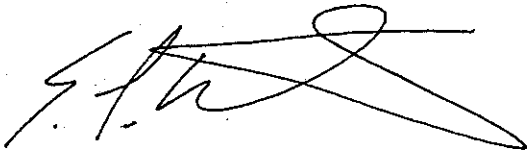


## Record of Decision

Animas-La Plata Project/Colorado Ute Indian Water Rights Settlement  
Final Supplemental Environmental Impact Statement  
July 2000

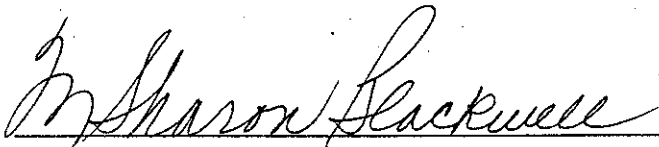
SEP 25 2000

**APPROVED:**



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Commissioner, U.S. Bureau of Reclamation



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Deputy Commissioner, Bureau of Indian Affairs



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Secretary of the Interior

# **Record of Decision**

## **Animas-La Plata Project/Colorado Ute Indian Water Rights Settlement**

### **United States Department of the Interior Bureau of Reclamation**

#### **I. Introduction**

In 1988, Congress enacted the Colorado Ute Indian Water Rights Settlement Act of 1988 (1988 Settlement). In committing the United States to this settlement, Congress agreed that resolution of the Colorado Ute Tribes' water rights claims would be accomplished by building a large water project to supply water to the Colorado Ute Tribes—the Animas-La Plata Project (ALP). In addition to satisfying the Tribal water needs to effectuate a settlement, however, the original ALP was sized to provide a significant new water supply for agricultural and municipal use.

The 1988 Settlement has not been implemented. Specifically, the original project was not constructed because this Department, and many other parties, raised serious concerns regarding the environmental consequences of building the project. These consequences included a large diversion from the Animas River which would violate Endangered Species Act (ESA) requirements and water quality impacts associated with a major new non-Indian irrigation project in the Four Corners region.

Although the original ALP raised serious environmental issues, the Department of the Interior has recognized the imperative of fulfilling the water rights of the Southern Ute Indian and Ute Mountain Ute Tribes. The United States has a trust responsibility to seek final resolution of the tribal water rights. In addition, failure to resolve the Colorado Ute Tribe's water rights has the potential to destabilize the exercise of water rights by junior, non-Indian water rights holders in Colorado and New Mexico.

Accordingly, in 1998, the Department recommended construction of a substantially scaled-down ALP that was designed to satisfy the Colorado Ute Tribes' water rights. The proposal down-sized the project to comply with ESA requirements. It excluded non-Indian irrigation systems to address water quality concerns. In addition, the Department called for the completion of a supplemental environmental review of the smaller ALP along with potential non-structural alternatives that were being proposed to implement the Colorado Ute Tribes' water rights settlement. This review would ensure full compliance with the National Environmental Policy Act (NEPA) and provide decision-makers a sound basis for making a final decision.

The supplemental environmental review has been completed. The Department is now prepared to issue a Record of Decision (ROD) in this matter, and it is doing so through this document. As explained in detail below, the Department is selecting Refined Alternative 4 (RA4), which is the environmentally preferred alternative, to implement the 1988 Settlement. It primarily consists of a down-sized project that focuses on providing the Colorado Ute Tribes an assured water supply.

Because the Department's selection will provide benefits to the Colorado Ute Tribes which are not identical to those envisioned in the 1988 Settlement, this ROD, in and of itself, does not allow for implementation of activities specific to RA4. Congressional authorization is needed to achieve final implementation of the 1988 Settlement.

This ROD does, however, provide the Department's confirmation that the Administration proposal, as modified, is the best means to finalize the settlement. It should also be noted that the cost of RA4 would be significantly less than the cost associated with the original settlement. By executing this ROD, the Department adopts the reasoning and analysis contained in the July 2000 Final Supplemental Environmental Impact Statement (FSEIS). Nonetheless, until such time as authorization is provided or other statutory guidance is forthcoming, the Department will not commence any significant activities (e.g. construction) in furtherance of RA4.

The components of RA4 are as follows:

#### Structural

- ! Off-stream reservoir of 120,000 acre-feet total capacity (including a conservation pool of approximately 30,000 af) at Ridges Basin
- ! 280 cfs pumping plant
- ! a pipeline from the pumping plant to the reservoir
- ! a pipeline to transport M&I water to the Shiprock area for the benefit of the Navajo Nation

#### Non-structural

- ! \$40,000,000 acquisition fund for the Southern Ute Indian and Ute Mountain Ute Tribes to purchase existing water rights on a willing buyer/willing seller basis or to engage in other resource development activity

The Department's selection of RA4 as the recommended course of action is in accord with the Department's policy "to recognize and fulfill its legal obligations to identify, protect, and conserve the trust resources of federally recognized Indian tribes and tribal members." (512 DM 2). The Colorado Ute Tribes, who participated in the development of the FSEIS and were consulted with on an ongoing basis during its development, have strongly endorsed RA4 as their preferred course to resolve the remaining issues associated with the 1988 Settlement.

The following sections provide additional information concerning the rationale for this decision, including the analysis performed; critical issues which were considered; and commitments which are hereby made in association with the chosen alternative should Congress authorize its implementation.

## **II. Background & Associated Issues**

As noted earlier, the Colorado Ute Indian Water Rights Settlement Act of 1988 (Public Law 100-585) relied, in part, on construction of ALP, a Bureau of Reclamation project authorized by the Colorado River Basin Project Act (P.L. 84-485) as a participating project of the Colorado River Storage Project Act (P.L. 90-537). Since its authorization, several studies have been conducted regarding ALP. The results of these studies are summarized in the following documents: the 1979 Definite Plan Report; a 1980 Final Environmental Statement; the 1992 Draft Supplement to the Final Environmental Statement; and the 1996 Final Supplement to the Final Environmental Statement (FSFES).

In August 1998, after a decade of controversy over ALP had resulted in the 1988 Settlement remaining unimplemented, the Secretary presented an Administration proposal to implement the 1988 Settlement Act. The proposal limited ALP depletions to an average of 57,100 acre feet per year and limited the project to only a municipal and industrial water supply for the Colorado Ute Tribes, the Navajo Nation, and local non-Indian entities. The proposal also contemplated a water acquisition fund to provide the Colorado Ute Tribes with the opportunity to purchase additional water rights necessary to secure the quantities provided in the 1988 Settlement.

RA4, which is a slightly modified version of the Administration proposal, would finalize implementation of the 1988 Settlement and avoid the extensive litigation sure to occur over tribal water rights claims. RA4 does, however, modify the terms of the settlement as originally agreed. The Colorado Ute Tribes' support is therefore necessary. Accordingly, the ability of each alternative to work in a settlement context is an additional factor reviewed as part of the NEPA analysis and this ROD. In addition, because RA4 is intended to resolve Indian reserved water rights claims, traditional cost-benefit analyses do not apply because it would not account for the primary benefits of an Indian water rights settlement which include avoiding direct and indirect litigation costs and resolving claims which might be associated with failure to protect tribal trust resources. Moreover, a significant federal investment to develop tribal resources is consistent with the federal trust responsibility to the Southern Ute Indian and Ute Mountain Ute Tribes. Finally, and perhaps most important, this ROD addresses an existing settlement Congress committed significant resources to secure. RA4, with projected new costs of \$ 278 million, would preserve the settlement with a significantly down-sized project that is less than half the cost associated with the ALP concept incorporated into the original settlement (estimated at approximately \$ 700 million).

In addition to viewing the analysis and making a final decision from the perspective of an Indian water rights settlement, the FSEIS evaluates items not ordinarily found in Bureau of Reclamation NEPA documents. As several commenters noted, the FSEIS bases part of its analysis on non-binding water use scenarios. These scenarios, developed in conjunction with the Colorado Ute Tribes, allowed the Department to fulfill the requirements of NEPA by providing a context for analyzing water uses from the modified ALP which is based on the best available information. This approach also respects the Colorado Ute Tribes' sovereignty and protects their ability to allocate water in accordance with future needs consistent with federal law. The FSEIS also provides directions and commitments for future NEPA compliance once actions in furtherance of end uses are undertaken.

### **III. Scope of Analysis**

A plan of approach was developed that described how the NEPA process was to proceed (refer to Attachment I in Volume 2 of the FSEIS for more information). All alternatives underwent an initial threshold assessment to identify those that were capable of meeting the project's purpose and need. All alternatives initially appeared to have the potential to meet the project purpose and need, and they were evaluated against the following criteria: (1) an evaluation of environmental impacts; (2) an evaluation of the degree to which an alternative met the purpose and need and contained the elements necessary to secure an Indian water rights settlement; and (3) an evaluation of the technical and economic merits.

#### **A. Alternatives Analyzed**

Building on the identification of a range of future water uses and an evaluation of potential water sources in the region, alternatives were identified that had the ability, in whole or in part, to provide water to the Colorado Ute Tribes in fulfillment of the 1988 Settlement. These alternatives included the alternatives evaluated in the 1996 FSFES, those identified by Reclamation in the January 1999 Notice of Intent, alternatives suggested during February 1999 scoping meetings, and a combination of the structural and non-structural components of all of these alternatives. The alternatives were:

Alternative 1 - Administration Proposal, consisting of a structural element (Ridges Basin Reservoir with a 90,000 af capacity) and a non-structural element (purchasing water rights for 13,000 af of depletion).

Alternative 2 - Administration Proposal with conservation pool added, increasing the overall reservoir size to approximately 120,000 af.

Alternative 3 - Administration Proposal with San Juan River Basin Recovery Implementation Program Element added.

Alternative 4 - Administration Proposal with San Juan River Basin Recovery Implementation Program and conservation pool added.

Alternative 5 - Animas-La Plata Reconciliation Plan [Romer-Schoettler structural alternative as represented by the legislation introduced during the 105th Congress (S.1771 & H.R. 3478)]

Alternative 6 - Animas River Citizen's Coalition Conceptual Alternative (Romer-Schoettler non-structural alternative; provides Colorado Ute Tribes water only; purchase water and lands in/near reservations; expansion of existing projects)

Alternative 7 - 1996 FSFES Recommended Plan (Multipurpose project; phased construction to reflect federal vs. non-federal responsibility; staged construction of Phase 1 to reflect 57,100 af ESA depletion limitation; 274,000 af Ridges Basin Reservoir; initially sized Durango Pumping Plant at 70 cfs; miscellaneous conveyance and delivery facilities)

Alternative 8 - Administration Proposal with alternative water supply for non-Colorado Ute Tribe entities (i.e., Navajo Nation, Animas-La Plata Water Conservancy District, and San Juan Water Commission); (water conservation; use of existing Federal facilities; separate reservoir)

Alternative 9 - Citizens' Progressive Alliance Alternative (instream leasing coupled with other non-structural alternatives)

Alternative 10 - No Action Alternative

## **B. Alternatives Evaluation Process**

Existing base resources and information about each of the alternatives were evaluated to determine if sufficient information (e.g., baseline information, data and analyses, previous NEPA documents, proponent information, agency baseline data, and other third-party studies) was available to provide adequate analysis of the alternatives. On the basis of this data adequacy review, probable major issues that would have to be resolved during the preparation of the FSEIS were identified, the adequacy of the information to resolve these issues was evaluated, and recommendations for additional data gathering were made. Additional data were gathered as necessary so that a comparable level of analysis could be made for each of the 10 alternatives. Potential mitigation measures also were identified.

### Environmental Impacts

The following resource areas were analyzed in terms of potential environmental impacts associated with the development and construction of the structural and non-structural components of each of the alternatives:

Agriculture	Air Quality	Aquatic (streams)
Aquatic (reservoirs)	Archeology	Cultural/Paleontology
Ethnography	Geology/Soils	Hazardous Materials
Land Use	Limnology	Noise
Public Services	Recreation	Safety
Socioeconomics	Threatened/Endangered Species	Transportation
Vegetation	Visual/Aesthetics	Wetlands
Water Quality	Water Resources/Hydrology	Wildlife
Indian Trust Assets	Environmental Justice	Public Services and Utilities

### Purpose and Need

The purpose and need statement published in the January 4, 1999 Federal Register reflects the Department's prioritization of the Indian water rights settlement purposes of ALP. Thus, the purpose and need of ALP under this NEPA review is:

“... to implement the [1988 Colorado Ute Indian Water Rights] Settlement Act by providing the Ute Colorado Ute Tribes an assured long-term water supply and water acquisition fund in order to satisfy the Colorado Ute Tribes' senior water rights claims as quantified in the Settlement Act, and to provide for identified M&I water needs in the project area.”

In order to determine if a particular alternative is a viable means to implement the 1988 Settlement, the alternative was evaluated in light of several factors needing to be addressed in order to resolve the Colorado Ute Tribes' water rights claims. These factors are:

- ! Does the alternative provide sufficient benefits to the Colorado Ute Tribes to warrant an agreement among the United States, the Colorado Ute Tribes, the State, and a majority of parties to the adjudication, that waives the Colorado Ute Tribes' reserved water rights claims;
- ! Does the alternative provide a defined and reasonable time frame by which the Colorado Ute Tribes will, in fact, secure those benefits specified in the settlement agreement;
- ! Does the alternative have sufficient support to facilitate the entry of a final decree which recognizes the Colorado Ute Tribes' rights to water as identified in the settlement;
- ! Are the benefits in the alternative likely to be secured which is a prerequisite to the waiver of water rights claims by the Colorado Ute Tribes and the United States becoming effective.

The Department developed the analysis necessary to answer the above questions of the 10 alternatives by looking to the purpose and need factors published in the January 4, 1999 Notice of Intent. The purpose and need factors are:

- ! Yield - Does the alternative provide enough “wet” water to satisfy the Colorado Ute Tribes' water rights? While the ultimate volume of water might be negotiable, there must be some access to an assured water supply.

- ! Reliability - Is the water supply contemplated by the alternative reliable? Is the reliability consistent with a water right with an 1868 priority (the date of the Colorado Ute Tribes' reserved right)?
- ! Location - Is the water supply contemplated by the alternative reasonably available for use by the Colorado Ute Tribes?
- ! Practicability - Is the development of water technically feasible? Are there impediments which make the alternative impracticable?

### Technical and Economic Factors

Technical and economic factors included impacts on Indian trust assets (ITAs), feasibility, development costs, annual operation and maintenance costs, public safety and impacts to ongoing operations.

### **C. Alternatives Selected for Further Refinement**

An analysis of the alternatives based on the above described environmental impacts, purpose and need, and technical and economic factors, determined Alternatives 4 and 6 to warrant further refinement. These two alternatives approached the implementation of the 1988 Settlement from significantly different perspectives with Alternative 4 containing both structural and non-structural elements while Alternative 6 contained mostly non-structural elements.

Alternative 4 was chosen for further evaluation because it was determined to meet both the project purpose and need and endangered fish requirements in a manner not resulting in significant environmental water quality concerns. Despite concerns about its ability to meet project purpose and need, Alternative 6 also was selected for a more in-depth evaluation. The analysis showed that Alternative 6 would have difficulty in developing a water supply with a firm yield; that the priority date associated with water obtained under Alternative 6 would most likely not be considered a senior right with regards to other users; that the amount of time involved in securing water through Alternative 6 raised issues as to whether the Colorado Ute Tribes would ever receive all the water contemplated under the original settlement; and that the Colorado Ute Tribes would not support Alternative 6 as a settlement of their water rights claims.

Alternatives 4 & 6 were renamed as "refined alternatives" to reflect additions and changes made to the alternatives based on suggested changes received during public scoping, including the addition of the Navajo Nation Municipal Pipeline. Other modifications were made to the two alternatives to reduce projected impacts.

The Navajo Nation requested that a water conveyance pipeline be included as a structural component of the ALP Project, to upgrade the service now being provided for seven Navajo Nation chapters



in the Farmington-Shiprock area, and to replace a deteriorating 30-year old pipeline now in place. Three alternatives were evaluated to fulfill this request: (1) replace the existing pipeline with a new, larger pipeline; (2) make improvements to the existing pipeline, but divide into two separate sections with the western section being supplied water from the San Juan River at Shiprock and treated through an upgraded water treatment facility there; and (3) make use of the existing Navajo Indian Irrigation Project system and construct a new surface water reservoir, new pipelines, and ancillary facilities to serve the seven Navajo Nation chapters.

#### **D. Clean Water Act Compliance**

The Bureau of Reclamation (Reclamation) is complying with the Clean Water Act (CWA) under the provisions of section 404(r) of the Act. Under this section, Reclamation prepared an analysis of wetlands impacts under the guidance of Section 404(b)(1) of the CWA and has forwarded the FSEIS, including the requisite analysis under the guidelines, to Congress. The 404(b)(1) analysis ensures substantial compliance with standard permitting requirements.

RA4 and RA6 were both evaluated under the 404(b)(1) guidelines. The analysis showed that RA 6 presented potentially significant environmental impacts to wetlands and endangered species habitat. This included both the non-structural components involving leaving water on the land but implementing water conservation measures, and the non-structural component of taking the water off the land for M&I use elsewhere. Both would result in the loss of a significant quantity of wetlands. The Fish and Wildlife Service, in its Planning Aid Memorandum of July 28, 1999, stated that: "In comparison to Ridges Basin, impacts within the Pine River drainage (where the majority of land would be purchased under RA6) would present impacts of far greater magnitude, due to differences in diversity of habitats of the two locations. The Pine River Valley possesses a far greater diversity of vegetation and therefore has a higher wildlife value, than Ridges Basin." With this in mind, RA6 was modified to ameliorate environmental impacts and to broaden the functions it would provide. Even with these refinements, several concerns arose about the practicability of RA6, in the areas of: (1) socioeconomic issues; (2) changes in water use; (3) timing; and (4) Indian Trust Assets. It was determined that RA 4 would have less risk/uncertainty in providing settlement benefits and fewer overall impacts to wetlands and endangered species (southwestern willow flycatcher habitat) than RA6. Therefore, RA4 was determined to be the least environmentally damaging practical alternative under the 404(b)(1) guidelines.

In its letter of June 23, 2000, the Environmental Protection Agency informed the Department that the 404(b)(1) analysis was consistent with the 404(b)(1) guidelines and that it accepted the Department's determination that RA4 was the least environmentally damaging alternative under the Clean Water Act. EPA also concurred that RA4 should not result in significant water quality degradation.

## **E. Endangered Species Act Compliance**

Reclamation entered into consultation with the Fish and Wildlife Service on the proposed agency action of implementing RA4. In its Biological Opinion for the project, the Fish and Wildlife Service concurred in all the findings contained in Reclamation's Biological Assessment and included conservation measures which Reclamation has adopted. The Biological Opinion concluded:

“After reviewing the current status of the Colorado pikeminnow, razorback sucker, and bald eagle, the environmental baseline of the action area, the effects of the proposed action and the cumulative effects, it is the Service's biological opinion that the Animas-La Plata Project, as described in the Biological Opinion, is not likely to jeopardize the continued existence of the Colorado pikeminnow or razorback sucker, and the proposed project is not likely to destroy or adversely modify designated critical habitat. The Service also concludes that the proposed project is not likely to jeopardize the continued existence of the bald eagle. This conclusion is based on the description of the proposed action contained in this biological opinion, with full implementation of the conservation measures.”

Agreed to conservation measures are included as Appendix 1 to this ROD.

## **F. National Register of Historic Places and Native American Graves Protection and Repatriation Act (NAGPRA) Plan**

The FSEIS attaches an amended programmatic agreement which sets forth the procedures to be followed to ensure compliance with the historic preservation laws. Also included is a plan which addresses the treatment of human remains, sacred objects, and objects of cultural patrimony discovered as a result of the Project activity. This plan ensures that the Department is in compliance with the provisions of NAGPRA.

## **G. Department's Indian Trust Responsibility**

The primary goal of the recommended federal action is to implement the Colorado Ute Indian Water Rights Final Settlement Agreement by providing the Colorado Ute Tribes with benefits consistent with those contemplated under the 1988 Settlement. RA4 would achieve this goal. RA4 was also developed to minimize the impacts of the original ALP on the other tribes in the San Juan Basin and to provide some much-needed certainty upon which to base future water planning and development in the basin. The Department believes that the principles outlined in RA4 (a smaller reservoir limited to 57,100 af of depletions that can be operated consistent with the San Juan River Basin Recovery Implementation Program (SJRBRIP)) are beneficial to the Navajo Nation and Jicarilla Apache Tribe. RA4 would preserve the 1988 Settlement and avoid the prospect of the Colorado Ute Tribes asserting water rights in court that may eventually conflict with those of the Navajo Nation

and the Jicarilla Apache Tribe. RA4 would also effect a downsizing of the original ALP which avoids a future conflict between the downstream tribes and beneficiaries of the larger project. The original ALP envisioned 149,000 acre feet of depletion from the San Juan Basin. Although this amount of depletion has not received ESA section 7 clearance, it is evident that the larger the depletion for ALP the less water there will be available under section 7 for other Indian water projects that have a federal nexus. RA4 also provides a water supply and delivery system for the benefit of the Navajo Nation.

There is, however, a potentially negative effect which RA4 may have on Indian trust assets in the San Juan basin. Due to endangered species concerns and other complexities associated with the “Law of the Colorado River,” developing a water supply for the Colorado Ute Tribes may presently limit the amount of water available for use by the other tribes. This is a significant concern to the Department and one sought to be addressed by the commitments discussed below. As discussed in the FSEIS, though, it is somewhat premature to conclude that development of a down-sized ALP will preclude further federally-related water development in the San Juan basin. The most critical factor at this time is the habitat needs of endangered species in the basin. Those needs are constantly being reviewed and will certainly be evaluated in light of any future water development proposals as part of the ESA consultation process. It is possible that Reclamation, working with other relevant agencies, could develop measures, including specific water management strategies, which would allow further tribal water development to move forward.

Both the Navajo Nation and Jicarilla Apache Tribe concur that resolving the 1988 Settlement through RA4 is in their best long-term interests and have clearly set forth that position in an August 24, 2000 joint letter (including the Southern Ute Indian and Ute Mountain Ute Tribes) to the Department. In light of the benefits of RA4, the commitments discussed below, and the shared position of the four San Juan River basin tribes, the Department maintains its selection of RA4 as the best alternative to finalize the 1988 Settlement.

#### **IV. Environmentally Preferred Alternative**

Both RA4 and RA6 were evaluated again in each environmental impact area and a finding of either “Significant,” “Potentially Significant,” or “Less than Significant” was made (see FSEIS table 3.21-1 summarizing significance criteria). Under each of these areas, when mitigation is added, RA4 did not have any impacts that were considered “significant” except for cultural resources and those impacts will be addressed through the Historic Preservation Management Plan (see Technical Appendix 8). This finding, in conjunction with the finding that RA4 is the least damaging most practicable alternative under the 404(b)(1) of the Clean Water Act (see below), makes RA4 the environmentally preferred alternative.

#### **V. Indian Water Rights Settlement**

RA4 would allow the United States to resolve the remaining Colorado Ute water rights claims consistent with the 1988 Settlement but in a much more environmentally responsible manner. RA4 is strongly supported by the Southern Ute Indian and Ute Mountain Ute Tribes. Specifically, RA4 facilitates the following results which are a prerequisite to finalizing the settlement:

- ! Agreement by the Colorado Ute Tribes, the United States, the State of Colorado and other significant parties to the adjudication that a small offstream reservoir designed to allow an average annual 57,100 acre-feet of depletion, which provides each tribe 19,980 acre-feet per year depletion in conjunction with a water acquisition fund, is sufficient to warrant a waiver of the remaining Colorado Ute Tribes' reserved water rights claims;
- ! A defined and reasonable time frame under which the Colorado Ute Tribes can secure these benefits as construction of the project is scheduled to take 7 years from the time it is commenced, provided availability of appropriations. The water acquisition trust fund will be available to the Tribe within a similar time-frame. The Department is committed to seeking the necessary appropriations to meet the 7 year time-frame;
- ! The parties, through agreement on RA4, could secure an amended final decree from the Colorado District Court, Water Division No. 7 which would recognize the Colorado Ute Tribes right to water and associated benefits under this alternative;
- ! Waiver of reserved water rights claims by the Colorado Ute Tribes and the United States, as trustee, once RA4 is implemented.

As stated earlier, the Department cannot commence full implementation of RA4 absent legislation amending the 1988 Settlement Act. Once authorized, the Department will work with the Colorado Ute Tribes and other affected interests to finalize a settlement which is consistent with RA4. This activity will include securing an amended decree; developing the necessary repayment agreements;<sup>1</sup> and proceeding with project construction.

## **VI. Implementing the Decision and Environmental Commitments**

### **A. Environmental Commitments**

The Department has used all practical means to avoid impacts or minimize environmental harm that could occur due to implementation of RA4. These mitigation measures are discussed in chapters 3 & 4 of the FSEIS and the Department commits to implementing these measures in chapter 5. These commitments are included as Appendix 2 to this ROD.

### **B. Commitments Specific to Indian Trust Assets/Environmental Justice**

Water development in the San Juan River basin is an extremely complicated matter. It involves

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<sup>1</sup>The FSEIS also includes a preliminary cost allocation which assigns project construction and annual operation and maintenance costs to the entities that will be receiving benefits from the implementation of RA4 (see Appendix L in the FSEIS). This proposed cost allocation is based on current Administration policy and does not have the force of law absent express Congressional approval. If there is no express Congressional action turning Administration policy into law, cost allocations will be controlled by the original project authorization - the Colorado River Storage Project Act.

endangered species issues; the rights of several Indian tribes; and the “Law of the Colorado River.” As noted earlier, there is concern that RA4 could negatively affect the water supply presently available for the Navajo Nation and Jicarilla Apache Tribe. The Department believes that a multi-faceted approach to water supply issues in the San Juan Basin with an emphasis on recovery of the species along with enhanced water management will assist in minimizing obstacles to future tribal water development. Accordingly, the Department will engage in the following:

- ! Continue active participation in the San Juan River Basin Recovery Implementation Program to promote the dual goals of recovery of endangered species and water development in the basin. The SJRBRIP is key to facilitating additional water development by the Navajo Nation and the Jicarilla Apache Tribe. Reclamation’s participation includes:
  - Providing substantial technical support in the development and refinement of a comprehensive hydrology model to allow realistic, supportable projections of future water uses in the basin;
  - Continue to optimize the operating rules for Navajo Dam to provide more efficient fulfillment of the flow recommendations necessary for endangered species recovery;
  - Implement an adaptive management program associated with the operation of Navajo Reservoir to evaluate biologic responses to a normative hydrograph
- ! Operate the Durango Pumping Plant to limit pumping during dry years, allowing more water to be available in Navajo Reservoir to meet project demands.
- ! Reclamation will work with the Navajo Nation and the Jicarilla Apache Tribe to combine resources in evaluating options for proceeding with the Navajo-Gallup Project, the Navajo River Water Development Plan, and restoration of the Hogback Project to minimize the likelihood that any single Tribe bears a disproportionate burden for the conservation of listed species under the ESA.
- ! Facilitate discussions among the parties with interests in the San Juan River Basin. Interested parties will include, but not be limited to, the Colorado Ute Tribes, Navajo Nation, Jicarilla Apache Tribe, the Fish & Wildlife Service, and private parties with existing contracts from Navajo Reservoir. Discussions will aim to develop options for obtaining adequate water for the Navajo Nation and Jicarilla Apache Tribe future needs.
- ! Reclamation will initiate an independent review of the hydrologic model to ensure its accuracy and value as a tool in future water planning activities.
- ! Reclamation, through its Native American Affairs and technical assistance programs, will work with the Jicarilla Apache Tribe to facilitate its ability to independently utilize the San Juan River basin hydrologic model to ensure more effective participation in the

SJRBRIP and other appropriate uses.

! Through its appraisal investigation of the Navajo-Gallup Project, Reclamation will evaluate:

- An alternate project design that would take water from the San Juan River below its confluence with the Animas River which may increase the potential yield for the project while protecting flows for endangered fish. In this case, releases from Navajo

Dam would be supplemental to river flows, leveraging the limited storage volume available and making use of times when there are flows in excess of fish needs in the river.

- Modifying the Navajo-Gallup Project to reduce demands.

- Ascertain the Navajo Nation's willingness to consider utilizing a portion of the NIIP allocation to meet needs for the Navajo-Gallup Project.

! Reclamation will consult with the Navajo Nation and the Jicarilla Apache Tribe on the implementation of the above mitigation measures and will commence consultation early in the implementation process.

! To avoid potentially significant impacts to residences, school, and a cemetery along the recommended route of the Navajo Nation Municipal Pipeline, the pipeline corridor would be routed to minimize, and to the maximum extent possible, prevent disturbance or relocation of residences. If residences are required to be relocated, the residents and the Navajo Nation will be compensated. Project planners would work to avoid disturbances to the cemetery. Consultation would take place with the Navajo Nation Historic Preservation Department and representatives from affected Navajo Nation chapters prior to disturbing any human remains or funerary objects. Additional mitigation measures would be used to minimize noise and vibration impacts. Construction activities would be scheduled during daytime hours when within 0.25 mile of a residence and would be scheduled during non-school hours when feasible.

In addition to the foregoing, Reclamation should evaluate how shortage criteria might apply consistent with applicable law to assess whether additional water development is feasible given existing ESA flow requirements and actual water use in the basin.

### **C. Coordination Committees**

The Department will establish special committees, made up of representatives from each project participant, to 1) keep project participants informed and solicit input on Project facility design and construction; and 2) address operation and maintenance issues once the Project is transferred from construction to operation status. The latter committee will address a number of subjects, including equitable allocation of operation and maintenance costs; approval of major maintenance activities; coordination of project operations among users of Project water; and compliance with the provisions of all existing water compacts.

## **Appendices**

1. Summary of Conservation Measures Recommended in the Biological Opinion
2. Summary of Environmental Commitments in FSEIS



## **APPENDIX 1**

### **June 19, 2000 Final Biological Opinion Conservation Measures**

#### **Record of Decision Animas-La Plata Project/Colorado Ute Indian Water Rights Settlement**

Conservation measures are actions that the Reclamation agrees to implement to further the recovery of the species under review. The beneficial effects of conservation measures were taken into consideration for determining both jeopardy and incidental take analyses and all hydrology analyses considered in the Biological Opinion assume implementation of these conservation measures, including the reoperation of Navajo Dam. Reclamation agrees that failure to implement the conservation measures will be grounds for reinitiation of consultation.

The following are the conservation measures recommended in the Biological Opinion. More expanded descriptions can be found in the Biological Opinion in Volume 2 of the FSEIS.

1. Operate Navajo Reservoir to mimic the natural hydrograph of the San Juan River to benefit endangered species and their critical habitat.
2. Reclamation will be responsible for maintaining the hydrology model and its data used to simulate flows in the San Juan River and the effects of water development in the basin.
3. A Memorandum of Understanding (MOU) and Supplemental Agreement to protect the releases for endangered fishes made from the Navajo Reservoir to and through the endangered fish habitat of the San Juan River to Lake Powell was signed in October 1991. This MOU remains in effect.
4. The Durango Pumping Plant will be operated in a manner that insures that its operation do not interfere with meeting the target flows recommended for the San Juan River.
5. Reclamation will implement all actions necessary to prevent escapement of nonnative fishes from Ridges Basin Reservoir in any water leaving the reservoir.
6. Reclamation will develop and implement a monitoring program for potential adverse bioaccumulation of trace elements in bald eagle food items in Ridges Basin Reservoir.
7. Reclamation will incorporate bypass flows into ALP operations to promote natural recruitment of cottonwood tress along the Animas River.
8. All electrical transmission lines associated with the project will be designed to avoid injury to raptors, including bald eagles.

## **APPENDIX 2**

### **Environmental Commitments**

#### **Record of Decision**

##### **Animas-La Plata Project/Colorado Ute Indian Water Rights Settlement**

This appendix summarizes the environmental commitments that have been made by Interior or Reclamation during the development of Refined Alternative 4 (Reclamation's Preferred Alternative). Reclamation would share responsibility for implementing measures that would avoid or reduce potential environmental impacts of the ALP Project. This responsibility would be shared with other federal agencies, the Colorado Ute Tribes, and other ALP Project beneficiaries, as well as third-party entities which could include Colorado and New Mexico state agencies, local governments, and private developers.

Commitments for pre-construction activities would generally be completed by Reclamation or by contractors during the final design process and prior to construction activities. Wildlife, wetland, cultural resources and other mitigation would be completed by Reclamation as described in the following paragraphs. Some commitments, such as monitoring or additional studies, would continue beyond completion of construction of structural facilities.

The non-structural component of the RA4 (i.e., the \$40 million water acquisition fund) would be administered by Interior through the Bureau of Indian Affairs (BIA). It was assumed that the use of this fund would be for acquisition of irrigated agricultural lands and that these lands would remain in irrigated production. In the event that the Colorado Ute Tribes were to elect to fund alternative activities with the water acquisition fund or were to apply for water rights transfers, it would be the responsibility of the water acquisition fund's administering agency to determine appropriate environmental protection measures. It is possible that additional NEPA compliance may be required for such alternative uses.

The use of ALP Project water by either the Colorado Ute Tribes or other ALP Project beneficiaries would result in environmental impacts that would require the implementation of avoidance design specifications and mitigation measures. To the extent that Reclamation can require developers of ALP Project water end uses to implement environmental protection elements into design, Reclamation commits to requiring certain measures as discussed in the following sections. However, all compliance responsibilities and costs associated with end use development would be the responsibility of the third-party developers. As discussed previously, additional NEPA compliance would likely be required for the development of end use facilities to occur. At such time, the lead agency would be responsible for identifying additional environmental commitments specific to the proposed end uses.

The commitments in this chapter summarize commitments made during the planning process and incorporated into ALP Project plan as discussed in Chapter 2 of this Final Supplemental Environmental Impact State (FSEIS), and mitigation measures proposed in Chapters 3 and 4 to reduce or avoid impacts that would otherwise occur as a result of the implementation of the Refined Alternative 4 (RA4). These commitments supersede commitments made by Reclamation in previous ALP Project National Environmental Policy Act (NEPA) documents.

## **General**

1. Reclamation will prepare and implement an Environmental Commitment Plan for the project to document and track the completion of the environmental commitments.

## **Water Resources and Hydrology**

1. Develop an operations plan for the Ridges Basin Pumping Plant that will schedule pumping from the Animas River in a manner to limit impacts to non-Colorado Ute Tribal entities' ability to obtain water from the San Juan River. Reclamation will work with all appropriate state and federal agencies to pursue a method to protect ALP Project water return flows in the La Plata River drainage as a water supply for endangered fish.
2. Design and develop Ridges Basin Reservoir with a minimum pool of 30,000 af.

## **Water Quality**

1. Develop and implement a program to reduce, minimize or eliminate temporary, short-term increases in suspended sediment loading or other water quality constituents, potentially caused by project construction, through the incorporation of permits, Best Management Practices (BMPs), and sediment control structures. Reclamation will develop and implement a program designed to reduce, minimize or eliminate the temporary, short-term increases in suspended sediment loading that may potentially occur during construction of the non-binding end uses and water conveyance systems through requiring developers and construction contractors to incorporate BMPs and sediment control devices.
2. Develop, with the Southern Ute Indian Tribe and the States of Colorado and New Mexico, and implement a program to monitor water quality in the Animas River from the Durango Pumping Plant to the confluence with the San Juan River for five years after the Durango Pumping Plant begins operation. The program will be developed to monitor compliance with Tribal and state water quality standards and criteria. The plan should include: objectives, quality assurance and control plans, and noncompliance measures.

## **Vegetation**

1. Ensure that construction contractors limit ground disturbance to the smallest feasible areas, and will ensure that construction contractors implement BMPs, along with the planting or re-seeding disturbed areas using native plant species to assist in the re-establishment of native vegetation. Where feasible, directional borings will be used for river pipeline crossings.
2. Compensate the loss of approximately 1,645 acres of upland vegetation resulting from the construction of the Ridges Basin Reservoir, the Durango Pumping Plant, and other features as part of the wildlife mitigation plan. The compensation will be part of the total estimated 2,700-2,900 acres of wildlife habitat to be acquired and enhanced to compensate the loss of wildlife habitat in Ridges Basin. The mitigation land acquisition will be completed prior to initiation of ground-breaking construction activities at the reservoir and pumping plant sites. Reclamation

will attempt to acquire large contiguous acreage and will attempt to acquire these lands first in the river basins that will be affected by the ALP Project, and then outside of those basins, with the final decision made in consultation with state and federal wildlife agencies.

3. Compensate the loss of 134 acres of wetland/riparian habitat at a mitigation ratio sufficient to replace or exceed the habitat value of wetland/riparian habitat lost. Reclamation will replace lost wetland/riparian areas at a planned ratio of 1.5:1, thus creating approximately 200 acres of replacement wetlands. Mitigation will involve a program of land acquisition, wetland development, and long-term management. To the extent possible, this program will be integrated into the wildlife habitat mitigation program to expand benefits and provide large blocks of contiguous wildlife habitat. It is assumed 600 acres will be necessary for the wetland program. Because of limited water supplies for new wetland creation in the region, restoration of degraded wetlands will be an important component of any wetland plan. As with wildlife habitat mitigation, the La Plata River Basin will be given first priority for wetland development. Lands for wetland mitigation will be acquired prior to initiation of construction of Ridges Basin Dam and overall wetland mitigation physical features will be at least 95 percent completed prior to beginning reservoir filling.

4. Monitor the Animas River riparian corridor to help determine any effects of the pumping regime on these downstream resources. The monitoring will also include Basin Creek wetlands. Reclamation will also limit ground disturbing activities due to construction of the NNMP and other pipelines and will replace in a 2:1 ratio, riparian trees (cottonwoods) lost due to construction.

5. Require that development of non-binding end uses avoids or minimizes construction impacts to wetland and riparian vegetation located within corridor alignments of the non-binding water conveyance pipelines. Reclamation will require that construction zones be kept to the minimum size needed to meet project objectives. If avoidance is not possible, a riparian/wetland mitigation and monitoring plan will be developed to compensate for the loss of vegetation cover.

## **Wildlife**

1. Mitigate the direct and indirect loss of approximately 2,700-2,900 acres of wildlife habitat through the purchase, enhancement, and management of approximately 2,700-2,900 acres of suitable land. The actual amount of land that will be acquired to obtain this level of mitigation will depend on the potential wildlife value of the lands acquired. All reasonable attempts will be made to acquire interests in lands on a willing seller basis, using fee simple purchases, conservation easements, purchase options, or life estates, to name a few. However, this does not preclude the use of other authorities available to acquire such land interests. Priority will be given to lands in the La Plata River drainage, as well as in the vicinity of Ridges Basin, to provide replacement habitat for displaced deer, elk, and other wildlife that utilize Ridges Basin and adjacent areas that will be affected. Large, contiguous parcels will be given priority to create unfragmented habitat and to facilitate management. Lands will be managed for wildlife and other uses will not be allowed if it is determined that they will interfere with the wildlife habitat benefits. Acquisition, enhancement, and management plans will be coordinated with the U.S. Fish and Wildlife Service (Service), Colorado Division of Wildlife (CDOW), and possibly the

Southern Ute Indian Tribe. Wildlife mitigation land will be acquired prior to award of the contract for construction of Ridges Basin Dam, and development will occur concurrently with the construction of the dam.

2. Develop construction specifications to include noise, traffic, and human use restrictions to minimize disturbance to wildlife near the construction zone of Ridges Basin. The Carbon Mountain gas pipeline route, which could significantly impact golden eagle nesting, will not be considered. Reclamation will make efforts to avoid construction during the May-July period in the vicinity of elk calving areas to minimize impacts to elk.
3. Ensure that recreational facilities and the new alignment for County Road (CR) 211 are sited or restricted in such a way to minimize the disruption of deer and elk habitat utilization and behavior.
4. Designs of road crossings, particularly in the vicinity of Wildcat Creek, will contain special provisions to minimize wetland/riparian resources.
5. Recreation facilities will not be permitted on the west or south sides of the reservoir to reduce impacts to big game migration corridors. Trails will be restricted to foot traffic. Wildlife-related activities will be encouraged. Future use of Reclamation lands for cabin sites or similar uses will not be allowed.
6. Sufficient land will be acquired at the time reservoir right-of-way is acquired at the upper (western) end of the reservoir (at least one-quarter mile) and along the southern shore to maintain a wildlife migration corridor around the reservoir and to winter ranges to the south.
7. Collaborate with raptor specialists from the Service and CDOW on road realignment and construction activities at Ridges Basin Dam to identify and implement measures minimizing effects on existing golden eagles and their nests on Carbon Mountain. All reasonable means to preclude human activity on Carbon Mountain will be pursued. All power lines will be designed raptor-proof. Reclamation will require that a 0.25-mile buffer around the existing golden eagle nests be identified and that all reasonable measures are pursued to preclude human activity on Carbon Mountain during the nesting period of golden eagles (December 1 through July 15).

### **Aquatic Resources**

1. Provide for a more detailed evaluation of Ridges Basin Reservoir's expected limnological conditions to better determine whether or not there is justification to provide appropriate facilities to deliver water into the reservoir at an elevation below the thermocline. This could lessen the likelihood of periodically having reservoir water temperatures becoming too warm to support trout and could increase oxygen levels in the reservoir. The evaluation will be completed in coordination with the Service as part of the design data collection activities.
2. Reclamation will develop and implement a monitoring program at Ridges Basin Reservoir to determine the extent of bioaccumulation of trace elements in fish within the reservoir. The reservoir basin's vegetation will be largely cleared in order to reduce the magnitude of

productivity and reduction potential. This, in turn, will limit mercury becoming methylated, the form in which it is available to bioaccumulate within the food chain. Trout will be the only fish stocked. Trout are not at the top of the fish food chain; therefore, they will not be expected to accumulate significant levels of bioaccumulated trace elements. The program will last two consecutive years and be initiated two years after the reservoir is filled. If significant bioaccumulation effects are identified, Reclamation will work with the appropriate local, state or federal agencies to either minimize the impact or otherwise offer protection to potentially impacted fish and wildlife species and to possibly post human fish consumption advisories at the reservoir.

3. To minimize downstream stranding of fish due to the operation of the Durango Pumping Plant, changes in the pumping will be staged in the following manner: An increase in pumping not to exceed 50 cfs per hour (hr) stage decrease and a decrease in pumping not to exceed 100 cfs/hr (stage increase) when natural river flows are above 500 cfs. At lower flow, these ramping rates could substantially change river stage. Therefore, when river flows are at or below 500 cfs, increases in pumping will not exceed 25 cfs/hr and decreases in pumping will not exceed 50 cfs/hr. Seasonal bypass flows will be met (ranging from 125 - 225 cfs).

4. Monitoring studies of project-affected waters on the Animas River will be implemented both prior to and continuing for at least four years after project operations begin (project pumping). These studies will be designed to better define the native fishery, to include better understanding apparent problems with native sucker recruitment, and to monitor trout populations. If it is concluded that the operation of the project is having significant adverse impacts to the downstream aquatic ecosystem, Reclamation will make every reasonable effort to modify project operations to either reduce or eliminate these impacts. The potential impact to native fishes in the Animas River, especially the effects of chronic habitat reduction, may not be directly mitigatable on the Animas River. Investigations should be initiated to determine whether or not fish barriers exist, whether small fish/young-of-the-year fish are significantly lost through entrainment in canals, and whether any significant loss to the trout fishery occurs. The monitoring program will be initiated in 2000 that will incorporate these additional elements into a monitoring study currently being conducted on the Animas River. A firm recommendation for mitigation due to the effects on native fishes will be made by no later than 2005, at least two years prior to project pumping from the Animas River. Once this mitigation recommendation is approved and agreed to by the Service, CDOW, New Mexico Department of Game and Fish (NMDGF), and perhaps the Southern Ute Indian Tribe, its implementation will immediately begin.

5. Screen or implement other physical structures to prevent live fish from being released from Ridges Basin Reservoir. The reservoir outlet system will be designed and fitted with devices to eliminate survival of fish escaping the reservoir. Reclamation will monitor escapement from the reservoir and Basin Creek.

6. Provide for the acquisition and stocking of wild strains of trout annually in the Animas River within the boundaries of the Southern Ute Indian Reservation to compensate for fish loss due to the reduction in usable trout habitat. Individual stocks of trout will be marked in such a manner that age groups could be monitored over time. This monitoring plan will be developed in consultation with the Service, CDOW, NMDGF, and the Tribe. The relative success of this effort

will be assessed after four years. If it is deemed a success—that is, if the trout biomass within the stocked reaches of the river is elevated to a point of supporting a recreational fishery—the stocking program will continue. For the acquisition of trout stock, Reclamation will consider the development of a new hatchery in cooperation with the Southern Ute Indian Tribe and others. This same hatchery could very well be utilized for providing for fish stocking for Ridges Basin Reservoir.

7. Provide stocking of trout in Ridges Basin Reservoir to provide a recreational fishery. The source of fish could be from an existing Colorado River Storage Project (CRSP) hatchery facility or from the acquisition and/or construction of a new hatchery facility.

8. Acquire at least two new public access points on the Animas River for fishing and other recreational use.

### **Special Status Species**

1. Implement conservation measures found in the latest Biological Opinion on the project (see Appendix 1 for complete list). These measures address the Colorado pikeminnow and razorback sucker that are found in the San Juan River and the bald eagle that is found throughout the project area. The conservation measures include Reclamation's commitment to operate Navajo Reservoir and the Durango Pumping Plant to mimic the natural hydrograph of the San Juan River to benefit the endangered fish and their habitat. Also, Ridges Basin outlet facilities will be designed to prevent escapement of nonnative fish, that might compete with native fish, into the Animas or other area waterways.

2. Develop and implement a monitoring program for potential adverse bioaccumulation of trace elements in bald eagle food items in Ridges Basin Reservoir. If the program identifies a problem with trace elements, Reclamation will develop and implement an action plan to minimize impacts to bald eagles. Bypass flows compatible with the endangered fish recovery efforts will be incorporated into the project plan to promote natural recruitment of cottonwood trees.

3. Electrical transmission lines associated with the project will be designed to avoid injury to raptors, including bald eagles.

### **Geology and Soils**

1. Reduce or eliminate the potential for earthquake damage to the Ridges Basin Dam site through specific design specifications. Dam specifications will require design performance to withstand a minimum credible earthquake for seismic sources in the vicinity of Ridges Basin Dam site.

2. Develop and implement a controlled program for filling Ridges Basin Reservoir to reduce the potential for induced seismic impacts.

3. Develop and implement a facilities operation program that includes monitoring the reservoir shoreline and slopes for landslide and slumping. Reclamation will also provide for public notification and control public access in areas where high landslide and slumping potential exists.
4. Develop an engineered process plan to limit, control, and manage dam site methane gas releases during construction. Reclamation will also monitor the area for methane gas releases during operations.
5. Investigate the potential of gas release due to man-made intrusions within Ridges Basin and the proposed dam site. Specifically, construction investigations will study the integrity of abandoned exploration wells and the Gates Coal Mine.
6. Mandate that construction contractors use and implement measures contained in erosion control guidelines and BMPs to control soil erosion from construction areas.
7. Develop and implement a program to control reservoir filling and drawdown at rates sufficient to reduce significant erosion and sedimentation potential.

### **Cultural and Paleontologic Resources**

1. Ensure compliance with historic/archaeological treatment measures and disseminate results pursuant to the Programmatic Agreement executed to meet Section 106 requirements .
2. Ensure compliance with mitigation measures developed in accordance with the Native American Graves Protection and Repatriation Act (NAGPRA) and Executive Order 13007.
3. Ensure that areas to be disturbed are field surveyed prior to construction disturbance and will ensure that construction monitoring is conducted where deemed appropriate.
4. Ensure that periodic shoreline monitoring is conducted as part of the facilities operations plan.

### **Agriculture**

1. Location, design, and construction timing of the NNMP would protect agricultural lands.

### **Recreation**

1. Pursue pumping regimes that reduce adverse flow effects on boating opportunities within the Animas River when possible.
2. Alter Durango Pumping Plant pumping regimes during periods of competitive events.
3. Acquire or provide funding (not to exceed \$500,000) for the acquisition of public access at a minimum of two points on the Animas River between the High Bridge and Basin Creek to reduce effects to anglers on the Animas River.



## **Socioeconomics**

No environmental commitments are made for socioeconomic resources.

## **Land Use**

No environmental commitments are made for land use resources.

## **Hazardous Materials**

1. Ensure that the Durango Pumping Plant is designed to minimize the disturbance of contaminated materials. Reclamation will also ensure that procedures will be developed for radiological monitoring of excavated soils and groundwater encountered and that remedial procedures are planned in advance to counteract the potential for human exposure and for the prevention of contaminated groundwater release from the construction site.
2. Ensure that all federal and state requirements pertaining to the management and handling of hazardous materials, mixed wastes and radioactive waste are followed and will include those requirements within construction contract language inclusive of construction safety and environmental compliance.
3. Require that construction specifications for Ridges Basin Dam and Reservoir, the Ridges Basin Inlet Conduit, road relocation, and related work prohibit contractors from disturbing the disposal cell. Reclamation will take steps to ensure that the disposal cell has appropriate signage to make the public aware of its presence and any personal hazards that it could present.
4. Confer with DOE and their Long-Term Surveillance and Maintenance Program to understand the current operational scheme and parameters for the Bodo Canyon disposal cell. As well, Reclamation will reactivate sampling and monitoring of wells DH-228 and DH-229 for indicator parameters including but not limited to Molybdenum, Selenium, and Uranium.
5. Require that preconstruction surveys are conducted for non-binding water end use facilities and conveyance system development and adherence to hazardous material standards relating to such construction.

## **Transportation**

1. Conduct a transportation survey prior to construction of Ridges Basin Dam and Reservoir and will implement methods to reduce traffic-related impacts.
2. Ensure to maintain CR 211 roadway, shoulder, drainage, and roadside to standards adequate to avoid noticeable degradation.
3. Require third-party developers of recreation facilities at Ridges Basin Reservoir to conduct traffic engineering impacts analysis studies and to mitigate recreation facility impacts according

to state and county standards. Associated costs will be the responsibility of the developing entity.

### **Air Quality**

1. Require that construction contractors implement measures to control fugitive dust and exhaust emissions during construction.
2. Require third-party developers to implement measures to control fugitive dust and other emissions during construction and operation of non-binding end uses.

### **Noise**

1. Require that the Durango Pumping Plant construction contractor restrict operation of heavy equipment during the nighttime hours.
2. Ensure that construction contractors provide blasting notification to residents, sound pre-blast alarms, and follow the construction safety plan. Construction and operation of the Durango Pumping Plant will be carried out to reduce noise impacts. Noise reduction will be provided in the form of sound insulation within the pumping plant and vegetation screening designed as part of site landscaping. Ridges Basin specifications will provide for noise control, particularly relating to golden eagle nesting.
3. Ensure that construction contractors schedule construction activities to avoid or minimize loud activities in the vicinity of golden eagle nesting areas during the nesting season and that nesting areas are “off limits” to construction forces and visitors.
4. Require that third-party developers of recreation facilities at Ridges Basin Reservoir incorporate in a recreation development/management plan the requirement to prohibit particularly loud forms of watercraft and to include signing to advise people of eagle nesting sensitivity to human presence and noise.
5. Ensure that developers and contractors associated with construction and operation of the non-binding end uses incorporate methods to minimize noise disturbances.

### **Public Health and Safety**

1. Ensure that public access to structural component construction areas will be controlled by signage and by fencing around construction areas.
2. Ensure that contractors configure haul routes and access roads to prevent or discourage public vehicular entry, including placement of signs warning against entry.
3. Ensure that all the potentially affected gas companies will be contacted prior to construction crossings of gas pipelines which will be precisely located and appropriately marked in the field

and on the specifications.

4. Ensure that public access to end use and delivery system construction areas is controlled by signage and by fencing around construction areas.
5. Investigate the potential for gas release due to man-made intrusions, prior to construction, and will monitor excavations for the presence of coal bed methane gas.
6. Control public access to operation areas that could pose a threat to public safety.
7. Ensure that recreation area planning, final design of facilities, and reservoir access points are developed to promote safety and use of accident management techniques.

### **Public Services and Utilities**

1. Ensure that construction contractors adequately secure and patrol their work sites and will coordinate with city or county law enforcement agencies.
2. Ensure that contractors will mark the locations of existing buried utilities and develop a notification system for coordination with affected utilities during construction.

### **Visual Resources**

1. Ensure that as part of construction design, the Durango Pumping Plant blends into the natural landform and that, following construction, the site is adequately revegetated.
2. Ensure that the design of structural facilities incorporates, to the extent practicable, non-intrusive design elements and that restoration of disturbed areas be conducted.

### **Indian Trust Assets and Environmental Justice**

1. Support the modification of the Settlement Agreement, through legislated amendments to the Settlement Act, to recognize the new limits placed on the use and amount of water provided to the Colorado Ute Tribes and establishment of the water acquisition fund.
2. Continue active participation in the San Juan River Basin Recovery Implementation Program to promote the dual goals of recovery of endangered species and proceed with water development in the basin. The SJRBRIP is key to facilitating additional water development by the Navajo Nation and the Jicarilla Apache Tribe. Reclamation's participation includes:
  - Provide substantial technical support in the development and refinement of a comprehensive hydrology model to allow realistic, supportable projections of future water uses in the basin;

- Continue to optimize the operating rules for Navajo Dam to provide more efficient fulfillment of the flow recommendations necessary for endangered species recovery;

- Implement an adaptive management program associated with the operation of Navajo Reservoir to evaluate biologic responses to normative hydrograph

2. Operate the Durango Pumping Plant to limit pumping during dry years, allowing more water to be available in Navajo Reservoir to meet project demands.

3. Work with the Navajo Nation and the Jicarilla Apache Tribe to combine resources in evaluating options for proceeding with the Navajo-Gallup Project, the Navajo River Water Development Plan, and restoration of the Hogback Project to try and minimize the likelihood that any single Tribe bears a disproportionate burden for the conservation of listed species under the ESA.

4. Facilitate discussions among the parties with interests in the San Juan River Basin. Interested parties will include, but not be limited to, the Colorado Ute Tribes, Navajo Nation, Jicarilla Apache Tribe, the Service, and private parties with existing contracts from Navajo Reservoir. Discussions will aim to develop options for obtaining adequate water for the Navajo Nation and Jicarilla Apache Tribe future needs..

5. Initiate an independent review of the hydrologic model to ensure its accuracy and value as a tool in future water planning activities.

6. Work with the Jicarilla Apache Tribe to facilitate its ability to independently utilize the San Juan River basin hydrologic model to ensure more effective participation in the SJRBRIP and other appropriate uses.

7. Through the appraisal investigation of the Navajo-Gallup Project, evaluate:

- An alternate project design that would take water from the San Juan River below its confluence with the Animas River may increase the potential yield for the project while protecting flows for endangered fish. In this case, releases from Navajo Dam would be supplemental to river flows, leveraging the limited storage volume available and making use of times when there are flows in excess of fish needs in the river.

- Modifying the Navajo-Gallup Project to reduce demands.

- Utilizing a portion of the NIIP allocation to meet needs for the Navajo-Gallup Project.

8. Consult with the Navajo Nation and the Jicarilla Apache Tribe on the implementation of the above mitigation measures and will commence consultation early in the implementation process.

9. To avoid potentially significant impacts to residences, school, and cemetery along the recommended route of the Navajo Nation Municipal Pipeline, the pipeline corridor would be routed to minimize, and to the maximum extent possible, prevent disturbance or relocation of residences. If residences are required to be relocated, the residents and the Navajo Nation will be compensated. Project planners would work to avoid disturbances to the cemetery. Consultation would take place with the Navajo Nation Historic Preservation Department and representatives from affected Navajo Nation chapters prior to disturbing any human remains or funerary objects. Additional mitigation measures would be used to minimize noise and vibration impacts. Construction activities would be scheduled during daytime hours when within 0.25 mile of a residence and would be scheduled during non-school hours when feasible.