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STATE OF COLORADO

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April 17, 2000

Mr. Pat Schumacher  
Four Corners Division Manager  
Western Colorado Area Office  
U.S. Bureau of Reclamation  
835 East Second Avenue, Suite 300  
Durango, Colorado 81301-5475

Dear Mr. Schumacher:

The State of Colorado thanks you for the opportunity to review and comment on the Bureau of Reclamation's 1999 Animas-La Plata Project Draft Supplemental Environmental Impact Statement (DSEIS). We have coordinated this response among agencies within the Colorado Department of Natural Resources (CDNR) including the Colorado Water Conservation Board (CWCB) and Colorado Division of Water Resources. The CWCB is a state agency whose mission is to promote the protection, conservation and development of Colorado's water resources in order to secure the greatest utilization of those resources for the benefit of present and future generations. The CDNR has reviewed the DSEIS and provides the following comments.

The Animas-La Plata Project (ALP) is desperately needed to complete the implementation of the "Colorado Ute Indian Water Rights Settlement Agreement" executed on December 6, 1986 and ratified by Congress in the "Colorado Ute Indian Water Rights Settlement Act of 1988" (Settlement Act). ALP was originally authorized by Congress as part of the Colorado River Basin Project Act of 1968 and was to be built concurrently with the Central Arizona Project (CAP). CAP is now essentially complete and delivering water to communities throughout Arizona. With ALP, Colorado, New Mexico and the Ute Tribes are simply seeking to complete what has long been promised.

The Colorado Ute Tribes have reserved water rights for their reservations that are senior to most non-Tribal water rights in the region, as noted in the Solicitor's Opinion in Attachment A of the DSEIS. Absent implementation of the "Settlement Act," development of senior Colorado Ute Tribal water right claims could adversely impact non-Colorado Ute Tribal water rights and users, including municipalities, federal agencies and recreational uses in the San Juan River Basin of Colorado, New Mexico and Utah.

Furthermore, the Settlement Act requires delivery of ALP water to the tribes by January 1, 2000, a date now past. If ALP is not approved and implemented by January 1,

Board of Land Commissioners • Division of Minerals & Geology/Geological Survey  
Oil & Gas Conservation Commission • Colorado State Parks • Soil Conservation Board  
Water Conservation Board • Division of Water Resources • Division of Wildlife



Bill Owens  
Governor  
Greg E. Walcher  
Executive Director

2005, the Tribes have the option of commencing litigation or renegotiating their reserved right claims. Thus, further delays in implementing ALP can no longer be tolerated, a fact recognized in the numerous resolutions of support for the Settlement and ALP from the respective states Governors, state legislatures, and state agencies, and the Western States Water Council.

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The CDNR has reviewed the DSEIS and firmly believes that it is a complete and fair document particularly when considered along with the previous ALP environmental statements completed in 1980 and 1996. The CDNR endorses the modified structural alternative described as the preferred alternative (Refined Alternative 4). The modified structural alternative is the only alternative in the DSEIS acceptable to the State of Colorado. All other alternatives in the DSEIS we believe contain fatal flaws and fail to meet the objectives stated in the "Purpose and Need," and therefore are unacceptable to Colorado. However, the CDNR can support either the water allocation described in the DSEIS preferred alternative or a small variation to that water allocation as proposed in the pending legislation amending the 1988 Settlement Act.

SA5-1 Comment noted.

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Colorado is concerned about the purchase and potential loss of agricultural lands under the preferred alternative. However, we recognize the need for the Ute Tribes to acquire the water necessary to fulfill the terms of the Settlement Agreement and respect the terms under which they may do so. The CDNR is of the opinion that the purchase of land and water by the Ute Tribes on a willing seller-willing buyer basis to obtain the remaining 13,000 AF of depletions under the Settlement Agreement is at least reasonable. Possible land and water purchases in the Pine, Animas and La Plata basins would make up between 5 and 10% of the presently irrigated acreage. However, purchases in the Mancos basin would make up about 25% of the presently irrigated acreage.

SA5-2 Comment noted.

Under Colorado Law, water rights purchased and transferred from their historic use to new uses are required to maintain the historic flow regime (i.e. return flow, river call situation, etc.) in order to be able to transfer the historic consumptive use. Furthermore, potential transfer water rights should continually be diverted and applied to beneficial uses up to the time of transfer in order to avoid the possibility of others relying on any increase in water availability due to any temporary non-use.

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In reviewing the 1996 ALP Final Supplemental Environmental Impact Statement, a number of issues were raised which the 1999 DSEIS should fairly address. We would like to briefly comment on each major issue raised in the 1996 FSEIS and how that issue has been addressed in the 1999 DSEIS.

1. Reduced Cost – The cost of ALP under the preferred alternative in the DSEIS has been cut by approximately 50% from previous project configurations. Under the preferred alternative, ALP will now only supply M&I water. ALP will no longer supply any water for agricultural purposes. Project costs are within the ability of M&I users to repay.
2. Maintains Water Quality – The water quality analysis shows little or no measurable change in any water quality parameter except for sediment loads. Mitigation of the

SA5-3 Comment noted.

- sediment increases is discussed at some length and mitigation measures are deemed to be reasonable and implementable.
3. Reasonable Alternatives – Alternatives not only to ALP, but to the Settlement, are discussed in the DSEIS and were discussed at length during the Romer-Schoettler process and prior to formal scoping for the 1999 DSEIS. Every effort has been made to identify reasonable alternatives through numerous avenues. The reasonable alternatives have been fully evaluated via the NEPA processes.
  4. Compliance with the Biological Opinion – The reasonable and prudent alternative currently limits ALP depletions to 57,100 AF and a project depleting only that much water should be evaluated. The preferred alternative accomplishes this objective.
  5. Formal Scoping – In addition to the extensive knowledge that already existed as a result of previous NEPA compliance efforts, additional formal public scoping meetings were held in February, 1999. All reasonable alternatives have been considered through these various processes.
  6. Indirect and Cumulative effects of ALP – The indirect and cumulative impacts of ALP have been fully evaluated through this and previous NEPA processes. In addition, the San Juan Recovery Implementation Program for endangered fish species has evaluated the project impacts along with existing and future depletions. Both ALP and the full development of the Navajo Indian Irrigation Project have been included in these evaluations. The evaluations have both concluded that the projects can be implemented and still meet suggested flow recommendations for the recovery of endangered fish in the San Juan basin. Furthermore, the San Juan RIP will continue to monitor and evaluate the situation.
  7. Downstream water rights and instream flows – The Durango pumping plant would now have a capacity of 280 cfs (reduced from 430 cfs). It would be limited to a maximum pumping rate of 240 cfs during June to avoid significant impacts to the spring peak (often in excess of 5,000 cfs). Furthermore, it would bypass flows to maintain at least 160 cfs in the river below the Durango pump during October and November; 125 cfs during December, January, February and March; and 225 cfs during the remainder of the year (April through September). Table 2-6 of Technical Appendix 2 clearly illustrates this. Historic hydrology clearly shows that the proposed bypasses exceed the historic low flows observed during dry years. Native fish might even find the more frequent and very slightly warmer water temperatures in the lower reaches of the Animas more habitable. When the minimum bypasses can not be maintained because of dry year hydrology, the pumps will not operate.
  8. Uses for ALP water – Much of the ALP water will be used to assure reliable water supplies for rapidly developing areas in the region. Those areas and uses are identified Tables 2-2 and 2-3 of Technical Appendix 2. Given the information concerning growth at present, the needs appear reasonable.
  9. Rafting – Concerns 9 and 10 in the 1996 FSEIS both dealt with recreational rafting. Reclamation is committed to pursuing pumping operations that reduce adverse effects to flows and boating opportunities whenever possible. Several mitigation measures are proposed, including increased access to the river and altered pumping regimes during competitive events.
  10. Endangered Fish Recovery – The San Juan Recovery Implementation Program has been researching and studying this issue since 1992. Flow recommendations have

3 (con't)	been adopted which Program biologists believe will provide the flows needed for fish recovery. The San Juan Recovery Program, as previously noted, will continue to monitor this effort.		
4	11. Wetland Mitigation – Wetland and riparian areas will be mitigated at a ratio of 1.5:1. Thus, approximately 200 acres of wetlands will be created to replace the 134 acres lost. Over half the amount lost is prior irrigated farmland that is now classified as meadow. Furthermore, wetland mitigation is not restricted to the Animas watershed and thus degraded wetlands in adjacent basins could benefit as well.	SA5-4	Comment noted.
5	12. Elk Habitat Mitigation – An estimated 3,000 acres of suitable wildlife habitat would be replaced through purchase, development and management.	SA5-5	Comment noted.
6	13. Clean Water Act and Section 404 Compliance – Attachment B of the DSEIS contains the 404(b)(1) Evaluation. The 404(b)(1) Evaluation supports Reclamation’s intention to seek Clean Water Act compliance through Section 404(r) provisions which would exempt Reclamation from the requirement to obtain a Section 404 permit for construction activities resulting in a discharge of dredged or fill material into waters of the U.S. Judging from the thickness of the evaluation, this is a more rigorous task than getting the standard 404 permit.	SA5-6	Comment noted.
7	14. Purpose and Need Statement – The purpose and need statement is quite clear as noticed in the Federal Register on January 4, 1999 and as described in the DSEIS. Implementing the Settlement Act and assuring the Ute Tribes a long-term water supply is necessary to protect other water users from the Ute Tribes senior water right claims. The Settlement is fundamental to the economic well being of the Ute Tribes and to the southwest region of Colorado and northwest New Mexico.	SA5-7	Comment noted.
8	15. Fisheries – A new fishery will be established in Ridges Basin Reservoir. Furthermore, monitoring of the fisheries, stocking, screening and fish passage will be implemented as appropriate to mitigate adverse impacts. A new fish hatchery could even be part of the mix if impacts are significant. These are major commitments and the mitigation costs reflect that.	SA5-8	Comment noted.
9	16. Mitigation Measures – Mitigation measures are discussed extensively in the DSEIS and the commitments appear clear enough that they can be implemented as described. 17. Ute Tribes’ Use of Water – Tables 2-3 and 2-4, as noted above, spell out anticipated uses fairly well. The Ute Tribes’ water is part of Colorado entitlement under the Colorado and Upper Colorado River Compacts and fully accounted for in Colorado’s depletion tables. As such, the Tribes’ water can not be marketed to other states.	SA5-9	Comment noted.
10	18. No Effects on Potential Wild and Scenic River Designation – Potential segments on the Animas are all currently upstream of the proposed project. Navajo Dam operations and other diversions already affect some segments on the San Juan. Efforts to reoperate Navajo Dam through an adaptive management process for endangered fish will have a positive effect and will be considered in the EIS process concerning Navajo Dam re-operations. 19. The DSEIS implies, in Table 2-53, that significant portions of the Ute Tribes’ water <u>might</u> be used off the reservation and out-of-state to meet regional water needs. We would like to ask for clarification in the DSEIS on this issue. Pursuant to the December 10, 1986 Colorado Ute Indian Water Rights Final Settlement Agreement, any leasing and off-reservation use of ALP water would be governed by Section V of the Settlement Agreement. In short, Section V states that any off reservation uses	SA5-10	Comment noted. A discussion of the constraints to purchase and use water rights has been included in the FSEIS. See Section 2.1.3.

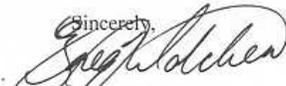
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would be governed by state and federal law, including interstate compacts and international treaties. This means that uses of ALP water in New Mexico beyond what is allocated to the San Juan Water Commission and the Navajo Nation is highly unlikely. If the Ute Tribes do not develop uses for their water on their reservations, then off reservation use of ALP water within Colorado is the only logical scenario. We would like Table 2-53 to be revised in the final EIS to more clearly reflect this condition.

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In conclusion, we believe the DSEIS is a complete and fair document. The DSEIS we feel completely addresses any perceived shortcomings of previous efforts. It is now time for the promises made to be implemented and to bring this long-standing controversy to closure. The current costs of ALP are far less than the costs potentially involved with a prolonged litigation and the community unrest that will continue if ALP is not constructed. Thank you for considering Colorado's comments on this very important matter.

SA5-11 Comment noted.

Sincerely,  
  
Greg Walcher  
Executive Director

<p>GOVERNOR Gary E. Johnson</p>  <p>DIRECTOR AND SECRETARY TO THE COMMISSION Gerald A. Maracchini</p>	<p>STATE OF NEW MEXICO</p> <p><b>DEPARTMENT OF GAME &amp; FISH</b></p> <p>Village Building P.O. Box 25112 Santa Fe, NM 87504</p> <p>Visit our Web Site home page at <a href="http://www.gmfh.state.nm.us">http://www.gmfh.state.nm.us</a> For basic information or to order free publications: 1-800-862-3310</p>	<p>STATE GAME COMMISSION William H. Bielestaf, Chairman Jal, NM</p> <p>But Hestega Las Cruces, NM</p> <p>Steven C. Emory Albuquerque, NM</p> <p>Silvo Padilla Albuquerque, NM</p> <p>Stephen E. Coen Poncha, NM</p> <p>Gar J. Cramer Farmington, NM</p> <p>George A. Ortega Santa Fe, NM</p>
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February 21, 2000

Mr. Pat Schumacher  
Four Corners Division Manager  
Bureau of Reclamation  
835 East 2<sup>nd</sup> Street  
Suite 300  
Durango, CO 81301-5475

Re: Animas - La Plata Project (ALP) Draft Supplemental Environmental Impact Statement  
NMGF No. 6958

Dear Mr. Schumacher:

The New Mexico Department of Game and Fish (Department) has received the Draft Supplemental Environmental Impact Statement (DSEIS) for the proposed Animas - La Plata Project. The ALP project has been designed to provide irrigation and municipal and industrial (M&I) water to the Ute Mountain Ute and the Southern Ute Indian Tribes to meet their senior water rights claims as agreed to in the 1986 Colorado Ute Indian Water Rights Final Settlement Agreement, and to provide M&I water to other project beneficiaries. The Department has reviewed the DSEIS for potential impacts to fish and wildlife in New Mexico. The comments are organized by affected resource as presented in the DSEIS and generally address impacts that will occur upon implementation of Refined Alternative 4. The Department believes that impacts to fish and wildlife in New Mexico as a result of Refined Alternative 6 will be minimal.

**Hydrology Resources**

Section 3.2.4.1.1 of the DSEIS states that hydrologic impacts resulting from water depletions in the Animas River between the Durango Pumping Plant and the confluence with the San Juan River as a result of implementation of Refined Alternative 4 are "less than significant". The Department agrees with this statement only as far as it reflects conclusions based on the specific

SA6-1 Reclamation acknowledges the potential for significant impacts to aquatic resources as a result of the changed hydrology and has revised the potential impacts to aquatic resources from "less than significant" to "potentially significant" for Aquatic Impacts No. 1 and No. 4 (see Section 3.6.4).

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criteria by which the impacts were assessed but believes that this list of criteria is incomplete. Although we are aware that impacts to aquatic resources (which include fish) are analyzed in a separate section, we believe that the direct connection between changes in hydrology (flow) and potential impacts to fish and in-stream habitat availability deserve to be referenced in the hydrologic analysis. For example, it is misleading to conclude that a reduction of 93,100 acre-feet per year of flow at the confluence of the San Juan River and Animas River is "less than significant". In an effort to provide a balanced analysis of the hydrologic impacts, reference should at least be made to impacts to fish and in-stream habitat and the proposed mitigation described in the Aquatic Resources Section (Section 3.6.4.1). Consequently, the conclusion that hydrologic impacts between the Durango Pumping Plant and the confluence of the San Juan River are less than significant should be amended to reflect that some impacts will be significant and will need to be mitigated.

**Aquatic Resources**

The Department is specifically concerned about the "potentially significant" Aquatic Resource Impacts 4 and 7 upon implementation of Refined Alternative 4 and the proposed mitigation for these impacts.

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**Aquatic Resource Impact 4** states that "reductions in flows that correlate to significant decreases in wetted perimeter and average depths could impact native fishes in the Animas River". The Department concurs with the BOR's analysis and conclusion that "it is expected that the operation of the Durango Pumping Plant will chronically reduce native fish populations and associated habitat" in the Animas River from Cedar Hills downstream to the confluence with the San Juan River. Although there is already a significant de-watering problem in the New Mexico reach of the Animas River, this will be significantly worsened from additional depletions associated with ALP. The Department also agrees that it will be difficult to entirely mitigate for this impact on the Animas River and that enhancing and protecting flows in the La Plata drainage for the benefit of native fish is the best hope of appropriate mitigation for native fish impacts in the Animas River.

However, the Department is concerned that no clear mechanism has been identified to protect project water in the La Plata River for the benefit of native fish and questions remain concerning the impact of permanent flows on the balance between native and non-native fish. Further, the mitigation analysis for Hydrologic Impact 3 (page 3-26) states that "...it is unlikely that return flows can be protected and passed downstream during water-short periods". Consequently, the

SA6-2 Reclamation has revised the discussion and has committed to a monitoring program linked to developing effective mitigation for impacts to native fish populations in the Animas River. See Section 3.6.4 for Aquatic Resources Impact 4 and Section 5.4.6 for commitments. The La Plata River is also addressed in these sections.

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Department is unclear about the specific mitigation commitments that will eventually be undertaken for native fish impacts. The Department makes the following recommendations:

1. The first mitigation priority should be to remove all impediments to upstream fish movement and migration in the Animas River from the Durango Pumping Plant to the confluence with the San Juan River, concurrent with the implementation of ALP.
2. The BOR should initiate the comprehensive monitoring study to identify the factors limiting the survival and recruitment of native fish in the Animas River. Specifically, studies should investigate the factors limiting the (re)establishment of the round-tail chub in the lower Animas River, the use of the Animas River as potential spawning habitat for the Colorado River pikeminnow and the conditions causing fish diseases in the lower Animas River. **It should be clearly stated in the DSEIS that monitoring does not constitute mitigation for any impacts associated with ALP.** If these studies indicate that the operation of the Durango Pumping Plant is having a negative impact on the native fishery, BOR should not restrict its mitigation to "reasonable efforts to modify ALP operations to either reduce or eliminate these impacts". Other mitigation approaches in the Animas River should also be considered. Because mitigation will not occur until after the implementation of ALP and the completion of the monitoring study, adequate money should be secured with the initial funding for ALP, so the Department has a reasonable assurance that future mitigation activities can be financed.
3. The BOR should continue its efforts to find a way to protect and enhance flows and habitat in the La Plata River for the benefit of native fish. As stated in our July 19, 1999 letter to the USFWS in Grand Junction, the Department supports this idea in principle, but believes that many concerns must be addressed before being implemented. Currently some native species occur sympatrically with non-natives in some reaches of the river. How would constant maintenance flows affect the balance between native and non-native fish? Would maintenance flows create a bridge between the persisting natives in the upper drainage and the non-natives in the lower drainage, tipping the balance in favor of non-natives in these reaches? Is it possible to remove barriers to fish migration and movement in the New Mexico and Colorado reaches of the La Plata River? How could we manage for large flow variability to give the natives the edge?
4. The BOR should consider the development of additional grow-out ponds for the

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SA6-3 The concern raised is associated with endangered species in the San Juan River as part of the U.S. Fish and Wildlife Service Section 7 consultation on the San Juan River and the proposed mitigation would not be directly related to the ALP Project. However, Reclamation has played, and will continue to play, an active role in the SJRBRIP as that program develops measures to recovery endangered species in the San Juan River. Reclamation also supports legislation to provide additional funding for the SJRBRIP.

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razorback sucker and other endangered fishes for reintroduction into the San Juan River and its tributaries. Our position has been that additional ponds would be greatly beneficial to the recovery of these species and would be appropriate mitigation for impacts to the Animas river associated with the implementation of ALP. The Department is aware that the BOR does not concur with this position. However, we strongly believe that because the San Juan Recovery Implementation Plan (SJ RIP) came about as a direct result of the USFWS Section 7 ESA consultation concerning ALP, that mitigation actions on the San Juan are appropriate.

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The Department is concerned about **Aquatic Resource Impact 7** and the potential for non-native fish escaping from Ridges Basin Reservoir and impacting native and endangered fish in the Animas and San Juan Rivers (and potentially the La Plata River). The Department realizes that management of invasive species is a complex problem and is interested in working further with BOR to explore effective mitigation approaches to prevent this. The Department is also interested in exploring approaches to controlling non-native fish, such as the white sucker and red shiner, that are already established in the Animas, San Juan and La Plata Rivers.

The Department appreciates the opportunity to comment on the DSEIS. If you have any further questions please contact Nic Medley, Aquatic Habitat Biologist of my staff at (505) 827-9907 or nmedley@state.nm.us.

Sincerely,



Tod W. Stevenson, Chief  
Conservation Services Division

TWS/CNM

cc: Lieutenant Governor Walter Bradley  
Brian Hansen (Federal Projects Chief, Ecological Field Office)  
Scott Brown (Assistant Director, NMGF)  
Robert Livingstone (Northwest Area Division Chief, NMGF)

SA6-4 Comment noted. Sections 3.6.4 and 5.4.6 address concerns related to release of non-native fish from Ridges Basin Reservoir.

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# STATE AGENCY

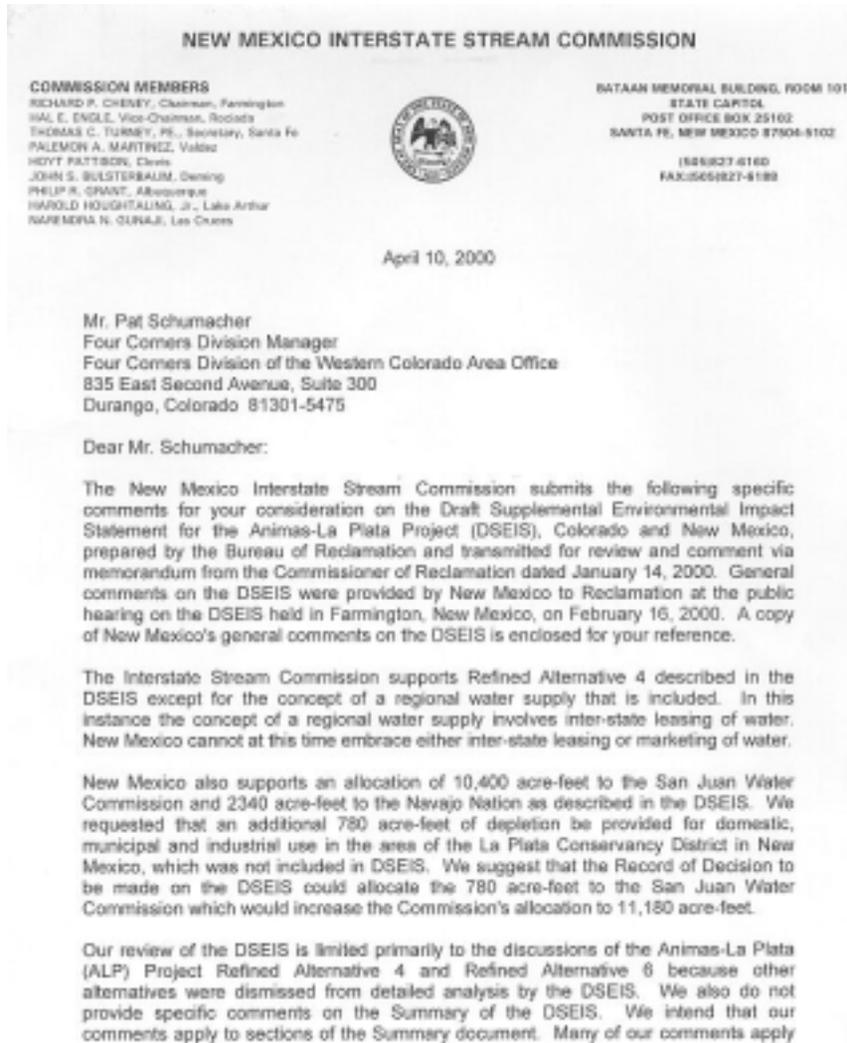
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Jack Kelly (Chief, Fisheries Division, NMGF)  
Chuck Hayes (CSD, Assistant Chief for T&E Species, NMGF)  
David Propst (Endangered Fish Biologist, NMGF)  
Marc Wethington (San Juan Fisheries Biologist, NMGF)  
Peter Wilkinson (Assistant Chief, Fisheries Division, NMGF)



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- SA7-1 Comment noted. A discussion of the constraints on interstate leasing has been included in the FSEIS. See Section 2.1.3 and response to General Comment No. 6.
- SA7-2 To reflect pending legislation before Congress, Section 2.1.1 has been amended to reflect that the State of Colorado would receive 5,230 afy of depletion, and the La Plata Water Conservancy District or the San Juan Water Commission would receive 780 afy of depletion from the ALP Project.

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to multiple portions of the DSEIS, Attachments and Technical Appendices, not all identified herein, because much discussion is repeated throughout the documents.

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Page ES-2, third sentence. The DSEIS contemplates the Colorado Ute Tribes leasing water under their water rights settlement with Colorado to the San Juan Water Commission in New Mexico. Such interstate leasing or marketing of water is described by the DSEIS as non-binding on the project proponents, including the Colorado Ute Tribes. We do not understand how such interstate leasing or marketing of water can be accomplished within existing compacts and federal and state law. The DSEIS itself recognizes that the current legal constraints limit the area to which the tribes may lease their water as being southwestern Colorado (see Technical Appendix 1, page 8, third paragraph). Nor do we understand why, if non-Indian water demand in New Mexico is sufficient to create a market for the lease of water in the future, the DSEIS assumes that communities in New Mexico would lease water marketed by the Colorado Ute Tribes and not the Navajo Nation, the Jicarilla Apache Tribe or non-Indian water right owners in New Mexico.

SA7-3 A discussion of the legal and institutional constraints to interstate leasing and marketing of water has been included in the FSEIS. See Section 2.1.3.

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New Mexico does not, at this time, support interstate leasing or marketing of water. However, should future demand for water in the region develop which suggests interstate leasing or marketing needs to be considered, New Mexico could evaluate any specific proposals for such in light of conditions at that time. These remarks apply to many instances in the DSEIS where interstate leasing or marketing of water is hypothesized as a future use of ALP Project water. These remarks should be considered in evaluating the practicability of Alternative 6 (for example, at page 2-83, table 2-49).

SA7-4 See response to SA7-3 above.

SA7-5 The Colorado Ute Tribes, as outlined in the Settlement Agreement, must either retain the project-reserved water rights or they must commence to litigation or negotiations of their pending reserved water rights claims. The Administration believes that there are too many uncertainties surrounding the election to include such information in a "no action" analysis. The discussion has been expanded in the FSEIS (see Section 2.3.2).

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Page ES-2, third and last incomplete paragraphs. Refined Alternative 4 would provide storage needed to meet planned future municipal, industrial and domestic water demands, and it would provide storage for projected future Colorado Ute Tribe uses to implement the Colorado Ute water rights settlement. Such settlement is a political settlement necessary to legally protect existing water uses in both Colorado and New Mexico, which is of great value. The economic and social impacts of the No Action Alternative, which would negate such settlement, are not evaluated by the DSEIS.

SA7-6 It is true that not all water rights in the states of New Mexico and Colorado relating to the San Juan River Basin are included in the hydrologic baseline depletions described in Table 2-2 of Technical Appendix 2. The states of New Mexico and Colorado provided irrigated acreage and non-agricultural depletions that were meant to represent the depletions that could reasonably be assumed to occur within the foreseeable future without future federal action, in addition to current depletion and depletion associated with projects that had undergone successful Section 7 consultation. The data in Table 2-2 is based upon the depletions utilized as the baseline for the Navajo Indian Irrigation Project Section 7 consultation and are taken from the Biological Assessment of that project, for which a letter of concurrence was issued by the U.S. Fish and Wildlife Service. It represents the most current information on baseline depletions in the San Juan River Basin. Technical Appendix 2 has been modified to reflect revisions and updates of the hydrologic modeling.

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Page ES-5, first complete paragraph, second sentence. The hydrologic baseline condition modeled for evaluating ALP Project operations does not provide for meeting all currently unexercised water rights. Rather, this condition for New Mexico generally is based upon an aggregate level of development historically achieved in areas of the San Juan River Basin, with the exception of inclusion of the full development of the Navajo Indian Irrigation Project (NIIP), the Hammond Project and the Jicarilla Apache Tribe's adjudicated historic use rights (see Technical Appendix 2, page 2-9, table 2-2). Further, the subject sentence is not clear in that the San Juan Water Commission members are not obliged to acquire and develop water rights that are not now used for municipal and industrial purposes. The parenthetical in this sentence should be changed to read: "(water rights identified by Colorado and New Mexico)". These remarks apply also to

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page 2-94, first complete paragraph, second sentence, and Technical Appendix (TA) 2, page 2-6, first sentence. The DSEIS at TA 2, page 2-42, table 2-14, appears to infer that all water rights would be exercised under the baseline without Project condition, which, if so, should be clarified. It is our understanding that the baseline condition does not include fully exercised state permitted or adjudicated water rights.

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Page ES-5. The DSEIS proposes that irrigated land be purchased for or by the Colorado Ute Tribes and the water be left on the land in order to complete fulfillment of the Tribes water rights settlement. It is not clear whether members of the Ute Tribes would farm the lands acquired, or whether water would be leased back to non-Indians to farm. In addition, the DSEIS does not indicate who would administer the associated water rights. We assume that the water rights would retain their appropriation right characteristics and would continue to be administered by the State of Colorado. The full extent of impacts is not evaluated by the DSEIS if the lands purchased are to be transferred into trust land or if the water rights are to become Winters rights or trust assets (see page 2-31, socioeconomic (non-structural) impacts, and page 4-22, second complete paragraph). We do not believe that the DSEIS' promotion of compacts between the Colorado Ute Tribes and local counties to provide for payments on lands converted to Indian Trust is a sufficient measure to protect the water users and interests of the States of New Mexico and Colorado (see page 3-207, first paragraph).

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The non-structural portion of Refined Alternative 4 would include the purchase of 2,400 acres in the La Plata River Basin in Colorado (see page 2-94, table 2-52), and Refined Alternative 6 would include the purchase and transfer of irrigation water rights from 785 acres of irrigated land in the Basin and 200 acre-feet of storage in Red Mesa Reservoir (see page 2-140, table 2-66). It is important that the State of Colorado retain administration of any acquired rights in the La Plata River Basin and any transfer of such rights. Flows of the La Plata River are chronically short for meeting irrigation demands in the Basin during the summer and fall months (see page 3-17, fourth and fifth paragraphs). During these seasons, the State of Colorado frequently administers priorities to enable it to be able to meet its La Plata River Compact delivery obligation to New Mexico at the stateline. Nowhere does the DSEIS mention the La Plata River Compact, which is noticeably absent from the list of laws and agreements that may apply to the ALP Project given at page 7-9, table 7-2. The DSEIS does, however, recognize that the timing and amounts of flow in the La Plata River at the stateline would be altered by Refined Alternative 6 (see page 3-31, second paragraph). Any impacts of alternatives on the ability of Colorado to meet its Compact delivery obligations must be addressed by the DSEIS.

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Page ES-6, first complete paragraph, first bullet statement. This statement says that under Refined Alternative 6, 10,000 acres of irrigated land would be retired in the Pine River Basin in Colorado, resulting in an increase in Pine River flows and Navajo Reservoir inflows of about 15,100 acre-feet per year. This appears inconsistent with the depletion factor of 1.4 acre-feet per acre per year for the Pine River Basin in Colorado given at page 2-27, table 2-7. There may be no inconsistency if the depletion factor

SA7-7 Under the purchase of lands for the 13,000 af of depletion for both Refined Alternative 4 and Refined Alternative 6, the water was assumed to be left on the land. Under the other part of Refined Alternative 6, the water that was purchased would be taken off the land and delivered for M&I purposes. The State of Colorado would continue to administer water rights.

SA7-8 The referenced section was an analysis of private lands that if put into Indian Trust could have a potential of reducing county property taxes, and the potential amounts and effects of this loss. There was no discussion in the effects to water users in either Colorado or New Mexico of placing private lands into Indian Trust. However, although this is a generalization, private lands converted to Indian Trust still have to adhere to the governing law associated with the property's water rights. Changes in use that could affect subsequent water users would have to be addressed in a water court where the public would have the opportunity to request review of pertinent issues including seniority of water rights, historical diversions, possible impacts and mitigations.

SA7-9 The State of Colorado would continue to administer water rights.

SA7-10 The changes anticipated in flows in the La Plata River would not diminish the ability of Colorado to meet its compact delivery requirements. The compact has been listed in Table 7-2, Section 7.5.

SA7-11 The FSEIS has been revised to clarify the rationale concerning depletion factors. See response to comment SA7-12 below.

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represents crop consumptive use only and if the increase in river flows includes both crop use and incidental depletions. However, then a conflict is created with other portions of the DSEIS which suggest that water would continue to be provided to maintain wetlands now supported by incidental depletions (see page 2-147, second and third paragraphs, and page 3-32, third paragraph, last sentence). Also, it is not clear whether it is valid to assume that no losses would occur on the increased river flows between the location of retired lands in the Pine River Basin and Navajo Reservoir.

12

SA7-12 The difference between the 1.4 af per acre yield stated for transfers in the Pine Basin and the 15,100 af yield from retirement of agricultural lands results from the basis of the two numbers. They are both based on net depletion due to crop water use with no assumed savings in incidental losses, those being required to maintain wetlands and support ditch losses associated with other lands being irrigated. The difference occurs because the 1.4 af is a firm yield estimate, while the 15,100 af is the average annual yield. The assumption of no additional losses for the recovery of the 15,100 af is based on the fact that none of the incidental losses were assumed to be recovered. While it is not strictly proven, it is a reasonable assumption since the Pine River is a live stream for most of its reach below Vallecito Reservoir, other than for a short distance below the higher diversions. At the level the studies were completed, any other assumption would not have more credibility. See Section 2.3.2 for additional discussion.

13

Further, we are concerned that storage of "ALP Project" water in Navajo Reservoir is inconsistent with the use and administration of the Navajo Reservoir Supply as defined in the settlement contract between the United States and the Jicarilla Apache Tribe, and that it would reduce the storage capacity available to satisfy Indian trust issues and other demands on Navajo Reservoir in New Mexico. Our concerns regarding the contemplation of interstate leasing or marketing inferred by this alternative are as provided above. In addition, the indicated 15,100 acre-feet of water, less reservoir evaporation losses, then available from Navajo Reservoir as a result of acquiring rights in the Pine River Basin would provide very little of the 100,000 acre-feet per year diversion demand and 50,000 acre-feet per year depletion demand projected from the San Juan River in New Mexico (see pages 2-141 through 2-143, table 2-67). The remainder of the demand might have to be met from the Navajo Reservoir Supply to the detriment of certain existing water users and Indian tribes in New Mexico. In fact, the DSEIS at page 3-30, last paragraph, indicates that under Refined Alternative 6, no storage in Navajo Reservoir would be left to meet the water demands of the Navajo Nation and the Jicarilla Apache Tribe.

SA7-13 It is acknowledged in the FSEIS that implementation of Refined Alternate 6 would seriously restrict future uses of the waters of Navajo Reservoir. Included in these future uses would be the settlement of water right claims of the Jicarilla Apaches.

14

The acquisition and transfer of an additional 5,333 acres of water rights from the Pine River Basin in Colorado to provide partial mitigation for the detrimental impacts on the Navajo Reservoir Supply is mentioned in the DSEIS (see page 3-31, first paragraph). But, the evaluation of full mitigation and consequent impacts and costs is not included in the DSEIS. For example, the DSEIS does not discuss the impacts to the Jicarilla Apache Tribe or others if they are unable to fully utilize the Navajo Reservoir Supply pursuant to the water supply contracts. These remarks apply also to page 2-143, last paragraph. It is inconsistent for the DSEIS to not explore full water supply mitigation costs on the one hand and to evaluate full wetlands mitigation costs on the other hand (see, for example, pages 3-74, third paragraph, and page 3-75, first incomplete paragraph). In any event, as alluded to elsewhere in these comments, New Mexico cannot support mitigation measures that would require the interstate transfer of water rights in Colorado to uses in New Mexico such as the Navajo-Gallup Water Supply Project (see page 4-25, Refined Alternative 6 impact 2).

SA7-14 A further discussion of Jicarilla water rights in relation to the ALP and the Navajo Nation projects has been included in the FSEIS in Section 4.2.3.

15

SA7-15 Comment noted.

16

Refined Alternative 6 would provide water from Navajo Reservoir to communities in New Mexico, including Farmington and Aztec (see, for example, page 2-142, table 2-67, and page 3-28, fifth paragraph, first sentence). However, the DSEIS does not include diversion facilities to deliver water from the San Juan River to Farmington and Aztec, which currently divert water from the Animas River. Nor does the DSEIS evaluate the

SA7-16 Comment noted. The discussion of diversion facilities to serve potential future water uses in the FSEIS is intended for illustrative purposes only. If any of the future water uses are implemented, full NEPA compliance as described under NEPA "triggers" in Section 2.5.2 of the FSEIS will be undertaken.

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costs and environmental impacts of such facilities and any improvements needed to water treatment plants due to changing sources of water (see page 2-154, second paragraph, and TA 2, page 2-16, second paragraph, fifth sentence). This is inconsistent with the DSEIS evaluating costs and impacts of diversion facilities under Refined Alternative 6 for such hypothesized Colorado Ute Tribes' end uses as the coal-fired and gas-fired power plants (see page 2-151, map 2-10).

17

Page 1-10, second complete paragraph. If the impacts of possible future end uses to which ALP Project water may be put are to be evaluated, the assumptions regarding water use at the identified facilities must be consistent with the hypothesized use. For example, the impacts analysis in the DSEIS assumes that the Southern Ute coal-fired power plant, livestock and wildlife uses, and golf courses all deplete 50 percent of their diversions and return to the streams the remaining 50 percent of the diversions (see, for example, page 2-9, table 2-2). Reasonable assumptions consistent with the hypothesized end uses would be that the coal-fired power plant and livestock and wildlife uses deplete 100 percent of their diversions with no return flows and golf courses deplete more than 50 percent of their diversions (see TA 2, page 2-11, first paragraph). The assumption of 50 percent return flow from all municipal and industrial uses is not realistic and results in a substantial over-estimate of the diversions required for the specified end uses (compare in TA 2 table 2-3 at page 2-12 with table 2-4 at page 2-13).

SA7-17 An overall depletion factor of 50 percent represents a commonly accepted "rule of thumb" for M&I projects. In Section 2.1.1, the text has been revised to describe further the rationale for using a 50 percent depletion factor.

18

In addition, consistent diversion and return flow assumptions should be used throughout the DSEIS analysis. The DSEIS uses different diversion and return flow assumptions for Alternative 6b than are used for Alternative 4 and the refinements to these alternatives (compare page 2-45, table 2-27, to pages 2-95, table 2-53, and 2-141, table 2-67). The assumptions for Alternative 6b as given in table 2-27 would indicate return flows of substantially less than 50 percent for the Colorado Ute Tribes' future municipal and industrial uses of ALP Project water.

SA7-18 The discussion of overall depletion factors for alternatives has been revised in Chapter 2 of the FSEIS for consistency.

19

Page 1-12, last complete paragraph. The DSEIS states that development of the ALP Project would require various contracts and agreements to be negotiated with several entities and various permits and licenses would be needed from government regulatory agencies. The existing ALP Project repayment contract number 0-07-40-R1080 between the United States and the San Juan Water Commission (SJWC) provides a perpetual water allocation from the ALP Project for the SJWC. The terms of the existing SJWC contract must be continued so that the SJWC can meet its future municipal and industrial water demands. Diversion permits issued by the State of New Mexico to members of the SJWC are based on the existing SJWC contract.

SA7-19 It is anticipated that the San Juan Water Commission's current contract with the United States will need to be amended to reflect a different allocation of project water and consequently, a different allocation of project costs.

20

Page 2-2, last two sentences. How would a change in the cost allocation affect the costs allocated to the San Juan Water Commission and their ability to pay for their share of the ALP Project?

SA7-20 This section of the document refers to the possible allocation of 780 af of M&I water depletion to the La Plata Conservancy District in New Mexico as proposed in HR3112. This allocation should not affect the San Juan Water Commission unless they assume the costs of this water for the La Plata Conservancy District. Attachment E has been revised to reflect the most current understanding of the allocation of project costs to the project beneficiaries. However, any agreement on the project costs to be paid by the San Juan Water Commission will be based on the outcome of negotiations.

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21

Page 2-3, last complete paragraph, fifth sentence. The DSEIS states that water could be stored in Navajo Reservoir for the San Juan Water Commission's uses. We understand that under the ALP Project, only the water diverted for Bloomfield and the West Hammond and Lee Acres Mutual Domestic Water Users would be supplied directly from the Navajo Reservoir Supply and the resulting depletions would be replaced by the ALP Project water supply.

SA7-21 Under several of the alternatives presented in Section 2.3.2 of the FSEIS, project water would be supplied from Navajo Reservoir and the resulting depletions would be replaced by project water from the Animas River. This concept also applied to the Preferred Alternative. Under Alternative 6, water will be stored and supplied from Navajo Reservoir with no make up of depletions from the Animas River.

22

Page 2-26, last paragraph, parenthetical following first sentence. It is suggested that the language in the parenthetical be replaced with the following language if this is what is intended: "The term depletion relates to the sum of the consumptive use of water by crops, or the consumptive irrigation requirement, plus incidental depletions which result from the process of diverting and applying water to the farms, and it represents water that, once diverted, does not reappear in the streams as return flow." This explanation would appear consistent with many other portions of the DSEIS where depletions denote river depletions, thus avoiding confusion.

SA7-22 Comments noted and appropriate revisions made in the FSEIS in Section 2.3.2.

23

However, the DSEIS also refers to "the historical consumptive use (or depletions) of existing irrigation rights" and the transferability of water rights and historical depletions (see page 2-43, first paragraph). The consumptive use of existing irrigation differs from river depletion associated with the rights by the amount of incidental depletions. Rights are vested in the crop consumptive use, and exclude depletions that are incidental to the development of the consumptive use. Only the consumptive use, and not water "saved" by reductions in incidental depletions, may be transferred under state appropriation law. These remarks apply also to page 2-48, first two paragraphs, and page 2-52, page 2-29, assuming the DSEIS contemplates transfers of incidental depletions to the ALP Project, and to the discussion for mitigating wetlands impacts at pages 2-147 and 2-148, section 2.5.2.4.2, regarding Refined Alternative 6. The DSEIS does not identify the acreage or cost of irrigation water rights that would have to be acquired and transferred to wetlands or wildlife purposes to mitigate wetland impacts. Despite the inference to the contrary by the DSEIS at other locations, incidental depletions or water over and above "irrigation depletions" cannot simply be left untransferred and in place to support wetlands associated with the irrigated lands from which the crop consumptive use is transferred (see page 3-32, third paragraph, last sentence, and TA 2, page 2-33, fourth paragraph, last sentence). Again, the term "depletion" as used here is confusing if not misleading as the common practice is to include all water use associated with irrigation in the term "irrigation depletion."

SA7-23 Comment noted. The text of the FSEIS has been modified to reflect changes suggested by the comment. In the calculations of how many acres would be required to obtain a quantity of water, only the crop consumptive use was taken into consideration. No incidental depletions associated with the irrigation rights were taken into consideration in the calculations.

24

Pages 2-27 and 2-28. Tables 2-8 and 2-9 indicate that there are potentially 20,000 acres of irrigated land available for purchase in New Mexico apparently for the benefit of the Colorado Ute Tribes as a part of the Colorado Ute Tribes' 1988 water rights settlement. This settlement was between the Tribes, the United States and the State of Colorado. The State of New Mexico is not a party to the settlement. We do not understand the rationale for listing lands in New Mexico as being potentially available to meet the settlement, and New Mexico objects to such being included in the DSEIS. These remarks also apply to page 2-46, table 2-28.

SA7-24 Comment noted. A footnote has been added in Table 2-8 in Section 2.3.2 of the FSEIS.

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- 25 | The DSEIS also speculates as to the development in New Mexico of a gas-fired power plant by the Ute Mountain Ute Tribe which would provide, via diversions from the San Juan River in New Mexico, depletions to the Tribe under its water rights settlement with the State of Colorado (see page 2-44, item 9, and elsewhere). In addition, the DSEIS contemplates depletions in New Mexico of Colorado Ute Tribes' water from the settlement via interstate leasing or marketing of water from the Tribes to communities in New Mexico. Again, New Mexico is not a party to the settlement. Further, a major concern is the accounting of water under provisions of the Upper Colorado River Basin Compact. Under the Compact, the uses would be charged to the State of New Mexico's Compact apportionment because of where the use would be made. Consequently, less water would be available from New Mexico's apportionment to satisfy water demands of the Navajo Nation and Jicarilla Apache Tribe as well as non-Indian uses in New Mexico.
- SA7-25 Any use of Colorado Ute Indian Settlement water in New Mexico or outside of Colorado would require changes be made to interstate compacts and/or state water regulations. What is presented in the FSEIS is a non-binding way of how the Colorado Ute Tribes could provide for some of the regional water needs if laws and regulations allow.
- 26 | Page 2-37, Table 2-19. This table indicates that Alternative 4 would negatively impact flow regime in the Animas and San Juan rivers, and it would have a positive benefit to endangered fish in the San Juan River. These two impacts as described do not appear consistent or compatible. Also, it is arguable as to whether the impacts on river flows would be negative when low flows during much of the year would be augmented by releases of water from Ridges Basin Reservoir and ALP Project return flows. The DSEIS also indicates that Alternative 4 would not affect meeting the San Juan River flow recommendations of the San Juan River Basin Recovery Implementation Program (SJRBRIP) (see page 2-38, table 2-20, practicability impacts). It is not clear whether this is a positive or neutral benefit statement regarding endangered fish.
- SA7-26 Comment noted. Table 2-27 in Section 2.3.2 has been modified as appropriate in the FSEIS.
- 27 | Pages 2-42 through 2-59, Section 2.3.2.6. This section evaluates Alternative 6. Any version of Alternative 6 poses many concerns for New Mexico, including no water supply for the San Juan Water Commission and the Navajo Nation, routing water from lands purchased in the Pine River Basin in Colorado through Navajo Reservoir and downstream in New Mexico to serve municipal and industrial demands, providing water from storage in Navajo Reservoir and issues arising out of existing institutional constraints. New Mexico would object to any version of Alternative 6.
- SA7-27 Comment noted.
- 28 | Page 2-75, Section 2.3.3.4, seventh bullet. This statement suggests that Indian tribes in New Mexico may develop some water from the San Juan River if the structural alternative for the ALP Project is implemented. Future development of water from the San Juan River by the Jicarilla Apache Tribe and the Navajo Nation can occur without the ALP Project (for example, completion of NIIP and other water projects).
- Page 2-104, first paragraph. The DSEIS is unclear or confusing as to reservoir storage allocations for Ridges Basin Reservoir. The minimum and inactive capacities are listed as 30,000 acre-feet. The DSEIS elsewhere describes reservoir operations under Refined Alternative 4 that would allow for drawdown below this minimum pool during dry years to as low as 20,800 acre-feet (see page 2-117, first paragraph, and page 3-25, first incomplete paragraph). Without consideration of Indian Trust assets in New
- SA7-28 The minimum reservoir capacity listed in Section 2.5.1 has been footnoted with the explanation that this is the design minimum capacity. Operational analysis shows that for 1 year in 65 this minimum would be violated when operated for mitigation of Indian Trust Assets.

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28 (con't)		<p>Mexico, the reservoir would be operated with drawdown to a minimum of about 40,000 acre-feet of storage; but, with operations to mitigate impacts to Indian Trust assets, the reservoir would be operated with drawdown to a minimum of approximately 20,000 acre-feet of storage (see TA 2, page 2-30, first two paragraphs, and TA 2, page 2-43, table 2-14). It appears that the operations are actually designed for an inactive pool of 20,000 acre-feet and an active pool of 100,000 acre-feet.</p>	
29		<p>Page 2-111. Alternative NNMP-3, which is not the preferred alternative, would provide the water supply for the Navajo Nation Municipal Pipeline from Navajo Reservoir, which would reduce the ability of the reservoir to supply water for other potential purposes. New Mexico would object to NNMP-3 and recommends the preferred alternative, NNMP-1, be selected.</p> <p>New Mexico fully supports authorization of construction of the pipeline described as alternative NNMP-1 as a non-reimbursable feature. Our support of the Navajo Nation municipal pipeline assumes that the Navajo Nation will not file additional claims against the New Mexico non-Indian beneficiaries of the project.</p>	<p>SA7-29 Comment noted.</p>
30		<p>Page 2 124, last paragraph. The D&amp;EIS indicates that the purchase of the irrigated lands would leave water on the land. However, the discussion also states that the cost of acquiring the land includes the cost of transferring water rights, which seems to be in conflict with leaving the water on the land.</p>	<p>SA7-30 There is no conflict. The water rights would have to be transferred from previous water rights holders to the Colorado Ute Tribes.</p>
31		<p>Page 2-140, Table 2-66, and page 2-144, fifth through last paragraphs. The DSEIS indicates that coordinated operation of Navajo Reservoir for more efficient utilization of water supplies could make 36,891 acre-feet of water available under Refined Alternative 6. The DSEIS does not explain how the Navajo Reservoir Supply is handled, nor how ALP Project water derived from coordination of reservoir operations may be regulated by Navajo Dam. Further, it is not clear how the DSEIS is able to find 36,891 acre-feet of depletion per year available from the Navajo Reservoir Supply and other streamflow sources for future water uses under Refined Alternative 6 when the DSEIS finds elsewhere that without an ALP Project, only 20,000 acre-feet per year of supply can be provided for future Indian water development in New Mexico, including the Hogback Irrigation and Navajo-Gallup Water Supply projects (see page 3-23, last paragraph, second sentence, and page 3-16, first four paragraphs). Additional explanation of sources of water considered in meeting future water development would be helpful for Refined Alternative 6 and the no action alternative, or baseline condition. In any event, this assessment of the use of Navajo Reservoir storage completely disregards the purpose of Navajo Reservoir. New Mexico has developed its plan for use of the state's Upper Colorado River Basin Compact apportionment using the yield of Navajo Reservoir, which plan includes future water development by the Navajo Nation and the Jicarilla Apache Tribe. Refined Alternative 6 would use all the remaining reservoir supply for ALP Project uses, leaving no storage left for meeting Indian water development needs in New Mexico such as a Jicarilla water development, the Navajo-Gallup Water Supply Project and the Hogback Irrigation Project (see page 5-7, fourth</p>	<p>SA7-31 Only a portion of the 36,891 af of water available from the stream system comes from Navajo Dam. The specified yield includes flows available in the Animas and Lower San Juan rivers, with Navajo Dam providing water only in water short periods. The 20,000 af of water available to meet Indian Trust water rights assumes all diversions come from Navajo Dam and must be met 100% of the time, compared to the requirement to only meet demands when downstream tributary flows are inadequate. The impacts to other uses from Navajo Dam, primarily Indian Trust water rights, are acknowledged and discussed in Chapters 3 and 4 and Appendix 2. While the intended beneficiaries of Navajo Dam water storage are not listed, the two primary uses named are specifically addressed in these chapters.</p>

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bullet, and TA 2, page 2-39, last paragraph, first two sentences). As indicated previously, New Mexico objects to any version of Alternative 6.

32

Chapter 3. Section 1105.A. of the State of New Mexico Standards for Interstate and Intrastate Surface Waters, effective February 23, 2000, states: "Surface waters of the state shall be free of water contaminants from other than natural causes that will settle and damage or impair the normal growth, function, or reproduction of aquatic life or significantly alter the physical or chemical properties of the bottom." Reclamation should evaluate whether the preferred alternative meets this standard. The DSEIS does not appear to present sufficient site-specific technical analysis or discussion to conclude whether any alternative described would violate the standard. Because the ALP Project is related to the reoperation of Navajo Dam, some of the hydraulic, sediment transport and sedimentation analyses for the San Juan River presented in the May 1999 report on Flow Recommendations for the San Juan River, prepared by the Biology Committee of the San Juan River Basin Recovery Implementation Program, may be applicable. We are not aware of any technical analysis of sediment transport or sedimentation for the Animas River or La Plata River that might have been done previously for the ALP Project.

33

Page 3-4, last paragraph, and page 3-5, first paragraph. New Mexico does not agree with many of the data and assumptions used in the RiverWare model of the San Juan River Basin. We previously submitted comments on the model to the Bureau of Reclamation, the Bureau of Indian Affairs and the SJRBRIP's Biology Committee, and while some of the problems and concerns we have identified have been reconciled, others have not. Our disagreement with model data has been reiterated before the Coordination Committee of the SJRBRIP on several occasions. We have not had opportunity to review the details of revisions to the model which have been made since June 1999 to incorporate modeling of the ALP Project for development of the DSEIS and for use in the NIIP Section 7 consultation. While the model may prove to be adequate for analyzing water availability for meeting the SJRBRIP flow recommendations, New Mexico objects to the use of the model, its data or its assumptions for other purposes, including for determining water uses, water rights and water availability under compact apportionments. These remarks apply also to TA 2, pages 2-3 through 2-5, Section entitled "RiverWare Model of the San Juan River".

Further, the DSEIS may give the impression that the RiverWare model for the Basin is one embraced by the SJRBRIP and its participants. The model is a product of the Bureau of Reclamation and the Bureau of Indian Affairs. Neither the State of Colorado nor the State of New Mexico, nor the water development interests, have agreed with the model data and assumptions. Other participants in the SJRBRIP have not participated in detailed model reviews. The Bureau of Indian Affairs and Reclamation have modified, and continue to modify, the model for Endangered Species Act (ESA) Section 7 consultations and National Environmental Policy Act (NEPA) environmental assessments for such projects as completion of the NIIP, the ALP Project, reoperation of Navajo Dam and the Navajo-Gallup Water Supply Project (NGWSP). The use of the

- SA7-32 Sediment transport analysis has not been completed for the Animas River. Sediment impacts for construction activities have been discussed, along with mitigation and impact avoidance measures. Changes in sediment transport capacity from depletions in the Animas River and San Juan River are not addressed specifically. A section discussion on this impact will be added. The flow recommendations take care of the issues in the San Juan River and this will be discussed. In the Animas River the altered flow regime will have a negligible impact on the transport of fine sediments that could be a problem to habitat. The reduction in peak flows may cause a slight decrease in coarse material transport, although it is likely negligible as well.
- SA7-33 It is recognized by all that have been associated with the San Juan model that there are areas where improvements could be made. Many of the improvements recommended by the state of New Mexico and others have been made and are incorporated in the model. It is Reclamation's belief that the model represents the best information available at the time for analysis of hydrologic impacts from the project, although there may still be deficiencies in the model.

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model, and definitions of depletions in it, have been determined by the two federal agencies acting on their own behalf.

34

The baseline depletions given at page 3-6, table 3.2-1, and at TA 2, pages 2-9 and 2-10, table 2-2, do not reflect the baseline depletions previously provided by the New Mexico Interstate Stream Commission to the Bureau of Reclamation's modeling team for use in the San Juan River Basin RiverWare Model. New Mexico's recommended baseline depletions for irrigation uses in the state are less than those included in the DSEIS, especially for the La Plata River Basin where the model does not take into account the chronic, substantial water supply shortages that recur each year. Further, of the minor depletions in New Mexico approved by the Fish and Wildlife Service from 1992-1998, all but the Navajo french fry factory depletion and a portion of the San Juan Basin Water Haulers' depletion are continuations of uses included in the baseline depletions of the October 1991 Biological Opinion on the ALP Project (see also TA 2, page 2-7, table 2-1). It is not clear why the DSEIS assumes that all future minor depletions to be approved beginning in the year 2000 will be in New Mexico and none in Colorado. Also, it is not clear why the baseline depletions differ from the depletion base used in the SJRBRIIP Flow Recommendations report (compare, for example, table 3.2-1 to pages C-5 and C-6, table 1-3).

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Page 3-10, Figure 3.2-1. This figure indicates that the stateline gage on the La Plata River is not included in the model for Refined Alternative 4, and that the model includes two return flow locations to the San Juan River for the Ojo Amarillo. These items should be checked for accuracy. The "Jicarilla Project" should be defined. These remarks apply also to TA 2, page 2-14, figure 2-1.

36

Page 3-12, last two paragraphs. It is not clear that existing and future Indian water uses are treated the same as existing non-Indian water uses. For example, the baseline depletions include non-Indian irrigation depletions in New Mexico which correspond to an aggregate level of historic, contemporary irrigated acreage by geographic area which is less than the full water right acreage for such area. In comparison, the baseline depletions given at page 3-8, table 3.2-2, include a Jicarilla Apache Tribe irrigation depletion which corresponds to the Tribe's full water rights adjudicated for historic and existing uses and include a depletion corresponding to the full authorized project acreage for the NIIP, assuming in both instances zero fallow, idle or abandoned acreage. Consequently, impacts to the baseline depletions are not equal.

37

Page 3-16, second through fourth paragraphs. The 28,000 acre-feet of depletion for the Navajo Nation's portion of the NGWSP is for project planning purposes and does not at this time constitute a Navajo Nation water right. Also, the 16,420 acre-feet of depletion transferred from the Hogback and Fruitland projects to the NIIP for ESA Section 7 consultation purposes reflects depletions associated with project acreage which had not been developed or was not irrigated under current conditions. Historically, the Hogback Irrigation Project, including the Hogback Extension, was not fully utilized to the

SA7-34 It is true that the depletion baseline for this FSEIS is different than the depletion base in the flow recommendation report. Two Section 7 consultations have been completed since the flow recommendation report was published (the Navajo Indian Irrigation Project and an inter-service consultation on 3,000 af of minor depletions). The baseline for this project includes the depletions listed for those consultations. It is correct to assert that the depletions are higher in the baseline for New Mexico than those provided by New Mexico. This is due, in part, to the methods of calculating Natural Flows and the necessity of computing historic depletions in the same manner for the model to preserve continuity. Future minor depletions are assumed taken in the model below the confluence with the Animas. They are not intended to represent just New Mexico depletions, but are taken at this point for model simplification purposes, since their precise location is not known. If the baseline depletions are overstated, as suggested, then the impacts from this project are less, resulting in a conservative analysis.

SA7-35 Figure 3.2-1 has been corrected in the FSEIS.

SA7-36 The Jicarilla Apache Tribe historic water right specified in their water rights settlement was included in the NIIP Section 7 consultation and has been included in the same manner here as a right that has historically occurred and is likely to occur again in the future without further federal action. The NIIP water right is included as it was described in the Section 7 consultation. Having undergone Section 7 consultation, it must be included in the baseline for future consultations and environmental analysis. It was the intent, with the input of the states, to include in the non-Indian water rights those that were reasonably likely to occur in the foreseeable future that will involve no federal action, thus avoiding Section 7 consultation.

SA7-37 None of the Navajo Nation's water rights on the San Juan River have been adjudicated. Some have long been recognized by the state of New Mexico and others in Colorado River Compact accounting and other arenas, but have not been adjudicated. Given proceedings in other state water rights adjudications and settlements, it is likely that the Hogback rights will be recognized, since they represent historic use, for the most part. The Navajo-Gallup project has long been recognized by the state of New Mexico as a future use in the San Juan Basin and clearly meets a need for domestic water to the people of the Navajo Nation. They fit under the broad definition of Indian Trust Assets, although not yet adjudicated. Nothing beyond these proposed or historic projects have been listed as trust assets for the Navajo Nation, although they claim a right to much more water. We believe that categorizing these uses as Indian Trust Assets is appropriate. Qualifying language will be added to clearly identify that they have not been adjudicated.

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authorized or planned acreage. Water rights claims of the Navajo Nation for the Hogback and Fruitland projects have not been adjudicated.

38

The DSEIS appears to downplay the potential practical and legal impacts to non-Indian water users in New Mexico if the Jicarilla Apache Tribe and the Navajo Nation are not able to fully develop their future water uses due to the operation of Navajo Reservoir for the ALP Project or the SRJBRIP flow recommendations. Impacts to Indian Trust assets and to plans for future Indian water development in New Mexico should be considered as significant as impacts to existing water uses. The existing uses might be threatened by curtailment in order to permit the Indians opportunity to develop wet water under their senior water rights.

SA7-38 Comment noted. Changes to the discussion of ITAs have been made in the FSEIS in Section 4.6.

39

Page 3-16, sixth paragraph. The DSEIS states that the depletions, enhancements and streamflow modifications of Refined Alternative 4 and Refined Alternative 6 would affect the water resources of the region and that these changes would be conducted within existing interstate water agreements and state water laws and regulations. We do not understand how the interstate leasing or marketing of water, the operation of Navajo Reservoir and the administration of diversions in New Mexico as is contemplated could be accomplished within existing constraints and regulations of interstate compacts, federal legislation and state law.

SA7-39 Comment noted. See Section 2.1.3.

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Page 3-20, first three paragraphs. We are not able to track how most of the impacts on streamflows are computed. This remark applies also to TA 2, page 2-19, last three paragraphs, and TA 2, page 2-26, second paragraph.

SA7-40 Sufficient data are not provided to track the computation of impacts. Technical Appendix 2 includes model output for each model run, but all the data necessary to determine the difference between the runs is not provided and is typically beyond the scope of an EIS. All model input and output can be provided upon request.

41

Page 3-23, last paragraph. We are not able to determine how 20,000 acre-feet of depletion for the baseline condition was determined to be available for Indian Trust water development in New Mexico. Water available below Navajo Dam also is potentially available to water development such as rehabilitation of the Hogback Irrigation Project.

SA7-41 The impact was computed by diverting water from Navajo Reservoir in addition to ALP Project demands until the flow recommendations could not be met. I See Section 3.2.4.

42

Page 3-25, first two complete paragraphs. Under Refined Alternative 4, the flow of the La Plata River at the stateline might increase by about 15,500 acre-feet per year. This is the amount of ALP Project return flows estimated primarily from non-binding Colorado Ute Tribes' future end uses (see pages 3-8 and 3-9, table 3.2-2). However, with reasonable return flow assumptions for such non-binding uses as the coal-fired and gas-fired power plants, as discussed above, the increase in annual La Plata River flows would amount to only about 1,400 acre-feet per year or less than 2 cfs at the location of return in Colorado (see page 3-25, last paragraph). The DSEIS elsewhere states that return flows from non-binding uses cannot be guaranteed, and therefore, that 13,500 acre-feet of return flow from the hypothesized Southern Ute Tribe's coal-fired powerplant is determined to cause insignificant impacts simply because the return flow cannot be assured (see TA 2, page 2-38, last paragraph, first three sentences). The DSEIS is inconsistent in characterizing the assumed impacts of ALP Project alternatives.

SA7-42 Reclamation believes that the impact discussion in the various locations mentioned is consistent. As long as the water stays in the stream, the impact is beneficial. The statement that the impact is less than significant because it is non-binding and is meant to limit relying on any beneficial impacts that might be caused by a return flow that would only occur if some other use besides the power plant was employed and that the return flows came back to the La Plata River. By the definitions stated under significance criteria, there are no negative impacts to water supply from this return flow unless the return flows are not protected from diversion. The positive impacts are not counted as significant because they may not occur and if they do not, there are no negative impacts. Therefore, all impacts are less than significant.

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- 43 Further, the DSEIS assumes that the full amount of return flow would reach the river and flow downstream both undiverted and without loss to the stateline and eventually to the San Juan River (see pages 3-14 and 3-15, table 3.2-3, and page 3-26, table 3.2-7). Such an assumption ignores the hydrology of the La Plata River. The La Plata River goes dry within New Mexico during much of the irrigation season, and much of this small amount of additional flow at the stateline would be lost to infiltration and evaporation and never reach the mouth of the La Plata River (see page 3-17, fifth paragraph, second and third sentences). Also, irrigators in the La Plata River Basin in both Colorado and New Mexico annually suffer substantial water supply shortages from the La Plata River under current conditions. Any additional small amount of flow in the system would most often be diverted for irrigation, if not be lost in the river channel. The San Juan River Basin RiverWare Model ignores these facts by placing return flows to the La Plata River below any diversions so that none of the return flows are depleted by the model (see TA 2, page 2-11, second paragraph, first two sentences).
- 44 The DSEIS would place a burden on the State of New Mexico of protecting the return flows from the stateline to the confluence with the San Juan River (see page 3-27, first paragraph). Such protection is not possible or practical due to the small quantity of return flow and due to natural channel losses. New Mexico cannot commit to protect such return flows based on the information included in the DSEIS. These remarks also apply to TA 2, page 2-21, last five paragraphs; TA 2, page 2-38, last three paragraphs; and TA 3, page 3-67, third and fourth complete paragraphs.
- 45 At page 3-27, first paragraph, last three sentences, the DSEIS implies that ALP Project return flows to the La Plata River likely cannot be protected, and that ALP Project water uses would be reduced by the amount of depletion of such return flows. It is assumed that in such event the depletion of return flow would be charged to the depletion by the power plant or whatever the use might be in Colorado. New Mexico would strongly object if an attempt is made to charge incidental depletions of return flows resulting from water uses in Colorado against New Mexico's compact apportionment, or if any attempt is made to reduce ALP Project water allocations to the San Juan Water Commission and Navajo Nation in New Mexico as a result of such depletion of return flows. The San Juan Water Commission and other non-Indian ALP Project contractors are paying for a firm and specific yield from the project. The DSEIS does not specify which project uses would be reduced by the amount of incidental return flow depletion in order to keep ALP Project total annual depletions to no more than 57,100 acre-feet, or which project contractor would be responsible for paying for this portion of the project yield. All these remarks regarding La Plata River flows and administration also apply to page B-62, first three complete paragraphs.
- 46 Page 3-31, third and fourth paragraphs. Hydrology impact 3 for Refined Alternative 6 suggests that because the diversion for the non-binding Colorado Ute Tribes' uses is downstream of the mouth of the La Plata River, the return flow from the diversion, which would be to the La Plata River, is "Project" water and would be subject to protection as
- SA7-43 There are reaches of the La Plata River below the state line that do not have perennial flow. However, they are often wet and the evaporative loss increases by having water in the stream is very small and has been ignored in the modeling. Channel losses to seepage are not losses to the hydrology of the system but occur as a change in timing, which is also not addressed. Getting water past water-short irrigators is problematic and has been discussed as a concern. The mitigation for this impact, discussed in Section 3.2.4, indicates that any unavoidable depletion of these return flows would be accounted to the 57,100 af project depletion.
- SA7-44 The difficulty of this protection is noted in Section 3.2.4. See response to Comment SA7-43 above.
- SA7-45 If the return flows are depleted in Colorado, the depletion would be charged to Colorado depletion. However, if the return flows cannot be protected and they are depleted (water diverted for irrigation or M&I uses) in New Mexico, that depletion would be charged to New Mexico's allocations.
- SA7-46 The initial diversion must be made before return flow is available. In a situation where the diversion point is downstream of the return flow point, once the diversion is initially made and the return flows are occurring, then the return flow water is available to be re-diverted. This requires an initial diversion for Ridges Basin Reservoir to meet the demands until the return flow is available. Since all demands will not occur instantaneously, water is available within the prescribed depletion to handle this startup situation. An agreement between Colorado and New Mexico will likely be required to allow New Mexico to assist in administration of project water.

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- 46 (con't) such in New Mexico. We do not understand such rationale. Sufficient water has to be at the diversion to enable the diversion to be made in the first place. The return flow cannot result until after the diversion is made. Further, Colorado's "Project" water, if allowed to flow down the La Plata River for diversion in New Mexico, would not be water appropriated under New Mexico law, and therefore, may not be subject to administration by New Mexico.
- 47 Page 3-32, first paragraph. Hydrology impact 5 is listed as "less than significant." However, the indicated minimum Navajo Reservoir content would drop from 684,600 acre-feet to 642,900 acre-feet, which content is below the elevation at which the Navajo Indian Irrigation Project canal can divert sufficient water to meet demands. How can this impact be listed as less than significant?
- 48 Page 3-69. The DSEIS proposes the creation and enhancement of wetlands along the La Plata River in Colorado as a means of mitigating the loss of wetlands due to implementation of the structural components of Refined Alternative 4 (see also page 3-79, map 3-1). Decreases in streamflow that might be caused by such mitigation must not be allowed to cause the State of Colorado to be unable to meet its water delivery obligations to New Mexico under the La Plata River Compact. While water rights for wetlands and wildlife purposes might be obtained, Colorado must be able to curtail wetland depletions under the priority system as it currently and regularly does irrigation depletions. Otherwise, Colorado would have to curtail irrigation depletions out of priority as against the priority of depletions for wetlands.
- 49 The DSEIS also proposes increasing and protecting summer and fall base flows in the La Plata River in Colorado and New Mexico to provide for mitigation of impacts of Refined Alternative 4 on the native fish community in the Animas River (see page 3-99, first four complete paragraphs). Again, the administrative authorities and costs for implementing such mitigation has not been properly evaluated by the DSEIS; see our previous comments. In addition, if protection of flows in the La Plata River in New Mexico is viable, accounting mechanisms would need to be negotiated between the states to ensure that any deliveries of water on the La Plata River at the stateline which would not be available for diversion and use in New Mexico would not be counted towards meeting Colorado's La Plata River Compact delivery obligations.
- 50 Page 3-104, first complete paragraph. Extensive La Plata River irrigation has occurred for almost a century and a half, and administration of streamflow under the La Plata River Compact has occurred for nearly eighty years. A healthy population of roundtail chub still exists in the river. Also, Compact administration and priority administration by Colorado provide some protection of flows in order for Colorado to meet its delivery obligation. The DSEIS provides no basis for the claim that formal legal protection of instream flows and stream habitats in the La Plata River is necessary to prevent extinction of the native fishery in the river. In fact, maintenance of increased flows in the La Plata River from its confluence with Cherry Creek to its mouth might very well create an avenue for non-native fish species to travel to the reach of river now populated with
- SA7-47 The drop in water surface elevation in Navajo Reservoir occurs during winter months when there is no demand for irrigation. Spring runoff restores the surface elevation. The elevation still allows diversions to NIIP, but at reduced capacity.
- SA7-48 Comment noted.
- SA7-49 The proposal to mitigate impacts to the Animas River native fishes by augmenting La Plata River flows has not been committed to by Reclamation at this time. This does not preclude this alternative from being re-evaluated in the future. If, and when, it is re-evaluated, Reclamation would need to identify ways to protect instream flows within the river in order to achieve the desired enhancement benefits. Reclamation believes this is achievable within Colorado under Instream Flow Protection Law. Similar protection within New Mexico would be expected to be much more difficult to acquire, if at all.
- SA7-50 There is indeed a self-sustaining population of roundtail chubs in the La Plata River; unfortunately most of these chubs persist within an approximate 1.5-mile section of the river that offers the unique habitat structure they require. This population was not discovered until 1993. There is no reliable historical information relating the extent of roundtails in the river. Stream flow has been identified as an extreme limiting factor in the La Plata River. Flows within the 5-6 miles of river having perennial flow range from near 0 to 8 cfs. Any additional flow that would augment this base flow would have an extreme beneficial effect to aquatic resources. Also, flow can be protected in Colorado under the State's minimum stream flow law that is granted to "protect aquatic resources to a reasonable degree." Unfortunately, New Mexico has no similar law so it is correct to state that once flow crossed the state line it could not be protected for fish and wildlife purposes. Flow augmentation to the La Plata River for the purposes of enhancing the native fishery probably could not be maintained into New Mexico. Even if that were possible, the "threat" of opening up a pathway for non-natives to move up the La Plata River from the San Juan River to sections of the river occupied by native fishes is not valid. The section of the La Plata River currently maintaining populations of native fishes is "protected" from fishes migrating upstream by two large concrete diversion dams in the northern part of New Mexico. These diversion dams are 100 percent impassable to fishes moving upstream.

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roundtail chub, with potential negative impacts to the native fish community in the river resulting from predation and competition.

51

Page 3-113, first two complete paragraphs. The DSEIS states that Reclamation has completed, or is complying with, most of the elements of the 1996 reasonable and prudent alternative (RPA) for the ALP Project. One of the elements of the 1996 RPA is legal protection for Navajo Reservoir releases through the endangered fish habitat to Lake Powell. It is assumed that this element is not being handled by Reclamation. Further, modeling water depletion projects and Navajo Reservoir operations during the Section 7 consultation process to ensure meeting San Juan River flow recommendations of the SJRBRIP at Four Corners provides a measure of protection that the flow recommendations are met while existing uses continue in New Mexico and the other states.

SA7-51 A final Biological Opinion has been completed and is included as Attachment G to the FSEIS. This opinion supercedes previous opinions and discusses Navajo Reservoir operations as well as other factors.

52

Pages 3-152, last paragraph, and 3-153, first paragraph. The irrigated acreage figures for San Juan County are not equivalent to acreages used in the San Juan River Basin RiverWare Model for evaluating ALP Project impacts on hydrology and water supply. It would be helpful for the DSEIS to provide more thorough descriptions of the sources of irrigated acreage data.

SA7-52 The figures shown in Section 3.10.3 were included in the FSEIS to indicate farming trends in the San Juan River Basin in New Mexico and were not meant to be the exact same numbers as those used in the San Juan River Basin Riverware Model. County statistics on irrigated acreage change annually.

53

Pages 3-164 and 3-165, Section 3.10.4.3. This section describes the impact of the No Action Alternative. The DSEIS states that the Colorado Ute Tribes "will" use their ALP Project water supply to meet municipal and industrial water demands both on and off their reservations (see page ES-2, third sentence). This assumption is presented throughout the DSEIS. Because the proposed alternatives for the ALP Project do not include water for irrigation, the impact described for tribal agriculture would not be present.

SA7-53 A portion of water acquired for both Refined Alternative 4 and Refined Alternative 6 would be kept on the land for irrigation.

54

Page 4-2, fourth paragraph, last sentence. The DSEIS states that since original authorization of the Navajo Unit, Congress has authorized or approved other purposes of the Navajo Unit such as the Jicarilla Apache Tribe Water Rights Settlement. The Jicarilla Settlement Included approval by Congress of the contract for the Navajo Reservoir Supply, which approval is required by Public Law 87-483. Such approval is not for "other purposes." The original authorization of the Navajo Unit, Public Law 84-485, provides for supplying water for purposes such as the Jicarilla Settlement contract. We are not aware of any additional authorized purposes for the Navajo Unit.

SA7-54 Comment noted.

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Page 4-6, second complete paragraph, first sentence. The subject sentence is not clear. It is suggested that it be revised in part to read: "... the water required for this project could be supplied under contract with Reclamation from the Navajo Reservoir Supply, by lease or acquisition and transfer of existing valid rights, or by subcontract with the Jicarilla Apache Tribe for use of its Navajo Reservoir Supply, or by a combination from these potential sources."

SA7-55 Comment noted. Section 4.2.4 has been revised as appropriate.

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- 56 | Page 4-6, last incomplete paragraph, first sentence. This sentence states that Wolf Creek Pass is west of Durango. The commonly known Wolf Creek Pass is east of Durango. SA7-56 Comment noted and appropriate revisions made in the FSEIS in Section 4.2.7
- 57 | Page 4-7, fourth complete paragraph, first sentence. The DSEIS states that completion of the NIIP will increase San Juan River depletions by about 120,580 acre-feet per year under equilibrium conditions and 137,580 acre-feet per year until return flows reach equilibrium, the difference between conditions being 17,000 acre-feet per year. The DSEIS at other locations reports that completion of the NIIP will increase river depletions for the entire project to a total of about 270,000 acre-feet per year under equilibrium conditions and to 280,600 acre-feet per year until returns reach equilibrium, the difference between conditions being 10,600 acre-feet per year (see, for example, page 4-4, last paragraph). Such discrepancies need to be explained. SA7-57 The 137,580 afy impact prior to equilibrium should read 131,180. There was a typographical error in the original Biological Assessment that was corrected after the letter of concurrence was issued. See Section 4.3.2.
- Page 4-10, third complete paragraph, last three sentences. These sentences as written seem to present a conflict. If the decision made to end the diversion of water to a particular use is a reversible action, it appears that the resource, water, should be retrievable. See also the first sentence of the subject paragraph.
- 58 | Page 4-15, last incomplete paragraph, fourth sentence. The DSEIS states that water rights in the San Juan River Basin have been adjudicated. The statement should be modified to state that in New Mexico, all existing non-Indian, non-Federal water rights were adjudicated in the 1948 Echo Ditch Decree, and subsequently, the Jicarilla Apache Tribe water rights were adjudicated by the partial decree entered February 1999. SA7-58 See Section 4.6.3 for modified language.
- 59 | Page 7-7, Table 7-1. Table 7-1 should include, under New Mexico permit requirements, the Office of the State Engineer, the agency from which water users must obtain diversion and water use permits. SA7-59 Comment noted and appropriate revisions have been made in the FSEIS in Table 7-1, Section 7.5.
- 60 | Page 7-9, Table 7-2. Table 7-2 incorrectly states the purpose of the Upper Colorado River Basin Compact. The Compact does not allocate or provide for management of water among water users. The Compact apportions waters of the Upper Basin to the States of Arizona, Colorado, New Mexico, Utah and Wyoming and establishes certain obligations for the States of the Upper Division. SA7-60 Table 7-2 in Section 7.5 has been modified as appropriate.
- 61 | Table 7-2 also incorrectly identifies "Navajo Project Water Agreement" and the stated purpose requires clarification. The entire entry should be deleted and under the entry for NIIP, add under Purpose: "The Navajo Nation has entered an agreement with the United States for the delivery of water to NIIP for the principal purpose of furnishing irrigation water to 110,630 acres of land and to have an average annual diversion of up to 508,000 acre-feet in satisfaction of this purpose." In addition, to avoid misrepresentation of potential water rights of the Navajo Nation for the NIIP, some clarification of diversion demands for the NIIP would be helpful. Public Law 87-483 authorized the diversion of up to 508,000 acre-feet of water per year from Navajo Dam if SA7-61 Comment noted and appropriate revisions have been made in the FSEIS in Table 7-2, Section 7.5.

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- 61 (con't) needed to irrigate the NIIP acreage based on the project design in the NIIP feasibility report. However, redesign of the NIIP to include sprinkler irrigation reduced the diversion amount required to irrigate the full NIIP acreage to about 337,500 acre-feet per year, which should provide, on the average, sufficient water to irrigate successfully 110,630 acres with the current project design. For this reason, it would be meaningless to model and analyze a baseline condition that includes an average diversion demand for NIIP of 508,000 acre-feet per year (see page C-15, first two paragraphs). It is in large part due to the redesign of NIIP that operational flexibility exists for Navajo Reservoir to meet the streamflow needs of endangered fish in the San Juan River (see page 4-3, third complete paragraph, third through fifth sentences).
- 62 Further, in the entry for NIIP under Purpose, delete "1956 (the Colorado River Storage Act, 70 Stat. 105)." This Act only provides priority for planning for NIIP and did not authorize construction. Also, in the entry for NIIP under Purpose, delete "1977 (91 Stat. 565)" because the statute has no application to NIIP.
- 63 Table 7-2 should include the La Plata River Compact because Refined Alternative 4 is described as affecting La Plata River flows. Table 7-2 further should include the Echo Ditch Decree because a watermaster will be needed to administer diversions in accordance with the decree to protect ALP Project water being conveyed in New Mexico streams under Refined Alternative 4.
- 64 Page B-41, fourth paragraph. The DSEIS states that when water is transferred off irrigated land, the water supply that supports wetlands and riparian vegetation is lost. At other sections of the DSEIS, the discussion indicates that water to support the wetlands would be continued (see, for example, page 3-74, third paragraph).
- Page B-45, second paragraph, first two sentences. The DSEIS states that several communities, including Aztec, Farmington and Bloomfield, supply water for municipal use from groundwater. We are not aware of any major ground-water use for municipal purposes by these communities. Also, the DSEIS does not mention the several mutual domestic water supply associations that provide domestic water supplies in New Mexico.
- Page B-46, second complete paragraph, second sentence. The DSEIS lists a depletion of 53,500 acre-feet per year for future Indian trust water development in New Mexico from the San Juan River. At other sections of the DSEIS, the depletion is listed at 69,920 acre-feet per year (see, for example, page 3-23, last paragraph, second sentence, and page B-61, last complete paragraph, first sentence) or 69,800 acre-feet per year (see page B-68, last incomplete paragraph, second sentence). These discrepancies should be explained.
- 65 Page C-7, second paragraph, fourth sentence. The DSEIS states incorrectly that Navajo Reservoir stores water for historic downstream uses. Downstream use of Navajo Reservoir storage requires a contract with the Secretary of the Interior. The only
- SA7-62 Comment noted and appropriate revisions have been made in the FSEIS in Table 7-2, Section 7.5.
- SA7-63 Comment noted and appropriate revisions have been made in the FSEIS in Table 7-2, Section 7.5.
- SA7-64 It is estimated that approximately 1,200 acres of wetland/riparian vegetation cover could be dewatered, and therefore converted to upland vegetation, if irrigation were to cease and the water were to be transferred to other uses. A portion of the 1,200 acres of wetland impacts could be avoided, however, if a water source remains available for the affected wetlands. This could be accomplished by leaving a portion of the water supply at the turnout for a given parcel and routing the volume of water that would normally supply a wetland through the parcel and to the associated wetlands. This would require some placement of fill in the wetlands (e.g., pipes, turnout structures, etc.) but it is estimated that 300 to 600 acres of the wetlands could be saved and maintained by this action.
- SA7-65 Navajo Dam does store water for historic downstream uses as an offset for the depletions caused by the San Juan-Chama diversion. The stored water delivered to them is to offset the impact caused by the San Juan-Chama diversion and Navajo Reservoir evaporation and, is therefore, not considered project water and no delivery contract is required. Otherwise, a strict accounting of reservoir inflow would be required, delivering only inflow to downstream historic users, which is not the case. The discrepancies noted on page C-13 have been corrected in the FSEIS. The dates on Figure 3-3, Attachment C have been corrected. The corrections recommended for Attachment C have been incorporated. There is a 2,000 af increase from Standard Operation. The discussion concerning the No Action alternative in Attachment C and in other locations have been updated to reflect recent decisions of Reclamation, with input from cooperating agencies for the Navajo Operations EIS. The described No Action analysis has been discussed in relation to the water surface elevation fluctuation in Navajo Dam as a secondary condition.

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downstream uses that are served by Navajo Reservoir storage are the Hammond Project, the San Juan Power Plant and several small industrial users. The other downstream uses receive only the direct streamflow supply.

Page C-13, third paragraph. This paragraph states that the San Juan-Chama Project demand averages about 110,000 acre-feet per year; but, the DSEIS at page 3-6, table 3.2-1, indicates an average annual diversion and depletion by the Project of about 107,500 acre-feet (see also page C-5, table 1-3). Also, the water demands listed for the NIIP and the Navajo-Gallup Water Supply Project are diversion demands, not depletions; whereas, the demand listed for the Jicarilla Apache Tribe is depletions. These discrepancies should be explained.

Page C-15, Figure 3-3. The dates on the plot of Navajo Reservoir water surface elevation over time are non-sensical and need correction.

Page C-22, fourth complete paragraph, first sentence. This sentence requires correcting for the discussion of which operation is increased and which is reduced.

Page C-25, first complete paragraph. The No Action Alternative should be defined the same as the baseline condition for purposes of hydrologic analysis and modeling of Navajo Reservoir operations. The implementation of revised Navajo Reservoir operations to meet flow recommendations will be addressed through the NEPA process regardless of whether the ALP Project occurs or not. That is, changes to the Navajo Reservoir operation from that described in the 1975 EIS for NIIP will likely occur and are not dependent on implementation of the ALP Project.

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Pages D-2 through D-7. Attachment D discusses water rights considerations and constraints. The discussion is very brief and does not include details of the constraints of interstate transfer and use of water, accounting of water pursuant to interstate compacts, or administration of the rights transferred interstate, although the DSEIS does make mention of these major issues. We do not know how such transfers could be implemented pursuant to existing law. The DSEIS does suggest that it may be possible for New Mexico to protect against diversion by existing water rights water that is "Project" water controllable by the ALP Project. Such water that is Colorado's "Project" water released downstream for diversion in New Mexico would not be water appropriated under New Mexico law and thereby may not be subject to administration by New Mexico. In summary, it appears that much additional consideration must be given to any proposed interstate transfer and use of water and to any proposals for the change in place and purpose of a use in Colorado that would involve "wheeling" the transferred water through the stream systems and reservoirs in New Mexico.

SA7-66 Comment noted. See response to Comment SA7-25.

67

Pages F-2 and F-5. It is not clear how the Preferred Alternative could impact the flow of the Animas River at Farmington under 1951 hydrology by nearly 1,000 cfs at the peak of the spring snowmelt runoff, while at the same time having little, if any, impact on the flow of the Animas River at Durango. Similarly, it is not clear how the Preferred

SA6-67 The referenced graphs have been revised in the FSEIS.

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Alternative could reduce flow in the San Juan River at Four Corners by 2,000 cfs during the snowmelt runoff under 1945 average-year hydrology (see page F-12). The pump capacity of the Durango Pumping Plant for the Preferred Alternative is only 280 cfs. The hydrology modeling and modeling results need to be checked for accuracy.

Pages F-2 through F-7. One might expect that Animas River flows at and above Farmington during periods of low flow (for example, outside the snowmelt runoff season) should be greater with the Preferred Alternative than without the ALP Project due to the augmentation of low-flows with releases from Ridges Basin Reservoir. The return flows from the subsequent diversion and use of the releases for municipal and industrial uses at Aztec and Farmington would return to the Animas River. The hydrographs of Animas River flows at the Durango and Farmington gages as presented in the DSEIS do not reflect flow impacts throughout the reach between the two gages.

Pages F-8 through F-10. It is not clear how the Preferred Alternative could cause La Plata River flow to be decreased from the without project condition under 1942 hydrology. Under the Preferred Alternative, no new depletions are made of native La Plata River flows; only new return flows to the La Plata River occur as a result of uses of imported Animas River water. The modeling results need to be checked for accuracy. These remarks apply also to Technical Appendix 2, page 2-25.

TA 2, page 2-5, second complete paragraph, last two sentences. Was the release amount assumed for Heron Dam equal to the current contracted amount of 91,200 acre-feet per year, equal to the firm yield to be contracted in the future of 96,200 acre-feet per year, or to some other amount?

68

TA 2, page 2-5, fifth complete paragraph, third and fourth sentences. Rules for simulating Type 1 shortages were not developed or applied to irrigated lands in the La Plata Basin in New Mexico.

TA 2, page 2-6, first paragraph, third sentence. The DSEIS at TA 2, pages 2-7 and 2-8, table 2-1, presents estimates of current depletions in the San Juan River Basin as prepared by the Bureau of Reclamation or the Bureau of Indian Affairs for the San Juan RiverWare Model. Reclamation has in the past prepared for its five-year Colorado River System Consumptive Uses and Losses Reports estimates of consumptive uses and losses in the basin which differ from the estimates of depletions included in the model. For the portion of the basin in New Mexico, New Mexico supplied much of the data for the Consumptive Uses and Losses Reports. The computational bases for estimating depletions are different for the model as compared to the Consumptive Uses and Losses Reports. New Mexico has not agreed that the depletion estimates used in the model for current, baseline or future conditions are the "best estimates." The DSEIS should clarify that the estimates of current depletions in table 2-1 are the estimates of Reclamation or the Bureau of Indian Affairs. Also, the model depletion estimates do not take into account the chronic water supply shortages that occur in the La Plata River Basin in New Mexico.

SA7-68 The demand on Heron Reservoir is the future contracted amount. It is true that the Type 1 shortage match was not explicitly modeled for the La Plata River. Instead, the depletions associated with the Type 1 shortage were placed in the model based on the Natural Flow analysis and water delivered to meet these pre-shortaged demands. The FSEIS has been modified to reflect that the depletions in the model are those made by Reclamation with input from the Bureau of Indian Affairs. However, because of the different assumptions in the baseline versus historic analysis, there will be differences in the resulting data. The water shortage issue on the La Plata River is being examined. If errors are determined, they will be corrected. Under the assumption of the change, water in excess of that needed to meet present demands was assumed divertable for M&I use. This extra use is not strictly due to the transfer of agriculture rights, but to the change in the nature of the use. A more correct description would credit this use as a new depletion for M&I use during times when water is surplus to existing demands. The language in the FSEIS has been changed to reflect this nuance. See Attachment F and Technical Appendix 2.

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TA 2, page 2-38, third paragraph, first sentence. It is not clear how the transfer of irrigation water rights in Colorado to municipal and industrial uses would result in an increase in depletions of La Plata River flows at the state line. Only the historic irrigation crop consumptive use, exclusive of incidental depletions, is transferable under state law. Further explanation would be helpful.

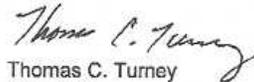
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Thank you for the opportunity to comment on the DSEIS. I am enclosing for your additional consideration a copy of my March 24, 2000, letter to Senator Domenici of New Mexico indicating the State of New Mexico's support for H.R. 3112, which would authorize implementation of an ALP Project that is very similar to Refined Alternative 4 identified in the DSEIS. The final SEIS should encompass the authorization being proposed by the Congress.

SA7-69 Comment noted.

Please contact Mr. John Whipple of the Interstate Stream Commission staff if discussion of these comments would be helpful.

Sincerely,



Thomas C. Turney  
Secretary

TCT:JJW:rav

enclosures

copy: Walter Bradley  
Randy Kirkpatrick  
Stanley Pollack



SA8-1 The reduction in total flow in the Animas River will alter the sediment transport in the river. However, there is sufficient stream power remaining to transport fine sediments and clean gravels. The shift in transport will likely be in the larger particles, resulting in a slight reduction in transport of gravel and cobble until a new equilibrium is reached. There will likely be a small shift in the grain size distribution of the bottom sediments, but the mass of fine sediments are not likely to increase, thus no violation of New Mexico State Law will result. The flow recommendations for the San Juan River have been crafted to improve sediment transport capacity of the system by altering the timing of flows. Therefore, fine sediment deposition will be less in the future, even with the depletions caused by this project. Implementation of Refined Alternative 4 will not violate New Mexico water quality standards. Revisions to Section 3.3 of the FSEIS address this concern.

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The potential reduction in flows and the resulting reduction in the transportation of sediment downstream attributable to the preferred alternative could alter the quality of the stream bottoms of the Animas and San Juan River. The New Mexico Standards for Interstate and Intrastate Surface Waters (New Mexico Water Quality Control Commission, 2000) state that "surface waters of the State shall be free of water contaminants from other than natural causes that will settle and damage or impair the normal growth, function, or reproduction of aquatic life or significantly alter the physical or chemical properties of the bottom." Since the preferred alternative has been designated as a M&I (municipal and industrial) project it would not qualify for an exemption from sediment standards as allowed for "the reasonable operation of irrigation or flood control facilities." that are not subject to federal or state water pollution control permitting."

For the reasons explained above, preferred alternative (Alternative 4) should be studied more closely to evaluate whether it would meet or violate water quality standards. Regardless of which alternative is chosen, the project must meet New Mexico's water quality standards.

We appreciate the opportunity to comment on this document. Please let us know if you have any questions.

Sincerely,



Paul R. Ritzma  
Deputy Secretary

NMED File No. 1346ER

#### References

- State of New Mexico. 1998. *1998-2000 State of New Mexico Section 303(d) List for Assessed River/Stream Reaches Requiring Total Maximum Daily Loads (TMDL's) Final Record of Decision (ROD) for River/Stream Listings*. New Mexico Environment Department Surface Water Quality Bureau, Santa Fe, New Mexico.
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- Leopold, L.B., M.G. Wolman, and J.P. Miller. 1964. *Fluvial Processes in Geomorphology*. M.H. Freeman and Company, San Francisco. 522 pp.