

General Comments and Responses

**ANIMAS-LA PLATA PROJECT
FINAL SUPPLEMENTAL
ENVIRONMENTAL IMPACT STATEMENT**

GENERAL COMMENTS & RESPONSES

General Comment No. 1: Benefit-Cost Analysis

The economics of the Animas-La Plata Project (ALP Project), as stated in terms of a benefit/cost ratio, have not been evaluated. A benefit/cost analysis should be performed and included in the ALP Project Supplemental EIS.

Response:

The inclusion of a benefit/cost analysis in an environmental impact statement is a decision within the Bureau of Reclamation's (Reclamation) discretion as the lead agency, and is not mandated by any requirement under NEPA. Reclamation will not be preparing a benefit/cost analysis for this modified version of the ALP Project. Reclamation believes that the information developed pursuant to a traditional benefit/cost ratio is not a factor which is properly considered in determining what alternative should be used to settle the water rights claims of the Colorado Ute Tribes. Benefit-cost ratios on traditional Reclamation projects are governed by the Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies, (P&G's) (March 10, 1983). According to the P&G's themselves, they were developed to establish standards and procedures for use by federal agencies in developing water and land resources development plans with the objective of such planning to be a net benefit to national economic development as expressed in monetary units. P&G's at §§ 1.1.1; 1.1.3. These principles are not the same as the principles underlying the purpose and value of settling Indian water rights claims.

The primary benefits of Indian water rights settlements are:

1. Avoiding the direct and indirect costs of continued litigation.
2. Resolving potential damage claims that Tribes may bring against the United States for failure to protect trust resources or against other parties for interference with the use of those resources.
3. Acting in concert with the United States trust responsibility to Indian tribes.
4. Avoiding the costs associated with widespread displacement of non-Indian water users.

These benefits cannot be precisely stated in terms of whether there is a potential to “realize opportunities related to the output of goods and services or to increased economic efficiency.”

As a final note, the assessment of certain “costs” as part of the benefit-cost equation is inappropriate when applied to the development of Indian reserved water rights. For example, Reclamation’s 1995 *Economic and Financial Analysis Update* determined that one of the costs of the ALP project attributable to water development is the loss of downstream power generation due to stream depletion. It is at odds with the United States’ trust responsibility to Indian tribes and the reserved water rights doctrine to negatively assess tribal use of water, typically the senior rights on a river, because of impacts to hydroelectric power generation facilities that were developed in ignorance of their water rights. Adhering to such a policy would perpetrate reliance on unused tribal water rights—a result unacceptable in light of the federal trust responsibility to Indian tribes. See Secretarial Order No. 3215, *Principles for the Discharge of the Secretary’s Trust Responsibility* (April 28, 2000).

General Comment No. 2: Project Costs

Taxpayer money is being wasted on a project that costs too much to build and has expensive operation and maintenance costs.

Response:

In a letter sent to several environmental groups on February 15, 2000, Secretary of the Interior Babbitt emphasized the need for the United States to honor the obligation to the Colorado Ute Tribes by carrying through on commitments that were made in the 1988 settlement. In keeping with its trust responsibility to Indian tribes, the federal government often makes a significant financial contribution to secure a water supply which settles Indian water rights claims. The contributions are consistent with treaty obligations to Indian tribes, will assist the tribes in their goal to become economically self-sustaining, resolves any legal claims tribes may have and have the added benefit of avoiding the costs associated with displacing non-Indian water users.

In 1988, Congress enacted the Colorado Ute Water Rights Settlement Act which secured for the Colorado Ute Tribes a specific quantity of water from the ALP Project to settle their water rights claims in the Animas and La Plata River Basins. Implementation of this settlement has been long-delayed, thus denying the Tribes of the benefits of the agreement they reached with their non-Indian neighbors, the State of Colorado, and the United States. The delay has triggered a clause in the settlement agreement which now necessitates a decision; to implement the a final settlement or prepare for lengthy and unpredictable litigation.

The settling parties have worked to find a solution to the tribal claims that would provide the Colorado Ute Tribes with water required for their present and future needs while allowing non-Indians water uses that have existed for generations to continue. Numerous alternatives, both structural and non-structural solutions to providing for the purpose and need of the ALP Project, have been evaluated in detail from the standpoint of economics, operation and maintenance costs, environmental impacts, and ability to be implemented. Based on these detailed analysis Refined Alternative 4 was determined to provide the best solution for resolving the water right claims of the Colorado Ute Tribes. In addition, it has fewer environmental impacts than the non-structural solution of Refined Alternative 6.

It should be noted that the current proposal significantly reduces the cost from previous project configurations. Current estimates of project costs, including construction of structural components, water acquisition costs, and cultural and environmental mitigation costs are presented in Section 2.5.1 of the Final Supplemental Environmental Impact Statement (FSEIS). Present estimates indicate that the overall settlement concept will cost approximately \$252 million (excluding the cost of the Navajo Nation Municipal Pipeline and other components), of which a portion will be repaid to the United States. Finally, operation and maintenance costs will be paid by the non-Indian entities receiving water. The Colorado Ute Tribes will pay their share of operation and maintenance costs once they begin using project water.

General Comment No. 3: Pumping Water to a Storage Reservoir

The basic concept of pumping water from the Animas River to a storage reservoir makes no sense. Why pump water uphill? This is an inefficient and inappropriate method for delivering water in a semi-arid environment.

Response:

Storage is an integral part of most water supply and delivery systems, particularly in the semi-arid western United States, since there is usually not a reliable, regular flow of sufficient water in streams and rivers to meet water needs all year round. As far as the ALP Project is concerned, it will not be possible to meet the project's purpose and needs without some form of storage on the system, regardless of the alternative selected. Both Refined Alternative 6 and the Preferred Alternative (Refined Alternative 4) have storage as a key component.

Reclamation evaluated several options that would have used gravity to flow water into storage, rather than using a pumping plant to lift the water. These alternatives are discussed in Chapter 2, and were rejected for environmental reasons, as well as for the associated costs. Sites evaluated included three reservoirs on the Animas River, another on a tributary, and a diversion structure on the Animas River. All of these would have had significant environmental impacts.

Reclamation then looked at sites where the water could be stored, but where it would have to be pumped to get there. Under certain circumstances, “pumping” water from a lower point of its origin to a higher elevation for a designated use(s) is widely accepted as a prudent method to provide water to meet human needs (e.g., the construction/utilization of domestic wells in arid parts of the world to sustain plant, animal, and human life, or pumping water into storage tanks in large metropolitan areas to provide a pressurized water system for its citizenry, etc.)

The choice to pump water should be based on a balanced decision involving the following principles:

- least costly
- minimize environmental impacts (e.g. access to off-stream storage locations), willingness of the intended users to pay the associated operation, maintenance, replacement, and energy costs to use the water
- reliability and practicability of the alternatives to provide the yield of water needed

As an example, there are at present approximately 35 decreed water users from Bakers Bridge north of Durango, Colorado, to the Colorado/New Mexico state line who have determined that pumping water out of the Animas River is a prudent method to meet their water needs.

General Comment No. 4: Land and Water Acquisition Costs

The cost estimates to acquire land and water under the non-structural alternative (Refined Alternative 6) are inaccurate, and been inflated to make it look bad.

Response:

The land acquisition model that was developed to estimate the cost of land and water acquisition for Refined Alternative 6, as well as other alternatives’ non-structural components, was an attempt to address two major factors:

- the depletion factor, which influences the amount of acreage that would be required;
- the time factor, or how long the procurement process of irrigated farmland would realistically take, including modeling of the variables over time to determine present values.

The depletion factor of 1.6 was based on information provided by the State of Colorado, and is discussed in more detail in Section 2.3.2.1.2 of the FSEIS (Rationale for Using Dry Year Depletion Factors) and in Volume 2, Attachment D, of the FSEIS.

The purchase price of a sufficient quantity of irrigated land to settle 30,000 acre feet (af) of water rights claims under Refined Alternative 6 required using certain assumptions overlaying a baseline cost derived from an appraisal of currently listed irrigated and non-irrigated lands in Colorado. Added to the baseline average listed price was an annual escalation factor of 8%. This escalation factor is actually conservative when compared to what has been realized by irrigated and non-irrigated land sales in recent years (12 - 18%). The purchase of irrigated land is subject to the “willing buyer, willing seller” concept. To entice willing sellers, an initial 20% offer above the current average listed price was used, with a periodic jump every five years in land prices of 25%. Lastly, a reasonable period of time (30 years) to achieve the acquisition of sufficient land was factored into the cost estimate.

The approach taken and assumptions made are described in more detail in Attachment D to Volume 2 of the FSEIS.

General Comment No. 5: Bioaccumulation Concerns at Ridges Basin

Bioaccumulation will be a problem at Ridges Basin for eagles and other wildlife.

Response:

Reclamation does not expect that there will be a significant bioaccumulation or trace element problem for bald eagles at the Ridges Basin reservoir. The potential for bioaccumulation of trace elements in Ridges Basin Reservoir is addressed in the FSEIS. The impact evaluations and mitigation commitments in the DSEIS have been further strengthened in the FSEIS as a result of discussions with the US Fish and Wildlife Service (Service) and the Colorado Division of Wildlife (CDOW). The Service has concluded that the project may affect bald eagles but is not likely to jeopardize its continued existence. Conservation measures recommended by the Service include monitoring for potential adverse bioaccumulation of trace elements in bald eagle food items. Commitments by Reclamation to do so are included in Chapter 5 of the FSEIS.

The primary bioaccumulation element of concern at Ridges Basin Reservoir is mercury. Selenium is also known to occur in relatively high levels in the project area, but has not been measured at levels of concern, and is not a concern at Ridges Basin.

Bald eagles generally are found within the San Juan River Basin only during the winter (November-March), and feed on carrion. There is some feeding activity on fish at nearby rivers, especially the Animas River. The presence of Ridges Basin reservoir would not change this feeding pattern for these migratory eagles for a number of reasons. We do not expect them to feed on fish in the reservoir to any great extent. There are some bald eagles that use the area year-round, and there is a potential that they

may nest and feed at Ridges Basin. The potential impact on these resident eagles from bioaccumulation is not expected to be significant for the reasons listed below.

Reclamation has committed to a series of measures to reduce the potential for bioaccumulation, and to monitor and manage the problem during the operation of the reservoir. These include:

- C clearing the reservoir of all significant vegetation during construction;
- C filling the reservoir in stages to minimize dispersal of bottom sediments throughout the reservoir;
- C stocking trout in the reservoir. Due to the portion of the water column that they feed in, and the fact that they are largely insectivorous, we would not expect them to overly concentrate mercury within their bodies; and
- C monitoring levels of mercury and other elements in fish, vegetation, sediments, and the water column regularly over a four-year period.

Additional information on bioaccumulation management has been included in Sections 3.7.4 and 5.4.6 of the FSEIS.

General Comment No. 6: Future Water Uses

The discussion of possible future water uses is not specific enough. The environmental impacts of these future water uses have not been addressed sufficiently.

Response:

The purpose and need for the proposed action is primarily to provide the Colorado Ute Tribes with an assured, long-term water supply in order to satisfy their reserved water rights and implement the Settlement so that the Tribes and United States do not have to return to litigation before the District Court, Water Division Number 7, of the State of Colorado. These reserved water rights are based on the Winters doctrine which states that the establishment of an Indian Reservation carries with it an implied reservation of the amount of water necessary to fulfill its purposes with a priority date no later than the creation of the Reservation. This amount of water must therefore be sufficient to satisfy both present and future needs.

In settling Indian water rights claims based on the Winters doctrine, the federal government has specified that it seeks to ensure that Indians receive equivalent benefits for rights which they, and the United States as trustee, may release as part of settlement. 55 Fed. Reg. No. 9223. Accordingly, a settlement should provide Tribes a long-term supply of water and respect the Tribes' sovereign right to determine the

specific uses for which the water supply will be applied. Those uses may not always be fully defined at the time an adjudication is initiated in state court. Accordingly, they may not be fully defined at the time a settlement is reached which quantifies the Tribes' water rights.

However, because NEPA (Sec 1508.7) recommends that "reasonably foreseeable future actions" be included in EIS's whenever possible, Reclamation, working with the Colorado Ute Tribes, developed a range of reasonable and potential uses of the water such as housing, commercial development, resorts, power plants and golf courses. The likely environmental impacts for each future water use were identified in Section 2.1.1 of the FSEIS. Reclamation believes that the analysis of these non-binding scenarios allows the public to evaluate the potential impacts from likely uses of the water without intruding upon tribal sovereignty.

Moreover, because Ridges Basin Reservoir would be operated by the Department, the use of any water from this facility would still be subject to all federal environmental laws as the removal of any water from the reservoir would be a federal action. Thus, the environmental analysis of potential impacts from these specific water uses would tier from the ALP Project FSEIS. A list of actions that would "trigger" NEPA compliance is included in Section 2.1.1 of the FSEIS.

General Comment No. 7: Colorado Water Law and Speculative Uses of Water

The non-binding future water uses presented in the FSEIS are speculative. Speculative uses of water are not allowed under Colorado Water Law.

Response:

As stated in the purpose and need for the project, the ALP Project is intended to settle the federal water rights claims of the Colorado Ute Tribes. The settlement itself is embodied in federal law. Because the doctrine of Winters rights evolved to ensure the Indian reservations and public lands set aside by the federal government will have sufficient water to fulfill the purposes for which they were established, certain principles embodied in state water law, including the requirement of beneficial use to perfect and maintain a water right, are inapplicable.

General Comment No. 8: Recreational Use Impacts

Impacts on rafters, kayakers, fishermen, and other users are downplayed and underestimated. There will be an irreversible loss of recreational opportunities and scenic value on the Animas River.

Response:

Reclamation believes that the impacts to river recreation have been accurately portrayed. Our analysis showed that there would be an average annual loss of only 6 days under a worse-case scenario. This equates to 2,128 commercial rafting user days (4.5% out of 49,000 user days at 1999 levels). This is not considered to be a significant impact. Since there was no reliable information on floatable flows for private users (i.e., kayakers) on the Animas River, and because kayakers can move upstream of the proposed pumping plant when flows are inadequate, no attempt was made to estimate the loss of user days for kayakers. Because of the kayakers' flexibility to use different parts of the river and use the river at lower flows due to the use of smaller boats, it could be assumed that the loss of kayaker user days would be somewhat less than 4.5%.

Specific measures to reduce impacts to recreation use on the Animas River include a commitment to acquire at least two new fishing/recreation access points to the river, and to arrange for stocking of the river for fishing. Refer to Section 3.11.4 of the FSEIS.

To soften the visual effects on the Animas River area, the pumping plant would be blended into the natural form of the land, and revegetation with native species would be used to soften the view of the pumping plant from view. Refer to Section 3.20.4. of the FSEIS.

General Comment No. 9: Threatened and Endangered Fish Impacts

Detrimental impacts to threatened and endangered fish species (i.e., Colorado pikeminnow and razorback sucker) will occur if the Preferred Alternative is implemented.

Response:

One of the basic tenants of the Preferred Alternative of the ALP Project is to comply with the requirements of the San Juan River Basin Recovery Implementation Program (SJRBRIP) formulated under the Endangered Species Act (ESA). The SJRBRIP goals are to conserve populations of the Colorado pikeminnow and razorback sucker in the basin, and proceed with water development in the basin. The pumping program of the Preferred Alternative has been developed to complement the flow recommendations of the SJRBRIP. Measures incorporated into project operations include restricted pumping rates at the Durango pumping plant in conjunction with operation of Navajo Reservoir to provide a more natural hydrograph in the San Juan River.

General Comment No. 10: ALP Project Pumping Impacts on the Animas River

The FSEIS does not provide a good description of ALP Project pumping on the Animas River in Colorado and New Mexico.

Response:

The FSEIS discusses these effects in Section 3.2 and in the Technical Appendices. To present this information more clearly, the FSEIS has been modified. Here is a summation of those changes.

The hydrology for the historical period 1929 -1993 was used to analyze the effects on the Animas River due to project pumping. The amount of water pumped at the Durango Pumping Plant would be regulated by the following criteria.

- flow in the Animas River
- downstream senior water rights and non-project demands
- project New Mexico municipal and industrial demand
- minimum bypass to maintain the aquatic ecosystem
- capacity of the Durango Pumping Plant
- amount of water in Ridges Basin Reservoir

The proposed Durango Pumping Plant would have a total pumping capacity of 280 cubic feet per second (cfs) (varying from approximately 5 cfs to 280 cfs). Several various size pumps would be used to obtain this total capacity. The specified capacity is in addition to the City of Durango pumping plant with a capacity of 11 cfs which may be combined into the Ridges Basin Pumping Plant upon construction. The model accounts for the full pumped volume of the two plants.

Pumping would only occur after all downstream senior water rights demands and downstream Project water demands have been satisfied. Downstream Project demands in the Animas River are met first by streamflow available after meeting historic demands, including ALP Project return flows entering above the diversion point, and then by release from Ridges Basin Reservoir.

After satisfying all downstream senior water rights demands and downstream ALP Project water demands, pumping may be further limited to allow the following bypass flows in the Animas River at the pumping Plant intake: October through November - 160 cfs; December through March - 125 cfs; and April through September - 225 cfs. Pumping would also be decreased or stopped during certain periods in order to meet the recommended flow requirements in the San Juan River for the Endangered Fish Recovery Program. When there have been no endangered fish releases from Navajo Dam for two years and the planned release for the current year is the minimum release specified in the flow recommendation report, the Durango Pumping Plant is turned off during June, allowing an additional 280 cfs to meet flow recommendations for endangered fish in the San Juan River.

As stated in Section 3.2.4 of the FSEIS, the amount of water diverted from the Animas River is greatest

during the wet periods, however, impacts are not great during this time because the diverted amount is only a small percentage of the total flow. Impacts are limited in the upper Animas River during low flow times because of the minimum flow bypass requirement and demands downstream preventing any pumping from taking place. In the lower river, the impacts is greatest in moderately dry months when the project diversions reduce the flows past the last diversion. In the driest months there is no significant change in flows in the lower river area. Releases from Ridges Basin Reservoir during these dry months supply the project demands with no significant change to the flows in the river below the last diversion point. Project releases to meet downstream project demands are protected by both Colorado and New Mexico State Water Law as project water.

Tables 3.2-4 in the FSEIS provides historical flows and projected flows information for three locations on the Animas River, with the ALP Project in operation. In addition, revisions have been made to Volume 2, Attachment F for the FSEIS.

General Comment No. 11: Impacts to Wildlife at Ridges Basin

Creation of a reservoir at Ridges Basin will have a significant impact on wildlife habitat, including elk and mule deer.

Response:

Reclamation recognizes that 2,700 to 2,900 acres of elk, deer, and other wildlife habitat, will be lost directly by reservoir construction and indirectly by recreation developments and recreation use. These will be mitigated, however, through wildlife management measures at Ridges Basin and through the acquisition and development of habitat. Management measures are designed to maintain big game habitat values and numbers of wildlife in the reservoir area. Migration routes on both the east and west sides of the reservoir would be preserved. No residential development would take place on Reclamation lands around the reservoir shoreline. Development and management of the proposed Ridges Basin campground and relocation of Country Road 211 will include compatibility with wildlife management goals. Recreation development will be restricted to the north shore of the reservoir. These and other mitigation commitments to address the wildlife impacts at Ridges Basin are further discussed in Section 5.4.5. of the FSEIS.

General Comment No. 12: Regional M&I Needs

Regional municipal and industrial needs (M&I) are vastly over estimated in the FSEIS. The Preferred Alternative would supply enough water for another 200,000 people in the Project area. This amount of growth is not likely or desirable for the region. No current or near-term demand exists to justify this huge

quantity of M&I water.

Response:

Population growth in the region will occur with or without the ALP Project. Water projects are developed for the long-term future needs of the area. The Project area consists of La Plata and Montezuma counties in Colorado and San Juan County in New Mexico. The FSEIS has used conservative estimates of growth.

Population growth in the ALP Project area increased from 84,668 in 1970 to 168,898 in 1998. This resulted in an average annual growth rate of 2.5%. A more conservative growth rate of 1.9% was used to predict a near-term population in the Project area by the year 2030. After 2030, an even more conservative growth rate of 1.6% was used to predict population growth by the year 2100. These more conservative growth rates were based on a recognition of trends towards smaller family sizes. Based on these growth rates the projected municipal water needs are as follows:

<u>Year</u>	<u>Population</u>	<u>Water Needs</u>
2030	279,402	56,022 acre-feet
2050	382,990	76,792 acre-feet
2100	848,840	170,197 acre-feet

Along with population, there is normally an attendant growth in industry and commerce, and associated water usage. About 110,000 acre-feet of water are projected to be needed to meet the 2030 near-term needs of municipal and industrial needs of local communities, plus on-reservation needs by the Colorado Ute Tribes. The 2100 long-term water needs of these two components could exceed 200,000 acre-feet.

General Comment No. 13: Settlement of Colorado Ute Tribal Water Rights

The scope of the ALP Project should be revised and limited to the settlement of the Colorado Ute Indian Tribes Water Right claims only.

Response:

The 1988 Colorado Ute Water Rights Settlement Act (Settlement Act) provides for water from the ALP Project to settle the water rights claims of the Colorado Ute Tribes on the Animas and the La Plata Rivers. The Settlement Act made the ALP Project an integral part of water rights settlement. However, this did not eliminate from the ALP Project the purpose of supplying M&I water to other entities (i.e., the Navajo Nation, the Animas-La Plata Water Conservancy District, and the San Juan

Water Conservancy District). Retention of this limited supply of water as part of the ALP Project (an amount much less than originally contemplated) is viewed as acceptable so long as the non-Indian water users pay the full reimbursable cost for their share of the project water supply.

General Comment No. 14: Validity of Colorado Ute Tribal Water Rights

The Colorado Ute Indian Tribal Water rights claims are not valid.

Response:

Both the Ute Mountain Ute and Southern Ute Indian Tribes' reserved water rights arise from their 1868 Treaty with the United States. It is well-settled that establishment of an Indian reservation carries with it an implied reservation for the amount of water necessary to fulfill the purposes of the reservation with a priority date no later than the date of creation of the reservation. No congressional action has done anything to change the priority date of the Colorado Ute Tribes' water rights.¹ Two statutes did, however, substantially affect the Southern Ute Indian Tribe's land ownership, as discussed below.

In 1880, Congress passed an act to allot (assign to individual Tribal members) the Southern Ute Indian Reservation. All "surplus" lands of the Reservation (lands not allotted) were deemed to be public lands available for entry by non-Indians. The 1880 Act did not extinguish the Tribe's rights to "surplus" lands and did nothing to affect the Tribe's water rights for unclaimed "surplus" lands. Although much tribal land did, in fact, become divested from tribal ownership, the overwhelming majority of land which makes up the Southern Ute Indian Reservation was retained in federal ownership and never conveyed to non-Indian parties.

Then, in 1934, the Indian Reorganization Act officially ended the allotment era and authorized the restoration of unclaimed "surplus" lands to tribal ownership. The western half of the pre-1880 reservation, which is today's Ute Mountain Ute Reservation, was never allotted. Neither the 1880 Act nor subsequent congressional action affected the Ute Mountain Ute Tribe's water rights.

General Comment No. 15: Damming the Animas River

The Preferred Alternative would involve damming or diverting flows from one of the last remaining free-flowing natural rivers in the west.

¹Reference: Memorandum to Acting Deputy Secretary of the Interior from Office of the Solicitor, Washington, D.C., dated September 9, 1999.

Response:

Several possible dam locations along the Animas River were considered but eliminated from further evaluation in the FSEIS (see Section 2.4.2). The Preferred Alternative does not include construction of a dam on the mainstem of the Animas River. The construction of Ridges Basin Dam on Basin Creek would create an off-stream reservoir situated nearly three miles from the Animas River.

The Animas River is indeed a beautiful river free of impoundments, but it is not now completely free-flowing. There are now numerous facilities in place in the Animas (i.e., diversion dams, intake structures, pumping stations) that divert water for agricultural and M&I purposes. Permitted diversions have the potential to dry up the lower Animas River during times of low water, and in fact have done so in the past. Releases from water stored in the Ridges Basin reservoir would actually enhance flows in portions of the Animas River during times of low water. In addition, as described in the 1996 FSFES, sufficient modeling has been done to allow design of the pumping plant intake to minimize the potential hazard to recreation public.