

APPENDIX D
MEMORANDUM OF AGREEMENT

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MEMORANDUM OF AGREEMENT UPPER RIO GRANDE BASIN WATER OPERATIONS

I. INTRODUCTION

The Bureau of Reclamation ("BOR"), the U. S Army Corps of Engineers ("COE"), and the New Mexico Interstate Stream Commission ("NMISC"), collectively referred to as the "signatories" or "lead agencies", enter into this Memorandum of Agreement (this "Agreement") to conduct the Upper Rio Grande Basin Water Operations Review (the "Review") and prepare a Programmatic Water Operations Environmental Impact Statement ("Water Operations EIS"). The Review and Water Operations EIS are sometimes collectively referred to herein as the "project". The Review will be the basis of, and integral to, the Water Operations EIS. The Water Operations EIS will be prepared by the parties in accordance with the National Environmental Policy Act ("NEPA") and will present alternatives for the exercise of discretionary authority of BOR, COE, and NMISC with respect to water operations at federally-operated facilities in the upper Rio Grande Basin ("Upper Rio Grande Basin Water Operations") and evaluate the environmental, economic, and social effects of these alternatives. The parties acknowledge and agree that collective federal discretionary actions taken with respect to Upper Rio Grande Basin Water Operations constitute a major federal action significantly affecting the quality of the human environment. BOR, COE, and NMISC are joint-lead agencies in complying with analysis, documentation, and disclosure requirements of the NEPA process.

The project will consider the means available to exercise existing water operations authorities of BOR, COE, and NMISC with respect to Upper Rio Grande Water Operations to (1) meet agricultural, domestic, municipal, industrial, and environmental water needs, including water needs for the conservation of endangered and threatened species as required by law, consistent with the allocation of supplies and priority of water rights under state law; (2) meet downstream water delivery requirements mandated by the Rio Grande Compact and international treaty; (3) provide flood protection and sediment control; (4) assure safe dam operations; (5) support compliance with local, state, federal, and tribal water quality regulations; (6) increase system efficiency; and (7) support compliance of BOR and COE with the National Environmental Policy Act ("NEPA") for Upper Rio Grande Basin Water Operations and activities and support compliance of all signatories with the Endangered Species Act (the "ESA").

BOR and COE operate reservoir and water conveyance facilities under a number of different authorities, contracts, and policies. NMISC is authorized to protect, conserve and develop the waters of the state and monitors operations at reservoirs and water conveyance facilities for these purposes and to assure compliance with the Rio Grande Compact. The Review and related Water Operations EIS will define procedures and

protocols for review, coordination, consultation, and public input in water operations decisions. The decision-making process must be flexible and efficient to allow water managers to be responsive to ever-changing conditions, but must also be designed to allow public review and input.

Subject to applicable compacts and decrees, the State of New Mexico administers water rights within the state. Nothing in this Agreement, the Review, or the Water Operations EIS shall be construed to create water rights or require the State of New Mexico to grant water rights to any entity. Further, this Agreement shall not be construed as a *de facto* negotiation of water rights or authority to create depletions that negatively impact water users or compact deliveries. The foregoing shall not limit or otherwise affect the existing authorities of BOR, COE and NMISC that are the subject of the Review and the Water Operations EIS.

II. PURPOSE OF THE AGREEMENT

The purpose of this Agreement is to define the scope of the project and to establish the roles and responsibilities of the signatories relating to completing the Review and associated Water Operations EIS in accordance with NEPA and the ESA, and relevant regulations.

III. PURPOSE AND NEED STATEMENT FOR THE PROJECT

The signatories adopt the following purpose and need statement for the project:

The proposed action is the adoption of an integrated plan for water operations at existing COE and BOR facilities in the Rio Grande basin above Fort Quitman, Texas.

Need: Under various existing legal authorities, and subject to allocation of supplies and priority of water rights under state law, the COE and BOR operate dams, reservoirs, and other facilities in the upper Rio Grande basin to:

- (1) store and deliver water for agricultural, domestic, municipal, industrial, and environmental uses;
- (2) assist the ISC in meeting downstream water delivery obligations mandated by the Rio Grande Compact;
- (3) provide flood protection and sediment control; and
- (4) comply with existing law, contract obligations, and international treaty

Purpose: The Upper Rio Grande Basin Water Operations Review will be the basis of, and integral to, preparation of the Water Operations EIS. The purpose of the Review and Water Operations EIS is to:

- (1) identify flexibilities in operation of federal reservoirs and facilities in the upper Rio Grande basin that are within existing authorities of COE, BOR, and NMISC, and in compliance with state and federal law;
- (2) develop a better understanding of how these facilities could be operated more efficiently and effectively as an integrated system;
- (3) formulate a plan for future water operations at these facilities that is within the existing authorities of BOR, COE, and NMISC; complies with state, federal, and other applicable laws and regulations; and assures continued safe dam operations;
- (4) improve processes for making decisions about water operations through better interagency communications and coordination, and facilitation of public review and input; and
- (5) support compliance of the COE, BOR, and NMISC with applicable law and regulations, including but not limited to the National Environmental Policy Act and the Endangered Species Act.

IV. SCOPE

The Review and Water Operations EIS will address water operations at the following facilities with the noted exceptions and limitations. The term "water operations," as used in this Agreement, shall mean and refer to physical operation of the identified facilities.

- Flood control operations at Platoro Reservoir (the Review and Water Operations EIS will include only flood control operations at Platoro that are under COE authority. None of the signatories to this Agreement have authority over water supply operations at Platoro).
- Closed Basin Division -- San Luis Valley Project
- Heron Dam and Reservoir
- Abiquiu Dam and Reservoir
- Cochiti Dam and Reservoir
- Jemez Canyon Dam and Reservoir
- Low Flow Conveyance Channel
- Flood control operations at Elephant Butte Dam and Reservoir (because of current litigation, water supply operations at Elephant Butte will not be included in the Review or the Water Operations EIS).

- Flood control operations at Caballo Dam and Reservoir (because of current litigation, water supply operations at Caballo will not be included in the Review or the Water Operations EIS).

BOR and COE operate these facilities under federal authorities, state water rights permits, and various contracts. The Review and Water Operations EIS will be limited to actions that can be implemented within the existing authorities of the signatories in compliance with applicable international, federal, state, and tribal laws, regulations, and contracts, including without limitation the Rio Grande Compact. A summary of important pertinent authorities and legal constraints is provided for reference in Appendix A.

V. ORGANIZATION TO ACCOMPLISH THE PROJECT

The organization for the preparation of the Water Operations EIS will include cooperating agencies and stakeholders (sometimes hereinafter referred to as the "EIS parties"). Cooperating agencies are those agencies that have or will enter into an agreement with the lead agencies in support of the project pursuant to Article VII. The organizational structure is shown schematically in Figure 1. In accordance with NEPA and Council on Environmental Quality ("CEQ") implementing regulations, an interdisciplinary team will be organized to conduct required technical work and prepare the Water Operations EIS. Support to the joint lead agencies will be provided by the EIS parties through participation on the Steering Committee, interdisciplinary NEPA team, and technical teams.

A. Final decisions. Except as otherwise specifically provided herein, the lead agencies are collectively responsible for all decisions relating to the Water Operations EIS and will make all final decisions on disputes arising during the NEPA process.

For disputes involving different interpretations of information, the lead agencies agree to consider different interpretations if such interpretations are supported by sufficient credible data, as determined by the lead agencies. For other disputes, the EIS parties will make all reasonable efforts to resolve issues in a collaborative and timely manner. If a disputed issue cannot be resolved in a collaborative and timely manner, the lead agencies will make a final decision. This Agreement and any related agreements supporting the purpose of this Agreement shall not limit or in any way affect any person or entity's right to comment or otherwise participate in the normal public review and comment process.

B. Decision makers. Each of the lead agencies shall designate a decision maker. The decision makers collectively have authority to conduct the project and each of the lead agencies hereby represents that the decision maker specified below is authorized to act on behalf of the agency with respect to matters relating to the Water Operations EIS, including without limitation the authority to sign any resulting Record of Decision.

During the process, the decision makers will attempt to resolve any conflicts or disputes that cannot be resolved by the executive committee. The decision maker for the BOR is the Regional Director, Upper Colorado Region. The decision maker for the COE is the Division Engineer South Pacific Division. The decision maker for the NMISC is the New Mexico Interstate Stream Commission.

C. Executive committee. The executive committee shall have overall responsibility for accomplishing the project by allocating staff and funding resources, providing guidance to staff, reviewing progress, and coordinating among signatory agencies. The executive committee will select and retain a mediator or facilitator to assist in resolving disputes or conflicts at all levels. The executive committee will assist in resolving any disputes or conflicts referred by the management team or the interdisciplinary NEPA team. Disputes or conflicts that cannot be resolved by the executive committee will be referred to the decision makers. The decision makers may direct that the dispute or conflict be resolved by mediation. Membership of the executive committee shall consist of the District Engineer, Albuquerque District, U.S. Army Corps of Engineers; Area Manager, Albuquerque Area Office, Bureau of Reclamation; and the Interstate Stream Engineer for the NMISC; or their delegates. Appendix B contains the charter of the executive committee.

D. Steering committee. The executive committee will establish a Steering Committee to provide direct communication between the executive committee and representatives of cooperating agencies and key stakeholders that will be identified by the executive committee. The purpose of the Steering Committee is to facilitate coordination and information exchange. The Steering Committee will have no decision-making role. Appendix C contains the charter of the Steering Committee.

E. Management Team. The management team shall be responsible for day-to-day project management. Each signatory (lead) agency shall assign one member to the management team. The management team will have primary responsibility for:

- Overall coordination of project activities
- Formation of an interdisciplinary NEPA team and supporting technical work teams
- Leading the interdisciplinary NEPA team
- Work planning
- Budget and schedule tracking
- Documenting the process and keeping the administrative record
- Advising the executive committee with regard to work plan and schedule changes, budget needs, and other administrative and project management matters
- Day-to-day coordination with cooperating agencies

- Ensuring adequate communication and information exchange, both external and internal
 - Producing and distributing progress reports, newsletters, and news
 - Producing and submitting for publication required Federal Register notices
- Keeping the administrative record and maintaining project files
- Coordinating with US Fish and Wildlife Service for Section 7 consultation on endangered species and to satisfy Fish and Wildlife Coordination Act requirements
- Coordinating and assuring appropriate public involvement and participation in the project
 - Coordinating contractual service procurements and efforts.

The management team will attempt to resolve conflicts and disputes that may arise over the management and administration of the project. In the event that the management team cannot reach agreement, the issue will be referred to the executive committee. The executive committee may direct that the conflict or dispute be resolved by mediation.

F. Interdisciplinary NEPA Team. The Review and Water Operations EIS will be prepared using an interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts. The interdisciplinary NEPA team will include a representative designated by the management team from each of the technical teams. The management team may, as necessary and appropriate as determined by the management team, add members to the interdisciplinary NEPA team. The management team will provide leadership for the interdisciplinary NEPA team. Interdisciplinary NEPA team meetings will be open public meetings.

The interdisciplinary NEPA team will be responsible for:

- Developing, evaluating, and screening water operation alternatives
- Coordinating and directing technical teams
- Providing information to support the public involvement program
- Drafting and assembling the Water Operations EIS
- Reviewing and responding to comments on the draft Water Operations EIS

The interdisciplinary NEPA team will attempt to resolve conflicts or disputes of a technical nature that arise with respect to the project. If the interdisciplinary NEPA team is unable to reach agreement in a timely fashion, the management committee will refer the dispute or conflict to the executive committee. The executive committee may direct that the dispute or conflict be resolved by mediation.

G. Technical teams. Technical teams in a variety of disciplines will support the interdisciplinary NEPA team and perform technical studies and evaluations. The lead agencies will appoint members to these technical teams as specified under Agency Contributions. The management team may, at its discretion, invite and add, from time to time, representatives of cooperating agencies and stakeholders to be technical team members. Each technical team will be responsible for its own organization. Each technical team will refer any dispute or conflicts arising within the technical team that cannot be resolved to the interdisciplinary NEPA team. Disputes or conflicts arising between technical teams will be addressed by the interdisciplinary NEPA team. The interdisciplinary NEPA team may direct that the dispute or conflict be resolved by mediation.

VI. GENERAL PROVISIONS OF UNDERSTANDING

A. Term. This Agreement will become effective on the last signature date. This Agreement shall remain in effect until terminated as provided herein or completion of a final Water Operations EIS, whichever is earlier. The signatories expect the final Water Operations EIS to be completed within five (5) years from the date of this Agreement.

Any signatory party may terminate this Agreement by providing written notice to the other parties, effective 60 days following the date of delivery of such notice. Within ten (10) days after the termination or expiration of this Agreement, the management team will make accessible a full and complete copy of the then-current administrative record and project files to each signatory agency. The management team will provide a copy of the administrative record and project files to a signatory party within sixty (60) days after receiving a request for the record. The management team shall maintain the administrative record and project files for at least one year following the termination of this Agreement or until each of the signatory parties has received a copy of the administrative record and project files, whichever is later.

B. Decision Process. The signatories (lead agencies) are responsible for all decisions involving the Review and the Water Operations EIS and ESA-related processes and will make all final decisions on issues arising during the NEPA process. Decisions regarding the conduct of the Review and Water Operations EIS will be made by the signatories and must be unanimous.

C. No Delegation or Abrogation. Although this Agreement sets forth a cooperative process, all signatories to this Agreement recognize that they each have statutory and contractual responsibilities that cannot be delegated. This Agreement does not, and is not intended to, abrogate any of the signatory agencies' statutory duties. Nothing in this Agreement will be construed to amend or abridge the authority of any agency to carry out its legal responsibilities, mandates, or contractual obligations. The rights and

obligations of the parties under this Agreement are contract rights and obligations only, and shall not be construed to modify in any way the statutory or regulatory duties of the parties.

D. Dispute Resolution. The signatories agree to use all reasonable efforts to resolve any disputes arising among them and to do so in a collaborative and timely manner. Disputes that cannot be resolved will be mediated. The team or committee responsible for resolution of a dispute or conflict will document the nature of any dispute and the resolution process used, and provide the documentation to the management team. The signatories, through the management team, will document in the administrative record the nature of any dispute and the resolution process used.

E. Modifying the Agreement. This Agreement may be modified by letter of agreement signed by the three decision makers or their designated representatives. Any modification shall be made in writing prior to implementing the change.

F. The Work Plan. The *Work Plan for the Upper Rio Grande Basin Water Operations Review* (Attachment A) defines the specific work items to be accomplished under this Agreement and provide associated schedule and budget information. The work plan shall be subject to periodic review, revision, and approval by the executive committee.

G. Correspondence. For coordination purposes, copies of all written correspondence from any signatory agency or EIS party to another person or entity pertaining to activities under this Agreement shall be sent by the originator to the originator's peers in the team, committee, or other relevant group to which the originator belongs.

H. Officials not to Benefit. No member of, or delegate to Congress, or resident Commissioner, shall receive any benefit that may arise from this Agreement.

VII. INVOLVEMENT OF COOPERATING AGENCIES

Agencies and governments with appropriate expertise or jurisdiction have been invited to participate in the NEPA process as cooperating agencies. The executive committee may, at any time during the course of the project, invite additional agencies to participate in the process as cooperating agencies. An agreement with each cooperating agency will be developed documenting specific expectations, roles, and responsibilities including such issues as preparation of analysis, schedules, and availability of pre-decisional information. Cooperating agency agreements must be signed by all of the signatories. A standard cooperating agency agreement is appended hereto as Appendix B.

VIII. PUBLIC INVOLVEMENT

The signatories, through the management team, will seek and encourage public involvement throughout the project. The management team will prepare a public involvement plan to present milestones to the public. The management team will submit for publication in the Federal Register a Notice of Intent to prepare an EIS, Notices of Availability of the draft and final Water Operations EIS, and Records of Decision. Notices will also be placed in the Federal Register on the availability of scoping information. Each lead agency, through the management team will be responsible for public involvement in the process. The responsibilities of the lead agencies will include conducting public scoping meetings, Water Operations EIS comment hearings, and other outreach activities.

IX. PRODUCTS

A. Water Operations EIS Documents. The Water Operations EIS Documents will be prepared in accordance with the National Environmental Policy Act and its implementing regulations and the Endangered Species Act and its implementing regulations:

- Notice of Intent to prepare an EIS
- Notice of availability of draft EIS
- Draft Environmental Impact Statement
- Notice of availability of final EIS
- Final Environmental Impact Statement
- Notice of availability of Record of Decision Record of Decision

The management team will be responsible for production and distribution of the Water Operations EIS documents.

B. ESA Compliance and Compliance with other federal law. The lead agencies shall establish a protocol for the integration with this Review of other federal and NMISC actions or decisions which relate to or may have an effect on the decisions and resources that are within the scope of this Review. This Protocol should include an explanation of the relationship between the project and other Environmental Assessments or Environmental Impact Statements, the manner in which the actions for which the project will be conducted will comply with the requirements of Sections 7 and 9 of the Endangered Species Act, and the manner in which decisions regarding the grant or denial of permits or other authorizations or discretionary actions will be incorporated within the project. The lead agencies will determine and document the timing and products for review by the United States Fish and Wildlife Service pursuant to the Endangered Species Act, and the organization structure for arrangements between the United States Fish and Wildlife Service and the three lead agencies.

C. Administrative Record. The management team will keep and maintain the administrative record for the EIS. The administrative record shall include all reports and other records establishing the factual basis and material to the development of the EIS and Records of Decision, such as correspondence among the signatories and EIS parties, including email; meeting notes; and public comments. Informal communications shall not be considered to establish the factual basis of the EIS and Records of Decision.

D. Records of Decision. Each of the signatories will publish a separate Record of Decision not less than 30 days following publication of the Final Water Operations EIS. Each agency's ROD will state its plan for future exercise of its authorities over water operations in the Upper Rio Grande Basin. While the intent of this Agreement is that the signatories will use all reasonable efforts to develop a preferred plan that will be adopted by all three signatories, this outcome is not assured.

X. AGENCY CONTRIBUTIONS

The BOR, COE, and NMISC will make funding and in-kind contributions during the term of the Agreement for purposes of completing the *Work Plan for the Upper Rio Grande Basin Water Operations Review* (Attachment A). The staffing commitments of the parties may be fulfilled using in-house staff or contractors.

The signatories will be responsible for funding their respective obligations identified in this Agreement and in Attachment A. If additional or unanticipated needs are identified in the course of the project, the signatories will review their respective budgets and mutually agree on the means of funding.

Commitments made under this Agreement are subject to approval and appropriations by state and federal legislative bodies. Nothing in this Agreement will require any of the signatories to exceed annual appropriations or personnel limits.

A. Bureau of Reclamation. BOR will:

1. Assign a project manager whose primary assignment is to manage the project process for BOR and participate as a member of the management team. The estimated resource commitment for the Reclamation project manager is 0.5 to 1.0 FTE per year.
2. Assign technical specialists as necessary to accomplish the Work Plan. The estimated resource commitment for BOR technical specialist participation is 0.3 FTE for each of 8 to 10 teams per year.

3. Assign staff and provide funding as necessary to accomplish the public involvement program. The estimated resource commitment for BOR public involvement program participation is 0.3 to 0.5 FTE.
4. Provide general support such as clerical support.
5. Provide written input for all documents and review materials within time frames set.
6. Review and comment on all draft documents and public information materials.
7. Provide appropriate existing data and analysis.
8. Provide funding for staffing, travel, and other participatory needs.
9. Provide work plans and statements of work for any necessary studies.
10. Provide draft copies for other agency review.
11. Continue to support development of the Upper Rio Grande Water Operations Model (URGWOM).

B. Corps of Engineers. COE will:

1. Assign a project manager whose primary assignment is to manage the project process for COE and participate as a member of the management team. The estimated resource commitment for the COE project manager is 0.5 to 1.0 FTE per year.
2. Assign technical specialists as necessary to accomplish the Work Plan. The estimated resource commitment for COE technical specialist participation is 0.3 FTE for each of 8 to 10 teams per year.
3. Assign staff and provide funding as necessary to accomplish the public involvement program. The estimated resource commitment for COE public involvement program participation is 0.3 to 0.5 FTE.
4. Provide general support such as clerical support.
5. Provide written input for all documents and review materials within time frames set.

6. Review and comment on all draft documents and public information materials.
7. Provide appropriate existing data and analysis.
8. Provide funding for staffing, travel, and other participatory needs.
9. Provide work plans and statements of work for any necessary studies.
10. Provide draft copies for other agency review.
11. Continue to support development of the Upper Rio Grande Water Operations Model (URGWOM).

C. New Mexico Interstate Stream Commission. NMISC will:

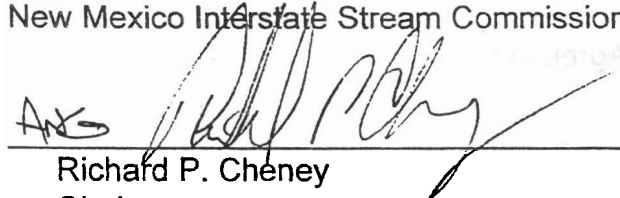
1. Assign a project manager whose primary assignment is to manage the project process for NMISC and participate as a member of the management team. The estimated resource commitment for the NMISC project manager is 0.5 to 1.0 FTE per year.
2. Assign technical specialists as necessary to accomplish the Work Plan. The estimated resource commitment for NMISC technical specialist participation is 0.3 to 0.5 FTE for each of 6 to 10 teams per year.
3. Assign staff and provide funding as necessary to accomplish the public involvement program. The estimated resource commitment for NMISC public involvement program participation is 0.3 to 0.5 FTE.
4. Provide general support such as clerical support.
5. Provide written input for all documents and review materials within time frames set.
6. Review and comment on all draft documents and public information materials.
7. Provide appropriate existing data and analysis.
8. Provide funding for staffing, travel, and other participatory needs.
9. Provide work plans and statements of work for any necessary studies.

10. Provide draft copies for other agency review.

11. Increase support of development of the Upper Rio Grande Water Operations Model (URGWOM).

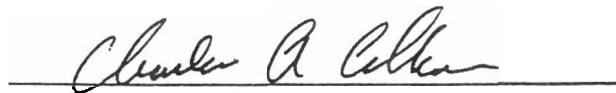
APPROVED:

New Mexico Interstate Stream Commission


Richard P. Cheney
Chairman

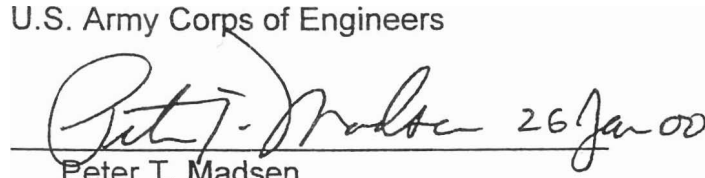
Date: 1/19/00

U.S. Bureau of Reclamation


Charles A. Calhoun
Director, Upper Colorado Region

Date: 1/21/00

U.S. Army Corps of Engineers


Peter T. Madsen
Brigadier General, U.S. Army
Division Engineer

APPENDIX A: Pertinent authorities and legal constraints on water operations in the Upper Rio Grande Basin

Appendix B: Charter of the Executive Committee

Appendix C: Charter of the Steering Committee

Attachment A: Work Plan

Attachment B: Standard Cooperating Agreement

APPENDIX A

WATER OPERATIONS AUTHORITIES

The signatories state that they have the following discretionary authorities over water operations in the upper Rio Grande basin, the exercise of which will be subject to consideration in the project.

A. Corps of Engineers Authorities: The COE operates reservoir facilities for flood and sediment control in the Upper Rio Grande Basin under existing authority of:

PL 86-645 (1960) authorizes construction of Cochiti and Galisteo Dams and includes the operating criteria for Jemez Canyon, Abiquiu, Cochiti, and Galisteo Dams which includes:

1. " will be operated solely for flood control and sediment control
2. "the outflow from Cochiti Reservoir during each spring flood and thereafter will be at maximum rate of flow that can be carried at the time in the channel of the Rio Grande through the middle valley without causing flooding of areas protected by levees or unreasonable damage to channel protective works."
3. "that whenever the months of July, August, September, and October, there is more than two hundred twelve thousand acre-feet of storage available for regulation of summer floods and the inflow to Cochiti Reservoir (exclusive of that portion of the inflow derived from upstream flood -control storage) is less than one thousand five hundred cubic feet per second, no water will be withdrawn from storage in Cochiti Reservoir and the inflow derived from upstream flood-control storage will be retained in Cochiti Reservoir".
4. "Releases of water from Galisteo, reservoir and Jemez Canyon Reservoir during the months of July, August, September, and October, will be limited to the amounts necessary to provide adequate capacity for control of subsequent summer floods; and such releases when made in these months, or thereafter, will be at the maximum rate practicable under the conditions at the time.",
5. "all reservoirs will be evacuated completely on or before March 31 of each year..."
6. "that when estimates of anticipated streamflow made by appropriate agencies of the Federal Government indicate that the operation of reservoirs constructed as a part of the Middle Rio Grande Project may affect the benefits accruing to New Mexico or Colorado under provisions of the eighth unnumbered paragraph of Article VI of the Rio Grande Compact, releases from such reservoirs shall be regulated to produce a flow of ten thousand cubic feet per second at Albuquerque, or such greater or lesser rate as may be determined by the Chief of Engineers at the time to be maximum safe flow, whenever such operation shall be requested by the Rio Grande Compact Commissioner for New Mexico or the Commissioner for Colorado, or both, in writing prior to commencement of such operation."
7. "...no departure from the foregoing operation schedule will be made except with advice and consent of the Rio Grande Compact commission..."
8. "...whenever the Corps of Engineers determines that an emergency exists affecting the safety of major structure or endangering life and shall so advise the Rio

Grande Compact Commission in writing, these rules of operation may be suspended during the period of and to the extent required by such emergency."

- PL 88-293 (1964) which authorizes a permanent pool in Cochiti Lake for recreation and fish and wildlife; the pool was established and maintained with San Juan -Chama Project water;
PL 97-140 (1981) authorizes up to 200,000 acre-feet of contract storage of San Juan Chama project water in Abiquiu Reservoir with certain conditions;
PL 100-522 (1988) authorizes storage of Rio Grande system water (up to 200,000 acre-feet) in Abiquiu Reservoir in the San Juan Chama storage space, if the San Juan Chama entities no longer require such storage; the storage of Rio Grande system water is subject to the provisions of the Rio Grande Compact; and
Flood Control Act of 1944 (58 Stat. 890, 33 U.S.C. 709), Section 7, Flood Control Regulation for Platoro Reservoir, Conejos River, Colorado is the responsibility of the COE.

B. Bureau of Reclamation Authorities: The BOR operates reservoir and channel facilities in the Upper Rio Grande Basin under existing authority of:

The Reclamation Act of 1902

The Flood Control Acts of 1948 (PL 80-858) and 1950 authorize construction, operation, and maintenance of channel rectification works of the Middle Rio Grande Project, which includes the Low Flow Conveyance Channel.

PL 87-483 (1962) authorizes the San Juan-Chama Project, which makes possible diversion of water from the upper tributaries of the San Juan River through the Continental Divide and into the Rio Grande drainage, not to exceed a maximum of 270,000 acre-feet in any one year, and limited to a total of 1,350,000 acre-feet in any consecutive ten-year period; the authorization allows water use to include municipal, irrigation, domestic, and industrial uses, and provide recreation and fish and wildlife benefits; Reclamation administers the contracts for San Juan-Chama Project water; Heron Reservoir is a facility of the San Juan-Chama Project and stores only water diverted from the San Juan Basin;

PL 92-514 (1972) authorizes the Closed Basin project in Colorado to salvage groundwater that would otherwise be lost to evapotranspiration. The project helps the state of Colorado meet its required compact deliveries to New Mexico and to help all three states: Colorado, New Mexico and Texas meet their delivery requirements to the Republic of Mexico;

- PL 93-493 (1974) authorizes a recreation pool at Elephant Butte of 50,000 acre-feet; the state of New Mexico has contracted with the city of Albuquerque for San Juan -Chama project water to maintain the recreation pool since 1985;

C. New Mexico Interstate Stream Commission Authorities:

- Section 72-14-3, NMSA 1978 provides in part that NMISC “is authorized to ... investigate water supply, to develop, to conserve, to protect and to do any and all other things necessary to protect, conserve and develop the waters and stream systems of this state, interstate or otherwise;... and to do all other things necessary to carry out the provisions of [Chapter 72, Article 14, NMSA 1978].”
- Section 72-14-20, NMSA 1978 provides in part that NMISC “authorized and empowered, to accept cooperation from the United States of America, its instrumentalities and agencies, in the construction, maintenance and operation of any works authorized by this act, and the commission shall have full power to do any and all things necessary in order to avail itself of such aid, assistance and cooperation”

D. Other Applicable Laws and Regulations

This Agreement, the Review, and the Water Operations EIS are subject to, and are intended to be consistent with, all applicable federal and state laws, regulations, agency policies, and interstate compacts including, but not limited to:

- The Rio Grande Compact of 1938, apportions the waters of the Rio Grande above Fort Quitman Texas among the states of Colorado, New Mexico, and Texas.
- The Rio Grande Convention of 1906 requires the United States to deliver 60,000 acre feet of water annually to Mexico. The National Environmental Policy Act of 1969, as amended (Public Law 91-910, 42 USC 4321-4347).
- Council on Environmental Quality (CEQ), Regulations for Implementing the Procedural Provisions of the NEPA (40 CFR Parts 1500-1508).
- U.S. Department of the Interior, Departmental Manual Part 516
- U.S. Department of the Interior, Bureau of Reclamation, National Environmental Policy Act Handbook, as revised (October 1990).
- The Endangered Species Act of 1973, as amended (P.L. 93-205; 87 Stat. 884, 16 U.S.C. 1531 et. seq.) Consultation and Regulatory Certainty Under Section 7 of the ESA, 16 U.S.C. Section 1536, federal agencies shall utilize their programs and authorities in furtherance of the purposes of the ESA and ensure that their actions are not likely to jeopardize listed species or adversely modify designated critical habitat of such species. Federal Cooperation with States Section 2(c)(2) of the ESA, 16 U.S.C. Section 1531(c)(2), states that "the policy of Congress is that federal agencies shall cooperate with state and local agencies to resolve water resource issues in concert with conservation of endangered species." Under Section 6 of the ESA, the Secretary of the Interior is directed to cooperate to the maximum extent practicable with the states in carrying out the program authorized by the ESA and to consult with the affected states before acquiring any land and water, or interest therein, for the purpose conserving listed species. Nothing

herein shall constitute an admission that any water related activities or new water related activities have caused or will cause adverse effects to endangered or threatened species or their habitats.

Under the Fish and Wildlife Coordination Act, 16 U.S.C. ' 662, federal agencies must consult with the Service and with state wildlife agencies on the impacts to fish and wildlife resources of federal or federally licensed or permitted water projects.

Water Pollution Prevention and Control Act (Clean Water Act). 33 U.S.C. Section 1251 et. seq.

PL 100-633 which amends the National Wild and Scenic River Act of 1968 to include a portion of the Rio Chama the reach between El Vado, and Abiquiu Reservoirs as " wild and scenic " and designates another portion of the reach as a study reach for possible designation. The Corps, Reclamation, and the Bureau of Land Management (BLM) are jointly responsible for management of the reaches.

- Subject to applicable compacts and decrees, the State of New Mexico administers water rights.
- The State of New Mexico also has certain statutory authorities, including authority under Section 17-2-39, NMSA 1978, and responsibilities to protect and manage its fish and wildlife resources.

Additional authorities:

National Parks, Monuments, Recreation Areas

Several laws established national monuments or recreation areas within the river basin. These units were established to provide for public outdoor recreation use and enjoyment and to preserve the scenic, scientific, and historic features of the area. (i.e., list the laws establishing Bandelier National Monument; Wild Rivers NRA; Ovielle Verde NRA; Quarai at Salinas Pueblo Missions National Monument; Abo at Salinas Pueblo Missions National Monument; Gran Quivira at Salinas Pueblo Missions National Monument; Valley of Fires NRA; Ft. Craig National Historic Site)

The following may also be applicable:

Antiquities Act of 1906 (16 U.S.C. 431 et seq.)

National Park Service Organic Act (16 U.S.C. 1-4, 22,43)

National Park Service General Authorities Act of 1970 (16 U.S.C. 1a-1)

Redwood National Park Act of 1978 (Public Law (P.L.) 95-250, 92-Stat. 163 as amended)

Energy Policy Act of 1992 (P.L. 102-486, Sec. 2402)

Environmental

Several laws and executive orders were designed to restore and protect the natural environment of the United States-air, water, land, and fish and wildlife.

Rivers and Harbors Act of 1899 (33 U.S.C. 401 et seq.)
Wilderness Act of 1964 (16 U.S.C. 1131 et seq.)
Wild and Scenic Rivers Act of 1968 (16 U.S.C. 1271 et seq.)
Clean Air Act (42 U.S.C. 7401 et seq.)
Executive Order 11991, Protection and Enhancement of Environmental Quality, 1977
Executive Order 11988, Floodplain Management, 1977
Executive Order 11990, Protection of Wetlands, 1977
Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

Cultural Preservation

Several laws and executive orders were designed to protect and preserve historic and cultural resources under Federal control and/or in consultation with Indian Tribes.

Historic Sites, Buildings, and Antiquities Act (16 U.S.C. 461 et seq.)
Archaeological and Historic Preservation Act (16 U.S.C. 469 et seq.)
National Historic Preservation Act (16 U.S.C. 470 et seq.)
Executive Order 11593, Protection and Enhancement of the Cultural Environment, 1971
Archaeological Resources Protection Act of 1979 (16 U.S.C. 470 et seq.)
Executive Order 13007, Indian Sacred Sites, 1996

Tribal Laws and Regulations

Several laws and treaties established reservations and protect the rights of Native Americans to express, believe, and exercise traditional religious practices. Federal agencies are responsible for consulting with Indian Tribal Governments and traditional religious leaders to determine appropriate actions necessary for protecting and preserving Native American religious cultural rights and practices.

American Indian Religious Freedom Act of 1978
(42 U.S.C. 1996)

Native American Graves Protection and

Repatriation Act of 1990 (25 U.S.C. 3001 et seq.)

Religious Freedom Restoration Act of 1993 (P.L. 103-141)

Laws or treaties establishing Indian Reservations within or adjacent to the study area

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APPENDIX B

CHARTER OF THE EXECUTIVE COMMITTEE FOR THE UPPER RIO GRANDE BASIN WATER OPERATIONS REVIEW AND WATER OPERATIONS ENVIRONMENTAL IMPACT STATEMENT

Membership: In accordance with the Memorandum of Agreement for the Upper Rio Grande Basin Water Operations Review and Environmental Impact Statement (the Project) , the executive committee for the Project (executive committee) shall consist of the District Engineer, Albuquerque District, U.S. Army Corps of Engineers; the Area Manager, Albuquerque Area Office, Bureau of Reclamation; and the Interstate Stream Engineer for the New Mexico Interstate Stream Commission.

Role of the executive committee: The executive committee is responsible for accomplishing the review by allocating staff and funding resources from their respective agencies, providing guidance to staff, reviewing progress, and coordinating among signatory agencies.

The executive committee will review and approve changes to the Project work plan.

The executive committee shall establish a steering committee for the purpose of coordinating and exchanging information regarding the Project between the executive committee and representatives of cooperating agencies and key stakeholders. Representatives of all cooperating agencies, the Rio Grande Compact Commission, and key stakeholders that are identified by the executive committee will be invited to participate in the steering committee.

Decisions: Decisions of the executive committee shall be unanimous and will be approached in a constructive and collaborative manner. In the event that conflicts or disputes may arise that cannot be resolved within the committee itself, mediation of the dispute will be attempted. The executive committee will select and retain a mediator to provide conflict and dispute resolution assistance for the Project.

The executive committee will assist in resolving any disputes or conflicts referred by the management team or the interdisciplinary NEPA team.

Meetings: The executive committee shall meet at least three times a year, or more often as necessary.

The executive committee shall conduct steering committee meetings at least twice a year or more often if necessary.

APPENDIX C

CHARTER OF THE STEERING COMMITTEE FOR THE UPPER RIO GRANDE BASIN WATER OPERATIONS REVIEW

Membership: In accordance with the Memorandum of Agreement for the Upper Rio Grande Basin Water Operations Review and Water Operations Environmental Impact Statement (the Project), the steering committee for the project (steering committee) shall consist of the members of the executive committee (i.e. the District Engineer, Albuquerque District, U.S. Army Corps of Engineers; the Area Manager, Albuquerque Area Office, Bureau of Reclamation; and the Interstate Stream Engineer for the New Mexico Interstate Stream Commission), representatives from cooperating agencies, members of the Rio Grande Compact Commission, and key stakeholders invited by the executive committee.

Role of the Steering Committee: The purpose of the steering committee is coordination and exchange of information regarding the Project. The steering committee has no decision-making role.

Meetings: The executive committee will conduct steering committee meetings at least twice a year.

ATTACHMENT A: WORK PLAN

**Work Plan for the
Upper Rio Grande Basin
Water Operations Review**

**Contract # DACA47-97-D-0009
Delivery Order #2**

**Prepared for:
U.S. Army Corps of Engineers
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REVISION SUMMARY

Draft Work Plan	6/1/98
Draft Work Plan	10/22/99
Work Plan	1/11/00
Final Work Plan	1/26/00
Corrections	3/1/00

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- A Environmental Laws and Regulations
- B Master Schedule

ACRONYMS AND ABBREVIATIONS

BOR	Bureau of Reclamation
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
COE	U.S. Army Corps of Engineers
Corps	U.S. Army Corps of Engineers
DEIS	Draft Environmental Impact Statement
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FEIS	Final Environmental Impact Statement
FR	Federal Register
FTE	Full Time Equivalent
ID	Interdisciplinary
JLA	Joint Lead Agencies
MOA	Memorandum of Agreement
NEPA	National Environmental Policy Act
NMISC	New Mexico Interstate Stream Commission
NOI	Notice of Intent
PIP	Public Involvement Plan
QAP	Quality Assurance Plan
Reclamation	Bureau of Reclamation
Review	Upper Rio Grande Basin Water Operations Review
ROD	Record of Decision
SHPO	State Historic Preservation Office
URGWOM	Upper Rio Grande Water Operations Model
U.S.C.	United States Code
WBS	Work Breakdown Structure

1.0 INTRODUCTION

1.1 PROJECT BACKGROUND

The Upper Rio Grande Basin Water Operations Review (Review) and Environmental Impact Statement (EIS) will be a comprehensive system-wide review of the water operations activities that are conducted under the existing authorities of the Joint Lead Agencies (JLA), the U.S. Army Corps of Engineers (COE), the Bureau of Reclamation (BOR), and the New Mexico Interstate Stream Commission (NMISC), in the Rio Grande basin above Fort Quitman, Texas. These operations consist primarily of the storage and release of water at reservoirs. To ensure compliance with the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (Title 40, Code of Federal Regulations [CFR], Parts 1500–1508) implementing NEPA, the COE NEPA regulations (33 CFR Part 230), BOR NEPA regulations (45 FR 47944 [7/17/80] as amended by 48 FR 17151 [4/21/83]), Department of Interior Manual 516 DM 1-7, and other applicable federal and state environmental legislation (see **Appendix A**), the JLA will prepare a programmatic Water Operations EIS that documents the Review process and informs the public about the resource conditions and effects of any proposed actions on the environment. This project is referred to as the Review and Water Operations EIS, collectively referred to as the project.

The Review will be the basis of, and integral to, the Water Operations EIS. The Water Operations EIS will be prepared by the parties in accordance with NEPA and will present alternatives for the exercise of discretionary authority of BOR, COE, and NMISC with respect to water operations at federally operated facilities in the upper Rio Grande Basin (Upper Rio Grande Basin Water Operations) and evaluate the environmental, economic, and social effects of these alternatives. The parties acknowledge and agree that collective federal discretionary actions taken with respect to Upper Rio Grande Basin Water Operations constitute a major federal action significantly affecting the quality of the human environment. BOR, COE, and NMISC are joint lead agencies in complying with analysis, documentation, and disclosure requirements of the NEPA process.

The project will consider the means available to exercise existing water operations authorities of BOR, COE, and NMISC with respect to Upper Rio Grande Water Operations to (1) meet agricultural, domestic, municipal, industrial, and environmental water needs, including water needs for the conservation of endangered and threatened species as required by law, consistent with the allocation of supplies and priority of water rights under state law; (2) meet downstream water delivery requirements mandated by the Rio Grande Compact and international treaty; (3) provide flood protection and sediment control; (4) assure safe dam operations; (5) support compliance with local, state, federal, and tribal water quality regulations; (6) increase system efficiency; and (7) support compliance of BOR and COE with NEPA for Upper Rio Grande Basin Water Operations and activities and support compliance of all signatories with the Endangered Species Act (ESA).

BOR and COE operate reservoir and water conveyance facilities under a number of different authorities, contracts, and policies. NMISC is authorized to protect, conserve, and develop the waters of the state and monitors operations at reservoirs and water conveyance facilities for these purposes and to assure compliance with the Rio Grande Compact. The Review and related Water Operations EIS will define procedures and protocols for review, coordination, consultation, and public input in

water operations decisions. The decision-making process must be flexible and efficient to allow water managers to be responsive to ever-changing conditions but must also be designed to allow public review and input.

Subject to applicable compacts and decrees, the State of New Mexico administers water rights within the state. Nothing in this Work Plan, the Review, or the Water Operations EIS shall be construed to create water rights or require the State of New Mexico to grant water rights to any entity. Further, this Work Plan shall not be construed as a *de facto* negotiation of water rights or authority to create depletions that negatively impact water users or compact deliveries. The foregoing shall not limit or otherwise affect the existing authorities of BOR, COE, and NMISC that are the subject of the Review and the Water Operations EIS.

1.2 PURPOSE AND NEED FOR REVIEW OF WATER OPERATIONS

The proposed action is the adoption of an integrated plan for water operations at existing COE and BOR facilities in the Rio Grande basin above Fort Quitman, Texas.

Need: Under various existing legal authorities, and subject to allocation of supplies and priority of water rights under state law, the COE and BOR operate dams, reservoirs, and other facilities in the upper Rio Grande basin to:

- (1) store and deliver water for agricultural, domestic, municipal, industrial, and environmental uses;
- (2) assist the Interstate Stream Commission in meeting downstream water delivery obligations mandated by the Rio Grande Compact;
- (3) provide flood protection and sediment control; and
- (4) comply with existing law, contract obligations, and international treaty.

Purpose: The Upper Rio Grande Basin Water Operations Review will be the basis of, and integral to, preparation of the Water Operations EIS. The purpose of the Review and Water Operations EIS is to:

- (1) identify flexibilities in operation of federal reservoirs and facilities in the upper Rio Grande basin that are within existing authorities of COE, BOR, and NMISC and in compliance with state and federal law;
- (2) develop a better understanding of how these facilities could be operated more efficiently and effectively as an integrated system;
- (3) formulate a plan for future water operations at these facilities that is within the existing authorities of BOR, COE, and NMISC; complies with state, federal, and other applicable laws and regulations; and assures continued safe dam operations;
- (4) improve processes for making decisions about water operations through better interagency communications and coordination and through facilitation of public review and input; and

- (5) support compliance of the COE, BOR, and NMISC with applicable law and regulations, including but not limited to the National Environmental Policy Act and the Endangered Species Act.

Scope: The Review and Water Operations EIS will address water operations at the following facilities with the noted exceptions and limitations. The term “water operations,” as used in this Work Plan, shall mean and refer to physical operation of the identified facilities.

- Flood control operations at Platoro Reservoir (the Review and Water Operations EIS will include only flood control operations at Platoro that are under COE authority)
- Closed Basin Division—San Luis Valley Project
- Heron Dam and Reservoir
- Abiquiu Dam and Reservoir
- Cochiti Dam and Reservoir
- Jemez Canyon Dam and Reservoir
- Low Flow Conveyance Channel
- Flood control operations at Elephant Butte Dam and Reservoir (because of current litigation, water supply operations at Elephant Butte will not be included in the Review or the Water Operations EIS)
- Flood control operations at Caballo Dam and Reservoir (because of current litigation, water supply operations at Caballo will not be included in the Review or the Water Operations EIS)

BOR and COE operate these facilities under federal authorities, state water rights permits, and various contracts. The Review and Water Operations EIS will be limited to actions that can be implemented within the existing authorities of the signatories in compliance with applicable international, federal, state, and tribal laws, regulations, and contracts, including without limitation the Rio Grande Compact. A summary of important pertinent authorities and legal constraints is provided for reference in Appendix A.

1.3 PURPOSE OF WORK PLAN

The purpose of this Work Plan is to outline the management, organization, tasks, deliverables, milestones, and schedule for completing the Review and Water Operations EIS and supporting activities. In addition, the Work Plan identifies responsibility assignments and resource requirements for each task.

1.4 ORGANIZATION OF THIS WORK PLAN

This Work Plan is organized into seven sections and two appendices. After this introduction, **Section 2.0** discusses project management, **Section 3.0** describes the project organization, and **Section 4.0** describes the Work Breakdown Structure (WBS) and the simplified Master Schedule. The detailed Master Schedule is provided as **Appendix B**. **Sections 5.0** and **6.0** are reserved for the Quality Assurance Plan (QAP) and Public Involvement Plan (PPP), respectively. **Section 7.0**, Task

Descriptions, specifies the activities to be conducted under each WBS element, the schedule for completion of each WBS element, resource requirements (in terms of personnel), and organizational responsibilities.

2.0 PROJECT MANAGEMENT SYSTEMS

2.1 MANAGEMENT APPROACH

The management approach for the project is designed to be a team approach among the JLA. This approach includes early identification of individuals in the agencies to participate on several of the EIS committees.

The management approach to the project is based on the central elements of planning, organization and staffing, and performance tracking and reporting. The goal of the management approach is to minimize cost and schedule risk in completing the Review and preparing the EIS. An essential key to the management of this task is a core interdisciplinary team responsible for the majority of the work and led by a JLA Management Team with a thorough understanding of EISs and project management. The Review and Water Operations EIS shall require the integration of key participants (i.e., COE, BOR, NMISC, and contractors). The task process requires a team approach for all participants in meeting the common goal of a timely Final Environmental Impact Statement (FEIS) and Record of Decision (ROD).

2.2 PLANNING

The WBS identifies 16 elements to prepare the EIS. This WBS is the basis for the preparation of the Master Project Schedule (which is discussed in **Section 4.0**). This schedule presents the work planning for the task and identifies associated deliverables and performance dates. Cost estimates can be prepared on the basis of the WBS and schedule to enable tracking and reporting of cost and schedule performance. Overall, the planning process will be documented thoroughly in this Work Plan that will be revised under WBS element 1.0 (see **Section 7.0**). This Work Plan will serve as the task baseline for cost, schedule, and technical performance.

2.3 ORGANIZATION AND STAFFING

The project organization is described in **Section 3.0** of this Work Plan. The organization shall have a Management Team that shall be assigned to the project as their primary work assignment. Staff resources shall be provided on an as-needed basis to maximize technical performance while minimizing labor costs. Management and Technical Teams shall be available to meet all requirements within schedule parameters. In addition, a Steering Committee will ensure that external stakeholder involvement is integrated throughout the preparation of the EIS.

2.4 PERFORMANCE TRACKING AND REPORTING

The project management system shall include a formal change control process. This change control process shall provide, if necessary, for the orderly approval or rejection of revisions to the task baseline. In order to manage change and maintain the integrity of the technical and cost/schedule, baselines shall be used as a basis to identify:

- Changes to the scope, budget, or schedule in the Work Plan
- Changes or transfers of funds between the Joint Lead Agencies to support contractor budgets

All proposed project baseline changes will be approved by the JLA prior to the implementation of the change.

EIS Managers shall measure the project technical, cost, and schedule performance through a Bimonthly Management Reporting system. Technical progress will be monitored through a quality assurance process of technical reviews for all project deliverables overseen by the manager. Cost and schedule performance will be monitored throughout the project.

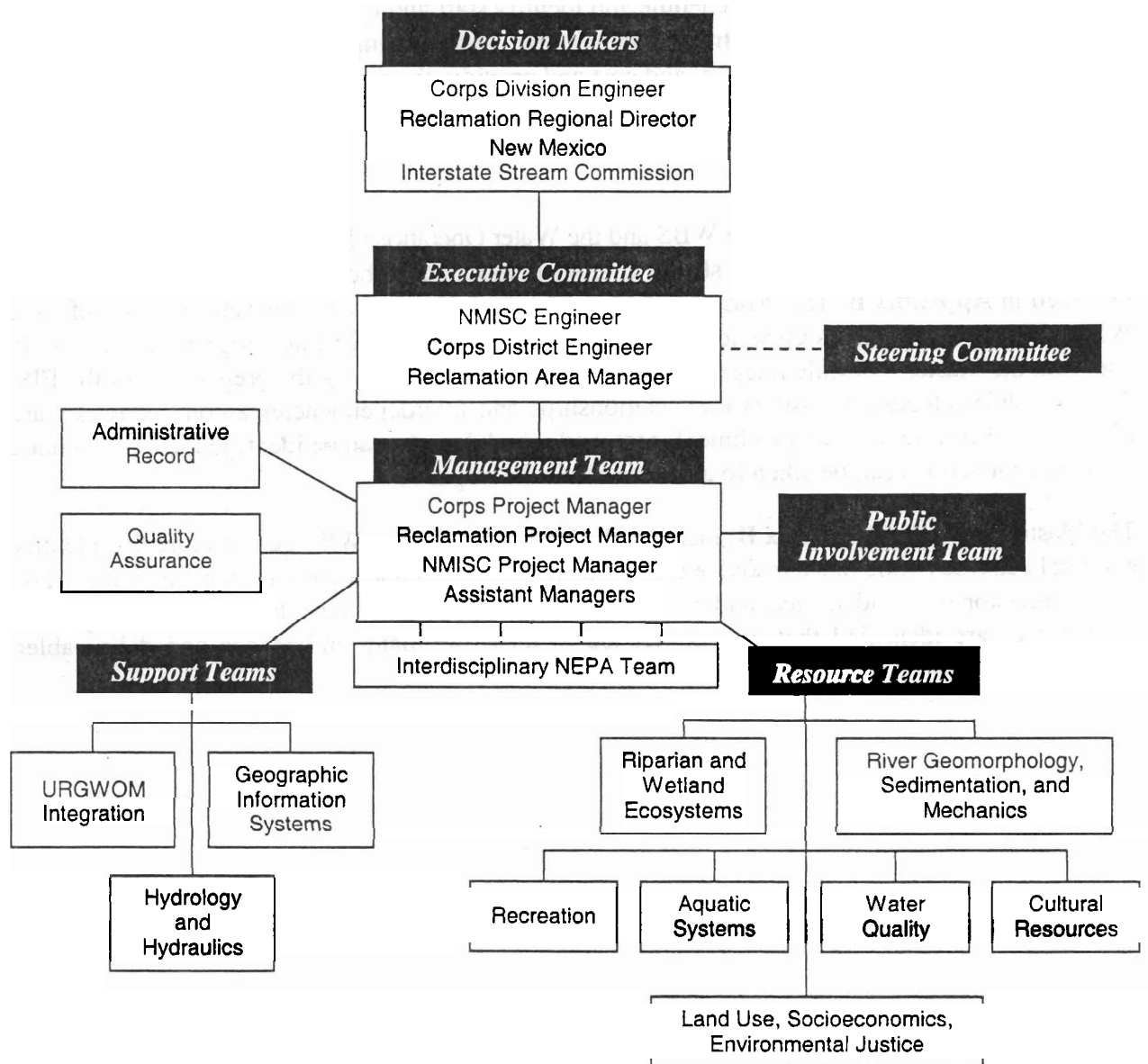
A Bimonthly Management Report will be generated every other month during the project. The Bimonthly Management Report will provide comprehensive technical, cost, schedule, progress assessment, and corrective action sections. These sections shall document project progress, trends, potential favorable or unfavorable conditions, and the effect of management corrective actions. These reports shall also contain cost and schedule status and variances and other related data for measuring the performance of the project against the technical and schedule baselines (established from the WBS and Master Schedule). Managers shall review the information used to prepare the Bimonthly Management Reports every other month. Review of the schedule, milestone, and budget status on a frequent basis will allow the managers to identify negative trends, understand the cause of the trends and then implement actions, identify schedule and milestone issues, and take immediate corrective actions to ensure that the project remains on track.

3.0 ORGANIZATION AND RESPONSIBILITIES

3.1 WATER OPERATIONS REVIEW EIS ORGANIZATION

The organization for the preparation of the Review and Water Operations EIS will include multiple agencies and stakeholders. The organizational structure is shown schematically in **Figure 3-1**. In accordance with NEPA regulations, an interdisciplinary team will be organized to conduct required technical work and prepare the EIS. Support to the JLA will be provided by other agencies and stakeholders through participation on a Steering Committee, Interdisciplinary (ID) NEPA Team, and Technical Teams. The roles and responsibilities of each team are described in detail in the Memorandum of Agreement (MOA) signed by the Joint Lead Agencies.

Figure 3-1. Review and Water Operations EIS Organization



4.0 WORK BREAKDOWN STRUCTURE AND MASTER SCHEDULE

4.1 WORK BREAKDOWN STRUCTURE (WBS)

The project WBS provides a straightforward, detailed structure composed of 17 primary elements. These elements are integrated into the Master Schedule. In this way, the WBS maps required activities and charts resources necessary for successful completion of the EIS. Descriptions of the WBS activities are provided in **Section 5.0**.

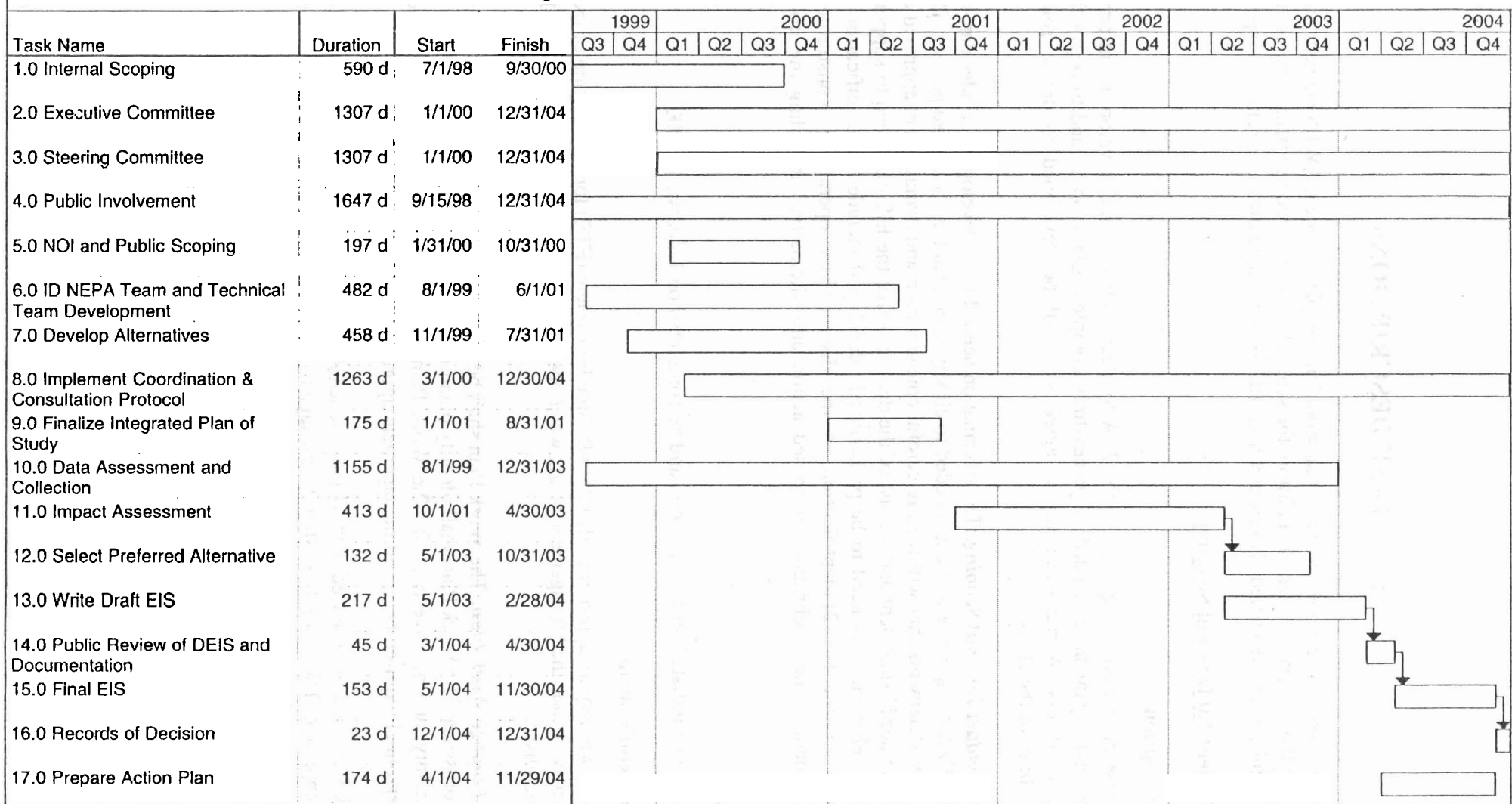
The WBS allows the Management Team to break down the first level tasks into discrete subtasks or activities that need to be accomplished. These subtasks comprise the second, third, and fourth levels of the WBS. Each WBS element (task or subtask) is a discrete measurable activity with a defined product. The WBS identifies the amount of time required for each task, allocates resources, and delineates interdependencies between tasks and subtasks. Therefore, the WBS is the framework that was used to build the Master Schedule and identify staff and other resource requirements. The WBS is the basis for communicating, documenting, and tracking tasks, roles, responsibilities, schedules, deliverables, level of effort, and cost and provides the means for the EIS team to capture costs/schedules and provide the overall integration of the project.

4.2 MASTER SCHEDULE

The Master Schedule is based on the WBS and the Water Operations Review schedule. An overview version of the Master Schedule is shown in **Figure 4-1**, while the detailed Master Schedule is provided in **Appendix B**. This Master Schedule clearly delineates activities and duration of each WBS element. This allows clear identification and tracking of schedule progress and costs. In addition, the Master Schedule integrates the major activities supporting the preparation of the EIS. This schedule integration ensures that relationships and interdependencies among activities are identified. Therefore, potential technical, cost, and schedule risks can be identified, and immediate management actions can be taken to avoid or offset the impacts.

The Master Schedule (**Appendix B**) includes the lower levels of the WBS substructure that identify essential activities, time lines, resource requirements, and interdependencies among activities. The major milestones are identified and are linked to the WBS activities. Interim milestones and deliverables are identified that will be needed to meet the major milestones and deliverables schedule.

Figure 4-1. Overview of Master Schedule



5.0 TASK DESCRIPTIONS

The following section describes the tasks that would be completed for each WBS element identified in Section 4.0 of this Work Plan. In addition, the schedule, resource requirements, and assignment of responsibilities are identified. Taken in whole, this section represents the technical approach.

WBS Element 1.0 Internal Scoping

Task Description

The purpose of internal scoping is for the JLA to clearly identify and develop the information, processes, and organization needed to successfully complete EIS scoping and to begin the EIS preparation process. A memorandum of agreement will be developed to define roles and responsibilities of the JLAs.

WBS 1.1 Conduct Internal Scoping. The information needed to be developed includes data needed to ensure NEPA compliance and data needed to clearly understand the proposed project. The two primary NEPA elements that will require careful consideration and management approval are the “purpose and need” statement and the list of the decisions that the EIS may need to support. The three project elements that need to be preliminarily developed include (1) identification of the institutional constraints, (2) identification of the discretionary operational constraints, and (3) development of the preliminary proposed action and alternatives including the no-action alternative.

Schedule

This task will be initiated on July 1, 1998, and be completed on January 31, 2000.

Resource Requirements

This activity will require approximately 0.9 Full Time Equivalent (FTE) for the duration of the task. This FTE may include the Management Team, water operations experts, NEPA specialist, and public affairs specialist.

WBS 1.2 Finalize Work Plan. The Work Plan shall be revised as needed to reflect any changes in approach or issues. The Work Plan shall identify planning, staffing, communicating, managing risk and uncertainty, and positive control. The Work Plan links milestones, deliverables, schedule, budget, personnel requirements, and management approach.

This Work Plan shall be reviewed with focus on schedule, deliverables, resource requirements, and technical approach. The Work Plan shall be managed as a controlled document and shall serve as the framework for the preparation of the EIS.

Schedule

This task will be initiated on October 1, 1999, and be completed on January 14, 2000.

Resource Requirements

This activity will require approximately 0.1 FTE for the duration of the task. It will be conducted primarily by the Management Team.

WBS 1.3 Cooperating Agency Agreements. Develop, complete, and sign agreements with cooperating agencies.

Schedule

This task will be initiated on January 1, 2000, and be completed on September 30, 2000.

Resource Requirements

This activity will require approximately 0.1 FTE for the duration of the task. The work will be conducted primarily by the Management Team.

WBS 1.4 Develop Quality Assurance Plan (QAP). Prepare a plan that outlines procedures for determining technical quality assurance of work and data, document control and tracking, and establishment and maintenance of the EIS Administrative Record, a system established to collect and handle all records used to prepare the EIS.

Schedule

This task will be initiated on January 1, 2000, and be completed on September 30, 2000.

Resource Requirements

This activity will require approximately 0.1 FTE for the duration of the task. The work will be conducted primarily by the Management Team.

WBS Element 2.0 Executive Committee

Task Description

WBS 2.1 Establish Executive Committee. This committee consists of the District Engineer, Albuquerque District, U.S. Army Corps of Engineers; the Area Manager, Albuquerque Area Office, Bureau of Reclamation; and the Interstate Stream Engineer, New Mexico Interstate Stream Commission. An initial organizational meeting of the Executive Committee will be held in February 2000. The Management Team will prepare a briefing for the Executive Committee on the organization and plan for accomplishing the project.

Schedule

This task begins January 1, 2000, and ends February 15, 2000.

Resource Requirements

This task will require approximately 3 days of effort by the Management Team and 1.5 days of effort by Executive Committee members, or 0.1 FTE for the 6-week duration of the task.

WBS 2.2 Conduct Executive Committee Meetings. The Executive Committee will meet at least three times a year for the duration of the project. The Management Team will plan each meeting and prepare status and progress reports for the executive committee.

Schedule

This task begins February 16, 2000, and ends December 31, 2004.

Resource requirements

This task will require approximately 0.1 FTE for the duration of the project. This FTE will include effort by the Management Team for planning, preparation, and meeting attendance, and by the Executive Committee members for meeting attendance.

WBS Element 3.0 Steering Committee

Task Descriptions

Under this activity, the Steering Committee will be involved in providing input to the EIS preparation and public participation processes and review draft documents and materials. The Steering Committee will interact primarily with JLA management, the Management Team.

WBS 3.1 Establish and Organize Steering Committee. This activity will include selecting potential members for the Steering Committee, requesting their participation, and holding an initial steering committee meeting.

Schedule

This task will be initiated on January 1, 2000, and be completed by June 30, 2000.

Resource Requirements

This activity will require approximately 0.1 FTE for the duration of the task. This FTE will include the Executive Committee, Management Team, and a facilitator.

WBS 3.2 Conduct Steering Committee Meetings. Steering Committee meetings will be held twice a year. The Executive Committee will conduct the Steering Committee meetings. The Management Team will prepare presentations on project status and progress for the Steering Committee.

Schedule

This task will be initiated on June 1, 2000, and be completed when the project is completed. The initial steering committee meeting will be held in June 2000.

Resource Requirements

This activity will require less than 0.1 FTE for the duration of the task. This FTE will include the Executive Committee, Management Team, and a facilitator.

WBS Element 4.0 Public Involvement

Task Descriptions

The objectives of public involvement are (1) to disseminate information about the proposal to interested personnel and people who may be affected by it, (2) to provide opportunities for interested and affected members of the public to have input in the analyses and decision-making process, (3) to ensure that public input is effectively conveyed to the members of the project team, (4) to foster common public understanding of how the river/reservoir system operates, and (5) to foster public acceptance of the proposal.

WBS 4.1 Complete Public Involvement and Implementation Plans. A Public Involvement Plan has been prepared and a Public Involvement Implementation Plan will be completed that will work out the specific details of the Public Involvement Program.

Schedule

The Public Involvement Plan (PIP) and Public Implementation Plan will be initiated September 15, 1998, and be completed by April 30, 2000.

Resource Requirements

This activity will require approximately 0.2 FTE for the duration of the task. This FTE will include public affairs specialists and the Management Team.

WBS 4.2 Implementation of Public Involvement Plan. Public involvement activities will be conducted throughout the project, as outlined in the MOA and the PIP. This includes such activities as a market survey; preparation and use of media kits, fact sheets, press releases, and newsletters; development and use of a web page; production of a video; and attendance at meetings of interested organizations to discuss the project.

Schedule

Public involvement activities will begin on January 1, 2000, and continue to the end of the project, December 31, 2004.

Resource Requirements

This activity will require approximately 0.4 FTE for the duration of the project, in addition to approximately \$150,000 for contractors.

WBS Element 5.0 NOI and Formal Public Scoping

Task Descriptions

WBS 5.1 Publish Notice of Intent (NOI). The NOI will be prepared, reviewed, revised, and approved under this activity. Once approved by the JLA, the NOI will be published in the *Federal Register* following publication guidelines. A news release will accompany the publication of the NOI.

Schedule

The NOI will be published January 31, 2000.

Resource Requirements

Preparation and publication of the NOI will require one day of effort by a member of the Management Team.

WBS 5.2 Plan and Conduct Scoping Meetings. As detailed in the Public Implementation Plan, eight scoping meetings will be conducted in the basin to determine the issues that are of concern to the public and to obtain input on potential alternatives to study in the EIS. The public meetings will be held in Alamosa, Española, Taos, Santa Fe, Albuquerque, Socorro, Las Cruces, and El Paso. Scoping will be conducted by the Management Team with support from public affairs specialists, a facilitator, and a recorder.

Schedule

This task will begin on June 1, 2000, and continue through September 30, 2000.

Resource Requirements

This task will require 0.7 FTE for the duration of the task.

WBS 5.3 Prepare Scoping Summary. The Scoping Summary will be prepared once all eight meetings have been completed. The summary will include information presented at the scoping meetings and identify the issues and concerns raised by commentors. Comments will be broadly categorized to provide readers with an overview of the written and verbal comments received. The Scoping Summary will include the JLA's plans to address the categorized comments.

Schedule

This task will be initiated on October 1, 2000, and be completed on October 31, 2000.

Resource Requirements

The Management Team will prepare the scoping summary. This activity will require approximately 0.4 FTE for the duration of the task.

WBS Element 6.0 ID NEPA Team and Technical Team Development

Task Descriptions

WBS 6.1 Establish the Interdisciplinary (ID) NEPA Team. The Management Team will be responsible for organizing the NEPA team and will identify the members of the core interdisciplinary team. Specific roles and responsibilities of each member of the ID NEPA team will be determined and any working procedures or agreements will be drafted, reviewed, and approved. The ID NEPA Team will be responsible for coordinating data collection, developing action alternatives, and evaluating the alternatives. The ID team will be responsible for producing the EIS in accordance with NEPA and implementing regulations. Formulation and evaluation of alternatives will be interdisciplinary and responsive to issues identified during internal and formal scoping.

Schedule

This task begins on August 1, 1999, and will be completed by July 31, 2000.

Resource Requirements

This task requires approximately 0.1 FTE for the duration of the task.

WBS 6.2 Establish the Technical Teams. The Management Team and the ID NEPA team will establish Technical Teams needed to complete data evaluation and impact analyses. These Technical Teams will be responsible for preparing plans of study, identifying and compiling data, developing analysis methods, and conducting data analyses needed to complete the project. In addition, team members will assist in preparing sections of the EIS and supporting appendices.

Schedule

This task will be initiated on August 1, 1999, and be completed on September 30, 2000.

Resource Requirements

This activity will require approximately 0.2 FTE for the duration of the task. This FTE will include the Management Team, ID NEPA Team, and Technical Team members.

WBS 6.3 Develop Technical Team Plans of Study. The Technical Teams will prepare plans of study. Plans of study will list the issues, resources, and indicators to be used to analyze different water operations alternatives. The plans of study will identify existing data and additional data needs and will describe methods that will be used to analyze and evaluate impacts of alternatives. Plans of study will include estimates of resources required to complete the analysis and to write reports and relevant sections of the EIS. Plans of study will also be used to inform new Technical Team members of the goals and methods of the Technical Team. They will also address the need for information from other Technical Teams.

The plans shall identify the following points:

- Region of Influence
- Key technical assumptions
 - Attributes used to assess impacts
- Level of data analysis in terms of precision and accuracy (e.g., qualitative versus quantitative)
- Analysis methods including models and calculations to be used

Plans of Study shall identify relationships and potential interactions among resources. This identification will ensure that the data needed from one analysis is available in a form suitable for other analyses to the maximum practical extent. Development of the plans will be coordinated through the ID NEPA Team. The plans shall then be submitted to the Management Team and JLA management for review and approval.

Schedule

This task begins August 1, 1999, and will be completed by December 31, 2000.

Resource Requirements

This task requires 1.0 FTE for the task duration. FTEs required are Technical Team leaders, Technical Team members, and Management Team.

WBS 6.4 Develop Coordination and Consultation Protocol. The Project Managers will develop a process for managing coordination of project activities and analyses with other agencies and organizations (**Table 5-1**). The protocol will reflect the relationship of the Water Operations Review to the many other ongoing projects in the basin. The Management Team will also develop a plan for completing required formal interagency consultations such as Section 7 consultation with the U.S. Fish and Wildlife Service and consultations with State Historic Preservation Office (SHPO). The plan will be reviewed by the ID NEPA Team and the Steering Committee and will be submitted to the Executive Committee for final approval. During scoping meetings, stakeholders will be asked to identify projects that could be included in this coordination effort.

Schedule

This task begins on November 1, 2000, and will be completed by February 28, 2001.

Resource Requirements

This task requires 0.5 FTE for the task duration. FTEs required are the Management Team, ID NEPA Team, and Technical Team members.

Table 5-1. Preliminary List of Organizations and Type of Consultation That May Be Required for the Review and Water Operations EIS

Organization	Consultation
Tribal Governments	Government to Government Consultation; NEPA
International Boundary and Water Commission (U.S. Section)	Water Treaty Obligations, Flood Control; NEPA
Rio Grande Compact Commission	Informal; NEPA
Colorado Division of Water Resources	Informal; NEPA
New Mexico Interstate Stream Commission	Rio Grande Compact Obligations
Texas Natural Resources Conservation Commission	Informal; NEPA, Clean Water Act
U.S. Fish and Wildlife Service	Endangered Species Act; Migratory Bird Treaty Act; Bald and Golden Eagle Protection Act; Fish and Wildlife Coordination Act; Wetland Protection Executive Order
U.S. Forest Service	Informal; NEPA
Bureau of Land Management	Informal; NEPA; Wild and Scenic Rivers
Bureau of Indian Affairs	Informal; NEPA
National Park Service	Informal; NEPA
Department of the Interior	Consolidated Department of the Interior Review of EIS
U.S. Army Corps of Engineers	Clean Water Act (Wetlands Protection)
Natural Resources Conservation Service	Farmland Protection
State of New Mexico Agencies (SHPO, New Mexico Game and Fish Department, New Mexico Environment Department)	Section 106 of National Historic Preservation Act, Endangered Species Protection, Clean Water Act
State of Texas Agencies (SHPO, Texas Parks and Wildlife Department)	Section 106 of National Historic Preservation Act, Endangered Species Protection, Clean Water Act
State of Colorado Agencies (SHPO, DOW)	Section 106 of National Historic Preservation act, Endangered Species Protection, Clean Water Act
County Governments and Agencies	Water Rights; NEPA
City Governments and Agencies	NEPA, Water Rights
Private Land Owners	Water Rights; NEPA
Irrigation Districts and Acequias	Water Rights; Water Use

WBS 6.5 Develop Integrated Plan of Study. The Technical Teams' plans of study will be submitted to the Management Team for compilation and integration. Criteria for screening alternatives will be identified and described in the integrated plan of study. The Management Team will produce a draft integrated plan of study for the project. The integrated plan will resolve inconsistencies between and among the Technical Teams' individual plans and balance resources with needs. The Management

Team's draft integrated plan of study will be reviewed by the ID NEPA team and the Executive Committee prior to release of the plan for public review and comment.

Schedule

This task begins January 1, 2001, and ends February 28, 2001

Resource Requirements

This task requires 2.5 FTEs for the task duration. FTEs required are the Management Team, Assistant Project Manager, ID NEPA Team, and Technical Team members.

WBS 6.6 Develop Alternatives Screening Criteria. Criteria for screening alternatives to be evaluated in the EIS will be developed by the ID NEPA Team and reviewed by the Steering Committee. The screening criteria will be incorporated in the final integrated plan of study (Task 9.1). Screening criteria for the key resources will be combined to form an integrated output that can be used to rapidly compare benefits and disadvantages of alternatives to support decisions.

Schedule

This task will begin on January 1, 2001, and end on June 1, 2001.

Resource Requirements

This task requires 0.5 FTE for its duration. Personnel required are the Management Team, the ID NEPA Team and a subcommittee of this team, a facilitator, and a recorder.

WBS Element 7.0 Develop Alternatives

Task Descriptions

WBS 7.1-7.2 Characterize the Affected Environment and No-Action Alternative. The affected environment is described in Chapter 3 of the EIS. This task is to identify and describe relevant characteristics of the environment affected by water operations. Analysis of a no-action alternative is also required by NEPA. The description of the no-action alternative is contained in Chapter 2 of the EIS. This task includes writing a preliminary draft of Chapter 3 and the part of Chapter 2 that describes the no-action alternative.

Schedule

This task begins on November 1, 1999, and ends May 31, 2001. Outlines of the affected environment and no-action alternative are needed by April 30, 2000, for preparation of public involvement materials for the scoping meetings.

Resource Requirements

This task requires 0.9 FTE for the task duration. FTEs required include Technical Team leaders and Technical Team members.

WBS 7.3 Formulate Action Alternatives. Information gathered during the scoping process will be used to formulate and screen a range of action alternatives using the process and criteria described

in the integrated plan of study. A preliminary draft of Chapter 2 describing the alternatives will be written.

Schedule

This task will be initiated on October 1, 2000, and be completed by July 31, 2001.

Resource Requirements

This activity will require approximately 3.0 FTEs for the duration of the task. These FTEs will include the Management Team and the Interdisciplinary NEPA Team. In addition, support from selected Technical Team members (e.g., water operations and NEPA specialist) and the Executive Committee would be needed.

WBS Element 8.0 Implementation of Coordination and Consultation Protocol

Task Descriptions

These tasks implement the protocol developed in Task 6.4.

WBS 8.1 Coordination With Other Agencies and Organizations. Agency coordination will be initiated by the Management Team as early in the EIS process as possible to identify the relationship of the Water Operations Review to other basin projects. This includes day-to-day coordination with cooperating agencies, pueblos, tribes, and other stakeholder organizations by the Management Team, ensuring adequate communication and information exchange.

Schedule

This task will begin on March 1, 2000, and will continue throughout the project.

Resource Requirements

This activity will require approximately 0.5 FTE for the duration of the project and will be conducted by the Management Team.

WBS 8.2 Consultation to Meet Requirements of NEPA. Implementation of the consultation protocol will ensure that consultation guidelines and NEPA requirements are met. This includes government-to-government consultations among the JLA, the tribes and pueblos, the U.S. Fish and Wildlife Service, and the SHPO to meet the requirements of the Endangered Species Act, the Fish and Wildlife Coordination Act, and the National Historic Preservation Act. The consultations will be initiated once the Management Team has an adequate description of the proposed action and the range of reasonable alternatives. In many cases, the interactions shall be an extension of ongoing consultations and dialogues established from implementation of Task 8.1 and through the Steering Committee.

Schedule

This task will be initiated on March 1, 2001, and be completed by June 15, 2004.

Resource Requirements

This activity will require approximately 0.5 FTE for the duration of the task. This FTE will include the Management Team and selected technical specialists. In addition, limited participation from the Executive Committee may be needed.

WBS Element 9.0 Finalize Integrated Plan of Study

Task Description

WBS 9.1 Finalize Plan of Study. Following review and comment, a final integrated plan of study will be written. During this activity, the methods that will be used to screen and compare alternatives will be decided and agreed upon.

Schedule

This task will be initiated on March 1, 2001, and be completed on August 31, 2001.

Resource Requirements

This activity will require approximately 1.3 FTEs for the duration of the task. These FTEs will include the ID NEPA Team and Technical Teams. Support would also be provided by the Management Team. In addition, \$100,000 will be needed for contractor support to complete this task.

WBS Element 10.0 Data Assessment and Collection

Task Descriptions

WBS 10.1 Compile Existing Data. Existing data shall be collected and evaluated for adequacy and completeness. Federal, state, county, tribal, and local data sources will be contacted to acquire baseline information about the topics of the EIS. Specialists for each discipline area will assist in identifying and obtaining existing information from organizations and individuals (**Table 5-2**). The existing information will be reviewed for adequacy and completeness. EIS personnel will visit the involved sites and coordinate with federal, regional, state, and local agencies that have data applicable to the environmental analyses being performed. Adequacy and completeness of all existing data shall be measured by:

Identifying if data are available for the entire area that may be affected by the action.

Comparing data among the different sources to determine if data are consistent.

- Identifying if the attributes used in existing data sources are appropriate to evaluate the type, magnitude, and intensity of impacts that may result from water operations. All data (e.g., reports, telephone contacts, meetings) shall be catalogued into the Administrative Record (see **WBS Element 1.4**)

Table 5-2. Example of Potential Data Sources for the Review and Water Operations EIS

Agency/Source	Subject Area	Examples of Data Type
Tribal Governments	Water rights, land use, land use planning, archaeological, cultural, and tribal resources	Interviews and reports
Rio Grande Compact Commission	Water rights and water use	Interviews and reports
Colorado Division of Water Resources	Water rights and water use	Interviews and reports
New Mexico Interstate Water Commission	Water rights and water use	Interviews and reports
Texas Natural Resources Conservation Commission	Water rights and water use	Interviews and reports
New Mexico-Texas Water Commission	Water rights and water use	Interviews and reports
New Mexico Water Resources Research Institute	Water resources	Interviews and reports
International Boundary and Water Commission (U.S. Section)	Water rights, water use, treaty obligations, flood control	Interviews and reports
Local Governments and Agencies	Land use planning, land use, utilities, and socioeconomics	Reports, telephone contacts
U.S. Census Bureau	Socioeconomics	Reports, Tiger Files, telephone contacts
Public Utilities	Electric and water	Reports, forecasts, telephone contacts
New Mexico Environment Department	Water resources	Reports, telephone contacts
New Mexico SHPO	Cultural, archaeological, and historic resources	Reports, telephone contacts, letters
New Mexico Game and Fish Department	Biological resources and recreation	Reports, telephone contacts, Web site
New Mexico Forestry	Biological and mineral resources	Reports, telephone contacts, letters
U.S. Fish and Wildlife Service	Biological and water resources	Reports, telephone contacts, letters
U.S. Forest Service	Natural, cultural, visual, mineral resources and land use, socioeconomics	Reports, telephone contacts, letters
Bureau of Land Management	Natural, cultural, visual, mineral resources and land use, socioeconomics	Reports, telephone contacts, letters
Bureau of Indian Affairs	Land use, socioeconomics, and water, cultural, and natural resources	Reports, telephone contacts, letters
Natural Resources Conservation Service	Soil, biological resources	Reports, telephone contacts, letters
U.S. Army Corps of Engineers	Water operations, flood control, biological resources	Reports, telephone contacts, letters
U.S. Geological Survey	Water resources	Reports, telephone contacts, letters
Bureau of Reclamation	Water resource management	Reports, telephone contacts, letters
Universities	Land use, socioeconomics, natural resources	Reports, telephone contacts
Natural Heritage Program	Biological resources	Reports, telephone contacts, letters
Irrigation Districts and Acequias	Water resources, water rights, land use	Reports, telephone contacts, letters

The findings from the data adequacy assessment will be reviewed by the Interdisciplinary NEPA Team, Management Team, and Steering Committee to ensure that the reviews are adequate to meet technical and CEQ requirements. The results shall be included in the draft Technical Team plans of study (see **WBS Element 6.3**).

Schedule

This task will be initiated on August 1, 1999, and completed on December 31, 2000.

Resource Requirements

This activity will require approximately 0.4 FTE for the duration of the task. This FTE will primarily include the Interdisciplinary NEPA Team and Technical Team members. In addition, there will be approximately \$150,000 in contract costs for completing this task.

WBS 10.2 Collect New Data. A limited amount of new data will be collected and compiled. New data needs will be described in the integrated plan of study (see **WBS Element 6.5**).

Schedule

This task begins on August 1, 1999, and continues through December 31, 2003.

Resource Requirements

This task will require approximately 0.4 FTE for the duration of the task plus approximately \$750,000 in contract costs. FTEs required will be primarily Technical Team members.

WBS Element 11.0 Impact Assessment

Task Description

The Technical Teams shall implement the approved plans of study and evaluate the impacts of the proposed action and alternatives including the no-action alternative. The analysis will be led by senior experts in each specific discipline area.

The analyses shall implement the final integrated plans of study developed under **WBS Element 6.5** and rely on data compiled and collected under **WBS Element 10.0**. As the analyses are conducted, additional issues may arise or approaches may not be as successful as estimated during development of the plans of study, which would require an iterative process through the ID NEPA Team to finalize. The output of the impact analyses will include tables, figures, text summaries, model printouts, and calculations to provide supporting information for a draft Chapter 4 of the EIS. These outputs will be shared among the analysis specialists to ensure that resource and issue areas can accurately and consistently estimate impacts on an interdisciplinary basis.

Schedule

This task will be initiated on October 1, 2001, and be completed on April 30, 2003.

Resource Requirements

This activity will require approximately 1 FTE for the duration of the task. This FTE will primarily include the Interdisciplinary NEPA Team and Technical Team members. The Management Team will be heavily committed to this task in a management and overall project integration capacity.

WBS Element 12.0 Select Preferred Alternative

Task Description

A comparative impact evaluation of the alternatives will be conducted. The ID NEPA Team would recommend a preferred alternative to the Executive Committee, which may make a recommendation to the decision makers. Final selection of the preferred alternative shall be made by the decision makers. If consensus cannot be reached by the ID NEPA Team by June 1, 2003, the decision makers will select the preferred alternative based on the completed internal draft EIS.

Schedule

This task will be initiated on May 1, 2003, and completed by October 31, 2003.

Resource Requirements

This activity will require approximately 0.8 FTE for the duration of the task. This FTE will primarily include the Interdisciplinary NEPA Team and the Management Team. Technical team members will also provide specific subtask support. The Executive Committee will also provide limited overview and Steering Committee input.

WBS Element 13.0 Write Draft EIS

Task Descriptions

WBS 13.1 Prepare Internal Review Draft EIS. The Internal Review Draft EIS (DEIS) will be written by the ID NEPA Team and the Management Team and reviewed by the JLA and cooperating agencies. Comments will be used to revise the document for the Public Review Draft.

Schedule

This task will begin on May 1, 2003, and be completed by August 31, 2003.

Resource Requirements

This activity will require approximately 2.1 FTEs for the duration of the task. These FTEs will primarily include the Interdisciplinary NEPA Team and the Management Team. Technical team members will also provide specific subtask support. The Executive Committee will also provide limited overview and Steering Committee input.

WBS 13.2 Prepare Public Review Draft EIS. The Interdisciplinary NEPA Team, Management Team, and a technical writer shall prepare the Public Review DEIS by integrating the previously drafted sections.

Schedule

This task will be initiated on September 1, 2003, and be completed on February 28, 2004.

Resource Requirements

This activity will require approximately 1 FTE for the duration of the task. This FTE will primarily include the Interdisciplinary NEPA Team, the Management Team, and a technical writer. The Executive Committee will provide limited overview and Steering Committee input.

WBS Element 14.0 Public Review of DEIS and Documentation**Task Description**

A Notice of Availability will be published to inform the public of the DEIS and the schedule for public hearings. The eight public hearings, held in the same locations as the scoping meetings, shall be held to solicit written and oral comments on the DEIS. The document distribution list shall be based on the computer database mailing list that will be updated throughout the project. The draft distribution list shall be reviewed and approved prior to distribution of the FEIS. Public comments will be recorded.

Schedule

This task will be initiated on February 28, 2004, and be completed on April 30, 2004.

Resource Requirements

This activity will require approximately 4.1 FTEs for the duration of the task. These FTEs will primarily include senior and junior public affairs specialists, the Management Team, and the ID NEPA Team. Specific Technical Team members will also provide support. The Executive Committee will also provide input generated through discussions with the Steering Committee.

WBS Element 15.0 Final EIS**Task Description**

Following the public comment period, the comments received will be addressed and the EIS will be finalized.

Schedule

This task will be initiated on May 1, 2004, and be completed on November 30, 2004.

Resource Requirements

This activity will require approximately 5.2 FTEs for the duration of the task. These FTEs will primarily include the Management Team, public affairs specialists, the ID NEPA Team, and the Technical Teams.

WBS Element 16.0 Record of Decision by Each Joint Lead Agency

Task Description

The JLA shall each prepare separate RODs. The RODs shall clearly identify the decision(s) of the respective agencies. The RODs shall identify the purpose and need for the agency action, the alternatives evaluated, the preferred alternative, and the environmentally preferred alternative. The ROD shall discuss the issues considered, potentially significant impacts, and environmental commitments. In addition, the RODs shall identify other sources of information used by the decision makers to prepare the RODs.

Schedule

This task will be initiated on December 1, 2004, and be completed on December 31, 2004.

Resource Requirements

This activity will require approximately 0.5 FTE for the duration of the task. This FTE will primarily include the Management Team, and the Interdisciplinary NEPA Team. Senior JLA managers will be involved in the review and approval process.

WBS Element 17.0 Prepare Action Plan

Task Description

During the completion of impact analyses and preparation of the EIS, environmental commitments may be identified or recommended for consideration by the technical specialists. In addition, other commitments may be identified during agency consultations, public involvement activities, and during Technical Team, ID NEPA Team, and Steering Committee meetings. These potential commitments will be compiled for Executive Committee consideration to be included in the EIS and/or as part of the Action Plan. If the Executive Committee determines that an Action Plan is needed, then a draft Action Plan will be prepared. The draft Action Plan will include a description of the commitments, anticipated benefit or outcome of each commitment, responsible organization, funding, and schedule for implementation and completion of the commitments. Once the draft is reviewed and modified, the plan will be approved by the Executive Committee and the decision makers.

Schedule

This task will be initiated on April 1, 2004, and be completed on November 30, 2004.

Resource Requirements

This activity will require approximately 0.2 FTE for the duration of the task. This FTE will primarily include the Management Team and the river/reservoir operations specialists with approval by the Executive Committee.

Appendix A

Environmental Laws and Regulations

National Environmental Policy Act (NEPA).

Council on Environmental Quality (CEQ) regulations (Title 40, Code of Federal Regulations [CFR], Parts 1500B1508) implementing NEPA.

U.S. Army Corps of Engineers NEPA regulations (33 CFR Part 230).

Bureau of Reclamation NEPA regulations (45 FR 47944 [7/17/80] as amended by 48 FR 17151 [4/21/83]).

Bureau of Reclamation NEPA Handbook.

Department of Interior Manual 516 DM 1B7.

Flood Control Acts.

Rivers and Harbors Act of 1899 (United States Code [U.S.C.] 401 et seq.).

Clean Water Act of 1972 (33 U.S.C. 1251 et seq.).

Clean Air Act (42 U.S.C. 7401 et seq.).

Fish and Wildlife Coordination Act of 1958 (16 U.S.C. 661 et seq.).

Endangered Species Act of 1973 (16 U.S.C. 1532 et seq.).

Historic Sites, Buildings, and Antiquities Act (16 U.S.C. 461 et seq.).

Archaeological and Historic Preservation Act (16 U.S.C. 469 et seq.).

Executive Order 11593, Protection and Enhancement of the Cultural Environment, 1971.

Archaeological Resources Protection Act of 1979 (16 U.S.C. 470 et seq.).

American Indian Religious Freedom Act of 1978 (42 U.S.C. 1996).

Native American Graves and Protection and Repatriation Act of 1990 (25 U.S.C. 3001 et seq.).

Religious Freedom Restoration Act of 1993 (P.L. 13-141).

Antiquities Act of 1906.

Executive Order 11991, Protection and Enhancement of Environmental Quality, 1977.

Executive Order 11988, Floodplain Management, 1977

Executive Order 11990, Protection of Wetlands, 1977.

Executive Order 12114, Environmental Effects Abroad of Major Federal Actions, 1979.

Executive Order 12088, Federal Compliance with Pollution Control Standards, 1978. .

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations, 1994.

CEQ—Incorporating Biodiversity Considerations into Environmental Impact Analysis Under NEPA, 1993.

CEQ—Considering Cumulative Effects Under the NEPA, 1997.

EPA guidance—Habitat Evaluation: Guidance for the Review of Environmental Impact Assessment Documents, 1993.

Appendix B

Master Schedule

SEE LARGE-FORMAT DETAILED MASTER SCHEDULE

**ATTACHMENT B: SAMPLE MEMORANDUM OF AGREEMENT
BETWEEN THE
LEAD AGENCIES AND "AGENCY X", A COOPERATING AGENCY IN THE
UPPER RIO GRANDE BASIN WATER OPERATIONS
REVIEW AND PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT**

I. INTRODUCTION

The Bureau of Reclamation ("BOR"), the U. S Army Corps of Engineers ("COE"), and the New Mexico Interstate Stream Commission ("NMISC"), collectively referred to as the "signatories" or "lead agencies", entered into a Memorandum of Agreement, herein referred to in this Agreement as the "MOA"(Attachment 1), to conduct the Upper Rio Grande Basin Water Operations Review (the "Review") and prepare a Programmatic Water Operations Environmental Impact Statement ("Water Operations EIS"). The Review and Water Operations EIS are sometimes collectively referred to herein as the "project". The Review will be the basis of, and integral to, the Water Operations EIS. The Water Operations EIS will be prepared by the parties in accordance with the National Environmental Policy Act ("NEPA") and will present alternatives for the exercise of discretionary authority of BOR, COE, and NMISC with respect to water operations at federally-operated facilities in the upper Rio Grande Basin ("Upper Rio Grande Basin Water Operations") and evaluate the environmental, economic, and social effects of these alternatives.

The project will consider the means available to exercise existing water operations authorities of BOR, COE, and NMISC with respect to Upper Rio Grande Water Operations to (1) meet agricultural, domestic, municipal, industrial, and environmental water needs, including water needs for the conservation of endangered and threatened species as required by law, consistent with the allocation of supplies and priority of water rights under state law; (2) meet downstream water delivery requirements mandated by the Rio Grande Compact and international treaty; (3) provide flood protection and sediment control; (4) assure safe dam operations; (5) support compliance with local, state, federal, and tribal water quality regulations; (6) increase system efficiency; and (7) support compliance of BOR and COE with the National Environmental Policy Act ("NEPA") for Upper Rio Grande Basin Water Operations and activities and support compliance of all signatories with the Endangered Species Act (the "ESA").

BOR and COE operate reservoir and water conveyance facilities under a number of different authorities, contracts, and policies. NMISC is authorized to protect, conserve and develop the waters of the state and monitors operations at reservoirs and water conveyance facilities for these purposes and to assure compliance with the Rio Grande Compact. The Review and related Water Operations EIS will define procedures and

protocols for review, coordination, consultation, and public input in water operations decisions. The decision-making process must be flexible and efficient to allow water managers to be responsive to ever-changing conditions, but must also be designed to allow public review and input.

Subject to applicable compacts and decrees, the State of New Mexico administers water rights within the state. Nothing in this Agreement, the Review, or the Water Operations EIS shall be construed to create water rights or require the State of New Mexico to grant water rights to any entity. Further, this Agreement shall not be construed as a *de facto* negotiation of water rights or authority to create depletions that negatively impact water users or compact deliveries. The foregoing shall not limit or otherwise affect the existing authorities of BOR, COE and NMISC that are the subject of the Review and the Water Operations EIS.

II. PURPOSE OF THE AGREEMENT

The purpose of this Agreement is to define the scope of the project and to establish the roles and responsibilities of the lead and cooperating agencies relating to completing the Review and associated Water Operations EIS in accordance with NEPA and the ESA, and relevant regulations.

III. PURPOSE AND NEED STATEMENT FOR THE PROJECT

The signatories adopt the following purpose and need statement for the project:

The proposed action is the adoption of an integrated plan for water operations at existing COE and BOR facilities in the Rio Grande basin above Fort Quitman, Texas.

Need: Under various existing legal authorities, and subject to allocation of supplies and priority of water rights under state law, the COE and BOR operate dams, reservoirs, and other facilities in the upper Rio Grande basin to:

- (1) store and deliver water for agricultural, domestic, municipal, industrial, and environmental uses;
- (2) assist the ISC in meeting downstream water delivery obligations mandated by the Rio Grande Compact;
- (3) provide flood protection and sediment control; and
- (4) comply with existing law, contract obligations, and international treaty.

Purpose: The Upper Rio Grande Basin Water Operations Review will be the basis of, and integral to, preparation of the Water Operations EIS. The purpose of the Review and Water Operations EIS is to:

- (1) identify flexibilities in operation of federal reservoirs and facilities in the upper Rio Grande basin that are within existing authorities of COE, BOR, and NMISC, and in compliance with state and federal law;
- (2) develop a better understanding of how these facilities could be operated more efficiently and effectively as an integrated system;
- (3) formulate a plan for future water operations at these facilities that is within the existing authorities of BOR, COE, and NMISC; complies with state, federal, and other applicable laws and regulations; and assures continued safe dam operations;
- (4) improve processes for making decisions about water operations through better interagency communications and coordination, and facilitation of public review and input; and
- (5) support compliance of the COE, BOR, and NMISC with applicable law and regulations, including but not limited to the National Environmental Policy Act and the Endangered Species Act.

IV. SCOPE

The Review and Water Operations EIS will address water operations at the following facilities with the noted exceptions and limitations. The term "water operations," as used in this Agreement, shall mean and refer to physical operation of the identified facilities.

Flood control operations at Platoro Reservoir (the Review and Water Operations EIS will include only flood control operations at Platoro that are under COE authority. None of the signatories to this Agreement have authority over water supply operations at Platoro).

- Closed Basin Division -- San Luis Valley Project
- Heron Dam and Reservoir
- Abiquiu Dam and Reservoir
- Cochiti Dam and Reservoir
- Jemez Canyon Dam and Reservoir
- Low Flow Conveyance Channel
- Flood control operations at Elephant Butte Dam and Reservoir (because of current litigation, water supply operations at Elephant Butte will not be included in the Review or the Water Operations EIS).

- Flood control operations at Caballo Dam and Reservoir (because of current litigation, water supply operations at Caballo will not be included in the Review or the Water Operations EIS).

BOR and COE operate these facilities under federal authorities, state water rights permits, and various contracts. The Review and Water Operations EIS will be limited to actions that can be implemented within the existing authorities of the signatories in compliance with applicable international, federal, state, and tribal laws, regulations, and contracts, including without limitation the Rio Grande Compact. A summary of important pertinent authorities and legal constraints is provided in the Memorandum of Agreement Upper Rio Grande Basin Water Operations.

V. ORGANIZATION TO ACCOMPLISH THE PROJECT

The organization for the preparation of the Water Operations EIS will include cooperating agencies and stakeholders (sometimes hereinafter referred to as the "EIS parties"). Cooperating agencies are those agencies that have or will enter into this agreement with the lead agencies in support of the project pursuant to Article VII of MOA signed by the lead agencies. The organizational structure is shown schematically in Figure 1 and described further in the attached MOA.

VI. GENERAL PROVISIONS OF UNDERSTANDING

A. Term. This Agreement will become effective on the last signature date. This Agreement shall remain in effect until terminated as provided herein or completion of a final Water Operations EIS, whichever is earlier. The signatories expect the final Water Operations EIS to be completed within five (5) years from the date of this Agreement.

Any signatory party may terminate this Agreement by providing written notice to the other parties, effective 60 days following the date of delivery of such notice.

B. Decision Process. The lead agencies are responsible for all decisions involving the Review and the Water Operations EIS and ESA-related processes and will make all final decisions on issues arising during the NEPA process. Decisions regarding the conduct of the Review and Water Operations EIS will be made by the lead agencies and must be unanimous.

C. No Delegation or Abrogation. Although this Agreement sets forth a cooperative process, all signatories to this Agreement recognize that they each have statutory and contractual responsibilities that cannot be delegated. This Agreement does not, and is not intended to, abrogate any of the signatory agencies' statutory duties. Nothing in this Agreement will be construed to amend or abridge the authority of any agency to

carry out its legal responsibilities, mandates, or contractual obligations. The rights and obligations of the parties under this Agreement are contract rights and obligations only, and shall not be construed to modify in any way the statutory or regulatory duties of the parties.

D. Dispute Resolution. The signatories agree to use all reasonable efforts to resolve any disputes arising among them and to do so in a collaborative and timely manner. Disputes that cannot be resolved will be mediated. The team or committee responsible for resolution of a dispute or conflict will document the nature of any dispute and the resolution process used, and provide the documentation to the management team. The signatories, through the management team, will document in the administrative record the nature of any dispute and the resolution process used. Refer to the Section V of the attached MOA for a description of the committees and teams charged with completing the Project.

E. Modifying the Agreement. This Agreement may be modified by letter of agreement signed by the same signatories or their designated representatives that have approved this Agreement. Any modification shall be made in writing prior to implementing the change.

F. The Work Plan. The *Work Plan for the Upper Rio Grande Basin Water Operations Review*, defines the specific work items to be accomplished under this Agreement and provides associated schedule and budget information. The work plan shall be subject to periodic review, revision, and approval by the executive committee.

G. Correspondence. For coordination purposes, copies of all written correspondence from any signatory agency or EIS party to another person or entity pertaining to activities under this Agreement shall be sent by the originator to the originator's peers in the team, committee, or other relevant group to which the originator belongs.

H. Officials not to Benefit. No member of, or delegate to Congress, or resident Commissioner, shall receive any benefit that may arise from this Agreement.

VII. LEAD AGENCY RESPONSIBILITIES

As joint lead agencies, the NMISC, BOR, and COE will, as agreed to in the attached MOA and this Agreement:

- A. Be responsible for the preparation, quality and content of the project as described in the attached MOA.
- B. Identify "Agency X" in the project as a cooperating agency and summarize its

roles and responsibilities as a cooperating agency.

- C. Be available to discuss with "Agency X" any questions or issues related to project documents.
- D. Incorporate, as deemed useful and appropriate by the lead agencies, The information provided by "Agency X" into the appropriate project documents.
- E. Provide "Agency X" with copies of the various project public reports as part of the public review process. These are expected to include a scoping report, plan of studies, newsletters, and a draft and final Water Operations EIS.
- F. Assure compliance with federal environmental and other statutes including, but not limited to, NEPA, NHPA, and the Endangered Species Act.
- G. Be responsible for identifying the purpose and need for the proposal, scope of analysis, and decisions to be made.
- H. Make the final decision on the content of all project documents.
- I. Make the final decision to be documented in the Record of Decision.

VIII. COOPERATING AGENCY RESPONSIBILITIES

Agencies and governments with appropriate expertise or jurisdiction have been invited to participate in the NEPA process as cooperating agencies. The executive committee may, at any time during the course of the project, invite additional agencies to participate in the process as cooperating agencies.

As a cooperating agency, "Agency X", as agreed to in this Agreement, will:

- A. Designate a liaison(s) to act as the point of contact (POC) for the project. An entity may change its point of contact at any time by providing written notice to the management team. The management team and "Agency X" POC 's are attached (Attachment 2).
- B. Participate in the NEPA process at the earliest possible time.
- C. Participate in the scoping process.

- D. Assume to the extent possible, on request of the lead agency, responsibility for providing or developing data or information and preparing environmental analyses with respect to those areas where "Agency X" has special expertise.
- E. Provide timely information to the appropriate project teams and committees in those areas where "Agency X" has special expertise.
- F. Be available to discuss any documents or analyses provided by "Agency X" to the project teams or committees.
- G. Fund its own expenses associated with its participation as a cooperating agency in the project process.

IX. JOINT RESPONSIBILITIES

No release of any pre-decisional working documents will be made to the public or other parties unless required through the Freedom of Information Act or comparable process, or through the lead agencies dissemination of material as an approved part of the NEPA process.

X. LIST OF ATTACHMENTS TO THIS AGREEMENT:

1. Memorandum of Agreement Upper Rio Grande Basin Water Operations Review
2. Agency Liaisons

APPROVED:

"Agency X"

Date: _____

New Mexico Interstate Stream Commission

Richard P. Cheney
Chairman

Date: _____

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