rights Settlement Agreement and the Colorado Ute Settlement Act, Amendments of 2000
- The Navajo-Gallup Water Supply Project¹⁵
- The exercise of other, presently unquantified Indian or Federal water rights
- Unspecified future non-Indian water development
- Navajo Nation Water Rights Settlement
- The Corps' flood control regulations and designation of safe river channel capacity.

Section IV in chapter III contains additional information on connected, cumulative, and related actions.

¹⁴ Letter of July 14, 1999, from the Service to Reclamation.

¹⁵ A project that would provide M&I water to Gallup, New Mexico, the Jicarilla Apache Nation, and parts of the Navajo Nation. Construction has not been authorized; however, the environmental compliance process has begun. Authorization is being sought as a component of the Navajo Nation Water Rights Settlement.

VI. Responsibilities and Compliance

The Navajo Unit is one of four key features of the CRSP which was constructed to provide for the comprehensive development of the water resources in the Upper Colorado River Basin. The Navajo Unit is operated in accordance with the CRSP Act and applicable Reclamation and other Federal laws. Therefore, the Navajo Reservoir Operations EIS evaluation process has been designed to maintain the Navajo Unit's authorized purposes.

The United States has ESA, Tribal, and other responsibilities in the Basin associated with operation of the Navajo Unit. The laws and policies listed below and table I-1 summarize these responsibilities, authorities, and functions and are in addition to the authorized purposes of the Navajo Unit.

Environmental

Clean Air Act (42 USC 7401 et seq.)
Clean Water Act of 1972 (33 USC 1251 et seq.)
Endangered Species Act of 1973 (16 USC 1532 et seq.)
Fish and Wildlife Coordination Act (48 Stat., as amended; 16 USC 661)
National Environmental Policy Act of 1969 (42 USC 4321 et seq.)
Executive Order 11988, Floodplain Management, 1977
Executive Order 11990, Protection of Wetlands, 1977
Executive Order 11991, Protection and Enhancement of Environmental Quality, 1977

Cultural Preservation

Archeological and Historic Preservation Act (16 USC 469 et seq.)
Archeological Resources Protection Act of 1979 (16 USC 470 et seq.)
National Historic Preservation Act (16 USC 470 et seq.)
Executive Order 11593, Protection and Enhancement of the Cultural Environment, 1971

American Indian

Native American Graves Protection and Repatriation Act of 1990 (25 USC 3001 et seq.)
Religious Freedom Restoration Act of 1993 (Public Law 13-141)
Executive Order 13007 (Indian Sacred Sites)
Secretarial Orders 3175, 3206, and 3215 on Indian Trust Assets

Table I-1.—Various authorities under which the Navajo Unit was constructed and is operated¹

Function	Law
Municipal, industrial and other beneficial purposes	1939 Reclamation Project Act (Public Law [P.L.] 76-260), 1956 Colorado River Storage Project Act (CRSP)—P.L. 84-485, and 1962 Navajo Indian Irrigation Project and San Juan-Chama Act
Flood control	1939 Reclamation Project Act, 1956 CRSP Act, and Flood Control Act of 1944
Improving navigation	1939 Reclamation Project Act and 1956 CRSP Act
Regulating the flow of the Colorado River	1956 CRSP Act
Reclamation of arid lands	1956 CRSP Act, 1962 Navajo Indian Irrigation Project and San Juan-Chama Act
Generation and sale of electric power	Federal Power Act of 1920, as amended
Fish and wildlife	Section 8 of the 1956 CRSP Act; 1965 Federal Water Project Recreation Act (P.L. 89-72); 1958 Fish and Wildlife Coordination Act (P.L. 85-624); 1962 Navajo Indian Irrigation Project and San Juan-Chama Act
Recreation	Section 8 of the 1956 CRSP Act, 1962 Navajo Indian Irrigation Project and San Juan-Chama Act, and 1965 Federal Water Project Recreation Act (P.L. 89-72)
Improving water quality	1962 Navajo Indian Irrigation Project and San Juan Chama Act and 1974 Colorado River Basin Salinity Control Act (P.L. 93-320)
Tribal water rights	1962 Navajo Indian Irrigation Project and San Juan Chama Act and Jicarilla Apache Tribe Water Rights Settlement Act of October 23, 1992 (P.L. 102-441)

¹ The federally authorized purposes are described in Section 1 of the CRSP.

Other

Executive Order 12898, Environmental Justice in Minority Populations and Low Income Populations, 1994

Reclamation Reform Act of 1982 (Public Law 97-293, title II, 96 Stat. 1263)

Applicable State and Tribal laws implementing the Federal laws identified above

In addition, on October 29, 1996, Reclamation agreed, under terms of a legal settlement with the San Juan Fly Fishing Federation and New Mexico Chapter of Trout Unlimited, to prepare an EIS before permanently reducing future minimum flows below 500 cfs.

VII. Document Review

Reclamation's Notice of Intent to prepare an EIS was published in the *Federal Register* on October 1, 1999. Scoping meetings were conducted on November 3, 4, 9, and 10, 1999, in Farmington, New Mexico; Durango, Colorado; Albuquerque, New Mexico; and Pagosa Springs, Colorado, respectively. The DEIS was made available to interested parties in September 2002, and public hearings were held in October 2002. The written responses to the DEIS were reviewed by Reclamation.

The preliminary draft of this FEIS was circulated to cooperating agencies for review. A Notice of Availability (NOA) of the FEIS was published in the *Federal Register*. Written responses to comments are published in volume III of this FEIS. Release of a Record of Decision will conclude the NEPA process.

Volumes I, II, and III of this document are available at Reclamation's Western Colorado Area Offices in Durango and Grand Junction, Colorado; the Upper Colorado Regional Office, Salt Lake City, Utah; the Technical Services Center, Denver, Colorado; and at area public libraries and at other locations noted in chapter V. Volume I is also available at www.usbr.gov/uc (select Environmental Documents). A summary of the FEIS will also be made available to those on the distribution list in chapter V.

VIII. Document Organization

A description of the proposed action and alternatives, an analysis of resources potentially impacted, an assessment of those impacts, and an evaluation of options to avoid or mitigate impacts are included in the following volume I chapters.

- *Chapter I, Introduction, Purpose of and Need for the Action*, discusses the purpose of and need for the proposed action, objectives of the EIS, key issues, legal and other requirements, and the review process.
- *Chapter II, Proposed Action and Alternatives*, introduces planning concepts and provides information related to the development and analysis of the alternatives, including the No Action Alternative. Those alternatives considered but eliminated from further consideration are also identified. Chapter II concludes with a description of the alternatives that were selected for full environmental evaluation in chapter III, a description of the Preferred Alternative, and a table that summarizes the environmental impacts of viable alternatives retained for further analysis.

- ❑ *Chapter III, Affected Environment and Environmental Consequences*, identifies the impacts that could occur to a wide array of resource areas with changes in the operation of the reservoir and gives particular attention to resources adversely affected. Each resource topic identifies the affected environment and potential environmental consequences (impacts).
- ❑ *Chapter IV, Environmental Commitments and Mitigation Measures*, addresses environmental commitments and mitigation measures associated with modifying the operations of Navajo Dam.
- ❑ *Chapter V, Consultation and Coordination*, presents a summary of the public involvement process, a listing of principal issues and concerns identified by the public, a summary of consultation and coordination activities, and the EIS distribution list.
- ❑ *Contents of volume II include:*

Technical/Background Material

Executive Summary, Flow Recommendations for the San Juan River
Flexibility in Near-Term Operations and General Hydrologic Data
Hydrologic Modeling Analysis
Modeled Output for Navajo Reservoir, San Juan River, Ridges Basin
Reservoir, and Animas River
Hydropower Replacement Power Cost Analysis
Water Quality Resource Report
San Juan River Water Quality Exceedences Tables
Limnology, Water Quality Parameters, and Conditions and Ecoregions
Socioeconomic Data – Change in Expenditure Impacts
(IMPLAN Model Runs)

Fish and Wildlife

Biological Assessment
Biological Opinion
Fish and Wildlife Coordination Act Report
San Juan River Trout Fishery Study: Fish Health Assessment
Memorandum From the San Juan River Basin Recovery Implementation
Program Biology Committee (February 21, 2002)
San Juan River Trout Habitat Suitability Assessment

- ❑ *Contents of volume III include:*

DEIS Comments
Responses to DEIS Comments
