III. Cooperating Agencies

Introduction

This section includes letters on the Navajo Reservoir Operations DEIS from agencies invited by Reclamation, the lead agency, to participate in the NEPA process because of their expertise and/ or jurisdiction in the project area. Beyond suggested editorial/ narrative revisions and general expressions of approval or disapproval of the project, the major areas of concern expressed by the cooperating agencies are summarized below.

Issues Raised

- Approximately one-third of comments concerned ITAs, Indian water rights and claims, Indian water uses, and, less frequently, the alternatives, including the No Action Alternative.

- Another one-third included issues about the Flow Recommendations or the endangered fish recovery program, the impacts analysis in general, and hydropower and water quality impacts.

- Other comments centered on the trout fishery and related economic impacts, the planning process in general, socioeconomic impacts, Navajo Nation projects and enterprises, the hydrology model and environmental baseline, environmental commitments/ mitigation, adaptive management, and flexibility and interim operations. Other issues, including drought management, Compact questions, and rafting impacts, were cited less frequently.

Agencies Included in this Section

Bureau of Indian Affairs (Keller-Bliesner Engineering, LLC)
City of Farmington, New Mexico
Environmental Protection Agency, Region IX
Jicarilla Apache Nation
Navajo Nation
Navajo Nation EPA
New Mexico Department of Game and Fish
New Mexico Environment Department
New Mexico Interstate Stream Commission
San Juan Water Commission

Southern Ute Indian Tribe
State of Colorado Water Conservation Board
Southwestern Water Conservation District
U.S. Army Corps of Engineers, Albuquerque District
U.S. Fish and Wildlife Service, Albuquerque, New Mexico
Ute Mountain Ute Tribe

KELLER-BLIESNER ENGINEERING, L.L.C.

IRRIGATION AND WATER RESOURCES

78 EAST CENTER
LOGAN, UTAH 84321-4819

PHONE (435) 753-3651
FAX (435) 753-6139

December 3, 2002

Mr. Ken Beck
Bureau of Reclamation,
835 East Second Avenue, Suite 300
Durango, Colorado 81301

RE: Draft Environmental Impact Statement, Navajo Reservoir Operations

Dear Mr. Beck

As a consultant for the Bureau of Indian Affairs, Navajo Indian Irrigation Project, I would like to take this opportunity to commend Reclamation on a generally well balanced, complete and unbiased look at the impacts of proposed changes in Navajo Dam operations. We concur with the selection of the 250/5000 alternative as the preferred alternative, as it is the only alternative that meets the flow recommendations upon which many Section 7 consultations depend. One general area that could be strengthened is to emphasize that the no-action alternative does not maintain the status quo and to more completely display the potential economic impacts of the no-action alternative. The RPA in the 1991 Biological Opinion for ALP indicated that Navajo Dam operation to mimic a natural hydrograph also covered the hydrologic impacts of existing federal projects that had not completed consultation. The no-action alternative is simply not viable. Unlike most Environmental Impact Statements, the no-action alternative has the most negative impacts. In the description of alternatives, these issues should be more clearly stated. 1 2

We submit the following specific comments to address areas that could benefit from corrections or clarifications:

1. Page S1, executive summary, footnote 2: This footnote limits future water depletions to those that have obtained appropriate environmental compliance. It is the anticipation that the proposed operation would provide opportunity to future projects that are note now defined, but would be required to complete environmental compliance prior to approval. I suggest inserting the words "or may obtain" after "obtained". 3
2. Page S-13, Table S-2, third row: "Minimum Flow 500 cfs" should be footnoted to indicate that this is a weekly average measured by a subset of the river gauges. Daily minimum flow at Bluff may actually be lower. Also, the flow is "near Bluff" not "at Bluff". The gauge is actually at Mexican Hat. 4 5
3. Page S-16, Table S-2, third row: Under the No Action Alternative Block 8 and a portion of Block 7 would have to be idled (they are presently under construction) and Block 9 water delivery facilities abandoned to meet the conditions assumed for this alternative (54,500 acres). 6

CA1-1 Please see the response to General Comment 3. The Comment is correct that the No Action Alternative does not represent the status quo and that there are significant impacts associated with the No Action alternative.

CA1-2 The effects of the No Action Alternative have been clarified in the EIS.

CA1-3 through 33 The EIS has been revised to accommodate your concern.

4. Page S-16, Table S-2, row 5: "...would cause bank erosion until river stabilized itself or banks stabilized" is redundant. Suggest removing "or banks stabilized". | 7
5. Chapter 1, page 1, footnote 2: See comment 1. The list of projects on pages I-10 and I-11 include those for which environmental clearances have not yet been obtained. | 8
6. Chapter 2, page II-2, Figure II-1. Cannot distinguish pre-dam and natural flow mimicry curves. | 9
7. Page II-7, footnote 4. The last statement is not true. Diversions in 2002 exceeded 189,000 af. The calculated deep percolation exceeded 36,000 af while the measured and estimated return flow to the river is less that 15,000 af. It will be some years before stability occurs. The 10,600 estimate will not be overstated for over 10 years. | 10
8. Page II-8, last paragraph: The difference between the no-action and 250/5000 alternative for NIIP is 137,000 af with 16,400 af returned to Hogback and Fruitland projects. The net difference for the Navajo Nation is 120,600 af. | 11
9. Page II-10, first paragraph: The interim period reduction in depletions also includes private rights that are not presently exercised that are expected to be exercised in the future. | | 12
10. Page II-14, Table II-2, row 2: The level of protection for Indian trust assets for the 250/6000 and 500/6000 alternatives is moderate if this alternative could be exercised. The flow recommendations are met about as well as the 500/5000 alternative. | 13
11. Page II-16, Table II-3: Shading under the no-action alternative is incorrect. All of the >10,000 statistics should be shaded as well as the 20 day, >8,000 category. | 14
12. Page II-20, Table II-6: A better breakdown for period flow averages would be November through March and April through October, better representing the irrigation and non-irrigation season. | 15
13. Page II-21, Table II-7: I assume that the note is tied to the asterisk on the 250/5000 alternative. It should be referenced to the asterisk or footnoted. | 16
14. Page II-22, first paragraph. 120,600 af should be 137,000 af with the 16,400 af restoration to Hogback shown. | 17
15. Page II-22, paragraph 3: In addition to not meeting the conditions of the water right settlement, the entire settlement is jeopardized, with potential impacts on existing non-Indian rights in the basin. | | 18
16. Page II-22, last paragraph: There is a risk to existing Federal actions, not just renewal of contracts as the operation of Navajo Dam to mimic a natural hydrograph was intended to act as the RPA for hydrologic impacts of the first 6 blocks of NIIP, the San Juan-Chama project and other Reclamation projects. With the no-action alternative, there would be no offset for these project impacts, potentially triggering consultation. | | 19
17. Page II-29, Table II-9, row 2, 500/5000 Alternative: Minimum Flow according to table II-7 is 0 due to water shortage. If you use 500, then footnote and indicate that several months in 1 year would be 0 due to levels falling below the NIIP outlet. | 20
18. Page II-29, Table II-9, row 4, no-action alternative: Should add, "may trigger Consultation on existing federal projects | 21
19. Page II-29, Table II-9, last row, 500/5000 Alternative: with shortage years having zero or near zero releases, the habitat impacts would be "extreme" not just adverse. | 22

Mr. Ken Beck
December 3, 2002
Page 3

20. Page II-29, Table II-9: I would recommend adding a footnote that indicates the flows have been rounded to the nearest 5 cfs as the numbers do not match those in earlier tables. | 23
21. Page II-30, Table II-9, row 3, 250/500 and 500/5000 alternatives: It is the quantity of flow not the quality of flow that is affected. | 24
22. Page II-31, Table II-9, row 4: Some differentiation should be made concerning the level of meeting flow recommendations. Even the no-action alternative meets some of the flow recommendations. I would suggest wording include "few" for no-action, "all" for 250/5000 and "some" for 500/5000. | 25
23. Page II-31, Table II-9, row 5: The impacts stated for 250/5000 and 500/5000 do not match those from Section III, Page III-140. | 26
24. Page II-32, Table II-9, row 1: See comment 3. To the extent that Table II-9 is repeated as Table S-2, the comments apply consistently, although they may have been listed here for one or the other table. | 27
25. Page III-1, second paragraph: See comment 9. | 28
26. Page III-3, last paragraph: See comment 1. | 29
27. Page III-5, Navajo Reservoir: Inactive content should be defined at elevation 5990 and footnoted to indicate that it may be violated during the non-irrigation season during drought conditions without impacting NIIP diversions. | 30
28. Page III-6, first full paragraph: Return flow from the Dolores Project also increases flow near Bluff. | 31
29. Page III-7, Non-Indian Trust Water Rights: This reads as if there are trust water rights that are non-Indian. I do not think that's what you mean. I suggest a title like "Water Rights other than Indian Trust", or simply "Non-Indian Water Rights. | 32
30. Page III-15, last sentence in item (1): This should be explained. It is not very instructive. You must have some idea of what some of these unspecified current uses might be (e.g. Block 1-6 NIIP, Navajo-Gallup, other existing Navajo reservoir contract depletions, etc). | 33
31. Page III-23, Table III-3: I can't get the Jicarilla writes to sum to the correct settlement amount. Please check the numbers. | 34
32. Page III-26, Item (1): The 16,420 af of transferred depletion comes from both the Fruitland and Hogback projects with an unspecified amount from each. It may be sufficient to footnote this paragraph with this explanation, indicating that it was modeled at Hogback. | 35
33. Page III-27, Item (2): The referenced siphon was completed in March 2002 and should be referenced as such. | 36
34. Page III-31, bullets under Navajo Nation: "Rehabilitation of the Hogback and Fruitland Projects". Add bullet "Block 1-6 may require reconsultation". | 37
35. Page III-37, second paragraph: The no-action alternative does not secure blocks 1-8, but just blocks 1-6. It is acknowledged later in the paragraph, but should be acknowledged in the leading sentence. | 38
36. Page III-46, last paragraph: The statement is made that operation to mimic the natural hydrograph has stabilized reservoir levels, yet the impacts indicate a more rapid drawdown during spring operation. Which is it? | 39

CA1-34 The numbers as shown on Table III-3 are correct. A footnote has been added to the 770 acre-feet under existing uses to help clarify what rights are shown.

CA1-35 through 40 The EIS has been revised to accommodate your concern.

Mr. Ken Beck
December 3, 2002
Page 4

37. Page III-49, second paragraph: According to the latest FWS report (Ryden draft report and previous annual reports) native suckers declined through 1997, but have significantly increased since that time. It would be best to use the most current information concerning native fish response. 40
38. Page III-49, 4th paragraph: It would be best to indicate the title or nature of the report in the text body. 41
39. Page III-56, first paragraph: The more natural hydrograph is provided by both the Animas River and the modified releases from Navajo Dam. 42
40. Page III-71, paragraph 2: Acknowledgement should be given for the marked increase in flows in the 500-800 range. 43
41. Page III-72, 4th paragraph, second sentence: modify as follows " ...for rafting at flows between 500 and 800 cfs, although not as great as for the 250/5000 alternative." 44
42. Page III-122, second paragraph: There is a detailed discussion of annual economics impacts on Page III-35. The values should be included here for the comparable (annual) costs. 45
43. Pages III-110-129: It would be helpful to summarize the socioeconomic impacts for each alternative by summing individual positive and negative impacts. It is very enlightening to see that the positive economic benefits for the preferred alternative are from $100 to 130M versus a negative impact of $7 to $13M. 46
44. Page III-182, Environmental Resources Summary: adverse impacts to economic benefits in paragraph 3 are listed for the 250/5000 alternative, yet the net economic benefit for this option is $100M + per year. I assume you mean economic benefits of recreation. The net impact should be stated and show that the overall economic benefit of the preferred alternative is large and positive. 47

Thank you for the opportunity to provide comments on this important document. If you have questions, please feel free to contact me.

Sincerely,

Ronald D. Bliesner, P.E.
President

Cc Bob Krakow
Stanley Pollack
John Leeper

CA1-41 Comment noted.

CA1-42 through 44 The EIS has been revised to accommodate your concern.

CA1-45 The values discussed on page III-35 are those considered for Indian Trust Assets and are not a comprehensive analysis of all impacts of the ALP Project. An analysis of all ALP Project impacts including those for non-Indian M&I use was not completed for this EIS but can be viewed in the ALP Project FSEIS.

CA1-46 Please see the response to General Comment 31e.

CA1-47 The EIS has been revised to accommodate your concern.

UTAH | COLO.
ARIZ. | N.M.

CITY OF FARMINGTON
800 Municipal Drive
Farmington, NM 87401-2663
(505) 599-1120
Fax: (505) 599-1113
http://www.farmington.nm.us

December 2, 2002

Ken Beck
Bureau of Reclamation
Western Colorado Area Office
835 East Second Avenue Suite 400
Durango, CO 81301

Re: Navajo Reservoir Operations Draft Environmental Impact Statement

Dear Mr. Beck:

Enclosed are the City of Farmington's official comments on the Draft Environmental Impact Statement for Navajo Reservoir Operations.

Sincerely,

Jay B. Burnham
City Attorney

xc: Mayor and Council
Bob Hudson, City Manager
Gina Morris, City Clerk
Maude Grantham Richards, Electric Utility Director
Joe Schmitz, Community Development Director
Paul Martin, City Engineer
Mike Sims, Engineering/O&M Supervisor

COMMENTS ON THE

DRAFT ENVIRONMENTAL IMPACT STATEMENT

NAVAJO RESERVOIR OPERATIONS

BY

THE CITY OF FARMINGTON, NEW MEXICO

GENERAL COMMENTS AND SUMMARY

The DEIS has enumerated a number of negative environmental and economic impacts that would occur should the 250/5000 Alternative or Preferred Alternative be adopted. The 250/5000 Alternative is particularly disadvantageous to the City because of the negative effects on the Navajo Dam Hydroelectric Facility and on the economy of the area because of damage to the fishing industry and area farmers. In addition, the DEIS has identified a number of negative environmental impacts such as degradation of water quality and the loss of wetland area which may be habitat for other species, particularly endangered species. 1 2

The City believes that there is not any evidence that mimicking the natural flows of the river has aided in the recovery of the endangered fish. Some feel that the high releases have caused the river channel to deepen and have not contributed to the formation of sand bars which aid in fish recovery as was expected by the science upon which the Flow Recommendations are based. Recent sediment studies conducted on the Colorado River below Glen Canyon Dam demonstrate the danger of making decisions based on assumptions that later prove to be false. (See Recent Sediment Studies Refute Glen Canyon Dam Hypothesis, *Eos*, Transactions, American Geophysical Union, Vol. 83, No. 25, 18 June 2002, Pages 273, 277-278.) 3

We request that a new alternative be evaluated that allows flows that "approximate" the Flow Recommendations, but minimize the negative effects outlined above and still allow all legitimate water uses to be met. In any event, a compromise could be reached that allows for water management to take into account the fish recovery program and the need to avoid flows that are too low or too high to sustain present and future water uses on the San Juan. Until such a compromise is implemented, the City of Farmington cannot support any of the Alternatives considered in this process. 4

The City also believes that the environmental process cannot be completed until another summer low-flow test is completed. The shortcomings of the initial test are outlined in more detail hereafter. 5

In addition to these General Comments, the City would ask the Bureau of Reclamation to consider these specific comments on the text of the Draft Environmental Impact Statement.

Comment No. 1

HYDROPOWER

The Draft Environmental Impact Statement (DEIS) acknowledges that the preferred (low flow) alternative will result in a loss of hydroelectric power production at the City's Navajo Dam Hydroelectric Plant. It also recognizes that the purchase of replacement power to make up these losses will cost the City an estimated $53.1 million over a ten year period. The Final Environmental Impact Statement (FEIS) should state that since the projected life of the hydroelectric plant is thirty years or more, the actual loss to the City could be three times that 6

CA2-1 Please see the responses to General Comments 3, 26, and 31.

CA2-2 Please see the responses to General Comments 20, 23, and 33.

CA2-3 Endangered fish populations and habitat and their response to flow changes will be monitored and long-term changes will be detected. It is possible that Flow Recommendations may be modified in response to this information. Also, see the response to General Comment 15.

CA2-4 Please see the responses to General Comments 5 and 11 for related discussions.

CA2-5 Please see response to General Comment 22 which addresses the need for an additional summer low flow test.

CA2-6 An average annual impact was identified for replacement of energy provided by Farmington's hydropower plant. This impact could be reduced in the short term based on the flexibility available in dam releases until full water development occurs. Please see the responses to General Comments 8, 11, and 26 for additional information.

much or in excess of $150 million in today's dollars. 6 cont.

The DEIS also recognizes that replacement power would probably be from "fossil fuel" sources, most likely from coal-fired plants. (See page III-78.) The FEIS should quantify in tons per year the additional air pollutants that would be generated to produce this power. Based on data supplied by the United States Environmental Protection Agency, the City estimates that the three examined alternatives would require replacement power that would increase NOX, SO2 and CO2 levels as follows:

Flow Alternative	NOX Incr. (tons/yr)	SO2 Incr. (tons/yr)	CO2 Incr. (tons/yr)
No Action	0	0	0
500/5000	321	115	55,051
250/5000	557	199	95,434
250/5000*	730	261	125,170

*assuming that the units are not operated at flows below 300 cfs, due to cavitation

The City of Farmington would also suggest that the negative impact on air quality should be included in the Air Quality section of the FEIS as well as the Hydropower section. 7

Comment No. 2

WATER QUALITY

The DEIS states that during the Summer Low Flow Test, several water quality parameters were exceeded. It also states that "long-term summer low-flows may cause exceedances of the water quality standards or an increase in bioaccumulation of some trace elements." (See pages III-96-97.) The FEIS should recognize that the expected degradation of water quality will have an adverse affect on downstream water users, including both people and wildlife.

The cities of Bloomfield and Farmington both have wastewater treatment plants that discharge into the San Juan River below the Navajo Reservoir. If lack of dilution due to the low flows causes an increase in the levels of pollutants in the river, it will be increasingly difficult for the cities to comply with their discharge permits, particularly because of the EPA's move towards basing permitted discharge levels on Total Maximum Daily Loads (TMDL). 8

The expected increase in bioaccumulation of trace elements mentioned in the DEIS will have an effect on wildlife. For instance, the bioaccumulation of selenium, mercury and other heavy metals have been shown to have devastating effects on fish and wildlife in other ecosystems. The FEIS

CA2-7 Please see the response to General Comment 25.

CA2-8 Please see the response to General Comment 23.

should include statements to this effect. 11 8 cont.

Comment No. 3

FLOOD CONTROL

The DEIS recognizes the possible negative impact of possible flooding which could occur during high spring releases. (See page III-158.) However, the DEIS does not contain mitigation measures that should be present to minimize this impact. The channel capacity is 5000 cfs at Farmington. Since the flow at Farmington is also affected by flows into the river below the dam, the Bureau of Reclamation (BOR) must coordinate with the National Weather Service and local agencies during high releases to make sure that the channel capacity is not exceeded. Flow gauges on tributaries that feed into the San Juan installed and maintained by the BOR would also help in this effort. 9

A lot of development below the Navajo Reservoir has occurred since Navajo Dam's construction. Development which has occurred since the dam was constructed was built in reliance on the existence of the dam to control flooding. Therefore, the negative impacts from this flooding may include the inundation of septic systems, contamination of drinking water and the release of septage into the river. The FEIS should reflect these negative impacts on the environment. The FEIS should also recognize that the high spring releases may damage water users' diversion structures. 10

Also, the DEIS does not mention that accumulation of water in the reservoir during low flows may not leave room in the reservoir for flood protection in case of an unexpected unusually high run-off. If the reservoir is full, water may flow over the spillway, causing flooding below the dam. The FEIS should be amended to reflect this possibility. Mitigation measures should be adopted to ensure that additional water is released in wet years to prevent "overflow" flooding from occurring. 11

Comment No. 4

RECREATION

While the RECREATION Section of the DEIS does contain an analysis of how the low flow alternative will reduce the "quality of the angler experience" and lead to a reduction of trout habitat (see page III-69), it does not attempt to quantify the economic losses and resultant harm to the economies of nearby cities such as Aztec, Bloomfield and Farmington which will result 12

CA2-9 Please see the response to General Comment 24.

CA2-10 Please see the response to General Comment 24.

CA2-11 Please see the response to General Comment 24.

CA2-12 Please see the responses to General Comments 29 and 31.

from the loss of business related to the recreational fishing industry in San Juan County.

For instance, the DEIS recognizes that the low flows of the 250/5000 alternative will not allow dory fishing. The City believes that even if other types of fishing are possible, many who visit this area come because of the dory fishing and simply will not come to fish any other method. Although the City is not able to supply data on what portion of the local economy relies on these visitors, such information has been provided to the BOR by outfitters and others. These negative impacts should be included in the FEIS. 12 cont.

Comment No. 5

VEGETATION AND WILDLIFE RESOURCES

The DEIS acknowledges that the area below the dam contains a significant wetland area that is "likely entirely tied to the river for its water supply." However, it concludes that "no adverse long-term impacts to wetlands or wildlife are anticipated" from the low flows of the preferred alternative. (See p. III-145)

What is the basis of this statement? If this is based on some study or scientific analysis, the FEIS should identify the source of this information. If there has been no study of the effects of the low flows on below-dam wetland areas, perhaps the EIS process should not be finalized until a study has been done. Since there have been no extended flows of 250 cfs to date, how do we know that the wetland areas below the dam that are dependent on river flows will not be damaged or destroyed at that level of flow? 13

The DEIS contains a description of a number of endangered wildlife species that are dependent on the San Juan River, including the Bald Eagle, the Southwest Willow Flycatcher and the Least and Black Terns. (See page III-133.) However, the DEIS does not adequately address what effect the loss of wetland and riparian vegetation due to prolonged low flows may have on these species.

Also, the anticipated high spring releases may cause damage to waterfowl nesting areas. This negative impact should be discussed.

Comment No. 6

NAVAJO DAM OPERATIONS AND MAINTENANCE

The DEIS recognizes that the preferred alternative will result in some "additional measures" related to dam operations. These "additional measures" are not specified. Since the City shares in some of the costs associated with dam operations because of its hydroelectric facility, the BOR 14

CA2-13 Please see the response to General Comment 33. Wetlands impacts were evaluated based on effects on their water sources and changes in river elevations.

CA2-14 Presently, Reclamation costs resulting from the operation of the powerplant are reimbursed by the City of Farmington. The costs agreements/contracts with the City of Farmington allow for these operational costs to be reimbursed to Reclamation.

may consider passing some of these costs on to the City. The City objects to the cost of any of these measures being passed on to the City or for that matter any of the other local agencies or water users that may be deemed to be "beneficiaries" of the re-operation. 14 cont.

Comment No. 7

FLOW RECOMMENDATIONS

The DEIS (see page II-23) concludes that "Operations under this (250/5000-Flow Recommendations) alternative would best meet the purpose of and need for the proposed action." This conclusion pervades and dominates the entire DEIS. In other words, the BOR assumes that dam operations have to be consistent with the flow recommendations.

First, the City would ask whether the BOR considers the Flow Recommendations to be legally binding on the BOR. In other words, if there are negative environmental impacts related to operating the dam in compliance with the Flow Recommendations, do they have to be ignored? Much of the language in the DEIS would lead one to believe so. On the other hand, if they are recommendations in the usual sense of the word and not legally binding, then why doesn't the DEIS recognize the right of the BOR to operate the dam in such a way as to minimize the negative impacts even if it may not be in strict conformance to the Flow Recommendations.

The City of Farmington believes the Flow Recommendations are subject to interpretation and may be amended. The City understands that the approval of the Flow Recommendations was given by a very small majority of the members of the San Juan River Basin Recovery Implementation Program (SJRBRIP) Coordinating Committee. They should be revisited. The DEIS is deficient in not recognizing that the Flow Recommendations will be amended or superceded in the future. The FEIS should recognize this possibility. 15

In addition, in the Navajo Dam Operations Plan, to the extent that the Flow Recommendations are subject to interpretation, the BOR should interpret them in such a way as to minimize the many negative impacts identified and enumerated during the EIS process.

The City has been informed that studies done on the Lower Colorado River may indicate that dam operations which mimic the "natural" flow with high spring releases may actually harm fish recovery in areas where these high releases cause the river channel to lose deposits of sediment that are necessary for the reproduction of the fish. The City mentions this to show that the Flow Recommendations may be changed to reflect advances in scientific knowledge.

The FEIS should reflect that releases in the future may be moderated to eliminate or mitigate the negative impacts of extremely high or low releases in the event this occurs.

Comment No. 8

CA2-15 Please see the responses to General Comments 11, 16, and 20. Reclamation is committed to meeting the purposes of the Navajo Unit. Reclamation also has an ESA responsibility and believes Flow Recommendations can be met while continuing to meet Navajo Unit purposes.

LEGAL ENTITLEMENTS/WATER DIVERSION STRUCTURES

The DEIS states (at page III-79), "The 250/5000 Alternative might result in potentially adverse impacts to a few water user's ability to physically take water at their diversion structures downstream from the Navajo Dam."

The City has two comments on this statement. The DEIS does not address how the "potentially adverse impacts" will be mitigated except to say that the river channel or the diversion structures may need to be altered. Who pays for this? Does the BOR have any responsibility to help the water users to make these alterations? During the public meetings, there was discussion of funding resources for these projects. The DEIS does not contain any language offering the resources of the BOR to aid the water users to obtain help. 16

Secondly, this conclusion is based on data obtained during the low-flow test. There was significant rainfall which occurred within the watershed of the San Juan below the dam during the low flow test. Because of the rainfall, flows were above what they would have been had there been no rainfall. In addition, agricultural water users may not have been taking the amount of water they would have needed had it not rained on their crops. The City has also heard that the test may have coincided with a hay cutting. This would also minimize the amount of water used. For these reasons, the test may have not been valid. 17

Had the low flow test been conducted another time, the water users may have not been able to take their allotments. Another test needs to be conducted. At the very least, the FEIS should recognize that the number of users that may not be able to divert their water entitlements may be higher than originally thought if the test proves to be invalid for the reasons cited above. 18

The federal acts authorizing water storage projects, including those authorizing the Navajo Dam, require that the projects operate in such a way as to preserve current water uses and comply with state water law. Therefore, these federal projects must be operated in New Mexico so as to preserve and protect senior water rights under New Mexico's system of prior appropriation. This is the foundation upon which all operations decisions should be based.

The City of Farmington understands that the State of New Mexico State Engineer's Office (SEO) has not concurred with BOR's determination that current uses based on senior water rights will be protected when flows are reduced to 250 cfs during the summer months. Those flows should not be authorized until such time as the SEO is satisfied that the minimum releases will satisfy those requirements. 19

The City also reminds the BOR that a water rights adjudication proceeding is pending in New Mexico's Eleventh Judicial District Court on the San Juan River. The EIS should recognize that the minimum flows from Navajo Dam will have to be sufficient to meet the requirements of water rights as they will be determined by that litigation. All of the rights that may exist may not be known at this time. Particularly, the claims of the Navajo Nation are unknown and have yet to be established. The DEIS talks about "full development" of water without defining what that means. 20

CA2-16 Please see the responses to General Comments 2 and 31d.

CA2-17 Reclamation recognizes that not all water that could be used for irrigation was being applied during the Summer Low Flow Test. Reclamation concurs that the reasons for this are the effects of the sporadic localized rainfall, and the fact that some farmers were not irrigating because they were drying out fields in preparation to harvest their alfalfa. (Please see the April 2002 Summer Low Flow Test Report, page 12, Diversion Structures and Water Rights.) However, sufficient water was being diverted at most diversion structures to meet all diversion rights. In the majority of these instances, surplus water—water that had been diverted but not applied to the lands in question—was being returned to the river via wasteways. Please see the response to General Comment 22.

CA2-18 Reclamation believes that a 250 cfs release from Navajo Dam, plus irrigation return flows, yields a sufficient amount of water to meet all diversion rights on the San Juan River in accordance with those recognized by the New Mexico State Engineer's Office. A farmer's irrigation water right is tied to "X" acres that are owned and irrigated by a farmer, times the amount of water, in acre-feet, which is determined by the State Engineer. Reclamation has based its analysis on this approach because it is scientifically and legally defensible, rather than speculating on the amount of water that may or may not be diverted by irrigators. Please see responses to General Comments 18a and 22.

CA2-19 Please see the response to General Comment 18a.

The DEIS recognizes future water development at the Navajo Indian Irrigation Project and possible future uses of the water owned by the Jicarilla Apache Nation. The City believes that there will also be a need to develop water resources to satisfy the water needs of growth and other economic development projects in the future. The Final EIS should recognize that additional water may be developed in the future by non-Indian entities. 21

Comment No. 9

EFFECTS ON WATER USERS ON THE ANIMAS RIVER

The DEIS places a lot of emphasis on the Flow Recommendations. Essentially, the DEIS contemplates that the flows released at Navajo Dam will be governed by those recommendations. What is unclear is what effect this will have on the water users on the Animas River. If not enough water is available in Navajo Dam to release sufficient flows to meet the Flow Recommendations, will the endangered fish recovery program dictate a curtailment of water use on the Animas? Too many questions like this remain for the flow alternatives to be implemented without further clarification. How can the environmental process be completed if all of the effects of the action are not known? 22

Comment No. 10

OPERATIONS DURING DROUGHT CONDITIONS

The DEIS does not address the need to change operations management based on severe drought conditions like those experienced this year. The Navajo Dam Operations Plan must address this issue. It should also be contemplated that the Flow Recommendations will undoubtedly be revised to take drought conditions into account. This should be recognized and addressed in the FEIS. 23

Comment No. 11

2001 SUMMER LOW FLOW TEST/DATA AND MODELING

The DEIS concludes that the legal entitlements of current users can be met during flows as low as 250 cfs even during high use summer months. The primary source of data upon which this conclusion is based is the data collected and compiled during the 2001 Summer Low Flow Test. However, a number of factors may have combined to affect the validity of this test. There was a considerable amount of rain which occurred in the San Juan River watershed below Navajo Dam during the test period. At the same time, the test period also happened to be scheduled during the same time that a number of alfalfa growers were not watering their fields because they were cutting and baling at the time. Therefore, the ditches were not diverting water at the rate that they would be a week before or the week after the test. 24

CA2-20 The hydrology model runs were operated by not shorting existing downstream users. Reclamation believes this is a conservative estimate for meeting the downstream senior water rights. Once the New Mexico State Engineer's Office begins to administer water rights, Navajo Reservoir will be operated to store only those inflows that meet the reservoir's water rights. Full Development refers to the full use of existing and future depletions listed in Table II-1.

CA2-21 Reclamation recognizes that non-Indian entities have interests in future water development. Nevertheless, to attempt to include these potential uses in this environmental impact statement would be, at this time, speculative as to the amount, location, and use. Consequently, Reclamation has used only the best available information/data in this NEPA analysis. This information/data includes all potential future water development that has completed consultation under the ESA. Chapter II discusses other future water development.

CA2-22 Flow recommendations themselves will not have any effect on water rights on the Animas River. The depletion table (Table II-1) for the EIS assumes existing rights are met. The New Mexico State Engineer's Office has stated that water right priorities will be enforced in the San Juan River Basin in the near future.

CA2-23 Please see the response to General Comment 13.

CA2-24 Please see specific responses to Comments CA2-17 and CA2-18. Also, please see the response to General Comment 22.

For these reasons, the data is not reliable. The City believes that another test needs to be conducted to obtain reliable data. The issuance of the EIS should be delayed until another test can be scheduled next summer. That is the only way the BOR can be sure that the conclusions based on the data from the Low Flow Test are valid. 25

In addition, the City believes that the all the data used in the DEIS should be checked and verified by an independent expert. All scientific data should be subject to peer review and validation. 26

Respectfully Submitted,

City of Farmington

by: _____
Jay B. Burnham
City Attorney

CA2-25 Please see specific responses to Comments CA2-17 and CA2-18. Also, please see response to General Comment 22.

CA2-26 Reclamation consulted with specialists from state agencies and Tribes/Nations regarding the long-term impacts of low flows on various resources. In addition, Reclamation has also utilized a rigorous internal peer review process, and the involvement of all Cooperating Agencies who participated in the development of not only the Summer Low Flow Test, but also the FEIS as well.

STATE OF COLORADO

Colorado Water Conservation Board
Department of Natural Resources
1313 Sherman Street, Room 721
Denver, Colorado 80203
Phone: (303) 866-3441
FAX: (303) 866-4474
www.cwcb.state.co.us

Bill Owens
Governor

Greg E. Walcher
Executive Director

Rod Kuharich
CWCB Director

Dan McAuliffe
Deputy Director

December 4, 2002

Mr. Ken Beck
U.S. Bureau of Reclamation
Western Colorado Area Office, Southern Division
835 East Second Avenue, Suite 300
Durango, Colorado 81301

Re: Comments on the September 2002 Draft EIS - Navajo Reservoir Operations

We concur with the preferred alternative selected by Reclamation. The preferred alternative is the only alternative that will satisfy the current flow recommendations of the U.S. Fish and Wildlife Service (Service). Under any other alternative, all water users that are subject to Section 7 of the Endangered Species Act would be forced to reinitiate consultation with the Service. Furthermore, implementation of the preferred alternative is extremely important to the construction of the Animas-La Plata Project and the completion of the Ute Indian water rights settlement.

The following are our detailed comments on the DEIS and are focused mostly on the water related aspects. Comments on other portions of the DEIS should come from the Colorado Division of Parks and Colorado Division of Wildlife as appropriate.

General Comments

1. The "No Action Alternative" will not result in the continuation of the status quo. The Service has indicated that the current conditions, even without further water development, are unacceptable for endangered fish and must be improved. Those improvements include re-operation of Navajo Reservoir. Since no alternative other than the preferred alternative is legally permissible, none of the theoretical benefits of other alternatives could actually be realized. 1
2. References to various projects that have not been authorized (i.e., the Navajo-Gallup Project) need to either be taken out completely or be addressed consistently throughout the document. 2
3. The term "adverse" should be added before most instances of the word "impacts." This will help the reader distinguish between those actions that may negatively affect the stated resource and those that benefit a resource. 3
4. The DEIS needs to do a better job of distinguishing between the impacts caused by re-operation of Navajo and impacts associated with future depletions. This DEIS should be focused on re-operation of Navajo to meet the flow recommendations and simply indicate that the flow recommendations can be satisfied with a certain level of future depletions. It does not need to address the impacts of future depletions. 4

CA3-1 Please see the responses to General Comments 3 and 6.

CA3-2 In formulating and weighing alternative plans and their impacts in the EIS, it was not inconsistent to consider (along with other factors) potential future uses of water in the area, including the Navajo-Gallup Water Supply Project, while ultimately fully analyzing more limited uses. Under the alternatives retained for further EIS analysis, depletions (table II-1) were included for only existing and certain other limited uses (No Action Alternative), or for those uses and also future uses with ESA/NEPA compliance (action alternatives). This narrowing of the process is consistent with planning as it was constrained by ESA-related requirements.

CA3-3 Comment noted.

CA3-4 Please see the response to General Comment 1c.

that the flow recommendations can be satisfied with a certain level of future depletions. It does not need to address the impacts of future depletions.

Executive Summary
(Note Executive Summary in Vol 1 and the separate Summary are different)

- Page S-11 or 14, Alternatives Considered But Eliminated - Decommission and Breach Navajo Dam, we strongly object to the inclusion of this alternative at all. At the very least the first paragraph under this section should be removed if this alternative is not eliminated entirely from the DEIS. This alternative does not meet the purpose and need of the action, and that should be stated as simply and clearly as possible. Furthermore, breaching the dam will not significantly help restore the natural hydrograph of the San Juan River given the numerous diversions that already occur from the river. In fact, re-operating Navajo to help mimic a natural hydrograph is the only alternative that makes sense. 5

Chapter 1 – Purpose and Need for the Action

- Page I-1, under "Proposed Action" in the 1st paragraph and in footnote 1 it should be further noted that the flow recommendations are subject to periodic review and revision and as a result could change in the future. It is also important to note that the recommendations are exactly that, and while Reclamation will strive to meet the recommendations, there is no penalty for failure to meet the recommendations when shown to be unreasonable such as was observed during the 2002 drought. During 2002, it was impossible to maintain the 500 cfs base flow recommendation and subsequently the 500 cfs base was reduced to 350 cfs. 6
- Page I-11, under "Responsibilities and Compliance" we suggest that you do not include any laws that operations of the Navajo Unit can not specifically comply with, such as the "Clean Air Act" and "Wild and Scenic Rivers Act." Only laws that Reclamation must consider in the operation of the Navajo Unit should be included. If others are listed, it only creates false expectations that this mitigating action may itself need to be mitigated. 7

Chapter 2 – Proposed Action and Alternatives

- Page II-9 and II-26, as previously stated, the alternative of decommissioning Navajo Dam should be removed entirely from the document or dismissed in a very short paragraph under "Alternatives Considered but Eliminated." Decommissioning the dam was never considered a viable option, and only allows those parties who support the removal of all dams to believe that removal is a viable option. In this case, removal of the dam is outside the purpose and need. Dam removal fails to meet the base flow recommendations and would result in a dry river during the irrigation season and in below average runoff conditions. It fails to meet authorized project purposes and deprives current water users of essential water supplies. Finally, given all the other diversions that occur from the river, dam removal will not significantly help restore the natural hydrograph. Furthermore, the natural hydrograph is not proving to be beneficial to native fish in all years and thus it causes ESA concerns of its own. If the goal is to provide conditions that are favorable to endangered fish at all times, river regulation is required. 8

CA3-5 Please see the response to General Comment 12.

CA3-6 Please see the response to General Comment 16.

CA3-7 Reclamation complies with all federal laws and/or regulations as they are enacted over time, even if such legislation was enacted after a Reclamation project was authorized by Congress. For example, the Navajo Unit was authorized by the 1956 CRSP Act. Construction of the Unit was completed in 1962. The reoperation of Navajo Dam addressed in this EIS is based on the 1969 National Environmental Policy Act, the 1973 Endangered Species Act and amendments to these acts.

CA3-8 Please see the response to General Comment 12.

- Page II-11, the "Adaptive Management" process needs to be detailed out and possibly made a separate appendix. This process must make it clear that the states anticipate the full development of compact entitlements and that there are uncertainties associated with this development as well. A link should also be established to the San Juan Flow Recommendations and note that these recommendations can also be modified. It should be assumed that water released to satisfy flow recommendations would be protected in accordance with the agreements that the states have signed to do so. 9

Chapter 3 – Affected Environment \ Environmental Consequences

- Page III-1, 2nd paragraph, last sentence, should be removed. Given the recent drought, water providers would just as soon water in excess of the flow recommendations remain in the reservoir for drought protection. 10
- Page III-7, delete from the "Arizona Bullet," "…or the amount remaining after deduction of use made in Arizona." The way the Upper Basin apportionment works is that each state gets the percent indicated of either the hydrologic determination or of 7.5 MAF if available after allowing for 50,000 AF of use in Arizona. So if there is 7.5 MAF available to the Upper Basin, first you subtract 50,000 AF for Arizona, then for example Colorado would get 51.75% of 7,450,000 AF, or the right to beneficially consume 3,855,375 AF. 11
- Page III-10, Colorado, the end of the first paragraph should read: "Colorado's compact apportionment can be derived from sources other than the San Juan, including the Yampa, White, Colorado mainstem, Gunnison and Dolores Rivers. Colorado has made no apportionment of use between these major basins within Colorado, which are currently administered independently of one another. Colorado's compact apportionment is 3,079,125 AF under the current hydrologic determination of 6.0 MAF of water available to the Upper Colorado River Basin. While Colorado does not concur with this determination, it has acquiesced to its use at the present time. Colorado monitors the overall consumptive use of Colorado River water and is presently using approximately 2.3 MAF on an average annual basis. Colorado has reached a comprehensive water rights settlement with the Colorado Ute Indian Tribes (Ute Mountain Ute and Southern Ute Tribes). This settlement agreement provides the tribes with water rights on every major tributary within Colorado that flows through the respective reservations as noted in Table III-3. The consumptive use of water under the settlement agreement is charged against Colorado's compact apportionment." 12
- Page III-12, as we understand the federal reserved water rights situation, the Navajo currently have federal reserved water rights that have not been quantified and which need to be settled. This likely includes water from the San Juan. We are not aware of any other reserved water rights in the San Juan and do not believe any exist for the Glen Canyon National Recreation Area. We ask that any reference to federal reserved water rights for Glen Canyon National Recreation Area be deleted. 13
- Page III- 22, 23 and 24 and Table 1 of Appendix A, these tables summarizing diversions and depletions remain inconsistent with the depletions upon which the flow recommendations were developed. It should either be modified to be consistent or to better explain the differences. 14
- Page III-24, as noted in footnote 8, Colorado does not agree with the Navajo's claimed priority date or any claim to water from Colorado. Furthermore, any Navajo claims to water must fit 15

CA3-9 Please see the response to General Comment 17.

CA3-10 Please see the responses to General Comments 11 and 13.

CA3-11 The EIS has been revised to accommodate your concern.

CA3-12 The EIS has been revised to accommodate your concern.

CA3-13 Comment noted.

CA3-14 There is a difference between the depletions associated with the Preferred Alternative (Table II-1 in the EIS) and depletions associated with the Flow Recommendation's (Table 7.3 in the Flow Recommendations). Table II-1 in the EIS represents a current summary of San Juan River Basin depletions, as compared to Table 7.3 in the Flow Recommendations, which is dated 1999. Also, please see the response to General Comment 21.

CA3-15 Please see the responses to General Comments 18c, d, and e.

within a states compact apportionment. This precedent has been well established. Thus, any claims the Navajo have must fit within New Mexico's or Arizona's entitlement. We urge Reclamation to further investigate this and clarify the DEIS language in this regard. 15 cont.

- Page III-26, the Cuedi Siphon has been completed. 16
- Page III-35, the costs indicated in footnotes 13 and 14 are not appropriate comparisons. 17
- Page III-79 & 80, should include a discussion of the water supply for Arboles, which comes directly from the reservoir and may need to be relocated. Also, Navajo operations have a significant impact on the state park near Arboles that should be discussed with Colorado State Parks and included in the DEIS as previously mentioned. 18

Glossary

- Add, "Compact" or "Interstate Compact". The important point is that a compact is both federal law and a state law in each of the states that are party to a compact. Thus, a compact cannot be changed by any state or the federal government without the consent of all the parties to the compact. Therefore, a compact is a very strong law and a very difficult law to amend or change. 19

Thank you for considering these comments. Please call me if you have any questions.

Sincerely yours,

D. Randolph Seaholm
Chief, Water Supply Protection

Cc:
Rod Kuharich
Kent Holsinger
Ken Beegles
Lyle Laverty
Russell George
John Whipple
Sam Maynes
Steve Harris

CA3-16 The EIS has been revised to accommodate your concern.

CA3-17 The EIS has been revised to accommodate your concern.

CA3-18 The water supply for the town of Arboles comes from a water system constructed on the Piedra River, not Navajo Reservoir. The domestic use water for Arboles State Park comes from a well(s) in the State Park area. The production of the well(s) may be affected by drawdown of the reservoir, but should not be adversely affected. The operation of Navajo Dam should not adversely affect either existing water system.

CA3-19 The EIS has been revised to accommodate your concern.

DEPARTMENT OF THE ARMY
ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS
4101 JEFFERSON PLAZA, NE
ALBUQUERQUE, NEW MEXICO 87109-3435
FAX (505) 342-3199

November 20, 2002

Operations Division
Reservoir Control Branch

Mr. Ken Beck
Bureau of Reclamation
Western Colorado Area Office
835 East Second Avenue, Suite 300
Durango, Colorado 81301

Dear Mr. Beck:

Enclosed are U.S. Army Corps of Engineers' (Corps) comments on your Draft Environmental Impact Statement (EIS) for Navajo Reservoir Operations, September 2002. Please note our continued concern that flood control is not considered as one of the Proposed Actions of the EIS.

The approved Navajo Dam and Reservoir, San Juan River Basin, Colorado and New Mexico, Report on Reservoir Regulation for Flood Control, June 1970, controls flows to 16,000 cubic feet per second (cfs) below the dam, while the draft Navajo Dam and Reservoir Water Control Manual (WCM), November 1992, controls flows to 5,000 cfs below the dam. The Corps believes the draft WCM, which has not yet been finalized, was used as the basis for modeling the flood control operating criteria for the EIS. We feel our comments should be incorporated to convey that the Corps' draft flood control criteria were adopted for use in the EIS. It is appropriate that the recommended flows under the Preferred Alternative for the endangered species, are consistent with the Corps' proposed operating criteria and designation of safe channel capacity as described in the draft WCM and the EIS. 1

We look forward to the completion of the Navajo Reservoir Operations EIS, and working with the Bureau of Reclamation to finalize our draft WCM. The Corps and Reclamation share the same goals of operating Navajo Reservoir for environmental, irrigation, recreational and flood control benefits, reflecting current river conditions downstream of the dam. If you have any questions concerning these comments please direct them to Marc Sidlow at (505) 342-3381.

Sincerely,

C. Susan Shampine
Chief, Operations Division

Enclosure

CA4-1 through 5 The EIS has been revised to accommodate your concern.

20 November 2002

Comments on the Draft EIS on Navajo Operations, September 2002

General comment:

Overall, the Draft EIS is a comprehensive and detailed assessment of the environmental impacts associated with the proposed action to modify the operations of Navajo Dam and Reservoir to implement Endangered Species Act-related flow recommendations on the San Juan River to conserve the endangered razorback sucker and Colorado pikeminnow. Adopting and implementing the environmental commitments and mitigation measures for reservoir operations, fish and wildlife, and other natural resources as described in Chapter IV should minimize adverse impacts associated with implementing the proposed change in operations under the Preferred Alternative.

Specific comments:

Page S-2, 1st paragraph
Add sentences to end of paragraph: In concert with this proposed action, the Corps of Engineers (Corps) will revise the safe channel capacity to 5,000 cfs below the dam, as described in the draft Navajo Dam and Reservoir Water Control Manual (WCM), November 1992, to reflect current river conditions. 2

Page S-8, 3rd sentence (bullet)
Revise bullet to read: Flood Control procedures for Navajo Dam, as revised and established by the Corps, to provide flood protection for areas along the San Juan River from the dam to Farmington, New Mexico. 3

Page S-9, 2nd paragraph under 250/6000 Alternative, 1st sentence
After 1st sentence, add sentence: The Corps intends to gain approval of the draft WCM to revise the channel capacity below Navajo Dam from the approved flow of 16,000 cubic feet per second (cfs) to 5,000 cfs, to reflect current river conditions. 4

Page I-1, 1st paragraph under Proposed Action
Add sentence to end of paragraph: In concert with this proposed action, the Corps will revise the safe channel capacity to 5,000 cfs below the dam, as described in the draft WCM*, November 1992, to reflect current river conditions. 5

* The approved manual is referred to as the Navajo Dam and Reservoir, San Juan River Basin, Colorado and New Mexico, Report on Reservoir Regulation for Flood Control (Report on Reservoir Regulation), June 1970.

Page I-9, 2nd paragraph, 1st sentence
Revise 1st sentence and add sentence to read: As a result of the above findings, the Corps notified Reclamation, by letter dated December 5, 2001, that the current channel capacity for the San Juan River from Navajo Dam to Farmington is 5,000 cfs. Upon completion of the Navajo Reservoir Operation EIS, the Corps intends to gain approval of the draft WCM, to reflect current river conditions below the dam. | 6

Page I-11, 4th sentence (bullet)
Add another sentence (bullet): The flood control regulation at Navajo Reservoir is a connected action because the maximum release from the dam in support of the flow recommendations must be consistent with the Corps' designation of safe channel capacity. | 7

Page II-3, 3rd sentence (bullet)
Revise bullet to read: Flood Control procedures for Navajo Dam, as revised and established by the Corps, to provide flood protection for areas along the San Juan River from the dam to Farmington, New Mexico. The approved channel capacity as defined in the Report on Reservoir Regulation is 16,000 cfs, from below the dam to the Animas River confluence in Farmington, New Mexico. The Corps has determined and advised Reclamation, by letter, dated December 5, 2001, that the channel capacity for this reach is now 5,000 cfs, as proposed in the draft WCM. Upon completion of the Navajo Reservoir Operations EIS, the Corps intends to gain approval of the draft WCM, to reflect current river conditions below the dam. | 8

Page III-157, Paragraph under Impact Indicators
Revise paragraph to read: The approved safe channel capacity below the dam to the Animas River confluence in Farmington, New Mexico is 16,000 cfs as described in the Report on Reservoir Regulation. However, the Corps has determined and advised Reclamation* that the current channel capacity for this reach is 5,000 cfs, and intends to gain approval of the draft WCM upon completion of the EIS. | 9

* Letter to Reclamation, December 5, 2001.

Page III-157, Last paragraph, 2nd and 3rd sentences
Revise sentences to read: The Corps has flood control authority downstream of the dam and developed a draft WCM for Navajo Dam (1992), that controls flows to 5,000 cfs below the dam, to reflect current river conditions. Upon completion of the Navajo Reservoir Operations EIS, the Corps intends to gain approval of the draft WCM. The draft manual provides flood control guidance by limiting rates of water flow in specified sections of the San Juan River. | 10

Volume II, page A-2, 3rd paragraph, 2nd sentence
Change: ..."(1) Upper Rio Grande River Basin Model"... to: ..."(1) Upper Rio Grande Water Operations Model" ... | 11

CA4-6 To ensure consistency within the EIS, references to correspondence will remain footnoted. The EIS has been revised to accommodate your concern.

CA4-7 through 12 The EIS has been revised to accommodate your concern.

Volume II, pages A-2 through A-6
A paragraph should be included on how flood control was modeled in RiverWare and which Flood Control Diagram (FCD) was used as the basis for flood control operations for the EIS. The approved Report on Reservoir Regulation (dated June 1970) contains the FCD for controlling flows to 16,000 cfs below the dam, while the draft WCM (dated November 1992) contains the FCD for controlling flows to 5,000 cfs below the dam. The Corps believes the draft WCM and FCD, which have not yet been finalized, was used in the RiverWare model as the basis for flood control. This is why the Corps feels that the EIS should include flood control as one of the proposed actions, if the draft FCD controlling flow to 5,000 cfs below the dam, was indeed used in the modeling and analyses for the EIS. Upon completion of the Navajo Reservoir Operation EIS, the Corps intends to gain approval of the draft WCM, to reflect current river conditions below the dam.

12

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX 75 Hawthorne Street
San Francisco, CA 94105

December 4, 2002

Ken Beck
Bureau of Reclamation
Western Colorado Area Office
835 East Second Avenue, Suite 400
Durango, Colorado 81301

Dear Mr. Beck:

The Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for the **Navajo Reservoir Operations, San Juan River Basin**, New Mexico, Colorado, and Utah. (CEQ Number: 020370, ERP Number: IBR-K39076-00). Our review is pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act. This letter provides a summary of EPA's concerns. Our detailed comments are attached.

The Bureau of Reclamation (Reclamation) in cooperation with multiple Federal, Tribal, and State agencies, proposes to implement the San Juan River Basin Recovery Implementation Program's *Flow Recommendations for the San Juan River* (Flow Recommendations)(1999) or a reasonable alternative to those recommendations. Reclamation would continue to operate Navajo Dam to meet authorized project purposes while modifying reservoir release patterns to meet Flow Recommendations designed to maintain or improve habitat for the razorback sucker and Colorado pikeminnow.

Upon completion of the Navajo Unit in 1962, criteria governing releases of water from the dam focused on meeting irrigation needs, providing flood control, maintaining stable river flows, and providing a recreation pool in Navajo Reservoir. As a consequence, the natural hydrograph of the San Juan River was changed, adversely affecting native fish populations and their habitat. The Flow Recommendations attempt to mimic this natural hydrograph in terms of magnitude, duration, and frequency of flows in the river downstream from Farmington, New Mexico.

The need for the Flow Recommendations stems from Endangered Species Act (ESA) consultations with the US Fish and Wildlife Service (USFWS) on other Basin projects (e.g., Animas-La Plata Project and Navajo Indian Irrigation Project) that affect flows in the San Juan River. These projects and future water development projects in the Basin are constrained by the need for ESA compliance. The Flow Recommendations have been identified by the USFWS as a reasonable and prudent alternative to a jeopardy opinion regarding the Colorado pikeminnow and

razorback sucker. Implementing the Flow Recommendations would allow water development to proceed consistent with the ESA and other applicable laws.

The alternatives are formulated in terms of flow rates repeesenting minimum and maximum limits in cubic feet per second (cfs) in the release rates from Navajo Dam. Three alternatives are evaluated in detail: No Action, 250 cfs minimum/5000 cfs maximum (Flow Recommendations and the Preferred Alternative), and 500 cfs/5000 cfs.

The proposed project is located within three US EPA Regions: Region 6 (New Mexico), Region 8 (Colorado and Utah), and Region 9 (Navajo Nation). Region 9 has taken the lead for this review in coordination with Region 6 and 8. Specifically, Region 9 is working closely with Region 8 EPA which provided comments on the Animas-La Plata Project and has an interest in the Navajo Reservoir Operations project.

We commend the goal to mimic the San Juan River natural hydrograph to benefit native endangered fish species while meeting authorized project purposes for the Navajo Unit. EPA supports the efforts to reoperate the Navajo Reservoir to restore the river habitat. We note that the 250cfs/5000cfs preferred alternative appears to be the only alternative to meet all the flow requirements which would allow water development to proceed.

The DEIS states that Reclamation is evaluating the need for a Memorandum of Agreement (MOA) to protect water released for endangered species from diversion by intervening appropriators (pg. 2-11). We strongly recommend an MOA or other mechanism be put in place that administers and protects the environmental water released from Navajo Reservoir, past intervening appropriators, to and thru the critical fish habitat reach in the San Juan River. We note the Navajo Nation has stated its willingness to assist with the MOA by establishing their future diversion points below the critical fish habitat. Protection against diversion of released environmental water is important given the increasing competition for scarce San Juan River water and proposed future water supply development projects. 1

EPA advocates balancing available water supplies, water supply commitments, and environmental needs. We believe that long-term water supply planning should focus, in part, on a determination of available supplies and bringing water supply commitments and needs into alignment with these supplies. It is clear from the DEIS that there are many water supply demands being made on the already constrained San Juan River Basin supply. We are concerned with the long-term sustainability of additional water development in the Basin. We urge the Bureau of Reclamation to work with other Federal, Tribal, and State agencies, and the San Juan River Basin Recovery Implementation Program towards an equitable balance of available water supplies, water supply commitments, and environmental needs. All available tools for enhancing water management flexibility and reliability should be evaluated for use. These tools could include water transfers, conservation, pricing, on- and off-farm irrigation efficiencies, operational flexibilities, market-based incentives, water acquisition, conjunctive use, voluntary temporary or permanent land fallowing, and wastewater reclamation and recycling. 2

2

CA5-1 Comment noted.

CA5-2 Comment noted.

Given the number of proposed water development projects and the scarcity of additional water supplies, we believe priority should be given to those projects that maximize environmental and human health benefits. For example, projects which provide drinking water to Indian Tribal members which currently have no running water would significantly improve human health and help meet the goals of the Safe Drinking Water Act. We note that projects such as the Navajo-Gallup Water Supply Project would provide municipal and domestic water supply to portions of the Navajo and Jicarilla Apache reservations which still lack running water and adequate domestic water supplies. 3

While we support reoperation of Navajo Dam to implement the Flow Recommendations, we have concerns regarding water quality, mitigation, indirect and cumulative impacts, and monitoring and the adaptive management plan. Because of these concerns, we have rated this DEIS as category EC-2, Environmental Concerns - Insufficient Information (see attached "Summary of the EPA Rating System"). We appreciate the opportunity to review this DEIS. Please send two copies of the Final EIS (FEIS) to this office at the same time it is officially filed with our Washington, D.C. office. If you have questions or wish to discuss our comments, please call Ms. Laura Fujii, of my staff, at (415) 972-3852 or fujii.laura@epa.gov.

Sincerely,

Lisa B. Hanf, Manager
Federal Activities Office

Enclosure: Detailed Comments (5 pages)
Summary of the EPA Rating System

cc: Stanley Pollock, Navajo Nation
US Fish and Wildlife Service
New Mexico Department of Game and Fish
New Mexico Department of the Environment
Bill Miller, San Juan River Basin Recovery Implementation Program

3

CA5-3 Comment noted.

DETAILED COMMENTS

Water Quality

1. EPA is concerned with the potential for increased exceedences of water quality standards. The Draft Environmental Impact Statement (DEIS) states that water quality in the San Juan River progressively degrades downstream due to natural and induced bank erosion, diversions, agricultural and municipal use, and tributary contributions. Portions of the river are listed as impaired and the stretch of river between Farmington and Shiprock already has a high number of water quality standard exceedences (pg. III-87). The proposed project will result in low flows which will further exacerbate this degrading water quality condition (pg. III-96). Of specific concern is selenium where selenium concentrations are already clearly elevated in all biota above ambient background concentrations (pg. III-93). Other constituents of concern are arsenic, copper and zinc.

Recommendations:

We urge Reclamation to work with other Federal, Tribal, and State agencies, and the San Juan River Basin Recovery Implementation Program to aggressively address the degrading water quality conditions. For example, we recommend all parties work with the New Mexico Department of Environment on the development of Total Maximum Daily Loads (TMDLs), implementation of Best Management Practices which will reduce nonpoint source pollution, and measures to maximize water use efficiency so that diversions during low flows can be minimized. Improving existing water quality will help maintain and enhance beneficial uses. 4

One method to reduce adverse water quality effects of low flows is to increase water management flexibility through greater water use efficiencies. We recommend the FEIS describe possible options for improving water use and the process for implementing these options. While we recognize that Reclamation may not have direct authority to implement these options, our goal is to encourage the identification and evaluation of increased water use efficiency measures which could be implemented by any interested party. A list of possible options or measures for improving irrigation water productivity are listed below[1]: 5

Category	Option or Measure
Technical	- Land leveling to apply water more uniformly
	- Surge irrigation to improve water distribution
	- Efficient sprinklers to apply water more uniformly

[1]Sandra Postel, *Pillar of Sand: Can The Irrigation Miracle Last?*, Worldwatch Institute Book, (W.W. Norton & Company, 1999), pgs 37-39.

CA5-4 Reclamation will continue to work within its authorities to protect water quality.

CA5-5 Reclamation will continue to use its water conservation program to assist local entities in efficient water use. Many irrigation systems in the area, for example NIIP, have already implemented measures such as sprinkler irrigation to increase efficiency.

- Low energy precision application sprinklers to cut evaporation and wind drift losses
- Furrow diking to promote soil infiltration and reduce runoff
- Drip irrigation to cut evaporation and other water losses and to increase crop yields.

Managerial
- Better irrigation scheduling
- Improving canal operations for timely deliveries
- Applying water when most crucial to a crop's yield
- Water-conserving tillage and field preparation methods
- Better maintenance of canals and equipment
- Recycling drainage and tail water

Institutional
- Reducing irrigation subsidies and/or introducing conservation-oriented pricing
- Establishing legal framework for efficient and equitable water markets
- Fostering rural infrastructure for private-sector dissemination of effective technologies
- Better training and extension efforts

Agronomic
- Selecting crop varieties with high yields per liter of transpired water
- Intercropping to maximize use of soil moisture
- Better matching crops to climate conditions and the quality of water available
- Sequencing crops to maximize output under conditions of soil and water salinity
- Selecting drought-tolerant crops where water is scarce or unreliable
- Breeding water-efficient crop varieties.

2. According to the Draft EIS (page III-97) the facility most affected by the proposed change in San Juan River flows would be the Bloomfield wastewater treatment facility, the only publicly owned treatment works (POTW) below the reservoir and above the confluence with the Animas River. Below this confluence, minimum flows are likely to remain above 500 cubic feet per second (cfs). According to the DEIS, the other POTW facilities on the San Juan River owned by the Towns of Farmington and Shiprock are not likely to be affected because they are downstream of the Animas River confluence. During Reclamation's summer low flow test, the flow past the Bloomfield plant was reduced to 130 cfs, significantly lower than the critical low flow loading requirements for their existing discharge permit. A revised river low flow condition could result in the need to amend the Bloomfield permit conditions to assure that in-stream water quality requirements are attained. 6

CA5-6 Reclamation agrees that the Bloomfield permit conditions may need to be amended. Please see the response to General Comment 23.

Recommendations:

Reclamation should work with New Mexico Department of the Environment to address this issue in the Final EIS (FEIS). We recommend that additional information be provided in the FEIS on the effect the proposed flow recommendations would have on Bloomfield's effluent requirements and the potential costs of meeting these requirements. 7

Mitigation

1. We note the potential adverse effects to hydroelectric generation, the downstream trout fishery, and river rafting which could be caused by the reduction of flows to 250 cfs under the Preferred Alternative. While we concur with the need to address stressed native fisheries, we also believe measures should be taken to minimize the impacts to other beneficial uses.

Recommendation:

We urge Reclamation to make full use of the interim water supply flexibility provided by unused apportionments to minimize the adverse effects of the proposed reoperation on other beneficial uses of the San Juan River. As noted above, we also believe efforts to maximize water use efficiencies could help alleviate the affects of low flows by reducing current diversions that occur below Navajo Dam. 8

2. Reclamation states that they will not take a lead responsibility in terms of funding or implementing the possible mitigation measures that have been suggested by the US Fish and Wildlife Service and New Mexico Department of Game and Fish. Reclamation commits to working with others to reduce impacts. However, they state funding of mitigation measures that are in response to implementing the Preferred Alternative should be shared by all parties that benefit from implementation of this alternative (pg. IV-3).

Recommendation:

EPA acknowledges that all parties that benefit from implementation of the Preferred Alternative should share in the funding and implementation responsibility for minimizing adverse impacts of this alternative. However, we urge Reclamation to take a leadership role in the development of a detailed mitigation plan which identifies mitigation measures, funding sources, and implementation responsibility. We recommend this mitigation plan be included in the FEIS. 9

CA5-7 Please see the response to General Comment 23.

CA5-8 Please see the response to General Comment 11 which addresses flexibility. The EIS has been revised to accommodate your concern.

CA5-9 Please see the response to General Comment 2.

Indirect and Cumulative Impacts

Reasonably foreseeable water development projects have been integrated into the baseline evaluation through the inclusion of their proposed diversions into the hydrologic model used to evaluate potential impacts. Thus, in theory, indirect and cumulative impacts of their diversions have been incorporated into the effects analysis for the trout fishery, irrigation diversions, recreation, hydropower, and Indian trust assets (pg. III-82). However, it does not appear that an evaluation of the indirect and cumulative effects of reasonably foreseeable projects, other than the depletions on the San Juan River, have been evaluated. For example, full build-out of the Navajo Indian Irrigation Project could further exacerbate the water quality conditions in the river by increasing irrigation return flows containing pesticides and nutrients.

Recommendation:

We recommend the FEIS expand the indirect and cumulative impact evaluation to consider the potential effects of all reasonably foreseeable projects that could affect the San Juan River system and its beneficial uses. For example, other issues to examine are the potential loss of sensitive species habitat from induced growth or conversion to agricultural land and higher pollutant loads to the river from irrigation return flows. 10

Monitoring and the Adaptive Management Plan

The Flow Recommendations are based 1998 data. Thus, the Flow Recommendations propose an adaptive management process based on new information as it becomes available (pg. I-8). The DEIS does not appear to provide a detailed monitoring or adaptive management plan. While EPA believes adaptive management may be appropriate, adaptive management is dependent upon accurate and timely monitoring and feedback to ensure new information is effectively integrated into project decisions and operations. Without a detailed monitoring or adaptive management plan, we are concerned that the adaptive management process may not be effectively implemented.

Recommendation:

We recommend the FEIS provide a detailed monitoring and adaptive management plan. In addition, it is often helpful to provide a detailed governance plan which clearly delineates each participants role, responsibilities, when certain actions should be taken, and anticipated outcomes. 11

General Comments

The DEIS states that the Navajo Dam hydroelectric generators, as currently configured, experience extreme vibration when flows through the penstocks are reduced below 350 cfs. As the flows decrease the noise from the hydroelectric generators increases (pg. III-77). Although

CA5-10 Please see the response to General Comment 1.

CA5-11 Please see the response to General Comment 17.

the DEIS indicates that a modification to the power plant may alleviate potential damage to the turbines, it does not appear to address the potential adverse effects to personnel or safety.

Recommendation:

We recommend the FEIS clarify the extent of the noise and potential safety hazard to personnel of utilizing the turbines below the 350 cfs flow rates. The clarification should state if the increased noise is a problem or not, whether a safety hazard could be created, and whether the proposed modifications to the units would resolve potential safety issues. 12

CA5-12 During the Summer Low Flow Test, downstream releases were made through the City of Farmington powerplant. Some minor noise was noted and the City reported there was minor cavitation that occurred during the test. This noise and cavitation should not represent a safety hazard to the unit or site personnel. At this time, Reclamation is not aware of proposed modifications to the existing units.

SUMMARY OF EPA RATING DEFINITIONS

This rating system was developed as a means to summarize EPA's level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the EIS.

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

ADEQUACY OF THE IMPACT STATEMENT

Category 1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

"Category 2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

"Category 3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, "Policy and Procedures for the Review of Federal Actions Impacting the Environment."

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Mexico Ecological Services Field Office
2105 Osuna NE
Albuquerque, New Mexico 87113
Phone: (505) 346-2525 Fax: (505) 346-2542

December 4, 2002

Cons. #2-22-98-I-402

Memorandum

To: Area Manager, Bureau of Reclamation, Western Colorado Area Office, Durango, Colorado
Attention: Ken Beck

From: Field Supervisor, U.S. Fish and Wildlife Service, New Mexico Ecological Services Field Office, Albuquerque, New Mexico

Subject: Comments on the Navajo Reservoir Operations Draft Environmental Impact Statement, New Mexico, Colorado, and Utah

This responds to a request from the Bureau of Reclamation (Bureau) to review the Navajo Reservoir Operations Draft Environmental Impact Statement (DEIS). The DEIS addresses impacts associated with the reoperation of Navajo Dam in San Juan County, New Mexico. As mentioned in our March 29, 2002, review of the Advanced DEIS, the U.S. Fish and Wildlife Service (Service) and the Bureau have discussed the project impacts to fish and wildlife resources via meetings, written correspondence, and conference calls during the past couple of years. A draft Fish and Wildlife Coordination Act Report (CAR) has been prepared by the Service to assess project impacts to fish and wildlife resources and their habitats: a final CAR will be completed for inclusion in the final EIS. Analysis of project impacts is ongoing between the Service and the Bureau for consistency between the CAR and EIS.

As a result of the correspondence between the Service and the Bureau, we generally agree with the project impacts to fish and wildlife resources and their habitats as identified in the DEIS. However, to fully assess impacts from implementation of the project will require both short- and long-term monitoring. The Service recommends that the Bureau commit in the final EIS to monitor fish and wildlife resources, and where impacts are identified, that appropriate mitigation be implemented. 1

In our final CAR, the Service is evaluating all impacts to resources affected by the operation of Navajo Dam. These include impacts to threatened and endangered species, the native fish community, trout fishery, reservoir fishery, wetlands, riparian habitats, and water quality.

CA6-1 Please see the response to General Comment 2.

These impacts are based upon implementing the recommendations as described in the Flow Recommendations for the San Juan River (Flow Recommendations)(Holden 1999). These recommendations, identified as the Preferred Alternative in the DEIS, include maintaining minimum base flows of 500 cfs through habitat occupied by endangered fish, and includes designated critical habitat.

The calculation of base flows in the Flow Recommendations were developed using the average of the four stream gages between Farmington, New Mexico, and Mexican Hat, Utah. The assessment of impacts to fish and wildlife resources in our CAR are based upon maintaining minimum base flows of 500 cfs downstream of the Animas River confluence. The Service is concerned that the calculation of average base flows (as indicated by the Bureau in recent meetings) may not meet the intent of the Flow Recommendations. Any calculation of average base flow that deviates substantially from the flows used in the Flow Recommendations (*e.g.*, in 2002, the Bureau used one high gage reading to calculate a 500 cfs average when flows at the other gages were substantially less than 500 cfs) could result in a substantial loss of fish and wildlife resources and would need to be addressed in the final EIS. Therefore, to determine changes in habitat, and ensure no net loss of fish and wildlife resources in this reach, additional baseline information would need to be analyzed and any further adverse impacts would necessitate additional mitigation than that described in our CAR. 2 3

We look forward to continuing coordination with the Bureau concerning fish and wildlife resources in the San Juan River basin. If we can be of further assistance, please contact Mike Buntjer of my staff at (505) 346-2525, ext. 133.

Joy E. Nicholopoulos

Joy Nicholopoulos

cc:
Director, New Mexico Department of Game and Fish, Santa Fe, New Mexico

CA6-2 Please see the response to General Comment 15 concerning flow monitoring. Also, the EIS has been revised to accommodate your concern.

CA6-3 Please see the response to General Comment 2.

B. REID HALTOM
LESTER K. TAYLOR
ALAN R. TARADASH
WAYNE H. BLADH
LEE BERGEN
TERESA LEGER DE FERNANDEZ
JILL E. GRANT
CYNTHIA A. KIERNINSKI
SUSAN G. JORDAN
TOM J. PECKHAM
DANIEL I.S.J. REY-BEAR

STELLA SAUNDERS
STEPHEN H. GREETHAM
DONALD H. GROVE
KATHERINE M. GORDON
GEORGE A. LUJAN
NAOMI J. BARNES
HEATHER D. WHITEMAN RUNS HIM
ALISA COOK LAUER

SHANE C. YOUTZ, OF COUNSEL

NORDHAUS HALTOM TAYLOR
TARADASH & BLADH, LLP
ATTORNEYS AT LAW

ALBUQUERQUE OFFICE
SUITE 1050
500 MARQUETTE AVENUE, N.W.
ALBUQUERQUE, NEW MEXICO 87102

TELEPHONE (505) 243-4275
TELEFAX (505) 243-4464

SANTA FE OFFICE
SUITE 9
200 W. DE VARGAS STREET
SANTA FE, NEW MEXICO 87501
TELEPHONE (505) 982-3622
TELEFAX (505) 982-1627

WASHINGTON, D.C. OFFICE
SUITE 300
816 CONNECTICUT AVENUE, N.W.
WASHINGTON, D.C. 20006
TELEPHONE (202) 530-1270
TELEFAX (202) 530-1920

Reply to Santa Fe Office

December 4, 2002

Mr. Ken Beck
Department of the Interior
Bureau of Reclamation
Western Colorado Area Office
835 East Second Avenue, Suite 400
Durango, CO 81301

Re: The Jicarilla Apache Nation's Comments on the Bureau of Reclamation's Draft Environmental Impact Statement for Navajo Reservoir Operations

Dear Mr. Beck:

Please find enclosed the above-referenced comments for the administrative record for the Navajo Reservoir Operations and the associated Environmental Impact Statement. We also submitted these comments through email and facsimile transmission today.

Sincerely,

NORDHAUS, HALTOM, TAYLOR,
TARADASH & BLADH, LLP

Susan G. Jordan

SGJ:ddg

Encl: 1) The Jicarilla Apache Nation's Comments on the Bureau of Reclamation's Draft Environmental Impact Statement for Navajo Reservoir Operations, December 4, 2002, and attachments thereto

...TOM TAYLOR
...BLADH, LLP
...S AT LAW
...eck
...er 4, 2002

cc:

President Claudia Vigil-Muniz, Jicarilla Apache Nation
Legislative Council, Jicarilla Apache Nation
Members of the Water Commission, through Nely Gallegos, Jicarilla Apache Nation
Mike Hamman, Water Administrator, Jicarilla Apache Nation
Joy E. Nicholopoulos, Field Supervisor, U.S. Department of the Interior, Fish and Wildlife Service, New Mexico Ecological Services Field Office
Carol DeAngelis, Area Manager, U.S. Department of the Interior, Bureau of Reclamation, Upper Colorado Region, Western Colorado Area Office
John Bezdek, U.S. Department of the Interior, Office of the Solicitor
Michael Schoessler, Esq., U.S. Department of the Interior, Office of the Solicitor - Southwest Region
Brian Parry, Native American Affairs Program Manager, Bureau of Reclamation, Upper Colorado Region
Lester K. Taylor, Esq., Nordhaus Law Firm

NORDHAUS HALTON TAYLOR
TARADASH & BLADH, LLP
ATTORNEYS AT LAW
ALBUQUERQUE OFFICE
SANTA FE OFFICE
WASHINGTON, D.C. OFFICE

THE JICARILLA APACHE NATION'S COMMENTS ON THE BUREAU OF RECLAMATION'S DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR NAVAJO RESERVOIR OPERATIONS

December 4, 2002

The Nordhaus Law Firm submits these comments on the Bureau of Reclamation's Draft Environmental Impact Statement ("DEIS") for Navajo Reservoir Operations on behalf of our client, the Jicarilla Apache Nation (or "Nation"). We incorporate by reference our comments of March 22, 2002 on the Advanced Preliminary Draft Environmental Impact Statement ("ADEIS"), which in turn incorporated by reference our comments of December 21, 2001, on the Preliminary Draft Environmental Impact Statement ("PDEIS"), and our comments of December 14, 2001, on the Summer Low Flow Test Report. 1

The Bureau of Reclamation ("Reclamation") has failed to correct errors identified in our prior comments and those comments apply with equal force to the DEIS. To avoid redundancy, the comments below do not repeat all of the inadequacies of the ADEIS and PDEIS that we previously identified and that remain uncorrected in the DEIS. Instead, these comments focus on the flaws in Reclamation's response to our previous comments.

I. **Reclamation Has Failed to Correct Errors Identified in the Nation's Previous Comments and Continues to Violate Fundamental Requirements of the National Environmental Policy Act ("NEPA").** 2

A. Reclamation Continues to Improperly Analyze its Proposed Action.

In the ADEIS, Reclamation failed to analyze its proposed action. See Jicarilla Apache Nation's Comments on the ADEIS for Navajo Reservoir Operations, March 22, 2002 ("Nation's ADEIS Comments") at 2-11. The ADEIS identified the proposed action as operating Navajo Reservoir to meet

CA7-1 Comment noted.

CA7-2 The Nation's position is based on assertions that existence of the Jicarilla Apache Water Rights Settlement Act requires that all of the Nation's settlement water be included as a current depletion. Reclamation respectfully disagrees with the Nation's position. As Reclamation has explained, the proposed federal action is the implementation of the Flow Recommendations, or a reasonable alternative to those recommendations, in a manner which enables both current and future water depletions to proceed in compliance with the ESA and meets authorized project purposes - not the implementation of the Jicarilla Apache water rights settlement. Reclamation's position is that the authorized purposes of the Navajo Unit have not been amended by the Settlement Act. Finally, Reclamation believes that implementation of the Flow Recommendations is not inconsistent with the Settlement Act and that recovery of the endangered fish species is in the best interest of the Nation. Also please see the response to General Comment 18g.

the Flow Recommendations while meeting other congressionally authorized purposes of the Navajo Reservoir and enabling future water development. Despite its stated proposed action, the ADEIS analyzed a water depletion scenario that excluded congressionally authorized depletions from the Navajo Reservoir Supply, specifically, depletions authorized by the Jicarilla Apache Tribe Water Rights Settlement Act, Pub. L. No. 102-441, 106 Stat. 2237 (1992) ("Settlement Act"), and by the Contract Between the United States and the Jicarilla Apache Tribe executed on December 8, 1992 ("Settlement Contract"). The Settlement Act and Settlement Contract are attached hereto as Attachments 1 and 2, respectively.

As explained in our ADEIS comments, an environmental impact statement (or "EIS") that fails to analyze the proposed action, or a substantial component of that action, fails to comply with NEPA. See Nation's ADEIS Comments at 7. By excluding water deliveries to the Nation that Reclamation is obligated to make under the Settlement Act and Settlement Contract, the ADEIS omitted from its analysis a component of its proposed action that would enable future water development and maintain the authorized purposes of the Navajo Unit. Id. We pointed out that Reclamation admitted in the ADEIS that supplying water to the Nation pursuant to the Settlement Act and Settlement Contract is an authorized purpose of the Navajo Unit. Id. at 5; see also ADEIS, I-10, at line 283; id., III-28, ITA/EJ Section, at lines 343-346. We also indicated in our comments on the ADEIS that the exclusion of these depletions violates the fundamental requirement of NEPA to evaluate the environmental impacts of the proposed action.

Instead of correcting its failure to analyze the proposed action, however, Reclamation makes two additional, critical errors in the DEIS. First, Reclamation re-labels the "authorized purposes" of the Navajo Unit as "functions" and omits its previous statement clearly acknowledging that the Settlement Act is an authorized purpose of the Navajo Unit. Compare DEIS at I-12 with ADEIS, I-10, at line 270; compare ADEIS, III-28, ITA/EJ Section, at lines 343-346, with DEIS at III-28 & n.10. Reclamation still concedes that Congress has "authorized" deliveries from Navajo Reservoir to the Nation, and that such deliveries are "functions" of the Navajo Unit, but nonetheless refuses to include them in the proposed action as analyzed in the DEIS. Second, Reclamation now improperly limits the scope of the action analyzed in the DEIS to exclude water projects and depletions that have not obtained environmental compliance. See DEIS at I-2 & n.2.

1. Reclamation Admits that Its Delivery of Project Water to the Nation is Authorized by Congress, but Continues to Wrongly Exclude Full Delivery of that Water from the Operations Analyzed in the DEIS on the Grounds that Congress did not Amend the Colorado River Storage Project Act to Make Such Delivery a "Separate and Distinct Project Purpose."

In the ADEIS, Reclamation described its proposed action as follows:

> The Bureau of Reclamation (Reclamation) proposes to operate Navajo Reservoir to implement Endangered Species Act (ESA) related flow recommendations on the San Juan River. This would assist in conserving endangered fish in the San Juan River downstream from Farmington, New Mexico, while *enabling future water development to proceed in the San Juan River Basin (Basin) in compliance with applicable laws, compacts, decrees, and Indian trust responsibilities.* To accomplish this action, Reclamation would operate Navajo Dam and Reservoir to provide water releases designed to maintain and improve habitat for the razorback sucker and Colorado pikeminnow . . . . *At the same time, Reclamation would maintain the authorized purposes of the Navajo Unit, Colorado River Storage Project (CRSP).*

ADEIS, S-1, at lines 1-10 (emphasis added); see also Nation's Comments on ADEIS at 5.

As explained in our comments on the ADEIS, the delivery and development of the Nation's water rights pursuant to the Settlement Act and Settlement Contract are congressionally authorized purposes of the Navajo Unit and therefore are components of its operation. Reclamation ignored that legislative and contractual obligation in its analysis of future Reservoir operations in the ADEIS. Consequently, Reclamation failed to analyze the components of its proposed action consisting of enabling future water development and maintaining the authorized purposes of the Navajo Unit.

We stressed in our ADEIS comments that Reclamation admitted that the Navajo Unit's "authorized purposes" include water delivery to the Nation as required by the Settlement Act. See Nation's ADEIS Comments at 5. For instance, Table I-1 of the ADEIS was titled "Authorized purposes of the Navajo Unit and enabling legislation." See ADEIS, I-10, at line 270. Under the column heading, "Purpose," the ADEIS table included "Tribal Water Rights" and specifically listed "the Jicarilla Apache Tribe Water Rights Settlement Act of October 23, 1992 (P.L. 102-441)" as corresponding "Law." See id., at line 283; see also Nation's ADEIS Comments, at 5.

3

CA7-3 Please see responses to Comment CA7-2 and General Comment 18g.

However, Reclamation now responds in part to our analysis by re-titling the table in the DEIS, "Various authorities under which the Navajo Unit is operated," and re-labeling the "Purpose" column heading, "Function." See Nation's ADEIS Comments at 5; compare ADEIS, I-10, at line 270-271, with DEIS at I-12. Re-labeling table headings does not remedy Reclamation's failure to include Congressionally authorized deliveries to the Nation in its analysis of the proposed action.

Reclamation does not explain the reason for this departure from its position expressly stated in the ADEIS that supplying water to the Nation under the Settlement Act is an authorized purpose of the Navajo Unit. A pertinent section of the ADEIS reads:

> Beginning in 1975, the Jicarilla Apache Nation filed a number of lawsuits against the United States to protect its water rights. Subsequent settlement negotiations between the Jicarilla Apache Nation and the United States began in 1985. Central to the negotiation effort was an updated hydrology study which resulted in the Secretary of the Interior submitting, and Congress ultimately adopting, a new hydrologic determination for the Upper Colorado River Basin. *This determination added 22,500 AF per year of depletions to New Mexico's permanent allocation, thereby making this water available for development and providing a major contribution to the settlement of the Jicarilla Nation's Federal reserved water rights claims.* In October 1992, the Jicarilla Apache Tribe Water Rights Settlement Act (Settlement Act) became law (106 Stat. 2237). The water delivery provisions for future uses in the Settlement Act mandated certain requirements to be fulfilled before the water could be made available for Tribal use. *All of these requirements were met*, and on February 23, 1999, the Eleventh Judicial District Court, County of San Juan, State of New Mexico, entered a Partial Final Judgement and Decree adjudicating the Jicarilla Apache Nation's water rights in the San Juan River System. *As a result, supplying water to the Jicarilla Apache Nation under the Settlement Act is now one of the authorized purposes of the Navajo Unit* enabling the Jicarilla Apache Nation to seek delivery of water under the Settlement Contract, or to market that water (Reclamation 2000a, p. 4-2).

ADEIS, III-28, ITA/EJ Section, at lines 328-346 (emphasis added). Thus, not only did Reclamation acknowledge in the ADEIS that water delivery to the Nation pursuant to the Settlement Act is an authorized purpose of the Navajo Unit, but also acknowledged that Congress adopted a hydrologic determination that confirms the availability for development of the water supply to meet that delivery obligation.

> The DEIS abbreviates and rewrites the foregoing discussion of the Settlement Act as follows:
>
> > Settlement negotiations between the Jicarilla Apache Nation and the United States began in 1985. Central to the negotiation effort was an updated hydrology study which resulted in the Secretary of the Interior submitting to Congress a 1988 Hydrologic Determination for the Upper Colorado River Basin. According to the Hydrologic Determination, water was available within New Mexico's Upper Basin apportionment for development and settlement of the Jicarilla Apache Nation's Federal reserved water rights claims.
> >
> > In October 1992, the Jicarilla Apache Tribe Water Rights Settlement Act (Settlement Act) became law (106 Stat. 2237). The water delivery provisions for future uses in the Settlement Act mandated certain requirements to be fulfilled before the water could be made available for Tribal use. All of these requirements were met, and on February 23, 1999, the Jicarilla Apache Nation water rights in the San Juan River were adjudicated in District Court, San Juan County, New Mexico.
> >
> > *As a result, supplying project water to the Jicarilla Apache Nation under the Settlement Act is authorized by Congress, enabling the Nation to seek delivery or to market that water under the Settlement Contract (Reclamation 2000a).* Water to be supplied under the contracts with the Secretary of the Interior are of the same priority as the water rights for Navajo Reservoir and NIIP, and must share shortages with other contractors of the Navajo Reservoir Supply, including the NIIP. The Settlement Act also allows the Jicarilla Apache Nation to market water through third-party contracts, consistent with Federal and State laws. Consistent with the Settlement Act, the Department of the Interior works with the Nation to facilitate use of water pursuant to the Nation's water supply contracts with the Secretary.

DEIS at III-28 (footnote omitted) (emphasis added).

Thus, Reclamation has deleted from the DEIS its acknowledgment that delivery to the Nation is "one of the authorized purposes of the Navajo Unit," but nonetheless continues to recognize that such delivery is "authorized by Congress." In a footnote to the language modified in the DEIS, Reclamation now asserts that in order for delivery to the Nation to be an authorized purpose, the Settlement Act would have had to amend the Colorado River Storage Project Act, which by its own terms it did not amend:

> The Jicarilla Apache Nation has suggested that the authorized purposes of the Navajo Unit have been amended by the Settlement Act so that the Navajo Unit authorized purposes now include providing water to the Nation. *While Reclamation agrees that under the terms of the Settlement Act the Secretary is authorized to provide project water to the Nation, Reclamation respectfully disagrees that the Settlement Act has created a separate and distinct project purpose.* In order to create a new project purpose, the authorizing legislation for the Navajo Unit (the Colorado River Storage Project Act) must be amended. The Navajo Unit authorization, by its own terms, does not amend the CRSP: "Nothing in this Act shall be construed to alter, amend, repeal, construe, interpret, modify, or be in conflict with the provisions of . . . the Colorado River Storage Project Act. . . ." (Jicarilla Apache Tribe Water Rights Settlement Act of October 23, 1992, section 11).

DEIS at III-28 n.10 (emphasis added).

Thus, Reclamation concedes that by act of Congress "the Secretary is authorized to provide project water to the Nation," but quibbles that Congress did not create a "new" or "separate and distinct project purpose" by amending CRSP. This is a distinction without a difference. Congress has specifically authorized the operation of Navajo Reservoir to deliver water to the Nation, and need not have done so by amending CRSP.

Ironically, Reclamation's above quotation of Section 11 of the Settlement Act stands for the opposite proposition for which it was quoted. Although nothing in the Settlement Act shall be construed to "alter, amend, repeal, interpret, or modify" CRSP, nothing in the Settlement Act shall be construed to "*be in conflict with*" CRSP's provisions either. Consequently, the Settlement Act and CRSP are expressly compatible with one another. The Settlement Act provides a more specific directive as to the delivery of a specified quantity of the water, but by its own terms does not conflict with the broader authorized purposes articulated in CRSP. Regardless of whether the delivery authorized by the Settlement Act is viewed as an "authorized purpose" of the Project or as a specific delivery "authorized" by Congress, it is a Congressional authorization and directive that Reclamation cannot ignore in planning the operation of Navajo Reservoir or projecting the environmental impacts of its operation.

2. Reclamation Has Erroneously Narrowed the Scope of the Proposed Action, in Violation of the Council on Environmental Quality Regulations. 4

In an effort to justify its exclusion of the Nation's Settlement Act and Settlement Contract water rights from its analysis of the proposed action, Reclamation erroneously narrows the scope or range of actions analyzed as part of the proposed action. Reclamation has redefined the proposed action to limit the future water development included to "certain future water depletions" that have "obtained appropriate environmental compliance but are not yet implemented." DEIS at I-1 & n.2. This limitation on the action analyzed in the DEIS contravenes the requirement of the CEQ regulations to determine which proposals shall be the subject of a particular EIS by considering connected, cumulative and similar actions and including them under the circumstances specified by the regulations. See 40 C.F.R. § 1508.25 (2002). Reclamation must analyze full delivery and development of the Nation's water rights in the DEIS on Navajo Dam and Reservoir operations because that delivery and development are connected, cumulative, and similar to Reclamation's operation of Navajo Reservoir and other depletions that Reclamation includes in the analysis.

In the ADEIS, Reclamation defined the proposed action as "operat[ing] Navajo Dam and Reservoir to implement Endangered Species Act (ESA)-related flow recommendations on the San Juan River" in order to "assist in conserving endangered fish . . . while *enabling future water development to proceed* in the San Juan River Basin (Basin) *in compliance with applicable laws, compacts, court decrees, and Indian trust responsibilities*." See ADEIS, I-1, at lines 29-34 (emphasis added). Reclamation emphasized that the proposed action would "maintain the *authorized purposes of the Navajo Unit* while *enabling future water development to proceed in the Basin in compliance with applicable laws, compacts, decrees, and Indian trust responsibilities*." Id., I-3, at lines 63-65 (emphasis added). However, in the DEIS, Reclamation now redefines the proposed action as operating the Navajo Unit to implement the flow recommendations "or a reasonable alternative to those recommendations, in a manner which allows for both current and *certain* future water depletions to proceed," and limits those "certain future water depletions" to ones that have "*obtained appropriate environmental compliance but are not yet implemented*." DEIS at I-1 & n.2 (emphasis added).

The CEQ Regulations state that "[a]gencies *shall make sure the proposal* which is the subject of an environmental impact statement *is properly defined*." 40 C.F.R. § 1502.4(a) (2002) (emphasis added). In addition, "[a]gencies shall use the criteria for scope (§ 1508.25) to determine which proposal(s) shall be the subject of a particular statement." Id. The criteria for scope state, in pertinent part, that "*Scope* consists of the range of actions, alternatives, and impacts to be considered in an environmental impact

CA7-4 Please see responses to General Comments 1a and 18b.

statement. . . . To determine the scope of environmental impact statements, agencies shall consider 3 types of actions . . . ." 40 C.F.R. § 1508.25 (2002). These three types of actions are connected actions, cumulative actions, and similar actions. 40 C.F.R. § 1508.25(a) (2002). Notably, whether an action has environmental compliance is *not* among the criteria for determining the scope of an environmental impact statement prescribed by the CEQ regulations.

Actions are "connected" when they are "closely related" to the proposed action. 40 C.F.R. § 1508.25(a)(1)(2002). More specifically, an action is connected to the proposed action if it "[c]annot or will not proceed unless other actions are taken previously or simultaneously." 40 C.F.R. § 1508.25(a)(1)(ii) (2002). The proposed action involves the operation of Navajo Reservoir. The delivery of the Nation's water pursuant to the Settlement Act is connected to the proposed action because it will not occur without the operation of Navajo Reservoir to deliver that water.

"Cumulative actions" are actions that have cumulatively significant impacts when viewed with other proposed actions. 40 C.F.R. § 1508.25(a)(2) (2002). Reclamation acknowledges elsewhere in the DEIS that "if no additional water development is possible, the Tribes could bear a disproportionate burden to recover the endangered fish as a consequence of Tribal water rights being the last water resources to be developed in the Basin," see DEIS at III-32, and asserts that its Preferred Action Alternative presents the "best opportunity for future Basin water development including [Indian Trust Assets] . . . because future water development could occur as the Basin works toward recovery of endangered fish." See DEIS at III-17. These conclusions rest upon an understanding that depletions in the basin – both those depletions included in the analysis of the preferred alternative and the future tribal depletions excluded from it – are indeed cumulative to one another.

"Similar actions" are actions that "when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography." 40 C.F.R. § 1508.25(a)(3) (2002). An agency "should" analyze the environmental consequences of similar actions "when the best way to assess adequately the combined impacts of similar actions or reasonable alternatives to such actions is to treat them in a single impact statement." Id. Delivery and development of the Nation's water pursuant to the Settlement Act is similar to delivery of water for the projects and depletions Reclamation has included in the analysis of its preferred alternative. Both share the same geographical environmental consequences–they affect the amount of water available for other uses and endangered fish benefits, and the best way to assess the combined impacts of these similar actions is to evaluate them in the same impact statement.

Full development and delivery of the Nation's water rights are connected, cumulative, and similar to Reclamation's operation of the Navajo Reservoir so as to deliver and develop other projects and depletions, and Reclamation must analyze those actions as such. Reclamation cannot exclude full development and delivery of the Nation's water rights from its analysis of Navajo Reservoir operations based on the assumption that further environmental compliance is needed for those uses because that distinction is not supported by NEPA or the CEQ regulations. Indeed, as discussed in the following Section, Reclamation included in its environmental impact analysis for the operation of the Animas-La Plata Project the future water uses by Indians and non-Indians even though they would require further environmental compliance.

3. The Delivery of the Nation's Water Supply Can and Should be Included in the Navajo Reservoir Operations EIS in an Analogous Manner to the Analysis of the Development of the Settlement Act Water Rights of the Colorado Ute Tribes and Future Uses of Neighboring Non-Indian Communities in the Final Supplemental Environmental Impact Statement for the Animas-La Plata Project. 5

For purposes of its NEPA analysis of the Animas-LaPlata Project ("A-LP Project"), Reclamation projected the development of the undeveloped settlement water rights of the Colorado Ute Tribes and certain uses of the Navajo Nation and neighboring non-Indian communities that would be supplied by the A-LP Project. See Bureau of Reclamation, *Animas-La Plata Project, Final Supplemental Environmental Impact Statement* ("A-LP FSEIS"), Vol. 1,§§ 1.4.3 and 2.1 to 2-16 (July 2000), attached hereto as Attachment 8. Although the uses were not yet specifically defined by the Colorado Ute Tribes, and both the Colorado Ute Tribes' uses and the other future uses (excepting a Navajo Nation pipeline) were expected to require further environmental compliance, Reclamation included deliveries for these uses in the proposed action and impacts analysis of the A-LP FSEIS. Reclamation can and should include similar projections and analysis in the Navajo Reservoir Operations DEIS for the delivery of the Nation's Settlement Act water rights.

Reclamation acknowledged in the A-LP FSEIS the uncertainty of the "ultimate use" of the Colorado Ute Tribes' entitlement to the project water, and that it "would be more specifically defined by those Tribes as future needs develop." A-LP FSEIS, § 2.1.1. Future M&I uses by the Colorado Ute Tribes "would be the subject of future NEPA review at the time the uses are determined." Id., § 2.1.1.2. The A-LP FSEIS "discuses the affected environment and potential environmental impacts associated with these potential future water uses to the extent it is possible to identify them at this time," but "[s]pecific

CA7-5 Please see the responses to Comment CA7-2 and General Comments 18b and 18g.

engineering, environmental, and cost analysis would be conducted in the future for those future water uses and conveyances that are proposed for implementation." Id. The A-LP FSEIS thus assumes M&I use for various *possible* uses, including housing that the tribes "may elect" to build, for supply of an industrial park that one of the tribes "may want to lease" to meet demands associated with projected growth of Durango, and for the "possibility" of constructing a resort hotel complex. Id., §§ 2.1.1.2.1 and 2.1.1.2.2. Likewise, "[f]uture development of facilities to serve the City of Durango and the ALPWCD M&I water users would potentially be the subject of future NEPA compliance if a federal action were involved"and "[f]uture development of facilities to serve the Cities of Aztec, Bloomfield, and Farmington and other SJWC water users would potentially be the subject of future NEPA compliance, if a federal action were involved." Id., §§ 2.1.1 and 2.1.1.1.

The A-LP FSEIS explains this approach:

> This FSEIS addresses the settings, likely impacts, and proposed mitigation measures for the structural and non-structural components of the alternatives. While these aspects of the proposed structural components are well defined, the non-structural components, as well as future water uses, are projections. The specific uses to which a water acquisition fund may be put by the Colorado Ute Tribes in implementing the non-structural components would be determined in the future. It may include acquisition of land and associated water rights, or other activities appropriate to the use of this fund. The range of impacts would vary depending on these future uses. Similarly, *the future water use projections were made for the purpose of comparative NEPA analysis, based on reasonable assumptions at this time. The future water uses described in the FSEIS are non-binding on the Colorado Ute Tribes, and the actual future use of water may vary.*
>
> The projections are reasonable and representative of what is likely to occur, as far as current information allows. . . .
>
> *Any future actions would be subject to future environmental review, and NEPA compliance would be required as part of any approval by a federal agency.*

A-LP FSEIS, § 2.1.1.4. (emphasis added). The A-LP FSEIS goes on to explain that:

> Since possible future water uses are non-binding, the representative *environmental impacts of conveyance of water from these storage reservoirs to ultlimate end uses were assessed to the extent reasonable and feasible. However, no specific conveyance systems were engineered, nor were any specific water use impacts* (e.g., from construction and operation of new Colorado Ute Tribal housing areas or expansion of the City of Durango water supply system) *identified*. As implementation of any or all of these future water uses is proposed by the various users of the project water, they would be subject to future NEPA review as part of the following "triggering" federal actions . . . .

Id., § 2.1.1.4.1 (emphasis added).

Reclamation further explained why it projected the future water uses for the purpose of analyzing the effects of building and operating the A-LP Project as follows:

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

A-LP FSEIS, Vol. 3A, GC-6 to GC-7 (emphasis added), Attachment 8 hereto. Reclamation's citation to "Sec. 1508.7" refers to the definition of "cumulative impact" in the CEQ regulations.

For the same reasons, Reclamation should project and analyze the cumulative impacts of the Nation's uses of water to be supplied from the operation of Navajo Reservoir in the EIS on Reservoir Operations. The Nation has offered to assist Reclamation with these projections to ensure timely completion of the EIS. By comparison with the information that Reclamation relied on to project the non-binding uses for the A-LP FSEIS and to determine that those uses were reasonably foreseeable, the information known to Reclamation about the Nation's future uses is more than sufficient to project the uses

and their environmental impacts and to conclude that the uses are reasonably foreseeable. See Attachments 3-7 and 9; discussion in Section III below. Also, as with Reclamation's analysis of future uses in the A-LP FSEIS, the fact that future environmental compliance may be required does not negate the need or ability to analyze the Nation's uses in the Navajo Reservoir Operations EIS.

The nonbinding use projections for the Nation's 25,500 afy should include, for example, the continuing depletion of 16,200 afy under subcontract from the Nation to PNM; ongoing and renewed subcontracts by the Nation to existing small contractors from Navajo Reservoir (Giant Refinery, San Juan Water Haulers, and individual irrigators) totaling 840 afy; development of 1,200 afy for on-Reservation development in the southwest portion of the Reservation known as the Teepees area; and the remainder in a combination of on-Reservation development through the Navajo River Development Project in and around Dulce and off-Reservation leasing to the City of Gallup or others. The existing subcontracts have been approved by Reclamation, and are in Reclamation's files. The Nation hereby requests that Reclamation include these subcontracts in the administrative record for the Navajo Reservoir Operations EIS.

The Nation is engaged in discussions with the Navajo Nation and the City of Gallup regarding the potential lease by the Nation of up to 7,500 afy to the City of Gallup for the Project water supply or interim supply, and Reclamation is considering the Nation as a potential water supply source for the project. See Attachments 4, 5 and 7 hereto. Other potential leases include continuing short-term, or longer-term, leases to the San Juan Water Commission or other downstream users to meet the needs of non-Indian communities. Reclamation approved the Nation's 2002 subcontract with the San Juan Water Commission, and the Nation hereby requests that Reclamation include a copy of the subcontract in the administrative record for the EIS. The on-Reservation water development in the southwest portion of the Reservation has been described and acknowledged in Reclamation planning documents for the Navajo-Gallup Project. See Attachments 5-7 and 9 hereto. The Nation's planned on-Reservation development through the Navajo River Water Development Project is also known to and acknowledged by Reclamation. See Attachment 3 hereto. The Nation may develop some or all of this Project as an alternative to, or in conjunction with supplying an interim water supply for, the City of Gallup for the Navajo-Gallup Project. These alternative uses can be appropriately assessed through a non-binding use projection.

As with the A-LP FSEIS, the Navajo Reservoir Operations EIS should assess the representative environmental impacts of these uses, and need not engineer specific conveyance systems or identify specific end users. The information already available to Reclamation is more than adequate for this purpose, and

again, the Nation stands ready to assist with the analysis through its qualified staff and expert consultants in hydrology, engineering and environmental impact assessment.

B. Reclamation Has Failed to Consider the Alternative of Including Full Delivery of the Nation's Entitlement, in Violation of NEPA's Requirement to Consider a Reasonable Range of Alternatives. 6

Assuming, *arguendo*, that Reclamation may exclude the full development and delivery of the Nation's Settlement Act water rights from its analysis of its defined and re-defined proposed actions, Reclamation must still consider as an alternative to that proposed action the operation of Navajo Reservoir so as to provide full delivery of the Nation's entitlement. See 42 U.S.C. §§ 4332(2)(C) and 4332(2)(E); 40 C.F.R. §§ 1502.2(d), 1502.14, 1505.1(e), 1508.25 (2002). This alternative would be the 250/5000 Alternative analyzed in the DEIS, but with the addition of the depletion of the remaining amount of the Nation's 25,500 afy entitlement to the Navajo Reservoir Supply. Reclamation should analyze the impacts of these additional depletions by conducting the "nonbinding use" analysis discussed above in Section I.A.3.

The alternatives analysis "is the heart of the environmental impact statement." 40 C.F.R. § 1502.14 (2002). Agencies, therefore, "*shall* . . . [r]igorously explore and objectively evaluate *all reasonable alternatives*, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated." 40 C.F.R. § 1502.14(a) (2002) (emphasis added). Operating Navajo Reservoir in a manner that complies with the ESA while also delivering water to the Nation under the Settlement Act and Settlement Contract is an obvious reasonable alternative to operating the Reservoir so as to exclude that delivery.

As we have previously pointed out, Reclamation can meet the Flow Recommendations while also delivering the Nation's full entitlement. See Nation's ADEIS Comments, at 3-4. Full delivery and development of the Nation's entitlement would only involve including approximately 8,500 afy of depletions with those already included in Reclamation's Action Alternatives. Id. at 4. The Nation's authorized depletions amount to only one percent (1%) of the approximately 850,000 afy of depletions assumed under the Action Alternatives. Id. Including the Nation's full depletions with other projected water development assumed under the Action Alternatives will not likely change the modeling results, especially if the margin of error inherent to the hydrological model is recognized. Id. Thus, operating Navajo Reservoir so as to deliver the Nation's full depletion rights, along with supplying water for projected water development

CA7-6 Please see responses to Comment CA7-2 and General Comment 18b.

currently assumed in the Action Alternatives, is a reasonable alternative to those alternatives that exclude the Nation's Settlement water rights.

Also, the CEQ Regulations provide that agencies "*shall* . . . . [i]nclude reasonable alternatives not within the jurisdiction of the lead agency." 40 C.F.R. § 1502.14(c) (2002) (emphasis added). Consequently, even if full development of the Nation's water rights would include, in part, development of water on the Nation's Reservation that is not within Reclamation's jurisdiction, Reclamation should nonetheless consider the alternative.

II. Reclamation's Planned Operations of Navajo Reservoir Would Violate Applicable Law Governing the Operation of Navajo Reservoir.

7

Apart from NEPA compliance issues, Reclamation must ensure that its actions comply with applicable statutory authorizations and mandates. The Action Alternatives analyzed in the DEIS, however, would not supply the Nation with its full 25,500 afy of depletions from the Navajo Reservoir Supply that have been authorized and mandated by the Settlement Act. Instead, Reclamation would, in effect, provide flows for the benefit of other users and endangered fish without the consent of, or compensation to, the Nation. Therefore, Reclamation proposes to operate Navajo Reservoir in a manner that flouts, or at best, ignores Congress's specific directive.

"[A]n agency should always consider the views of Congress, expressed, to the extent the agency can determine them, in the agency's statutory authorization to act, *as well as in other congressional directives*." Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190, 196 (D.C. Cir. 1991) (emphasis added); see also 40 C.F.R. § 1505.2(b) (2002) (indicating that an agency must analyze relevant factors, which include the agency's statutory mission). The Settlement Act and Settlement Contract authorize full delivery and development of the Nation's water, and Reclamation is obligated to abide by that congressional mandate. As discussed above, Reclamation previously acknowledged that supplying water to the Jicarilla Apache Nation under the Settlement Act is now one of the authorized purposes of the Navajo Unit, and still concedes that such delivery is Congressionally authorized. See Section I.A.1 above. Also as indicated above, the Settlement Act and Contract are harmonious with CRSP, as nothing in the Settlement Act shall be construed to "*be in conflict with*" CRSP's provisions. See Section I.A.1 above.

Even assuming, *arguendo*, that the Settlement Act's directives are not "authorized purposes" of the Navajo Unit, Reclamation cannot evade the specific statutory provision to supply the Nation with 25,500 afy depletion by asserting that its proposed Navajo Reservoir operations will meet broader

CA7-7 Reclamation will continue to operate Navajo Dam in compliance with applicable Federal and State laws. Please see response to General Comments 18b, 18e, and 18g.

statutory authorizations. See Nation's ADEIS Comments at 13-14. "It is a 'fundamental tenet of statutory construction'" that a general statute should not be construed "'to eviscerate a statute of specific effect.'" Sierra Club-Black Hills Group v. United States Forest Service, 259 F.3d 1281, 1287 (10th Cir. 2001) (citation omitted). Again, Congress need not specifically called the delivery to the Nation an "authorized purpose" of CRSP to authorize and mandate that delivery.

Reclamation's exclusion of its obligation to deliver water pursuant to statutory and contractual rights is not an appropriate exercise of agency authority over the scope of an EIS. Rather, Reclamation is selectively choosing Congressional mandates with which it is willing to comply. It appears that Reclamation recognizes the implications of its failure to include the Nation's Settlement Act rights in its analysis of the 250/5000 Alternative and may hope to force a legislative or judicial solution to absolve itself. For instance, Reclamation states:

> Positive effects are anticipated from the Preferred Alternative; any reduction in potential negative effects would depend in part on the recovery of endangered fish and on subsequent action taken by the Service. It is possible that to fully mitigate or compensate for *potential negative impacts should they occur to the Tribes* as a result of implementing either the No Action or any of the action alternatives, *additional legislative, administrative or judicial solutions may be required.*

DEIS at III-38 (emphasis added). Reclamation should operate Navajo Reservoir so to give effect to extant law, including the Settlement Act, not to compel unnecessary future legislative, administrative, or judicial action.

III. Reclamation Still Fails to Satisfy the Requirements to Explicitly Address Impacts on Trust Resources and to Protect Trust Resources From Adverse Effects. 8

Reclamation has a trust responsibility to the Jicarilla Apache Nation "to protect and maintain rights reserved by or granted to Indian tribes or Indian individuals by treaties, statutes, and executive orders." See Bureau of Reclamation, *Indian Trust Asset Policy and NEPA Implementing Procedures: Questions and Answers About the Policy and Procedures* (Aug. 31, 1994), *in* PROTECTION OF INDIAN TRUST RESOURCES (on file with the Department of Interior); see also Nation's ADEIS Comments, at 18. The trust responsibility "requires that all Federal agencies, including Reclamation, take all actions reasonably necessary to protect trust assets." See *Indian Trust Asset Policy*. Also, the Department of Interior's Departmental Manual requires that "[a]ny effect [on Indian trust resources] *must be explicitly addressed*

CA7-8 Please see the responses to Comment CA7-2 and General Comment 18e.

in the planning/decision documents, including, but not limited to . . . Environmental Impact Statements." 512 DM 2.4(A) (emphasis added). Such documents "*shall* . . . . [e]xplain how the decision will be consistent with the Department's trust responsibility." Id. (emphasis added). Reclamation's Indian Trust Asset Policy requires Reclamation to "carry out its activities in a manner which protects assets and avoids adverse impacts when possible." When adverse impacts are not avoidable, Reclamation "will provide appropriate mitigation or compensation." See *Indian Trust Asset Policy*. Reclamation's assessment of impacts on Indian Trust Assets ("ITAs") must cover "[a]ctions that could impact the value, use or enjoyment of the ITA." Id., § IV-4 at 9.

We have previously pointed out that Reclamation has failed to abide by its own policies and has thereby abdicated its trust obligations, and we renew that observation here. As discussed in our comments on the ADEIS, by refusing to include the Nation's full entitlement in its proposed Navajo Reservoir operations, Reclamation has failed to "take all actions reasonably necessary to protect" the Nation's trust assets–its water rights. If Reclamation would include the Nation's full 25,500 afy depletion right in its analysis of the 250/5000 Alternative, it could satisfy the Flow Recommendations and still avoid adverse impacts on the Nation's Indian Trust Assets. See Section I.B above.

Assuming arguendo that Reclamation could assume that the Nation will not deplete its full entitlement to 25,500 afy of water from the Navajo Reservoir Supply, Reclamation still must explicitly address the impacts of failure to deliver the Nation's full entitlement and must mitigate interference with the Nation's water rights to avoid adverse impacts. Although in the ADEIS Reclamation recognized that its proposed operations would have impacts on future Indian water development projects, it indicated that the economic impacts of tribes' "inability to develop water rights have not been quantified as specific water development plans are not available for all the Tribes/Nations." See ADEIS, III-109 at lines 642-643; see also Nation's ADEIS Comments at 19-20. We indicated in our comments on the ADEIS that Reclamation had essentially admitted its failure to explicitly address the impacts of its plan on the Nation's trust assets. See id. at 20. We also pointed out that Reclamation's attempted justification of its failure to quantify the Nation's rights–that "specific water development plans are not available"–was insufficient and inaccurate. Id.

In the DEIS, Reclamation admits that "[p]otential negative impacts could include the possibility that, if no additional water development is possible, *the Tribes could bear a disproportionate share of the burden to recover the endangered fish as a consequence of Tribal water rights being the last water resources to be developed in the Basin*." DEIS at III-32 (emphasis added). However, Reclamation repeats the inaccuracies of the ADEIS in the DEIS:

> It was outside the scope of this analysis to discuss impacts of future unidentified Tribal water development past the point of acknowledging the importance of such development, as Reclamation is only analyzing those projects that have received all necessary environmental clearance to move forward. The information needed for this analysis, such as the *quantification of all water rights and associated settlements and identification of reasonably foreseeable water use plans, is not available*. Negotiations on Tribal water rights and their quantification are currently under way between Tribal and Federal Governments with input from State agencies.

DEIS at III-34 (emphasis added).

Reclamation erroneously lumps "*all*" water rights, associated settlements, and water use plans together to justify its conclusion that it lacks sufficient information to include those that are foreseeable in its analysis. In fact, the Nation's rights are clearly quantified, its Settlement has been congressionally authorized, and its water use plans are reasonably foreseeable. Reclamation has acknowledged Congressional authorization to deliver the Nation's water, as well as other indicia of the foreseeability that full delivery and development of that water will occur. For example, the DEIS itself states:

> The Jicarilla Apache Nation is also pursuing use of its remaining portion of the 25,500 acre-feet of Navajo Reservoir water supply, including implementation of a proposed Jicarilla Apache Navajo River Water Development Plan that would result in the beneficial consumptive use of up to 6,000 acre-feet per year. The Nation is also investigating participation in the Navajo-Gallup Project, using 1,200 acre-feet on the Nation's Reservation and possibly contracting with the City of Gallup allowing the city to use up to 7,500 acre-feet.

See DEIS at III-29.

Similarly, a Technical Memorandum for the Navajo-Gallup Project, which was jointly authored by Reclamation, states that:

> The [Jicarilla] Apache Nation water has a quantified water right and shares priority with other Navajo Reservoir uses. Unlike other Navajo Reservoir contracts with the Secretary, the Secretary has already determined that sufficient water is available to fulfill the Apache

> Nation's settlement. While third party contracts for Apache Nation water must be approved by the Secretary (through his designee with Reclamation), no further Congressional action is necessary for the use of Apache Nation water. In addition, these depletions will be recognized in future hydrologic determinations, while the Navajo-Gallup Project water may not.

Final Draft Technical Memorandum: Navajo-Gallup Water Supply Project at § 7.3 (March 16, 2001), Attachment 4 hereto.

That Technical Memorandum also states:

> The recent Jicarilla Apache Nation settlement includes 25,500 acre-feet of depletion per year of the Navajo Reservoir supply that may be available for marketing within the State of New Mexico. The Apache Nation is pursuing a variety of development options for using its San Juan River Basin depletions including potential third party contracts and on-reservation water projects.

Id. The Area Manager has elsewhere expressed support for the full development of the Nation's water rights under the Settlement Act and acknowledged the Nation's plans to engage in discussions (which, as Reclamation knows, are currently occurring) regarding the Navajo-Gallup Project:

> We support [the Jicarilla Apache Nation's] intent to engage in substantive discussions with the Navajo Nation and the City of Gallup regarding water supply and water service. Upon your request, we will assist you in this effort. . . .
>
> We support the Jicarilla Apache Nation's efforts to fully utilize its water rights under the Jicarilla Apache Tribe Water Rights Settlement Act, as amended. Our efforts to assist your Nation will continue with the NGWSP and other interests where we have authority and are asked to help.

Letter from Carol DeAngelis, Area Manager, Bureau of Reclamation, to President Claudia Vigil-Muniz, Jicarilla Apache Nation (March 27, 2001), attached hereto as Attachment 5. See also Attachments 6, 7 and 9.

Because water has been determined to be available to satisfy deliveries to the Nation but not to other Navajo Reservoir contractors, there is a stronger basis for including the Nation's contract as part of the projected water development than for including any other Navajo Reservoir contracts. Yet, only the deliveries to the Nation are excluded. Likewise, Reclamation excludes both the proposed Navajo-Gallup Project, which would entail a new contract or an authorization from Congress, and the Nation's undeveloped portion of its entitlement to the Navajo Reservoir Supply, which would require neither, from the operations analyzed in the DEIS. In addition, water has been determined to be available to satisfy deliveries to the Nation authorized by the Settlement Act while no such determination of availability has been made for the Navajo-Gallup Project.

Thus, contrary to Reclamation's excuse for not analyzing the effects of its proposed action on the Nation's trust resources, it has in fact identified the Nation's quantified rights and foreseeable development plans, and hence should "explicitly address" the impacts of its failure to deliver water pursuant to those rights. This analysis of impacts should include, for example, the calculation of the forgone opportunity costs of income from leasing water delivered from Navajo Reservoir and from the on-Reservation economic development associated with the Nation's anticipated water use on-Reservation including in the TeePees area.

Moreover, although Reclamation suggests that the failure to develop certain projects–those included in its operating plan–would jeopardize future development of Indian water rights settlements, it also acknowledges that its pursued course will likely place a disproportionate burden on development of Tribal water rights. As indicated above, in the DEIS, Reclamation admits that "[p]otential negative impacts [of its preferred alternative] could include the possibility that, if no additional water development is possible, *the Tribes could bear a disproportionate share of the burden to recover the endangered fish as a consequence of Tribal water rights being the last water resources to be developed in the Basin*." DEIS at III-32 (emphasis added). The Jicarilla Apache Nation's rights, unlike the non-Indian water rights *claims* that Reclamation assumes are developed, are adjudicated. However, Reclamation also indicates that:

> [a] failure to develop the ALP Project, to complete the NIIP, to fulfill the Jicarilla Apache Nation third-party water contract with PNM, and to implement other water projects could put future development of Indian water rights settlements in jeopardy, and consequently, cause presently used *non-Indian water rights* in the Basin, particularly in Colorado and New Mexico, *to be at risk to Indian senior water rights claims.*

DEIS at III-15 to 16 (emphasis added). Comparison of these passages suggests that Reclamation may be subrogating its trust duties to protect non-Indian water rights. Nonetheless, by including in its analysis of the 250/5000 alternative the Nation's quantifiable, foreseeable uses pursuant to the Settlement Act, Reclamation could operate the Navajo Reservoir on a principled and lawful basis, consistent with its trust obligations and its own policies.

IV. Reclamation's Proposed Operation of Navajo Reservoir is Arbitrary and Capricious, and Not in Accordance with Applicable Law. 9

For the reasons discussed above and in the Nation's previous comments, Reclamation's exclusion from its proposed Navajo Reservoir operations of the delivery of the Nation's entitlement to the Navajo Reservoir Supply is arbitrary and capricious, not supported by substantial evidence and not in accordance with applicable law, without observance of procedure required by law, contrary to constitutional right and "in excess of statutory jurisdiction, authority, or limitations, or short of statutory right." Administrative Procedure Act ("APA"), 5 U.S.C. §§ 706(2)(A)-(E) (2002).

For example, in contravention of NEPA and the CEQ regulations, Reclamation has improperly narrowed the scope of its proposed action by excluding from its analysis depletions and projects that would require further environmental compliance. See Section I.A.2 above. Reclamation also violates NEPA by failing to analyze all components of the action proposed. See Section I.A.1 above. Although Reclamation proposes to operate Navajo Reservoir so as to enable future water development to proceed consistent with applicable laws and Indian trust responsibilities, it fails to include in the action analyzed water delivery and development authorized by the Settlement Act. In addition, Reclamation fails to evaluate reasonable alternatives to its proposed action as required by NEPA and the CEQ regulations. See Section I.B. above. Operating Navajo Reservoir so as to comply with the ESA, CRSP, the Settlement Act and other applicable law while implementing the 250/5000 release range is a reasonable alternative to Reclamation's Preferred Action Alternative. This alternative should therefore be analyzed in the EIS for Navajo Reservoir operations. These NEPA violations are not in accordance with applicable law, without observance of procedure required by law, and "in excess of statutory jurisdiction, authority, or limitations, or short of statutory right." APA §§ 706(2)(A), (C)-(D).

The proposed action contemplates the operation of Navajo Reservoir without the full delivery of water to the Nation authorized and required by the Settlement Act and Settlement Contract. Because the proposed operation of Navajo Reservoir would violate an explicit congressional mandate, it is not in accordance with applicable law, without observance of procedure required by law and is "in excess of

CA7-9 Please see the responses to Comment CA7-2 and General Comment 18e.

statutory jurisdiction, authority of limitation, or short of statutory right." APA §§ 706(2)(A), (C)-(D); see also Section II above. The environmental baseline used by Reclamation is likewise not in accordance with applicable law and procedure. See Section V above.

In addition, Reclamation's disparate treatment of the Nation versus similarly-situated water rights holders violates the Nation's equal protection and due process rights under the United States Constitution and thus is contrary to constitutional right and without observance of procedure required by law. See U.S. Const. Amend. V; APA § 706(2)(B) and (D); see also Sections I.A.2, I.B, II and III above.

Finally, Reclamation's treatment in the DEIS of the Nation's depletion rights in the Navajo Reservoir Supply versus other water projects and depletions, and Reclamation's proposed operation of Navajo Reservoir without full delivery to the Nation, are arbitrary and capricious and not supported by substantial evidence. See Sections I.A and III above. Because Reclamation could operate Navajo Reservoir to meet the 250/5000 release and still satisfy the Nation's Settlement Act rights, its decision to exclude the Nation's Settlement from its analysis is arbitrary and capricious and not supported by substantial evidence. See Section II.B above. Likewise, Reclamation's conclusions–for purposes of excluding the Settlement Act rights from its analysis and of determining the impacts of its actions–that the Nation's rights are not quantifiable nor its water development plans foreseeable are arbitrary and capricious and not supported by substantial evidence. See Sections I.A and III above; see also APA, §§ 706(2)(A) and (E).

V. Reclamation has Not Corrected the Errors in the Environmental Baseline.

The Nation's comments on the ADEIS explained how the depletion baseline assumptions Reclamation used do not comport with the definition of "environmental baseline" under the Endangered Species Act implementing regulations. See ADEIS Comments at 3-4 and 15-17. Reclamation agreed to correct these errors in the baseline it is using. Id. at 4. However, these errors have not been corrected in the DEIS. See, e.g., DEIS at II-27. Reclamation must correct these errors and revise the analysis in the DEIS accordingly. Reclamation must also correct these errors before proceeding with the Endangered Species Act Section 7 consultation on Navajo Reservoir Operations.

VI. Conclusion

For the foregoing reasons, the DEIS fails to meet the requirements of NEPA, and violates the Indian Trust Asset policies of Reclamation and the Department of the Interior. Moreover, Reclamation's proposed operation of Navajo Reservoir would violate the specific congressional directives of the

10

CA7-10 Please see the response to General Comment 21.

Settlement Act and Reclamation's obligations under the Settlement Contract, as well as the Nation's equal protection and due process rights. Notwithstanding Reclamation's persistence in ignoring the Nation's rights and its obligations to the Nation, the Nation continues to maintain its willingness to assist Reclamation in revising the proposed operations and the analysis in the DEIS so as to include the full depletion of the Nation's entitlement pursuant to the Settlement Act and Contract.

Respectfully submitted on behalf of the Jicarilla Apache Nation,

NORDHAUS, HALTOM, TAYLOR,
TARADASH & BLADH, LLP

Susan G. Jordan
Alisa Cook Lauer

NAVAJO NATION ENVIRONMENTAL PROTECTION AGENCY
Water Quality/NNPDES Program
P.O. Box 1999
Shiprock, New Mexico 87420
Phone: (505) 368-1037
FAX: (505) 368-1416

Kelsey A. Begaye
PRESIDENT

October 17, 2002

Ken Beck
Bureau of Reclamation
Western Colorado Area Office
835 E. 2nd Ave, Suite 400
Durango, CO 81301

Re: Navajo Reservoir Operations Draft Environmental Impact Statement

Dear Mr. Beck:

Thank you for the opportunity to review and comment on the Navajo Reservoir Operations DEIS. I appreciate the effort made by you and your team to incorporate the previous comments I submitted regarding the Preliminary DEIS. The following comments are provided for your consideration from the Navajo Nation Environmental Protection Agency Water Quality/NPDES Program:

Page III-90, third paragraph, last sentence: the NIIP biological assessment also assumed that flow downstream from the Animas River would not drop below 500 cfs. This past summer showed that that would not necessarily always be the case. 1

Page III-96, last paragraph: the Navajo Nation EPA Water Quality Program will be going through the triennial review of the Navajo Nation Water Quality Standards this fiscal year. One of the expected changes will be the designation of Warm Water Habit on the San Juan River instead of Cold Water Habitat. Though this will significantly reduce temperature and turbidity exceedences, the mercury standard is the same for both the Warm Water and Cold Water Habitat designated uses.

Page III-97, second paragraph: here and throughout the document it is stated that flows downstream from the Animas River will be maintained at or above 500 cfs. As noted above, this past summer had flows regularly below this level. I understand that the 350 cfs flow throughout the critical habitat sections was approved by the Biology Committee because of the exceptionally dry conditions this past summer. However, this summer's low flows illustrated the problem of averaging any two gages below the Animas River to get at the "actual" flow in the critical habitat. Since 1) the intent of the flow recommendations was to ensure that 500 cfs is maintained in the critical habitat sections of the San Juan River, 2) all modeling was based on maintaining 500 cfs in these sections, and 3) the Bureau of Reclamation insists throughout the DEIS that 500 cfs will be 2

CA8-1 See the responses to General Comments 13 and 15 concerning drought conditions and monitoring of base flows, respectively. In periods of severe drought Reclamation will work with state and Federal agencies to equitably share shortages.

CA8-2 The plans for monitoring base flows have been revised in the EIS. Please see the response to General Comment 15.

maintained in these sections, it only makes sense that 500 cfs is actually maintained throughout these sections. If the Bureau of Reclamation insists on averaging the two highest stream gages below the Animas River when determining whether or not they are meeting the low flow recommendations, then this should be clearly stated throughout the EIS instead of stating that 500 cfs will be maintained throughout the critical habitat. 2 cont.

Pages III-163-165: there are several gas and oil pipelines crossing the San Juan River and oil wells in the floodplain within San Juan County, UT. Were these operators also contacted? 3

If you have any questions, please do not hesitate to contact me at 505-368-1037. Thank you.

Stephen A. Austin
Senior Hydrologist
Navajo Nation EPA Water Quality/NPDES Program

2

CA8-3 These operators were notified through the same general notification and scoping meetings as the public. In the Utah area, extreme flows will be related to natural storm events and not to any reservoir operational changes.

GOVERNOR
Gary E. Johnson

DIRECTOR AND SECRETARY
TO THE COMMISSION
Larry G. Bell

STATE OF NEW MEXICO
DEPARTMENT OF GAME & FISH

One Wildlife Way
P.O. Box 25112
Santa Fe, NM 87504

Visit our Web Site home page at www.gmfish.state.nm.us
For basic information or to order free publications: 1-800-862-9310

STATE GAME COMMISSION
Karen Stevens, Chairwoman
Farmington, NM
Thomas D. Gregory
Albuquerque, NM
George Ortega
Santa Fe, NM
Steve Padilla
Ruidoso, NM
Tamara Hart
Deming, NM
Jim Wrucke
Causey, NM
Ray Wassell
Los Lunas, NM

December 2, 2002

Mr. Ken Beck
Bureau of Reclamation
Western Colorado Area Office
Southern Division
835 East Second Avenue, Suite 300
Durango, CO 81301

Re: Comments on Draft Environmental Impact Statement (DEIS), Navajo Reservoir Operations dated September 2002

Dear Mr. Beck:

The New Mexico Department of Game and Fish Department appreciates the opportunity to provide comment on the entire DEIS for the re-operation of Navajo Dam. While the Department agrees that flows need to be managed to assist with the recovery of endangered fishes, and understands the need for current and future water development, it does not believe that the DEIS provides sufficient analysis to make an informed decision as to the most appropriate flow regime to achieve the desired ends. The document fails to fully analyze all impacts, does not represent all feasible alternatives, only analyzes a small part of a much larger connected action, and the level of mitigation proposed by the Bureau of Reclamation is inadequate.

IMPACT ANALYSIS

Impacts to Fishery

The impacts to the trout fishery were determined by extrapolation from and comparison of a four month winter low flow test and a one week summer low flow test. These two tests, particularly the summer test, do not provide sufficient data to determine the impacts to the trout fishery. The duration of the winter low flow test was insufficient to determine chronic effects to the fishery. The summer test was shorter than the winter test and had several confounding factors that make the results from this test of little use. During the summer low flow test, there were several rain events and overcast days that maintained improved water quality longer than might have been expected. These rain events also led irrigators to reduce or eliminate irrigation during the test,

1

CA9-1 Please see the responses to General Comments 22 and 28.

2. RE: Comments on Draft Environmental Impacts Statement (DEIS), Navajo Reservior Operations dated September 2002

resulting in more water in the river. Chronic and acute effects of the lowered flow could not be observed due to the shortness of the test. 1 cont.

It is spurious to try to compare and draw conclusions from these two tests. The tests represent different conditions and time periods which are not accounted for in the DEIS. If the summer low flow test had continued for a minimum of four months, it might then be appropriate to discuss comparisons between the tests and expected impacts of the flows. The results from these tests cannot, therefore, provide a valid basis for determining impacts or for altering flow regimes. 2

While some limited habitat analysis is provided in the DEIS, the analysis does not address the specific types of habitat to be lost or the effects of loss of that habitat. For example, will some of the 34% loss in trout habitat be nursery or cover habitat? How will loss of this habitat affect predation on naturally reproduced or stocked fish? If predation increases, trout populations may significantly decrease further, altering the nature of this important fishery. The DEIS fails to address any of these concerns. 3

Measures of effects on other fishes and macroinvertebrates during the low flow tests are incomplete. Assumptions are provided regarding the effects of altered flows on native fishes above Farmington, but these do not appear to be supported by evidence. While no data are available regarding low flow effects, Department surveys in the section of river between the Citizens Ditch and the Hammond Diversion indicate a significant reduction in the number of native fishes since the inception of higher spring releases. 4

The DEIS indicates that there was a 35% decrease in the macroinvertebrate community during the winter low flow test. No repeat analysis was conducted during the summer low flow test. It is likely that results would have been different during these tests and this information would have been useful to a decision maker. 5

As noted above, no formal analysis of high spring releases on the fishery between Navajo Dam and Farmington has been conducted. The frequency and duration of the proposed peak releases represent a significant change in operation. An analysis of the effects of this change on the fishery and other resources must be conducted prior to making any decision. 6

The Department believes that the Bureau of Reclamation has failed to collect and compile the information necessary to make an informed decision regarding impacts to the fisheries in the San Juan River. It is apparent that the impacts are likely to be significant given that there is an expected loss of 34% of fish habitat within the quality and special trout waters. Additionally the DEIS identifies a potential loss of the entire fishery between Citizens Ditch and Farmington which "could only be mitigated for by providing additional flow to offset deteriorating water quality" (DEIS, 2002). No decision regarding altered flows can be made without a complete analysis of all impacts. 7

CA9-2 Please see the responses to General Comments 22 and 28.

CA9-3 The analysis concentrated on adult trout habitat because the majority of the fishery is supported by stocking rather than natural production. Crowding may increase predation.

CA9-4 Reclamation agrees that there is a significant population of native fishes between Citizen's Ditch and Farmington. As stated in response to Comment CA12-24, Reclamation agrees there may eventually be a decline in this fishery resource through the full implementation of the Preferred Alternative; however, the extent of this impact is very difficult to predict.

CA9-5 The conclusions, based on the effects to the San Juan River during the 1996-97 Winter Flow Test, were based on the extent of loss of wetted area comparing a 500 cfs to a 250 cfs dam release. The extent of this dewatering would have been the same during the 2001 Summer Low Flow Test. Although more numbers and or biomass of aquatic invertebrates may be impacted during summer conditions, Reclamation believes the loss would not adversely impact trout growth.

CA9-6 Mimicking high spring releases from Navajo Dam has been occurring since 1991. There are no data that indicate that these releases, which have not exceeded 5,000 cfs, have had a negative effect to the trout fishery although angling during these high flow periods may be more difficult.

CA9-7 Reclamation predicts significant impacts on the trout fishery. Flexibility, discussed in General Response 11, may reduce these impacts in the short-term.

3. RE: Comments on Draft Environmental Impacts Statement (DEIS), Navajo Reservoir Operations dated September 2002

Socioeconomic

The analysis of the value to the economy of the San Juan River trout fishery is flawed. The analysis only accounts for the loss of out-of-state anglers and does not account for loss of instate anglers. Instate anglers are assumed to continue to use the fishery no matter its condition. Like non-resident anglers, instate anglers travel significant distances to fish the San Juan River and have a similar economic impact. As suggested in the analysis of out-of-state anglers, in-state anglers might change their preference if the quality of the San Juan River fishing experience is degraded as expected in the DEIS. The loss of some portion of instate anglers must be include in the impact analysis for there to be any true understanding of the impact. 8

The DEIS states that the economies in the region are "based on mineral extraction and recreation/tourism, and, to a smaller extent, on agriculture" (DEIS, 2002). The DEIS further states that "providing and maintaining recreation/tourism opportunities that bring people into areas does make a significant difference to local incomes and employment. Improving economic activity in these rural areas has been and continues to be a long standing public policy interest" (DEIS, 2002). The DEIS indicates that the proposed flow regimes would benefit water development and agriculture. The DEIS further states that the proposed flow regime would lead to the loss of $15.6 to $18.0 million (based on flawed out-of-state angler analysis) to local economies and the loss of 40 to 134 jobs in San Juan County. The Department recommends that economic loss stated in the DEIS should be considered "as the minimum loss" to the local economy and that the analysis should be modified to address the impacts of loss of instate anglers. 9

No analysis is provided as to the interchangeability of the recreation/tourism jobs lost and the agricultural jobs gained. There is no analysis of the change in income patterns for the small communities that will be most affected by the proposed flow changes. A full analysis of the alterations in the economy must be completed in order to provide a full understanding of the effects of the proposed changes. 10

NPDES

The Department is concerned with the acknowledgement in the DEIS that the City of Bloomfield waste water treatment plant may violate its National Pollutant Discharge Elimination System (NPDES) Permit due to decreased dilution of its discharge during low flows. The release of pollutants in excess of regulated limits poses a threat to all wildlife and particularly to the endangered fishes downstream of the discharge. This threat is not considered in the DEIS. Instead, the DEIS states that modifications to the plant must be made. There is also no analysis of modifications that may be necessary based on projected urban growth. It is evident that this part of the impact analysis lacks the detail necessary to reach an informed decision regarding flow regimes and must be reanalyzed prior to any decision. 11

CA9-8 Please see the response to General Comment 29.

CA9-9 The estimate of $15.6 to $18 million is the total impact that out-of-state anglers expenditures on the San Juan River have on the economy of San Juan County, New Mexico. See also the response to General Comment 29.

CA9-10 Please see the response to General Comment 31.

CA9-11 The Bloomfield waste water treatment permit may have to be amended due to changes in flows; however, the discharge is presently less than 1 cfs and the flows in the river will significantly dilute the pollutants to prevent harm to wildlife and the endangered fish. Also, please see the response to General Comment 23.

4. RE: Comments on Draft Environmental Impacts Statement (DEIS), Navajo Reservior Operations dated September 2002

Flow Alternatives

The proposed flow alternatives present two distinct problems: 1) the 500/5000 alternative is not significantly different from the "No Action" alternative and 2) the 500/5000 flow alternative does not result in significant differences from the 250/5000 flow alternative. A review of flow data from the Archuleta, NM, gauge published by the U.S. Geological Survey indicates that the period from 1973 to 1991 contains several years (e.g., 1976 and 1979) in which flows mimicked the 500/5000 alternative. Additionally, from December of 1987 to January of 1991, flows averaged 606 cfs with occasional peak flows. The flow regime from 1987 to 1991, while not precisely the same as the 500/5000 alternative, is very similar to the flow regimes identified in the alternative. If these flow regimes are indeed comparable, then the Department believes that the DEIS has not adequately presented two distinct alternatives to be considered. 12

The DEIS indicates throughout the document that the 500/5000 alternative would result in water shortages when compared to the 250/5000 alternative. The data in the DEIS do not fully support this contention. The data indicate that the 500/5000 flow alternative would result in 2,000 additional acre feet of depletions per year. The DEIS states with regard to the 500/5000 alternative that "dam releases and river flows below Farmington would drop below 500 cfs" only "during very infrequent periods of severe drought" (DEIS, 2002). The DEIS states that water levels in the reservoir would interfere with delivery to NIIP only "one in 65 years." (DEIS, 2002). All of these statements taken together support the fact that the 500/5000 flow alternative is not significantly different in effect from the 250/5000 alternative. While differences may arise during periods of severe drought, these differences may be managed via means other than restricting future flows to 250 cfs. For example, the system could be operated at 500/5000 at all times other than drought. During drought conditions, a previously developed drought operations protocol could be instituted to ensure all obligations are met. Certainly there is an expectation by all parties that the area of the San Juan River will experience drought and an understanding that the endangered fishes have survived drought in the past. The artificial restriction to a 250 cfs flow appears to be unnecessary based on the data provided in the DEIS. The Department therefore questions the entire analysis and believes a reasoned decision cannot be made using the DEIS as it is written. 13

FEASIBLE ALTERNATIVES NOT ANALYZED

The DEIS incompletely analyzes three alternatives which are presented in the document as distinct options. It is unclear precisely how these alternatives were derived. The lower limit seems to be the most contentious issue, but only two lower limit flows were analyzed, 250 and 500 cfs. There is no discussion of why only these two flows were selected. The data in the DEIS support that any impact to future water development and endangered species between these lower flows is minimal. However, data indicates that significant effects will be observed in recreation/tourism, native fish communities, hydropower, and discharge permits at the 250 cfs flow. The Department suggests that there are a range of alternative flows between the two CFS levels analyzed that would reduce negative impacts while maintaining the stated purposes of 14

CA9-12 Please see the responses to General Comments 4 and 5.

CA9-13 The summary of water shortages under the 500/5000 alternative are essentially correct. Table II-3 in Volume I shows that the 500/5000 Alternative fails to meet the Flow Recommendations a significant amount of the time.

CA9-14 Please see the responses to General Comments 5 and 9. As indicated above, Table II-3 shows that the 500/5000 Alternative fails to meet the Flow Recommendations a significant amount of the time.

5. RE: Comments on Draft Environmental Impacts Statement (DEIS), Navajo Reservior Operations dated Sepeember 2002

re-operation. The Department, therefore, requests that further analysis be conducted using minimum flows of 450, 400, 350, and 300 cfs. Without further analysis, the Department contends that the document does not provide the appropriate information to make an informed decision. 14 cont.

Additionally, future water projects are not analyzed in the DEIS. Future projects may have withdrawal points downstream from the dam (e.g., at Hogback). The points of future withdrawals and their effect on flow regimes should be analyzed to present a clear picture of how operation of Navajo Dam will impact all resources. It is possible that this analysis will lead to alternative management strategies not defined in the current DEIS. 15

CONNECTED ACTIONS

Throughout the DEIS, the Bureau of Reclamation indicates that the 250/5000 alternative is the only alternative which will prevent NIIP, ALP, and other water projects from having to reenter consultation with the U.S. Fish and Wildlife Service. In fact, the proposed action in the current DEIS appears to be a requirement of these other projects leading to the conclusion that the flow decision presented in the DEIS was made by these other consultations. The current DEIS appears to be designed to fulfill regulatory requirements rather than to fulfill the intent of the National Environmental Policy Act.

The Department believes that all connected actions should be presented in a single document so that all impacts and benefits can be analyzed. A full analysis of all proposed actions may lead to development of alternative management regimes that yield better results than the piecemeal approach that has been used to date. For example, construction of ALP may afford the opportunity to better regulate flows from the Animas River and negate the need to reduce flows in the area of the San Juan River trout fishery. These alternative management strategies will not be defined unless all proposed actions impacting the resources in the area are considered in a single analysis. The Department believes it is incumbent on the Bureau of Reclamation to conduct a single analysis that accounts for all of these connected actions and their impacts. 16

MITIGATION

The Department believes the Bureau of Reclamation's unwillingness to take an active role in mitigation is unacceptable. The actions of the Bureau of Reclamation in the prior operation of Navajo Dam have created the need to mitigate the losses caused by re-operation. The Bureau of Reclamation, therefore, should participate in implementation of mitigation measures with funding, personnel, equipment, and supplies. Mitigation is an important part of any environmental project. While there may be some benefits of re-operation, there are many significant impacts that require mitigation. The Department has previously outlined the mitigation it believes is necessary if the proposed alternative is selected. The Department requests that the Bureau of Reclamation commit sufficient resources to assure that these 17

CA9-15 Please see the response to General Comment 21a.

CA9-16 Please see the responses to General Comments 1 and 19.

CA9-17 Please see the response to General Comment 2.

6. RE: Comments on Draft Environmental Impacts Statement (DEIS), Navajo Reservior Operations dated September 2002

mitigation measures will be carried out in the event that the 250/5000 alternative is acted upon. 17 cont.

In summary, the New Mexico Department of Game and Fish believes the DEIS, in its current form, is insufficient to form the basis for a decision to reoperate Navajo Dam. The document fails to fully analyze all impacts, does not represent all feasible alternatives, only analyzes a small part of a much larger connected action, and proposes a level of mitigation by the Bureau of Reclamation that is inadequate. The Department believes the Bureau of Reclamation must correct the problems outlined above and provide a new DEIS for review prior to making any decision to re-operate Navajo Dam. 18

The Department believes that annual flows below 500 CFS can likely be sustained without significant impacts to the fisheries, provided that adequate research has been conducted in order to evaluate impacts prior to implementation. The Department would support a flow alternative that included operating the dam at 250 cfs for a maximum of four (4) months, during the winter, in order to help address current water shortages. The Department cannot support a 250 cfs flow during other seasons of the year or permanent winter flows of 250 cfs until additional research evaluating potential impacts of those flows is completed and evaluated. If an alternative, that addresses a need for additional information and modification of currently identified flow alternatives cannot be included or evaluated, at this point in the DEIS process, we recommend that the 500/5000 flow alternative should be selected. This alternative minimizes impacts while supporting the stated purposes of re-operation except during times of severe drought. 19

Please feel free to contact my staff should you have any questions concerning these comments. Again, thank you for the opportunity to comment on the full DEIS for Navajo Reservoir Operations.

Sincerely,

Larry G. Bell, Director
NM Department of Game and Fish

LGB/ms/ts

CA9-18 Please see the response to General Comment 1a. Also, see previous responses to Comments CA9-1, CA9-12, and CA9-16.

CA9-19 Please see the responses to General Comments 3, 5, and 9.

NEW MEXICO INTERSTATE STREAM COMMISSION

BATAAN MEMORIAL BUILDING, ROOM 101

POST OFFICE BOX 25102
SANTA FE, NEW MEXICO 87504-5102

(505)827-6160
FAX:(505)827-6188

November 26, 2002

Mr. Ken Beck
Bureau of Reclamation
Western Colorado Area Office
835 East Second Avenue, Suite 400
Durango, Colorado 81301

Dear Mr. Beck:

The New Mexico Interstate Stream Commission offers the following comments on the Navajo Reservoir Operations Draft Environmental Impact Statement (DEIS), dated September 2002. Comments also are made on the DEIS Volume II, Hydrologic Modeling Analysis (HMA), and on the Summary of the DEIS transmitted under separate cover (Summary DEIS). The Interstate Stream Commission supports selection of the 250/5000 Alternative as the Preferred Alternative.

Page S-1, first sentence; page I-1, first sentence; and Summary DEIS page S-1, first sentence. Replace "implement" with "meet", and delete "to those recommendations". What is being implemented are revised operating criteria for Navajo Dam for the purpose of meeting the flow recommendations, or a reasonable alternative. 1

Page S-1, first sentence and footnote 2, and page I-1, first sentence and footnote 2. The subject sentences indicate that Reclamation proposes to operate Navajo Dam to allow for only current water uses and future uses that have already obtained appropriate environmental compliance. But, the last incomplete sentence on page S-1, continued onto page S-2, states that the authorized purposes of the Navajo Unit would be maintained. The authorized purpose of the Navajo Unit, as a unit of the Colorado River Storage Project, is to allow the Upper Basin states to develop their apportionments under the Colorado River and Upper Colorado River Basin compacts. Operating Navajo Dam in a manner that will not allow for future uses over and above those that have already obtained environmental compliance will not allow New Mexico to fully develop and use its compact apportionment. For example, the planned Navajo-Gallup Water Supply Project, which is greatly needed to supply water for domestic uses throughout the eastern portion of the Navajo Indian Reservation, would rely on the Navajo Reservoir supply, but Reclamation has not completed Endangered Species Act and National Environmental Policy Act activities for the Project. The authorized purpose of the Navajo Unit should be fully maintained. Reclamation should give further thought to the impacts of the proposed action on the State of New Mexico, 2

CA10-1 Comment noted.

CA10-2 Please see the responses to General Comments 14 and 18k.

the Navajo Nation and others should the Preferred Alternative not allow for development of New Mexico's Upper Basin apportionment. | 2 cont.

Page S-1, last complete sentence; page I-2, last complete sentence; and Summary DEIS page S-3, first sentence. Insert a comma following "habitat", and replace ", and subject to concurrence by" with "and in consultation with". Concurrence of the Fish and Wildlife Service may not be required to attempt to meet the flow recommendations or a reasonable alternative. | 3

Page S-1, footnote 3; page I-2, footnote 3; page G-15, San Juan River Basin Recovery Implementation Program definition; and Summary DEIS page S-3, footnote 3. Replace "management" with "development", and delete "Utah,". The water development interests are participants in the San Juan River Basin Recovery Implementation Program (SJRBRIP), but the State of Utah has chosen not to participate in the Program. | 4

Page S-2, second complete paragraph, fourth sentence; page I-4, second complete paragraph, fourth sentence; and Summary DEIS page S-3, last complete sentence. Replace "contribution" with "construction". | 5

Page S-3, third paragraph, third sentence, and page I-8, second paragraph, third sentence. Replace "recommendations include" with "Flow Recommendations report includes". The report made flow recommendations for the San Juan River through the reaches of critical habitat for the endangered fish species. The report also presented an example of Navajo Dam operating criteria which, if followed, would result in the flow recommendations being met. The operating criteria for the dam are not the flow recommendations, however. Other operating criteria also may result in meeting the flow recommendations. | 6

Page S-3, fourth paragraph, first sentence, and page I-8, third paragraph, first sentence. Replace "suggested operating rules" with "Flow Recommendations". The flow recommendations define the flow conditions in the San Juan River below Farmington that mimic a natural hydrograph. The Navajo Dam operating criteria attempt to make releases from the Dam to meet the specified flow conditions after combining the Dam releases with tributary inflows below the Dam. | 7

Page S-3, last complete paragraph, second sentence, and page I-8, third paragraph, second sentence. Insert "believed to be" prior to "required". There is uncertainty in the derivation of the flow recommendations caused by data limitations and a lack of endangered fish in the San Juan River to observe biological responses to the research flows that were evaluated during the 1990s. | 8

Page S-7, Table S-1; Page S-10, Decommission and Breach Navajo Dam; Summary DEIS page S-9, Table S-1; Summary DEIS page S-14, Decommission and Breach Navajo Dam; page II-4, last bullet; and page II-9, last paragraph. Decommissioning and breaching Navajo Dam should not be listed as a formulated alternative to address the purpose and need because it is beyond the scope of the proposed action, which is to operate the dam to meet its authorized purposes while complying with the Endangered Species Act. The authorized purposes of the Navajo Unit obviously cannot be met by breaching the dam. | 9

CA10-3 The EIS has been revised to accommodate your concern.

CA10-4 According to the SJRBRIP website, the State of Utah is a participant in the program and the word "development" is used in the definition of the program. The EIS has been revised accordingly.

CA10-5 through 8 The EIS has been revised to accommodate your concern.

CA10-9 Please see the response to General Comment 12 which discusses discommissioning Navajo Dam.

Mr. Ken Beck
November 26, 2002
Page 3

Page S-9, second paragraph, third sentence; page II-25, second complete paragraph, third sentence; and Summary DEIS page S-13, third paragraph, third sentence. Is it the Flow Recommendations, the 250/5000 Alternative, or both, that contain the referenced short-term flexibility? The 250/5000 Alternative sets the minimum release at 250 cfs throughout the year, but provides for higher releases to be made during the irrigation season depending upon water availability, which will decrease as the States develop their compact apportionments. See, for example, page III-1, second paragraph. 10

Page S-12, footnote 10; page II-23, footnote 9; and Summary DEIS page S-20, footnote 11. The flexibility to maintain base flow releases of up to 500 cfs during the irrigation season may not be available either when water development fully utilizes the available supply on a long-term average basis or when drought conditions at any time necessitate storage of as much water as possible to meet both water demands and spring peak release needs. For example, the severe, unprecedented drought of 2002, coupled with dam releases of about 850 cfs throughout the summer, has resulted in risk of water supply shortages in 2003 and highlighted the need to regulate San Juan River flows to maintain water storage to avoid shortages to water contracts and flow recommendations. Also, see the comment below on Summary DEIS, page S-19, footnote 10. 11

Page S-13, Table S-2; page II-29, Table II-9; and Summary DEIS page S-21, Table S-5 (Water uses and resources). Under the 500/5000 Alternative, delete "additional". 12

Pages S-14 to S-16, Table S-2; pages II-29 to II-32, Table II-9; and Summary DEIS pages S-21 to S-23, Table S-5 (Indian Trust Assets/Environmental Justice, Socioeconomics, and Land use). To the extent that the alternatives negatively impact water supply available for use at the San Juan Generating Station or the Four Corners Power Plant, and at the associated coal mines, the alternatives may negatively affect power generation at these facilities, and consequently, may affect Indian and non-Indian employment in the region and development of Indian coal resources. The full potential impacts of the alternatives need to be identified. 13

Page I-2, third paragraph, third sentence. Replace "implementation of the Flow Recommendations" with "operation of Navajo Dam to meet the Flow Recommendations or a reasonable alternative". Operation of the dam is the action analyzed, and a reasonable alternative operation may not fully meet the Flow Recommendations. The purpose statement for the proposed action indicates the possibility of such a reasonable alternative. 14

Page I-9, list of cooperating agencies continued onto page I-10. The list of cooperating agencies in the Introduction excludes the New Mexico Environment Department, but the Environment Department is listed as a cooperating agency in the Summary DEIS, transmitted under separate cover, at page S-8. 15

Page I-10, last complete paragraph, first sentence. How can the Bureau of Indian Affairs commit Reclamation to a certain Navajo Dam operation? 16

CA10-10 Please see the response to General Comment 11 which discusses flexibility.

CA10-11 Comment noted.

CA10-12 The EIS has been revised to accommodate your concern.

CA10-13 The EIS has been revised to accommodate your concern.

CA10-14 The EIS has been revised to accommodate your concern.

CA10-15 Reclamation apologizes for not including the New Mexico Environment Department on the list of cooperating agencies in the DEIS. Their name will be added to the EIS.

CA10-16 Comment noted.

Page I-10, last complete paragraph, last sentence. Insert "or a reasonable alternative" at the end of the sentence. As the labeling suggests, the Flow Recommendations are recommendations, not requirements. The derivation of the Flow Recommendations contains uncertainties, and there may be a reasonable alternative to fully meeting the Flow Recommendations. The Fish and Wildlife Service has indicated to the SJRBRIP Coordination Committee that the flow recommendations are not necessarily inviolate, and progress towards recovery of the endangered fish species in the San Juan River will be measured by all actions taken to improve their habitat and population status, as well as by population response, consistent with recovery goals and the SJRBRIP's principles for conducting Endangered Species Act section 7 consultations on water development and management activities in the Basin. 17

Page I-11, first complete paragraph, last sentence, and page I-12, Table I-1. The authorized purposes of the Navajo Unit are as specified in the Colorado River Storage Project (CRSP) Act. It is those authorized purposes that are the functions of the Navajo Unit, and they include regulating the flow of the Colorado River system to allow the Upper Basin States to develop their compact apportionments, reclamation of arid lands, municipal and industrial water supply, and flood control. Other authorities provided in Table I-1 are not authorized purposes nor functions of the Navajo Unit; rather, the Navajo Unit simply may provide certain benefits that are incidental to regulating streamflow for beneficial consumptive uses. Incidental benefits of the Navajo Unit include recreation, fish and wildlife, and hydropower generation benefits.

The list of authorities for operating the Navajo Unit is somewhat misleading. The Reclamation Project Act of 1939 provided bases for cost allocation and repayment contracting for federal reclamation projects, but did not establish authorized purposes for any project authorized by specific Act of Congress. The CRSP Act of 1956 authorized construction and operation of the Navajo Dam and Reservoir to fulfill the primary purposes of the Unit, which is flow regulation for water supply development, and also authorized construction of recreational and fish and wildlife facilities to provide incidental public benefits only so long as they are consistent with the primary purposes of the Unit. In addition, laws relating to operation of the San Juan-Chama Project do not bear on the functions of Navajo Reservoir. Public Law 87-483 authorized the San Juan-Chama Project to provide water for the purposes of irrigation, municipal, industrial and domestic uses only, and provided for incidental recreation and fish and wildlife benefits. The Secretary of the Interior, by letter dated May 20, 1963, stated that additional Congressional legislation was necessary to authorize making San Juan-Chama Project water available for a recreation pool in a reservoir in the Rio Grande Basin; and Public Law 88-293 and Public Law 93-493 subsequently authorized such use for recreation and fish and wildlife conservation pools at Cochiti and Elephant Butte reservoirs, respectively. Public Law 97-140 authorized storage of San Juan-Chama Project water in the two reservoirs for recreation and other purposes. Under Jicarilla Apache Tribe v. United States, et al. (10th Circuit Federal District Court), supplying San Juan-Chama Project water for recreation and fish and wildlife uses has to be authorized by Congress and has to be delivered pursuant to a contract for the delivery of the water. 18

Further, the Colorado River Basin Project Act of 1968 set forth a program for further development of water resources in the Colorado River Basin consistent with the Colorado River and Upper Colorado River Basin compacts, but does not alter the authorized purposes of the

CA10-17 The EIS has been revised to accommodate your concern.

CA10-18 Please see the response to General Comment 18k.

Navajo Unit set forth in the CRSP Act of 1956 or Public Law 87-483. The Colorado River Basin Project Act also provides that fish and wildlife and power benefits are incidental to other specified uses of water. The Fish and Wildlife Coordination Act of 1958 simply provides that for projects authorized prior to the Act, including the Navajo Unit, modification of project operations to accommodate conservation of wildlife resources are to be compatible with the purposes for which the project was authorized. And Public Law 89-72 provides only that federal water projects provide fish and wildlife enhancement and recreational opportunities where such opportunities can be accommodated within the primary project purposes. Also, the study and reporting of water quality and implementation of salinity control units in the Colorado River Basin pursuant to the Colorado River Basin Salinity Control Act and preceding acts does not create in the Navajo Unit a purpose of improving water quality. 18 cont.

Page II-1, first paragraph, last sentence. Delete "benefits of", delete "uses", delete "generation of", and insert "generation benefits" at the end of the sentence. Fish and wildlife benefits are incidental to flow regulation for beneficial consumptive uses. Fish and wildlife benefits are not uses of the Navajo Unit in and of themselves. 19

Page II-5, second complete paragraph, last sentence. Delete "actual". Depletions shown in Table II-1 for the No Action Alternative are not estimates of actual water consumption; rather, they include a mix of maximum historic depletion levels for some uses and representations of near water right depletions for other uses. Also, some of the depletions listed include off-stream depletion amounts and some do not. See the comments on pages II-6 and II-7, Table II-1 below. 20

Page II-5, last complete paragraph, first sentence. Replace "contain recommended" with "report contains sample". The report made flow recommendations for the San Juan River below Farmington, and presented examples of operating criteria which, if followed, would result in the flow recommendations being met. 21

Pages II-6 and II-7, Table II-1, and HMA pages A-9 and A-10, Table 1. New Mexico does not fully agree with the quantities of depletions listed in the tables, which were determined by Reclamation and the Bureau of Indian Affairs (BIA), and does not agree with the use of the San Juan River Basin RiverWare hydrology model or model data for determining current or future depletions in New Mexico. Regarding note 1 to Table II-1 and note 8 of Table 1, the SJRBRIP Coordination Committee adopted the model disclaimer which reads, in part: "The model data, methodologies and assumptions do not under any circumstances constitute evidence of actual water use, water rights or water availability under compact apportionments and should not be construed as binding on any party." Regarding note 2 to Table II-1 and note 9 to Table 1, it is a recognized fact, not belief, that there are inconsistencies and shortcomings in assumptions or methods used to determine the depletions for certain uses given in the table. For example, the non-Indian irrigation depletions, excluding those for the Hammond Project, are based on an aggregate level of historic, contemporary irrigated acreage by geographic area which is less than the full water right acreage for such area; whereas, the Jicarilla irrigation depletion is based on full water rights acreage utilization and exceeds historic use. For the Navajo irrigation depletions, the No Action Alternative uses depletions for Hogback that the BIA may consider a measure of water rights for unused and undeveloped portions of both the Hogback and Fruitland 22

CA10-19 Please see the response to General Comment 18.

CA10-20 The EIS has been revised to accommodate your concern.

CA10-21 Comment noted. Reclamation declines to modify the sentence as recommended.

CA10-22 Please see the response to General Comment 21.

projects, and the action alternatives use depletions for the Navajo Indian Irrigation Project (NIIP) that assume full utilization each year of every authorized project acre. However, it is common for large irrigation projects to experience some fallow acreage each year due to normal operating practices and mechanical problems. The Interstate Stream Commission projects an average annual future depletion, under equilibrium conditions, of 254,000 acre-feet per year for the NIIP using a reasonable assumption for fallow acreage. The Commission also uses different methodologies for computing irrigation depletions than does the model.

In addition, the depletion for the La Plata drainage in New Mexico shown in the tables fails to take into account the chronic, substantial water supply shortages that occur each year in the drainage in New Mexico. Also, the total stockpond and livestock uses in New Mexico amount to about 4,300 acre-feet per year, of which about half are off-stream depletions; and some of the indicated fish and wildlife depletions for New Mexico, for example, Jackson Lake Wildlife Refuge uses, are not off-stream depletions. Only 560 acre-feet per year of use in New Mexico should have been charged to date under the minor depletions approved by the Fish and Wildlife Service in 1992 and 1999, and said use, though allocated, has not yet been made (450 acre-feet for a Navajo french-fry factory and 110 acre-feet for increased use by the San Juan Basin Water Haulers). Also, there historically was about 900 acre-feet per year of off-stream, non-Indian irrigation depletion in the Chaco River drainage. 22 cont.

Evaluation and refinement of the model is ongoing and may address New Mexico's concerns. It is not known at this time how sensitive model results and conclusions may be to data errors and uncertainties. Reclamation should maintain the operational flexibility to respond to model improvements as well as other new information through adaptive management.

Page II-11, last paragraph. A memorandum of agreement between the Bureau of Reclamation, the State of New Mexico and the Fish and Wildlife Service is not necessary to protect Navajo Dam releases made to benefit the endangered fish species in the San Juan River. The State of New Mexico when it committed to participate in the SJRBRIP also committed to protect releases made to benefit the endangered fish to the extent of its authority. The Interstate Stream Commission has made state funds available to construct or install flow measurement flumes on non-Indian ditches that divert from the river. Once the flumes are installed, the State Engineer can monitor diversion rates at each non-Indian ditch. The New Mexico State Engineer publicly has committed to measurement and administration of ditch diversions in the San Juan River Basin. While the State Engineer may administer non-Indian ditch diversions such that they do not exceed adjudicated or permitted diversion rates, there also may need to be some commitment by the Bureau of Indian Affairs and the Navajo Nation to monitor and administer diversions by the Hogback and Fruitland irrigation projects. The diversion rights for these two projects have not been adjudicated, and diversion rates that are reasonably needed to irrigate the acreage currently farmed have not been determined to the satisfaction of all parties that may potentially be affected. The jurisdiction over diversions by the Indian ditches on the river may be an issue. 23

Page II-11, last incomplete sentence continued onto page II-12. Inaccuracies in projected inflows do not cause surpluses or shortages. Actual water storage and inflows, or the water 24

CA10-23 Comment noted.

CA10-24 The EIS has been revised to accommodate your concern.

supply available, and project water demands may result in occurrences of surplus or shortage conditions. 24 cont.

Page II-12, fourth complete paragraph. Replace "These" with "Gage". 25

Page II-12, fifth complete paragraph, first sentence. Reference is made to the phrase: "to the extent possible." As per Article IV(b) of the Colorado River Compact, "... water of the Colorado river system may be impounded and used for the generation of electrical power, but such impounding and use shall be subservient to the use and consumption of such water for agricultural and domestic purposes and shall not interfere with or prevent use for such dominant purposes." Releases may not be maintained solely for hydroelectric power generation at the City of Farmington's Navajo Dam hydroelectric power plant when the effect of doing so would be to create shortages to, and thereby prevent, agricultural and domestic uses. Domestic uses are defined by Article II(h) of the Compact to include "the use of water for household, stock, municipal, mining, milling, industrial and other like purposes, but shall exclude the generation of electrical power." The Colorado River and Upper Colorado River Basin compacts apportion beneficial consumptive uses. 26

Page II-14, Table II-2, and Summary DEIS page S-12, Table S-2. Given that the 250/5000 Alternative minimizes adverse impacts to existing/future authorized water uses and the 500/5000 Alternative does so in part, the 250 variable/5000 Alternative should do so in part also. See Page II-29, Table II-9, and Summary DEIS page S-21, Table S-5 (Water uses and resources). 27

Page II-16, Table II-3. Delete "Required" in the lower left box heading. The flow recommendations flow/duration statistics are recommendations and are not necessarily requirements. 28

Page II-18, Table II-4, Note, and Summary DEIS page S-16, Table S-3, Note. The outlet works at Navajo Dam are at a lower elevation than the sill of the Navajo Indian Irrigation Project canal inlet. The note and data in the table suggest that when the water surface elevation in Navajo Reservoir falls below the sill of the NIIP inlet, reservoir inflows would be bypassed through the outlet works to meet direct flow rights but no water would be released from the dam for maintaining endangered fish habitat. The DEIS should state this explicitly. 29

Page II-20, Table II-6. The occurrences as percent shown for the 250/5000 Alternative should total to 100 percent for the total number of months. A note should be added to the bottom of the table explaining that totals slightly different than 100 percent are due to adding rounded monthly percentages, as opposed to any modeling or mathematic errors, if this is the case. 30

Page II-22, footnote 7. Insert ", based on the Endangered Species Act section 7 consultation between the Bureau of Indian Affairs and the Fish and Wildlife Service," following "NIIP". The Interstate Stream Commission projects an average annual future depletion, under equilibrium conditions, of 254,000 acre-feet per year for the NIIP using a reasonable assumption for fallow acreage. The Bureau of Reclamation in the past also has used a depletion of 254,000 acre-feet per year in its planning studies for the NIIP. 31

CA10-25 The EIS has been revised to accommodate your concern.

CA10-26 Please see the response to General Comment 18.

CA10-27 The EIS has been revised to accommodate your concern.

CA10-28 The EIS has been revised to accommodate your concern.

CA10-29 Reclamation will operate Navajo Dam so that the water surface elevation would not drop below 5990 feet during the irrigation season and 5985 feet during the non-irrigation season. This will be accomplished using the Annual Operating Plan, National Weather Service monthly inflow forecasts, public input, and implementing shortage sharing criteria set forth in Section 11 (a) of the Act of June 13, 1962, Public Law 87-483, 76 Stat. 96.

CA10-30 The EIS has been revised to accommodate your concern.

CA10-31 The EIS has been revised to accommodate your concern.

Page II-23, footnote 8, and Summary DEIS page S-19, footnote 10. Insert following the second sentence: "The SJRBRIP Coordination Committee approved the Flow Recommendations, but has not approved the Biology Committee's suggested change to the Flow Recommendations." The Biology Committee of the SJRBRIP makes recommendations to the Coordination Committee, which then may approve, modify or reject the recommendations. 32

Page III-1, second paragraph, fourth sentence. Replace "purposes" with "demands". Demands for water to provide incidental benefits should be kept distinct from providing water for authorized purposes of the Navajo Unit. 33

Page III-5, last complete sentence. Flow in the La Plata River at Farmington is intermittent. 34

Page III-5, last incomplete sentence continued onto page III-6. Replace "its confluence with Lake Powell" with "Bluff, Utah", and replace "about 2.03" with "approximately 2". The Bureau of Reclamation for modeling purposes calculated natural flows in the San Juan River Basin, including at Bluff, Utah. The SJRBRIP and its participants, including the State of New Mexico, have not necessarily agreed to the natural flows calculated by Reclamation. The Interstate Stream Commission continues to assert that the natural flows calculated by Reclamation, and the methodologies used to compute them, contain uncertainties and errors that hopefully will be addressed by Reclamation in future revisions to the San Juan River Basin RiverWare hydrology model. Nonetheless, it is reasonable to report an estimated average annual natural flow at Bluff of approximately 2 million acre-feet. Also, flows between Bluff and Lake Powell have not been modeled or analyzed. 35

Page III-6, footnote 5. Delete "for the San Juan River Basin Recovery Implementation Program (SJRBRIP)". Natural flows were developed by Reclamation for input to the San Juan River Basin RiverWare hydrology model for use in planning and environmental law compliance activities for the Animas-La Plata Project and other projects. The Bureau of Indian Affairs subsequently used the model also for evaluating the flow recommendations. 36

Page III-7, first unnumbered paragraph. Delete "Trust" in the section heading and "trust" in the first sentence. Water rights under state law are appropriative, not trust, rights, although in one instance the City of Farmington was adjudicated by the court a certain amount of water rights in trust. Also, insert the following after the first sentence: "The exercise of both Indian and non-Indian water rights is subject to interstate compacts and must be included within the apportionments made to the respective basin and state of use." 37

Page III-7, numbered paragraph 1, and page G-9, Lees Ferry definition. Replace "Lees" with "Lee" at all occurrences. 38

Page III-7, last numbered paragraph 2 continued onto page III-8, first bullet. Replace "or of the amount remaining" with "and of the remaining amount available to the Upper Basin,". 39

CA10-32 The EIS has been revised.

CA10-33 Comment noted. Reclamation declines to incorporate the recommended change.

CA10-34 through 46 The EIS has been revised to accommodate your concern.

Page III-8, numbered paragraph 3, second sentence. Replace "Gage" with "Station". The index used to determine Colorado's delivery obligation is the Hesperus Station flow, which includes flow in the La Plata River at the Hesperus gage plus concurrent diversions from the La Plata River above the Hesperus gage. | 40

Page III-8, numbered paragraph 4, section title. Insert "Project" prior to "Compact". | 41

Page III-9, second paragraph, second sentence. Replace "for water use" with "to appropriate water in the San Juan River Basin". | 42

Page III-9, second paragraph, last sentence. Replace "87-4831" with "87-483". | 43

Page III-9, third paragraph. Insert "the Public Service Company of New Mexico" prior to "and". The Public Service Company of New Mexico's contract with the Secretary does not expire until the end of 2005, after which the Company will receive the same amount of water from the Navajo Reservoir Supply via a subcontract with the Jicarilla Apache Nation. The Company cannot be considered a small-use contractor as its water use is substantial. | 44

Page III-9, fourth paragraph, first sentence. Insert "Basin" prior to "Compact". | 45

Page III-11, Table III-2. This table includes a total diversion right at the Citizens' Ditch heading of 122 cfs (100 cfs for Citizens' Ditch, plus 10 cfs for the La Pumpa Ditch, plus 12 cfs for the Jaquez Ditch) based on information provided by the State Engineer Office in July 2000. The table does not take into account all rights transferred into or out of the Citizens' Ditch (see page III-80, numbered bullet 3). The table should be revised to reflect the updated information indicated at page III-54, footnote 24. The diversion right information provided by the Interstate Stream Commission in March 2002 is based on a recent preliminary abstract of the water rights files for the Citizens' Ditch as reviewed by water rights personnel of the State Engineer Office in Santa Fe, which abstract indicates a current total diversion right for the Ditch of about 136 cfs. Footnote 24 at page III-54 then should be deleted or revised accordingly. | 46

Page III-11, first complete paragraph, second sentence. The consumptive uses in Arizona heretofore estimated by Reclamation are estimates of depletions made at the place of use and do not reflect depletions of flow of the San Juan River due to uses of non-tributary waters and salvage of channel losses by use. These factors need to be considered in accounting under the compact apportionments made to the Upper Basin states of the water available at Lee Ferry. | 47

Page III-11, first complete paragraph, last sentence. Insert "through 2017" following "obligates". The contract to supply water from Lake Powell for use at the Navajo Power Plant near Page, Arizona, expires about 2017. Has the Secretary of the Interior made any commitments affecting the use beyond 2017 of the water presently contracted for use at the power plant? | 48

Page III-12, second paragraph, second sentence. Replace "Lees" with "Lee". Also, the apportionments to the Upper Division states by the Upper Colorado River Basin Compact does | 49

CA10-47 Comment noted.

CA10-48 The EIS has been revised to accommodate your concern. As of the date of this document, Reclamation does not know if the Secretary of the Interior has made any commitments affecting the use beyond 2017 of the water presently contracted for use at the Navajo Power Plant.

CA10-49 The EIS has been revised to accommodate your concern.

result in these states, including New Mexico, sharing the curtailment of uses as necessary to meet the Lee Ferry delivery obligation of the Upper Basin. 49 cont.

Page III-13, numbered paragraph 2 and footnote 7. Existing active water uses and future Indian irrigation uses, including the completion of the NIIP, were not handled in the hydrology model in equivalent manners. The model based depletions by the NIIP and by the Jicarilla Apache Nation historic use rights on the associated full water rights acreages, as it did also for depletions under the baseline condition for the Fruitland and Hogback Indian irrigation projects. Existing active uses under the Jicarilla Apache Nation's rights and the Fruitland and Hogback irrigation projects is substantially less than irrigation of water rights acreages. Existing active non-Indian uses, and the depletions associated with such uses in the model, also are substantially less than those that would be associated with full water rights acreages. It is not reasonable to assume that the NIIP, or any other irrigation project, will irrigate each and every project acre each and every year. 50

Page III-16, first unnumbered paragraph, second sentence. The 1955 Feasibility Report for the Navajo Unit presented to Congress in support of the authorizing legislation for the Colorado River Storage Project included projected Navajo Dam operations that showed releases of about 250 cfs during the irrigation season to meet downstream direct flow water rights and the water demands of the Hammond Project. The Feasibility Report indicated that Navajo Dam would not release water during the non-irrigation season, except as might be needed to supply water from storage pursuant to contract. It was known during consideration of the CRSP Act that base releases from Navajo Dam would be reduced to about 250 cfs once New Mexico fully developed its compact apportionment. This expectation has not changed, at least not on the part of the Interstate Stream Commission. 51

Page III-17, first unnumbered paragraph, second sentence. This sentence suggests that senior water rights are impacted under the 250/5000 Alternative. Under the 250/5000 Alternative, water rights between Navajo Dam and Farmington are not impacted in that water would be available in the river channel, but modifications to the channel or diversion works may be needed to access the water under low-flow conditions. The sentence should be rewritten accordingly. 52

Page III-17, first unnumbered paragraph, fourth sentence; page III-18, numbered paragraph 2; page III-111, second paragraph, first sentence; page III-122, second complete paragraph; and page III-128, first complete paragraph. It should be noted for clarification that the use of water from the Navajo Reservoir Supply by the Public Service Company of New Mexico at the San Juan Generating Station is in the baseline depletions of the 1991 Animas-La Plata Project Biological Opinion. It is the diversion and use of water, not ownership, that is in the environmental baseline. Although Endangered Species Act section 7 consultation between Reclamation and the Fish and Wildlife Service may be reinitiated under the 500/5000 Alternative on the Jicarilla Apache Nation third-party contract to supply its Navajo Reservoir Supply water to the Company beginning in 2006, said contract should only be at risk to the same extent as the continuation of other historic uses that were included in the 1991 baseline and that rely on federal actions or activities. Also, see page II-6, Table II-1, depletion for San Juan power plant of 16,200 acre-feet under No Action Alternative. 53

CA10-50 Comment noted. Please see the response to General Comment 21.

CA10-51 Comment noted.

CA10-52 The EIS has been revised to accommodate your concern.

CA10-53 Comment noted. Please see the response to General Comment 21.

Page III-18, numbered paragraph 4, second sentence. A projection of infrequent shortages by the hydrology model for the San Juan River Basin does not necessarily suggest that no further water development could occur. For example, the modeling analysis for the 500/5000 Alternative assumed a full water rights acreage depletion of 270,000 acre-feet for the Navajo Indian Irrigation Project each and every year. Future actual depletions for the Project cannot reasonably be expected to average 270,000 acre-feet annually because some of the Project acreage will not be irrigated in any given year for one reason or another (mechanical failure, crop rotation, land conservation, etc). The Interstate Stream Commission for future projections of depletions in the Basin in New Mexico assumes an average annual depletion of 254,000 acre-feet for the NIIP. Modeled shortages to water development and to meeting the flow recommendations could be lessened by reducing depletions in the model to reasonable future expectations. Also, the Flow Recommendations are not necessarily requirements, and other reasonable and prudent alternatives may possibly be identified so long as the Flow Recommendations are substantially met. In addition, Public Law 87-483 allows for the Secretary to enter contracts for water from the Navajo Reservoir Supply so long as they would not, in the event of shortage, result in an unreasonable amount being available for the diversion requirements of the NIIP and the San Juan-Chama Project. 54

Page III-19, second paragraph. It should be noted that the 250/5000 Alternative would specify the lower and upper limits of releases from Navajo Dam, and the general operational parameters of high spring snowmelt-runoff peak releases and low summer, fall and winter base flow releases. Adjustments to release schedules and to the flow recommendations may occur through adaptive management programs of the Bureau of Reclamation and the SJRBRIP, respectively. Such adjustments may both conserve sufficient water for uses within New Mexico's compact apportionment and comply with reasonable alternatives for compliance with environmental laws. Also, more water may be available for additional uses, such as the Navajo-Gallup Water Supply Project, than is indicated by the San Juan River Basin hydrology model because the model supplies water for baseline depletions that exceed actual current and anticipated future depletions. 55

Page III-21, fourth paragraph. Insert following the third sentence: "The State of New Mexico and the Navajo Nation have entered formal negotiations to attempt to reach a settlement of the Nation's water rights claims to waters of the San Juan River Basin in New Mexico." Also, while the Ute Mountain Ute Tribe reached a negotiated settlement of its water rights claims in Colorado, it may assert a small claim for water rights for lands located in the Basin in New Mexico. 56

Page III-22, Table III-3. This table presents existing and future depletions in the San Juan River Basin by Indian tribes. The list is incomplete in that it excludes existing and some possible future Navajo Nation municipal, industrial, commercial, domestic, tributary irrigation, stockpond, livestock and recreation uses in New Mexico, Arizona and Utah, though some existing and future municipal, industrial and domestic uses would be subsumed under the future Navajo Nation Municipal Pipeline and Navajo-Gallup Water Supply Project. Also, the existing and future depletions for the Navajo Indian Irrigation Project are based on baseline depletions in Fish and Wildlife Service Biological Opinions and do not reflect actual or historic existing uses 57

CA10-54 Comment noted.

CA10-55 Comment noted.

CA10-56 The EIS has been revised to accommodate your concern.

CA10-57 A footnote has been added to the bottom of Table III-3 clarifying existing and future uses. These depletion values are based on Indian water right settlements for the Jicarilla Apache Nation and the Colorado Ute Tribes. The Navajo Nation water rights are in the process of being determined.

or expected actual future uses due to some amount of acreage being fallow each year. Similarly, the depletions in the table for the other Navajo irrigation projects are baseline depletions which significantly exceed current actual water uses. Footnote 1 to the table is somewhat misleading in that the baseline depletions, as identified by the table itself, are in fact used in the modeling analysis of alternatives in the DEIS. 57 cont.

In addition, the table includes full water rights for Jicarilla historic and existing uses and evaporation, but actual average depletions under current conditions are much less than the water right amounts due to little irrigation use and reservoirs and stock ponds not being completely full at all times. Much of the historic use irrigation rights are for lands abandoned many years ago, and the restoration of irrigation lands may be more accurately categorized as a future use. Further, most of the 770 acre-feet of small third-party water contracts entered into by the Jicarilla Apache Nation allow for the continuation of uses that existed prior to 1991 and were included in the Animas-La Plata Project 1991 Biological Opinion. The depletions associated with these small uses in New Mexico are double-counted in the baseline by including them both in the original baseline and in the 3000 acre-feet minor depletion allowance added to the original baseline for minor depletions established after 1991. Hence, footnote 2 to the table does not appear to be accurate. 58

Similarly, it appears that full water rights and allocations are included in the table and the baseline depletions for existing uses by the Southern Ute Indian Tribe, though the Tribe may not be currently using the full amount of their rights. 59

Pages III-23 and III-24, Table III-3. This table presents future depletions associated with water uses by Indian tribes in the San Juan River Basin. The future depletion for the Navajo Indian Irrigation Project given in the table is the baseline depletion for the NIIP in Fish and Wildlife Service Biological Opinions and is based on the authorized project acreage; it does not reflect anticipated actual future uses due to some amount of acreage being fallow each year. Also, it should be noted that the State of New Mexico has not yet agreed to the depletion amount being planned by Reclamation for the Navajo-Gallup Project for uses in New Mexico, and that this is a subject for the water rights negotiations between New Mexico and the Navajo Nation. In any event, the Navajo-Gallup Project depletion includes 7,500 acre-feet for the City of Gallup that is not, at this time, anticipated to be supplied from Navajo Nation water rights. It also includes 1,200 acre-feet of depletion under Jicarilla Apache Nation water rights, which are double-counted in the table via inclusion also in depletions identified under Water Rights Settlement Act of 1992 (Remaining from Navajo Reservoir or Navajo River). The depletion for the Navajo-Gallup Project under Navajo Nation future uses should be reduced accordingly to exclude the City of Gallup's and the Jicarilla's share of the Project, and both the parenthetical following "Navajo-Gallup Project" and footnote 2 should be deleted. The Jicarilla Apache Nation's participation in the Navajo-Gallup Project, either as a direct water user or a water supplier to Gallup, is uncertain at this time (see page III-29, fourth paragraph). 60

In addition, the State of New Mexico has not yet agreed to the depletion amount identified by the Bureau of Indian Affairs for Hogback Project restoration. The depletion amount given in the table is equivalent to the amount transferred from the Hogback and Fruitland projects to the NIIP

CA10-58 Comment noted.

CA10-59 Comment noted.

CA10-60 Comment noted.

for Endangered Species Act section 7 consultation purposes. The transferred depletion was estimated by the Bureau of Indian Affairs assuming a project acreage, and was associated with lands not then irrigated within the Hogback and Fruitland projects. Some of the associated lands had been abandoned and some had never been developed for irrigation. It remains unclear as to how much of the contemplated Hogback project acreage can be practicably rehabilitated for irrigation. The water rights for the Hogback Project is a subject of the water rights negotiations between the State of New Mexico and the Navajo Nation. Further, as with the NIIP, the future depletion for the Hogback Project restoration given in the table does not reflect anticipated actual future uses due to some amount of the project acreage being fallow each year.

The table gives amounts of future depletions by the two Colorado Ute Tribes associated with domestic and livestock wells that divert from tributary groundwater in the Basin in Colorado. Those amounts include existing uses that should be included in the environmental baseline. Portions of the other identified future uses by the Colorado Ute Tribes also may be used currently (see page III-30, first complete sentence). If the surface water rights listed for the Colorado Ute Tribes are for irrigation purposes, then the depletion amounts shown for such rights in the table exceed anticipated future depletions and may double-count current depletions that are already included in the environmental baseline depletions for irrigation uses in Colorado. Clarification of the purpose and status of use of these rights would be helpful. 60 cont.

Also, in the section on Jicarilla Apache Nation future uses, replace "part of" with "pursuant to the" in the parenthetical following "PNM Third Party Water Service Contract". The PNM water contract with the Jicarillas was not a part of the Settlement Act; rather, it was executed pursuant to the Jicarilla Apache Nation's contract with the Secretary of the Interior for delivery of water from the Navajo Reservoir Supply and the authorities of the Settlement Act. 61

Page III-24, footnote 8. The State of New Mexico also does not necessarily agree with the Navajo Nation's claimed priority date because 1868 is the date that the Navajo Indian Reservation lands were actually established and set aside or reserved as a homeland for the Navajo people. 62

Page III-25, third paragraph. Add to the end of the paragraph: "The Bureau of Indian Affairs in its 1999 NIIP Biological Assessment estimated that the average annual diversion requirement for the NIIP as reconfigured is about 337,500 acre-feet if the full authorized project acreage was to be irrigated each year." The diversion demand for the reconfigured NIIP should be stated. A Department of the Interior, Office of the Solicitor, memorandum from the Deputy Secretary to the Under Secretary, dated December 6, 1974, concluded that under Section 2 of Public Law 87-483, the Navajo Tribe is entitled to the use of so much NIIP water as could be reasonably necessary to irrigate the 110,630 acres, whether that amount actually turns out in the operation of the project sprinkler system to be 370,000 acre-feet, or some other figure (either greater or less than 370,000 acre-feet); and the Navajo Tribe may use water authorized to be diverted by Section 2 only in relation to the principal purpose of the NIIP, i.e., irrigation. The Interstate Stream Commission concurs with these conclusions. 63

CA10-61 The EIS has been revised to accommodate your concern.

CA10-62 through 65 The EIS has been revised to accommodate your concern.

Page III-27, fourth paragraph, and page III-40, last incomplete sentence continued onto page III-41. It should be noted that the State of New Mexico has not yet agreed to the depletion amount being planned by Reclamation for the Navajo-Gallup Project for uses in New Mexico, and that this is a subject for the water rights negotiations between New Mexico and the Navajo Nation. | 64

Page III-28, second complete paragraph, last sentence. Insert "Basin" following "River". The Jicarilla Apache Nation's rights are to waters of the San Juan River and tributaries. | 65

Page III-28, footnote 10, fourth sentence. Replace "Navajo Unit authorization" with "Settlement Act". Also, the contract between the Jicarilla Apache Nation and the Secretary to provide water to the Nation from the Navajo Reservoir Supply is not in conflict with the authorized purpose of the Navajo Unit to supply water for beneficial consumptive uses apportioned to New Mexico by the Upper Colorado River Basin Compact. | 66

Page III-30, last paragraph, first sentence. Insert "or a reasonable alternative," prior to "future". | 67

Page III-30, last paragraph, second sentence. Replace "existing projects" with "authorized projects or contracts,". | 68

Page III-31, last bullet. Portions of the future uses identified for the Colorado Ute Tribes at pages III-23 and III-24, Table III-3, may be used currently (see page III-30, first complete sentence). | 69

Page III-31, last incomplete sentence. Insert a comma following "taken". | 70

Page III-32, first complete paragraph. Add at the end of the paragraph: "San Juan Pueblo also has a contract allocation for delivery of water from the San Juan-Chama Project. In addition, an allocation of San Juan-Chama Project water is reserved for possible use in the Taos area, by exchange, so as to assist in negotiating a settlement of the water rights claims of Taos Pueblo." | 71

Page III-33, first complete paragraph, second sentence. It should be noted that the State of New Mexico has not yet agreed to the depletion amount being planned by Reclamation for the Navajo-Gallup Project for uses in New Mexico or to the depletion amount identified by the Bureau of Indian Affairs for Hogback Project restoration, and that these are subjects for the water rights negotiations between New Mexico and the Navajo Nation. | 72

Page III-34, last complete paragraph, last sentence. This sentence is not clear. Water rights settlements have been obtained for the Jicarilla Apache Nation and the two Colorado Ute Tribes. The State of New Mexico and the Navajo Nation are formally negotiating to attempt to reach a settlement of the Navajo Nation's water rights claims in the San Juan River Basin in New Mexico. The federal government provides input into the Navajo Nation water rights discussions, but the negotiation regarding water rights and their quantification is between the State and the Nation. On the other hand, federal agencies may be planning water development projects in cooperation with the Indian tribes to put their water rights to use, with input from State agencies. The sentence should be rewritten to clarify what is intended. | 73

CA10-66 Comment noted.

CA10-67 The text as currently written is sufficient.

CA10-68 The text as currently written is sufficient.

CA10-69 through 73 The EIS has been revised to accommodate your concern.

Mr. Ken Beck
November 26, 2002
Page 15

Page III-35, numbered paragraph 2. Which Indian tribe or tribes will receive the direct benefits of capital cost expenditures for the Animas-La Plata Project of over $204 million? | 74

Page III-35, numbered paragraphs 3 and 4, last sentences, and footnotes 13 and 14. To establish the upper limit to the estimated range of revenue that might be generated from water sales by the Colorado Ute Tribes and the Navajo Nation of their Animas La-Plata Project water, an average suburban domestic rate in the region was used. What communities in the region were evaluated to determine the average domestic rate? Is the estimated revenue based on the sale of treated water, and if so, what is the net revenue after treatment if the tribes have to pay for the treatment? | 75

Page III-36, last sentence. Add following the sentence: "The annual dollar benefit to the Jicarilla Apache Nation that might be derived from the sale of its Navajo Reservoir Supply water to the City of Gallup could exceed an additional $500,000 per year if it chooses to contract for the sale of 7,500 acre-feet to Gallup for Gallup's portion of the Navajo-Gallup Water Supply Project." | 76

Page III-37, second and third paragraphs, and page III-127, last complete and incomplete paragraphs continued onto page III-128. There may be a reasonable alternative that will permit further water development in the basin, at some level, under the 500/5000 Alternative. The 500/5000 Alternative partially meets the Flow Recommendations, and would more fully meet them under a scenario of future depletions at some level between the depletion levels associated with the No Action and 250/5000 alternatives, especially if reasonable assumptions are used regarding fallowing within irrigation projects. Further, the Fish and Wildlife Service has indicated that the Flow Recommendations are not necessarily inviolate, and progress towards recovery of the endangered fish species in the San Juan River will be measured by all actions taken to improve the status of the species as well as by population response. See the discussion at page III-38, second complete paragraph. The Indian trust assets economic impacts of the 500/5000 Alternative should not be the same as the impacts of the No Action Alternative. | 77 | 78

Page III-37, last complete paragraph. The third-party water contracts between the Jicarilla Apache Nation and the Public Service Company of New Mexico and others for delivery of water from the Navajo Reservoir Supply simply provide water for the continuation of existing uses that were established prior to 1991 and that were included in the environmental baseline of the 1991 Biological Opinion for the Animas-La Plata Project. Providing water for continuing these uses at baseline depletion levels should be included under both the No Action and 500/5000 alternatives just as is providing water for at least 133,000 acre-feet of depletion for blocks 1-6 of the NIIP. | 79

Page III-40, fifth complete paragraph, last sentence. The source of the growth rate and water demand information should be cited. | 80

Page III-46, footnote 21, and page G-14, Recruitment definition. Revise the footnote to read: "Recruitment is the survival of individuals of a species to reproductive age." Recruitment is not the providing of suitable habitat conditions. | 81

CA10-74 The 1988 Colorado Ute Indian Water Rights Settlement Act invokes the use of the Indian Self-Determination and Education Assistance Act (Public Law 92-638) allowing tribes to contract in the construction of federally funded tribal projects. Both the Ute Mountain Ute Tribe and the Southern Ute Tribe will receive direct benefits by contracting for various aspects of the ALP Project.

CA10-75 The value used for the upper range of water sales revenue is indeed a value of treated water which should not be used to establish a range of revenue. The estimated water sales revenue has been corrected to reflect the revenue generated from the sale of untreated raw municipal and industrial water.

CA10-76 An EIS is currently being developed for the Navajo-Gallup Water Supply Project and it is recognized that there will be economic benefits if this project is implemented.

CA10-77 Please see the response to General Comment 5.

CA10-78 There are differences in the ITA economic impacts between the No Action Alternative and the 500/5000 Alternative. In particular is the difference in the amount of acreage that would be developed in NIIP. Under the No Action Alternative, only the acreage left to be developed for blocks 9-11 (45,630 acres) would not be developed, whereas under the 500/ 5000 Alternative, the acreage to be developed in blocks 9-11, plus the acreage that is currently developed in blocks 7 and 8 (10,500 acres), would require additional consultation, placing its develop-ment in question.

CA10-79 Comment noted.

CA10-80 The EIS has been revised to accommodate your concern.

CA10-81 Reclamation declines to change the text as recommended since suitable habitat is a critical element of survival.

Page III-47, second paragraph, last sentence. The rarity of roundtail chub in Navajo Reservoir does not necessarily suggest that the reservoir inundated its spawning habitat. Other factors could have caused or contributed to such rarity following the first few years of filling the reservoir, including, for example, predation by other fish species established in the reservoir or habitat or flow modifications upstream from the reservoir that affected habitat used by roundtail chub for spawning or recruitment. 82

Page III-49, first complete paragraph, last sentence. Insert a comma following "Dam". 83

Page III-52, first complete paragraph, fifth sentence. Replace "until additional water development" with "unless or until water demands", and replace "requires" with "require". During extreme drought such as occurred in 2002, lowering of Navajo Dam releases to 250 cfs may be required to conserve as much water as possible to try to meet water demands for current water uses and for endangered fish habitat needs, even without additional water developement. 84

Page III-53, fourth complete paragraph. Delete "greater" and the parentheses at all occurrences. 85

Page III-54, first complete paragraph, second and third sentences. If the Citizens' Ditch may divert about 140 cfs, the flow below the Citizens' Ditch diversion during periods when Navajo Dam is releasing 250 cfs should be about 110 cfs. How did Reclamation determine that flows below the diversion would range from 60 cfs to 150 cfs when releases are reduced to 250 cfs? 86

Page III-65, last sentence. The data shown in Table III-4 at page III-61 suggest that visitation to Navajo Reservoir during 1996-1999, inclusive, essentially remained steady with no measurable increase. The criteria or bases for establishing historical trends, as opposed to current or recent trends, should be explained. 87

Page III-70, first complete paragraph, second and third sentences, and page III-123, last incomplete paragraph continued onto page III-124. It is not clear why the DEIS speculates on the amount of angler-day losses that might accrue under the 250/5000 Alternative after it states that such losses cannot be predicted accurately. Also, there is no basis given for directly relating percentage changes in angler days to percentage changes in trout habitat. Further, under the 250/5000 Alternative, releases would not always be reduced to 250 cfs, and consequently, the maximum trout habitat reduction would not occur constantly; and mitigation measures, such as physical channel modifications, may lessen trout habitat reductions under this alternative. 88

Page III-71, second complete paragraph, first sentence. Insert "downstream from Farmington" following "river", and replace "habitat" with "through their critical habitat to Lake Powell". 89

Page III-71, second complete paragraph, last sentence. Please clarify Reclamation's intent as to making attempts to maintain flows in the San Juan River below Bluff at 500 cfs or more. Does this refer to considering additional Navajo Dam releases for rafting purposes on the lower river only so far as excess water supply is available to allow for such flexibility? The DEIS at page III-12, second paragraph, last sentence, makes reference to Reclamation having no obligation to 90

CA10-82 Using the best available information, this conclusion was arrived at based on a New Mexico Department of Game and Fish publication from the 1960's.

CA10-83 The EIS has been revised to accommodate your concern.

CA10-84 The EIS has been revised to accommodate your concern.

CA10-85 Reclamation declines to modify the text.

CA10-86 The EIS has been revised to accommodate your concern.

CA10-87 The table does show an increase in visitation over the 10 year period; however, most of the increases occurred in the early years in the table. Improved facilities completed in Colorado and planned in New Mexico are anticipated to stimulate more visitation.

CA10-88 The EIS accurately indicates that changes in angler use are difficult to project because they are influenced by a variety of factors. However, this is a significant issue and needs to be considered in the EIS. It is recognized that minimum releases of 250 cfs would not occur at all times, but hydrology tables in Chapter II show that they occur frequently enough to become a limiting factor on the trout fishery.

CA10-89 The EIS has been revised to accommodate your concern.

CA10-90 The EIS has been revised to accommodate your concern. It is Reclamation's intent to maintain flows below Bluff above 500 cfs to meet the Flow Recommendations. However, because this is monitored as a weekly average of gages, flows will occasionally fall below 500 cfs. In dry years, this would also benefit rafting conditions.

Mr. Ken Beck
November 26, 2002
Page 17

deliver water to the river within the Glen Canyon National Recreation Area. The sentence should be deleted if there will be no attempts to maintain minimum base flows at Bluff beyond what is needed to meet the Flow Recommendations criteria. | 90 cont.

Page III-78, Impacts Summary. It should be noted that pursuant to Article IV of the Colorado River Compact, the use of water released from Navajo Dam for generation of hydroelectric power is subservient to, and shall not interfere with or prevent, the use of water for agricultural, household, stock, municipal, mining, milling, industrial and other like purposes. | 91

Page III-80, first sentence. This sentence is not consistent with the discussion of impacts under the 500/5000 Alternative provided at page III-87, third and fourth complete paragraphs. The sentence needs to be rewritten accordingly. | 92

Page III-87, last paragraph, third sentence. The Interstate Stream Commission staff has discussed with Reclamation staff further federal assistance in evaluating and modifying diversion controls under the Technical Assistance to States program. Further discussion needs to occur. | 93

Page III-90, last paragraph, eighth sentence. Insert "Navajo Nation" prior to "standard". | 94

Pages III-91and III-92, Table III-9. It is not clear how the data in this table relate to assessing the impacts of the alternatives on stream water quality in the San Juan River. Would data collected prior to 1971, which is included in the averages represented in the table, be representative of water quality conditions under any of the alternatives evaluated? | 95

Page III-97, fourth paragraph, second sentence. Delete the sentence. Reclamation should not judge whether exceedences of water quality standards constitute violations. | 96

Page III-97, last sentence. Replace "violations" with "exceedences". Reclamation should not judge whether exceedences of water quality standards constitute violations. | 97

Page III-99, Existing Reservoir Characteristics. Replace the sentence in this section with: "Water quality parameters were measured within Navajo Reservoir on four dates during 2000, each date corresponding with a different season. Navajo Reservoir water surface elevations and storage quantities on those dates are listed in table III-10." This clarifies that 2000 conditions are assumed to represent existing conditions, and does not confuse actual storage with storage capacity of the reservoir. | 98

Page III-100, Table III-10. Delete "capacities" in the table title. Also, the Navajo Dam release data provided in the table appear to be incorrect (see page III-110, second paragraph, last sentence). | 99

Page III-104, Figure III-10. Provide shading to distinguish the fractions of zooplankton that are comprised of copepods and rotifers. The documents in their entirety should be legible in black and white if so reproduced. | 100

CA10-91 Please see the response to General Comment 18.
CA10-92 The EIS has been revised to accommodate your concern.
CA10-93 Comment noted.
CA10-94 The EIS has been revised to accommodate your concern.
CA10-95 Very little of the data presented in table III-9 was collected before 1971. This table was taken from the ALP Project Water Quality section of the SEIS and is presented here as a general indication of the water quality of the San Juan River.
CA10-96 The New Mexico Environment Department will make a determination of whether or not exceedences are a violation of the State's water quality standards. Reclamation believes that data from the low flow tests conducted indicate that exceedences for some water quality parameters may occur during summer low flow periods.
CA10-97 TMDL's are developed only after the State has determined that violations have occurred and the parameter is listed on the 303(d) list. As part of the State's program to prevent further violations, best management practices are developed by the State to prevent further violations of the water quality standard.
CA10-98 The EIS has been revised to accommodate your concern.
CA10-99 The EIS has been revised to accommodate your concern.
CA10-100 Comment noted.

Mr. Ken Beck
November 26, 2002
Page 18

Page III-105, Table III-13. The Secchi depth quantities in Table III-13 differ from those given in Tables III-15 and III-16. The units for the data shown in Table III-13 should be indicated in the table. | 101

Page III-107, third paragraph, third sentence and fourth sentences, and footnote 46. Comparison of trace metal concentrations to EPA drinking water standards does not seem appropriate for this analysis because they do not apply to the water in reservoir storage. How do the measured concentrations of aluminum, iron and lead compare to the State of New Mexico's surface water quality standards applicable to Navajo Reservoir? | 102

Page III-107, last incomplete sentence continued onto page III-108. If appropriate, replace "system" with "reservoir". Substantial sediment loads to the San Juan River are contributed by tributaries below Navajo Dam. Does the data indicate more sediment load being contributed to the San Juan River system from below the dam than from above the dam? | 103

Page III-121, first complete paragraph, last sentence. The Jicarilla Apache Nation water rights settlement and subsequent partial final decree entered by the adjudication court are not dependent on the proposed action. The No Action Alternative may limit, however, the ability of the Jicarilla Apache Nation to actually utilize its water rights. Also, if the San Juan-Chama Project diversions, which were included in the 1991 Animas-La Plata Project baseline depletions but have not yet undergone Endangered Species Act section 7 consultation, may be at risk under the No Action Alternative, then socioeconomic impacts of the alternative could spill over to counties and Indian lands in the Rio Grande Basin in New Mexico where Project water is used for agricultural and municipal and industrial purposes by Indian and non-Indian entities. | 104

Page III-129, last incomplete sentence continued onto page III-130. This sentence does not seem entirely consistent with statements that the 250/5000 Alternative would create more natural river conditions and would potentially benefit cottonwood generation and riparian areas along the river, all benefiting southwestern willow flycatcher (see page III-138, second and third paragraphs). Also, Navajo Reservoir was not listed as a recovery site in the draft Southwestern Willow Flycatcher Recovery Plan. | 105

Page III-157, Summary of Impacts, second paragraph; page III-158, last paragraph; and page III-170, last incomplete paragraph continued onto page III-171. The 250/5000 Alternative, as compared to the No Action Alternative, provides greater peak releases from Navajo Dam, which could provide increased benefits of maintaining the channel capacity and scouring sediment deposits between Navajo Dam and Farmington. Depending on timing and amount of releases, greater peak releases may better scour and transport sediment that deposits and plugs in the San Juan River channel during monsoon season runoff from ephemeral tributaries in this reach. Portions of the reach do not fully support their designated uses due to bottom deposits (see page III-170, second complete paragraph). | 106

Page IV-1, last complete paragraph, first sentence, and Summary DEIS page S-25, third paragraph, fifth sentence. Insert "incidentally" following "Utah,". Navajo Dam releases made to maintain flows through the critical habitat reach are made solely for that purpose, and any benefit | 107

CA10-101 The values listed on Table III-13 are different because they are Carlson's Trophic State Indices (TSI) (as discussed in the text on page III-102). The calculations for these can be found at: www.epa.gov/bioiweb1/aquatic/carlson.html The numbers listed in that table are based on averaged values obtained throughout the sampling year. Because these are TSI values, units other than that of the TSI value were not used.

CA10-102 The EIS has been revised to accommodate your concern.

CA10-103 The EIS has been revised to accommodate your concern.

CA10-104 Please see the responses to General Comment 18.

CA10-105 The EIS has been revised to accommodate your concern.

CA10-106 Please see the response to General Comment 24. Currently, peak releases are scheduled to coincide with natural peak runoff flows. These releases, coupled with natural peak runoff flows, attempt to mimic pre-dam natural flows. Channel scour and maintenance occurring during the monsoonal season when tributary drainages have the potential to contribute greater flows to the San Juan River have been considered. This option results in the inability to fully control flows within the San Juan River. The localized flash flood events are generally of short duration and may have high flows associated with the cloudburst events. The ability to accurately coordinate releases considering all runoff/precipitation events is extremely difficult and unlikely. The potential for property damage and/or loss of life is not an acceptable risk.

CA10-107 Please see the response to General Comment 18k.

to river rafting is incidental. No releases from Navajo Dam are to be made for the purpose of providing rafting flows in the San Juan River below Bluff. 107 cont.

Page IV-1, last incomplete paragraph, first sentence, and Summary DEIS page S-25, last paragraph, first sentence. Insert "all" following "not". 108

Page IV-3, first incomplete paragraph, and Summary DEIS page S-27, first incomplete paragraph. It is not the responsibility of the SJRBRIP or its participants to pay for mitigation of impacts resulting from operation of Navajo Dam to meet the flow recommendations. The Preferred Alternative would reduce the minimum release from Navajo Dam from 500 cfs to 250 cfs throughout the year, which is not inconsistent with the operation studies presented to Congress in support of authorization of the Navajo Unit. The Bureau of Indian Affairs' 1955 Feasibility Report for the Navajo Project indicates that Navajo Dam releases to the San Juan River would average about 250 cfs during the irrigation season to meet the needs of downstream water rights and the Hammond Project, with no releases being made during the winter season. A minimum release of 250 cfs during the irrigation season was expected under conditions of full development of New Mexico's compact apportionment. During severe drought periods, a release of 250 cfs may also exceed reservoir inflow, or the direct flow in the river. 109

The recreational interests and others have come to rely on heretofore unused water to which they have no property right in order to avail themselves of benefits incidental to the time lag between construction of the Navajo Unit and construction of other projects meant to develop the compact apportionment. To continue to provide benefits that are incidental to the Navajo Unit fulfilling its project purposes is acceptable so long as excess water is available, but is not acceptable when to do so impairs the water supply purposes of the Unit. Pursuant to the Colorado River Storage Project (CRSP) Act, the Navajo Unit is authorized "... for the purposes of regulating the flow of the Colorado River, storing water for beneficial consumptive use, making it possible for the States of the Upper Basin to utilize, consistently with the provisions of the Colorado River Compact, the apportionments made to and among them in the Colorado River Compact and Upper Colorado River Basin Compact, respectively, providing for the reclamation of arid and semiarid land, for control of floods, and for generation of hydroelectric power, as an incident of the foregoing purposes". The compacts apportion the beneficial consumptive use of water and limit the right to use of water to beneficial consumptive use. The fact that use of the flow of the San Juan River has not yet been developed as per the compact apportionments does not instill any vested right to those not consumptively using water under federal and state law to continue to receive in-stream flow or to receive financial considerations for their alleged losses caused by further development of streamflow by others in accordance with projects approved by Congress, permitted by the State Engineer of New Mexico, and consistent with the apportionments of consumptive use made to the State by interstate compacts. 110

Also, why should beneficiaries of reoperation of Navajo Dam pay for mitigation of the impacts to historic incidental non-consumptive uses that would result from operating the dam consistent with Congressional authorization for the Navajo Unit? For example, hydropower generation at the City of Farmington's Navajo Dam power plant under both the Colorado River Compact and the CRSP Act is subservient and incidental to the storage and use of water for beneficial 111

CA10-108 The EIS has been revised to accommodate your concern.

CA10-109 Please see the response to General Comment 2.

CA10-110 Please see the response to General Comment 18k.

CA10-111 Please see the response to General Comment 2.

consumptive uses, including domestic and irrigation uses. Although the Navajo Nation will benefit from further development of the NIIP as will be made possible by reoperation of Navajo Dam, it should not have to pay or mitigate the costs borne by the City of Farmington resulting from reduced power production caused by implementation of the Preferred Alternative. Further, why should the Navajo Nation or the Public Service Company of New Mexico, for example, have to pay for mitigation of impacts to recreational fisheries and associated businesses as a result of implementing the Preferred Alternative? What legal claim do those benefiting from incidental uses or benefits of the Navajo Unit have against beneficiaries of Navajo Dam operations that are consistent with the authorization for the CRSP, interstate compacts and state law? The DEIS states no legal basis for Reclamation's belief that mitigation measures for adverse impacts of implementing the Preferred Alternative should be shared by the SJRBRIP participants and other beneficiaries of the proposed change in Navajo Dam operations. 111 cont.

If conserving endangered species is the desire of the United States as determined by Congress, then negative impacts caused by modifying the operation of Navajo Dam to meet flow recommendations designed to conserve the endangered fish species in the San Juan River should be mitigated by the United States, if at all. Reclamation is encouraged to assist in identifying and implementing practical measures, if any, that might mitigate negative impacts of implementing the 250/5000 Alternative.

Page G-4, Consumptive water use definition. Replace the definition with: "Total amount of water consumed by activities of man, including for human and stock consumption, storage reservoir and stockpond evaporation, irrigated crop consumption, and industrial and commercial purposes." Water consumption by riparian vegetation and evaporation from the river channel surface are not beneficial consumptive uses of water under New Mexico law. 112

Page G-5, Depletion definition. Insert "or natural loss" following "Use", and insert "or lose" following "remove", and delete "for a specific use". Depletions may occur due to man's use of water or natural channel losses. 113

Page G-5, Diversion definition. Delete ", or controlling water in its natural course or location,", and delete "bypass,". Any control of water in its natural course by river regulation at a dam is associated with storage, not diversion, rights. A bypass of flows past a diversion or storage facility does not constitute a diversion or a diversion right in New Mexico. 114

Page G-11, Municipal and industrial (M&I) water definition. Clarification is needed as to Reclamation's categorization of water uses. The categories of water uses listed in this definition are not those used by the State of New Mexico. For example, New Mexico considers water used by municipal public water systems to be for general M&I purposes, some of which may be used for human and pet consumption, local recreation facilities, and miscellaneous industrial and commercial uses. Water delivered to a particular industry, especially delivered via a private water system, may be accounted as a specific industrial, commercial, power or agricultural use (if for a feedlot or dairy). The Colorado River Compact makes reference to uses of water for domestic and agricultural purposes and for the generation of electrical power, and it defines domestic use in Article II(h) as follows: "The term 'domestic use' shall include the use of water 115

CA10-112 through 119 The EIS has been revised to accommodate your concern.

for household, stock, municipal, mining, milling, industrial and other like purposes, but shall exclude the generation of electrical power." | 115 cont.

Page G-13, Practicably irrigable acreage (PIA) definition. Replace the definition with: "The amount of acreage that can be practicably irrigated in consideration of physical and economic factors." The PIA is an acreage, not an amount of water necessary to irrigate the acreage. The PIA standard is often used as a measure to help define Indian tribes' claims to waters that might be needed to fulfill the purposes for which their land reservations were set aside by Congress. | 116

Page G-15, Section 7 consultation definition. Insert "endangered or threatened species and their" following "affect". | 117

Page G-17, Upper Colorado River Basin definition. Replace the definition with: "Those parts of the states of Arizona, Colorado, New Mexico, Utah and Wyoming within and from which waters naturally drain into the Colorado River System above Lee Ferry, and also all parts of said states located without the drainage area of the Colorado River System which are beneficially served by waters diverted from the system above Lee Ferry." The suggested definition is consistent with Article II(f) of the Colorado River Compact. | 118

Page G-17, Weir definition. Delete "stream", and insert ", diverting" following "measuring". Weirs may be placed in natural streams or artificial ditches. | 119

HMA page A-3, second paragraph, fourth sentence. River channel losses, particularly evaporation from the water surface and wetted sands, in New Mexico are often a function of flow as well as season. For example, channel losses between Navajo Dam and Farmington may be different when dam releases are at 250 cfs as opposed to 1000 cfs. Future reservoir operations under the 250/5000 Alternative will create different flow conditions in the river as compared to the flow conditions experienced historically, but the model assumes that the amount of losses in the future will be the same as in the past. Because the San Juan River Basin RiverWare model accounts water uses but does not simulate or otherwise incorporate physical hydrologic processes, the impacts of alternatives on channel losses are not considered in evaluating water supplies. | 120

HMA page A-3, last incomplete paragraph, first sentence. New Mexico believes that the original Blaney-Criddle method should be used to compute irrigation demands and consumptive uses in the San Juan River Basin in New Mexico consistent with previously adjudicated and permitted rights in New Mexico. Crop coefficients for use in the original Blaney-Criddle method have been calibrated to New Mexico conditions. New Mexico objects to the irrigation depletion estimates used in or computed by the model, and it reiterates the model disclaimer approved by the SJRBRIP Coordination Committee: "The model data, methodologies and assumptions do not under any circumstances constitute evidence of actual water use, water rights or water availability under compact apportionments and should not be construed as binding on any party." | 121

HMA page A-3, last incomplete paragraph, second sentence, and HMA page A-6, third complete paragraph, third sentence. Neither the calculations of natural flows for input to the San Juan | 122

CA10-120 through 123 Comment noted.

River Basin RiverWare model nor the model simulations accounted for shortages to irrigation and other demands from the La Plata River in New Mexico. These demands experience chronic, substantial water supply shortages each year even when Colorado delivers water to the Interstate Station in accordance with its La Plata River Compact Article II.2 delivery obligation. However, Colorado at times has chosen to not deliver water in accordance with the Compact, and depletions of flow caused by diversions by Colorado ditches are lumped into the historic natural losses, thereby making, according to the modeling methodology, water that should be delivered to New Mexico unavailable to New Mexico in the future. Even though the model simulations supposedly otherwise assume that Colorado in the future meets its Article II.2 obligation on a monthly basis when possible, the Compact requires daily administration and New Mexico asserts that Colorado's current river administration policies do not fully comply with its daily Compact obligations. The modeled water supply available to New Mexico on the La Plata River, both historically and under future conditions, and associated depletions are inaccurate. Differences in positions between the States of Colorado and New Mexico regarding Compact administration have not been resolved. 122 cont.

HMA page A-4, third paragraph, last sentence. The gaged flow in the La Plata River at Hesperus is not a valid index for disaggregating natural flows in other streams. Diversions above the Hesperus streamflow gage at times divert a significant amount of flow and bypass the Hesperus gage. The diversions bypassing the gage need to be added to the Hesperus gage records to determine natural flows. 123

HMA page A-4, last incomplete paragraph continued onto page A-5. For the evaluation of alternatives, the DEIS compares flow-frequency statistics for modeled and disaggregated daily flows for the San Juan River at Four Corners gage under 1929-1993 period hydrology to statistical criteria given by the Flow Recommendations. The flows at the Four Corners gage prior to 1970 were determined using a constant distribution of the side inflow gains and losses between the Archuleta and Bluff streamflow gages, exclusive of major perennial tributary inflows. Therefore, the variation of flows after 1969 at Four Corners used for the modeling studies is greater than that of flows prior to 1970. How do differences in flow determination procedures, data assumptions and gaging inaccuracies affect flow variability and flow frequency comparisons between periods? 124

HMA page A-5, first complete paragraph, last three sentences. The disaggregation procedure for the modeled monthly flows of the La Plata River at its mouth is not accurate because it ignores both the historic daily distribution of flows in the river at Farmington and the hydrology of the La Plata River in New Mexico. 125

HMA page A-5, last complete paragraph, last two sentences. Natural side-inflow gains to the San Juan River within a river reach are the product of hydrology and historic off-stream depletions within the intervening drainage area to the reach; they are not the water supply to the off-stream depletions. Consequently, it makes little sense to limit off-stream depletions, which in the modeling for the DEIS are assumed unchanged from historic depletions, to the computed natural gains whether or not such gains are adjusted for estimated depletions by phreatophytes. Similarly, the natural gains reflect phreatophyte evapotranspiration losses; and the estimated 126

CA10-124 Documentation of the San Juan River Basin Hydrology Model can be found in two documents: Draft San Juan River Recovery Implementation Program, Hydrology Model, Hydrologic Model and Data Development, November 20, 2001, and Documentation, Naturalized Flows Development, San Juan River Basin, October 1, 2002.

CA10-125 Comment noted.

CA10-126 Comment noted.

evapotranspiration losses along the San Juan River floodplain are not associated in any way with the water supply available to the off-stream depletions. 126 cont.

HMA page A-6, last paragraph. The San Juan River Basin RiverWare model is currently under review by the SJRBRIP Hydrology Committee and interested parties. The model is subject to refinements in data, assumptions and methodologies. Reclamation should maintain the flexibility to respond to model improvements through adaptive management. 127

HMA page A-7, last paragraph, fourth sentence. Replace the sentence with: "To address the State of New Mexico's position, all Animas-La Plata Project consumptive uses or depletions under the water rights of the Colorado Ute Tribes were reconfigured to occur within the State of Colorado." 128

HMA page A-7, last paragraph, fifth and sixth sentences. Delete the sentences. These sentences, along with Figure 2 at page A-12, suggest that while the points of diversion for regional water supply uses and the gas-fired power plant use under the Colorado Ute Tribes' water rights settlement with the State of Colorado would be located within Colorado, the consumptive uses occurring as a result of the diversions would be made in New Mexico. This is contradictory to the third and fourth sentences of the paragraph, and to the depletion amounts listed in Table 1 for the Animas-La Plata Project in New Mexico (see page A-9 under the action alternatives) and in Colorado (see page A-10 under the action alternatives). Again, the State of New Mexico does not, at this time, support interstate leasing or marketing of water. 129

HMA page A-7, last paragraph, sixth sentence, and HMA page A-12, Figure 2. The DEIS and the RiverWare model for the San Juan River Basin assume that the full amount of return flow from any uses of ALP Project water within the La Plata River drainage in Colorado, such as from a Ute Mountain Ute gas-fired power plant, would flow down the La Plata River to the San Juan River at Farmington without being diverted or lost. 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 any additional flow in the river at the stateline would be diverted for irrigation uses or lost to infiltration and evapotranspiration. 130

HMA page A-12, Figure 2. Reconfigured ALP demand nodes for diversions from Ridges Basin Reservoir should not be labeled Ute NM Aztec, Ute NM Farmington, Ute NM Kirkland or Ute NM gas power plant, assuming that Reclamation did indeed reconfigure the model to deplete within the State of Colorado all ALP water associated with rights of the two Colorado Ute Tribes (see comments on HMA page A-7, last paragraph, fourth through sixth sentences). Other uses of the water must be identified, and they must be physically located within Colorado. Any association between consumptive uses of water physically occurring within the State of New Mexico and Ute water rights in Colorado should be deleted from the RiverWare model and the DEIS. To model the release of Colorado Ute Tribe water from Ridges Basin Reservoir for downstream uses by cities or power plants that are or may be located in New Mexico, or for general regional water supply in New Mexico, is not acceptable to the State of New Mexico. The Interstate Stream Commission does not believe that interstate leasing or marketing of water can be accomplished within existing compacts and federal and state law. 131

CA10-127 Comment noted.

CA10-128 The EIS has been revised to accommodate your concern.

CA10-129 The EIS has been revised to accommodate your concern.

CA10-130 "As a practical matter, it is unlikely that these return flows can be protected and passed downstream during water-short months. The use of the return flows by downstream irrigators during water-short periods becomes depletion incidental to the project. To prevent exceeding the total project depletion of 57,100 afy, project uses would be reduced by the amount of incidental depletions resulting from the return flow use." (ALP Project FSEIS, Vol 1, July 2000, p 3-26)

"If the return flows are depleted in Colorado, the depletion would be charged to Colorado depletions. However, if the return flows cannot be protected and they are depleted (water diverted for irrigation of M&I uses) in New Mexico, that depletion would be charged to New Mexico's allocations." (ALP Project FSEIS, Vol 3A, Comment Letters and Responses, p SA-45, SA7-45)

CA10-131 The EIS has been revised to accommodate your concern.

Mr. Ken Beck
November 26, 2002
Page 24

Thank you for the opportunity to comment on the DEIS. Again, the Commission supports selection of the 250/5000 Alternative as the Preferred Alternative. The Commission recognizes that under this alternative, flexibility will be retained through adaptive management to adjust Navajo Dam release rates within the range of 250 cfs to 5000 cfs to respond to new information as it becomes available and water use needs. The Commission also encourages Reclamation to assist in identifying and implementing practical measures, if any, that might mitigate negative impacts of implementing the 250/5000 Alternative. Please contact Mr. John Whipple of the Commission staff if you have any questions or wish to discuss these comments. 132

Sincerely,

Thomas C. Turney
Secretary

TCT:rav

r\usr\user\beck4.f02

CA10-132 Please see the response to General Comment 2 which discusses mitigation.

San Juan Water Commission

MEMBERS:
City of Aztec
City of Bloomfield
City of Farmington
San Juan County
S.J. County Rural Water Users Association

November 20, 2002

Mr. Ken Beck
Bureau of Reclamation
Western Colorado Area Office
835 East Second Avenue, Suite 300
Durango, CO 81301

Dear Ken:

Enclosed, please find the document *"Comments on Navajo Reservoir Operations Draft Environmental Impact Statement,"* that contains the San Juan Water Commission's comments for the Draft Environmental Impact Statement - Navajo Reservoir Operations (Draft Environmental Impact Statement No. DES-02-35.)

The Commission appreciates the opportunity the Bureau has provided to submit comments and for the consideration given to our comments. Please call me at 505-564-8969 if you have any questions or need further information.

Sincerely,

L. Randy Kirkpatrick

San Juan Water Commission

MEMBERS:
City of Aztec
City of Bloomfield
City of Farmington
San Juan County
S.J. County Rural Water Users Association

Comments on
Navajo Reservoir Operations Draft Environmental Impact Statement
September, 2002

Submitted by

San Juan Water Commission
Farmington, New Mexico
Randy Kirkpatrick Executive Director

INTRODUCTION

The San Juan Water Commission have reviewed the September 2002 Navajo Reservoir Operations Draft Environmental Impact Statement. The Commission offers both general comments and specific comments on the document, as provided below.

GENERAL COMMENTS

The Commission offers the following general comments on the Draft Environmental Impact Statement (DEIS):

1. The Commission is concerned about the disproportion impacts of re-operation that will be borne by the City of Farmington in terms of loss power generation capacity and associated costs. The Commission is also very concerned about the impacts of re-operation on the trout fishery, and correspondingly, the potential impacts locally and regionally. 1 2

2. In 2002, the San Juan Basin experienced the worst drought year on record as part of a continuing drought. It is uncertain whether this drought will continue, and whether even worse years will be experienced in terms of runoff in the San Juan Basin. The DEIS was initiated prior to this drought year. However, the DEIS fails to mention the drought and its impact on Navajo operations. It is clear from reviewing the flow recommendations that a drought of this magnitude was not anticipated when the flow recommendations were formulated. In order to have a realistic re-operation of Navajo Reservoir, based on this environmental impact statement, the EIS must take into account the impact of the drought experienced in 2002. If Reclamation remains silent on this issue, it will result in an unrealistic forecast of operations based on the EIS. 3

1

CA11-1 Please see the response to General Comment 26 which discusses hydropower.

CA11-2 Please see the response to General Comment 27.

CA11-3 Please see the response to General Comment 13.

3. The section on socioeconomic impacts fails to provide a point-by-point comparison of all of the economic impacts of the various alternatives, and a basis for comparison of those alternatives. The economic impact analysis needs to include a comparison of each of the alternatives based on those economic impacts which can be quantified, and those which cannot. The economic impacts should include not only the cost, but the benefits of each alternative, so that the Commission and the public can determine the overall cost and benefits of the three alternatives being considered. The current format of the DEIS does not allow for such a comparison in terms of economic impacts. 4

4. The Commission specifically recommends additional environment commitments and mitigation measures to be adopted by Reclamation:
   1) Reclamation should commit to working with the Corps, National Weather Service, and local agencies to regulate Navajo Dam in a manner that takes into account real time information, with the objective of eliminating flows in excess of 5,000 cfs at Farmington, which is the channel capacity at Farmington.
   2) To facilitate coordination, and reduce flooding, Reclamation should commit to installing real time flow measurement devices on major tributaries to the San Juan between Navajo Reservoir and the City of Farmington, to further reduce the potential for flooding at Farmington. 5

5. The Commission specifically objects to the approach taken to the environmental commitments and mitigation measures with respect to the statement that "beneficiaries" of the re-operation, including participants in the San Juan River Basin Recovery Implementation Program, should share in funding of any mitigation measures.
   Funding arrangements for the San Juan Recovery Program have been agreed upon by all participants and codified by Congress in P.L. 106-392. Funding for the San Juan Program is specifically directed for recovery of endangered species, and not for other purposes. The participants in the Program are bearing substantial costs for species recovery. Costs for mitigation of re-operation of Navajo Dam should not be added to those costs. Furthermore, any costs of mitigation should be considered "non-reimbursable" by Reclamation, and should not be passed on to Navajo Project contractors. 6

6. The San Juan Water Commission fully expects Reclamation to act in partnership with participants in the San Juan Recovery Program and with San Juan contractors in arriving at annual operations plans to implement the alternative selected in the Record of Decision. 7

SPECIFIC COMMENTS

EXECUTIVE SUMMARY

Page S-1, 1st paragraph: The 1st paragraph states that "The Bureau proposes to operate Navajo Dam and Reservoir to implement flow recommendations on the San Juan River, or reasonable alternatives [1st] to those recommendations. Footnote 1 states that "The reasonable alternative may be determined

2

CA11-4 Please see the response to General Comment 31.

CA11-5 Please see the response to General Comments 2 and 24.

CA11-6 Please see the response to General Comment 2.

CA11-7 After the EIS is released and the Record of Decision signed, Reclamation will continue to conduct three Navajo Reservoir operations meetings annually to solicit input and concerns on planned operations including implementation of the alternative selected.

through consultation with the U.S. Fish and Wildlife Service (Service) under Section of the ESA. . ."

►**COMMENT**: Reclamation is confusing reasonable alternatives under NEPA with "reasonable and prudent alternatives" under the Endangered Species Act (ESA). Reasonable alternatives in NEPA are alternatives to a proposed action. The purpose of the NEPA process is to define and evaluate those reasonable alternatives, and possibly select one. The reference to "a reasonable alternative may be determined through consultation with USFWS" is improper and incorrect. It confuses issues. Reasonable alternatives need to be defined in terms of the National Environmental Policy Act, not the ESA. 8

►**COMMENT**: At the end of the 1st paragraph, after the word "proceed," add the following: "in compliance with the ESA." 9

P. S-1 Purpose and Need for the Proposed Action

►**COMMENT**: At the end of the 1st sentence delete the phrase "as recommended in the San Juan River Basin Recovery Implementation Program (SJRBRIP) flow recommendations for the San Juan River (Flow Recommendations, Holden, 1999)." It is not appropriate to reference this specific document with its specific recommendations, as this document will be modified based on the operations of Navajo and continued research regarding the impacts of that operation on endangered fish. The flow recommendations document itself references the need for change of the flow recommendations through adaptive management. The specific flow recommendations report should be discussed in another section of the DEIS. 10

►**COMMENT**: The phrase "and subject to concurrence by the Fish and Wildlife Service (Service) through formal ESA consultations." is inappropriate and should be deleted. Section 7 consultation is a separate action from development of the DEIS. Legally, the Service's biological opinion is a recommendation to Reclamation. Reclamation is the decision maker. This particular phrase distorts the relationship between Reclamation and USFWS, and the two agencies' respective responsibilities. 11

P. S-3 San Juan River Basin Recovery Implementation Program

The 3rd and 4th paragraphs states "Such mimicry is designed to meet the river conditions required to develop and maintain habitat for endangered fish and to provide the necessary hydrologic conditions for the various life stages of the endangered and other native fishes."

►**COMMENT**: Recent data available from the Recovery Program shows that the operation of Navajo Dam since 1999 has resulted in a 50 percent loss in backwater habitat in the San Juan River within the critical habitat. This needs to be brought out in this document, in part to justify the need for adaptive management. 12

►**COMMENT**: The statement in the 5th paragraph that "The flow recommendations are based on knowledge available as of 1998." is not an adequate reason for <u>not</u> using information that has been developed over the last four years, which shows a significant decline in habitat resulting from operation of Navajo Dam to "mimic the natural hydrograph". That information needs to be brought forth in this EIS. 13

CA11-8 Please see the response to General Comment 9.

CA11-9 The EIS has been revised to accommodate your concern.

CA11-10 Reclamation believes it is appropriate to reference the Flow Recommendations. The specific Flow Recommendations are discussed in other sections of the EIS and reference is made to potential modifications to the Flow Recommendations through the SJRBRIP.

CA11-11 The EIS has been revised to accommodate your concern.

CA11-12 Please see the responses to General Comments 17 and 20c.

CA11-13 Please see the responses to General Comments 17 and 20c.

CHAPTER I - INTRODUCTION: PURPOSE OF AND NEED FOR THE ACTIONS

P. I-2, Purpose and Needs of Proposed Actions: See comment on the Executive Summary regarding the statement of purpose and needs.

P. I-6 - 3rd paragraph: This paragraph describes biological opinions for other water projects and includes the statement "and 3,000 acre-feet of unspecified minor depletions from the Navajo Reservoir."

►**COMMENT**: The statement should read "3,000 acre-feet/year." Instead of saying "from Navajo Reservoir" it should be "in the San Juan Basin." The 3,000 acre-feet per year of minor depletions is an account operated by the Fish and Wildlife Service to cover minor depletions throughout the San Juan Basin. It includes the depletions in both Colorado and New Mexico. 14

CHAPTER II - PROPOSED ACTIONS AND ALTERNATIVES

P. II-5, Action Alternatives: The 2nd paragraph (under this heading) discusses recommended operating criteria for Navajo Dam included in the flow recommendations. The last sentence explains that these operating criteria are considered "as examples" but the action alternatives retain flexibility as the amount and timing of releases is a boundary set by the minimum of action release rates."

►**COMMENT**: The San Juan Water Commission supports this approach. The operating criteria should be determined by Reclamation, not by the flow recommendations. 15

P. II-8, 250/5,000 Alternative: In the 1st paragraph there is a sentence that states "All flow recommendations criteria can theoretically be met under this operations alternative."

►**COMMENT**: What does the qualifier "theoretically" mean? Can the flow recommendations be met or not? Use of the term "theoretically" is meaningless and confusing. 16

P. II-11, Adaptive Management: This paragraph discusses the adaptive management process and the fact that flow recommendations may be adjusted as additional information becomes available through monitoring research.

►**COMMENT**: Following the 2nd sentence, insert the following sentence: "Any such adjustments in, or modifications to, the flow recommendations must be approved by the Coordination Committee, which is the governing committee of the SJRBRIP." 17

P.II-22, No Action Alternative: The 3rd paragraph states that this alternative could "put the completion of NIIP at risk . . ."

►**COMMENT**: Use of the words "at risk" is meaningless. This is fuzzy language. If Reclamation means the projects would have to re-consult, and a re-consultation might involve some outcome on which would you would speculate, please so state. Use of the term "at risk" in several places in this document, when referring to water projects, is equally confusing. 18

P. II-22, No Action Alternative: In the 4th paragraph, the DEIS states that the Jicarilla Apache third party contract with PNM "would also be jeopardized".

CA11-14 The EIS has been revised to accommodate your concern.

CA11-15 Comment noted.

CA11-16 The EIS has been revised to accommodate your concern.

CA11-17 The EIS has been revised to accommodate your concern.

CA11-18 Comment noted.

►**COMMENT**: Please be specific. It is correct to say that they would have to re-consult and that a different reasonable and prudent alternative would be applied, with an uncertain outcome.

This same comment applies to the 5th paragraph in the statement involving water contracts in from Lemon, Vallecito, Jackson Gulch Reservoir, and the San Juan-Chama Project, i.e., "also could be at risk". Use of the term "at risk" is non-definitive and misleading. 19

P.II-23, 250/5,000 Alternative: The 4th paragraph discusses flexibility in reservoir releases that "already exists" in reference to the interim period.

►**COMMENT**: In the context of this alternative, this discussion is confusing. Is this part of the alternative or not? If it is part of this alternative, why is it not part of other alternatives?

Reclamation previously stated that there would be an interim period in which demands would not fully utilize existing supplies. This discussion apparently belongs there. Otherwise, it may be interpreted by some to be included in the 250/5,000 alternative when it is, in fact, not part of the alternative. It might also be misinterpreted to mean a commitment of water to endangered fish that is not allocated presently. 20

Reclamation is confusing the discussion of the alternative. This paragraph apparently incorporates the "interim period" into the 250/5,000 alternative, i.e., the flow recommendations alternative. If the interim period is going to be incorporated into the description of the alternative, it needs to be incorporated into all the alternatives.

CHAPTER III - AFFECTED ENVIRONMENT/ENVIRONMENTAL CONSEQUENCES

P. III-16, 250/5,000 Alternative: Paragraph (1) states that "Potentially adverse impacts could occur if existing diversions in the San Juan River from Navajo Dam to Farmington . . . as a result of project operations that would reduce minimum releases from Navajo Dam to 250 cfs."

►**COMMENT**: In the entire document, there is no statement that Reclamation is required to release an amount equal to inflow to Navajo Dam for senior downstream water rights, i.e., they would get the water they are entitled to if the dam were not there. The implication of the statement above is that senior water rights diverters are entitled to releases from Navajo Dam and that reduction of those releases would injure those water rights, which is not the case. It would reduce the amount of water available for diversions, but would not harm the water rights. In fact, Reclamation is required to provide water that senior water rights holders are entitled to. Clarification of this point is needed in this document, including explicit language explaining the relationship between the 250 cfs release and downstream senior water rights. 21

P. III-17, paragraph (5) states that the 250/5,000 alternative would result "in the least impacts among the alternatives to New Mexico's and Colorado's ability to use their compact entitlement, and its future water development would be allowed."

►**COMMENT**: This implies that future water development would not be allowed under other alternatives. The use of the term "would be allowed" is incorrect. It assumes the ESA trumps interstate 22

5

CA11-19 Comment noted.

CA11-20 Please see the response to General Comment 11 which discusses flexibility.

CA11-21 Please see the response to General Comment 18a.

CA11-22 Reclamation agrees to the change submitted and the EIS will be modified accordingly.

compacts. It should be stated in positive terms, "would be clearly consistent with compliance with the Endangered Species Act." | 22 cont.

P. III-17, 500/5,000 Alternative: The last sentence of the paragraph states "It could also consequently result in risk to presently used non-Indian water rights."

►**COMMENT**: As discussed above, the use of the term "risk" is non-specific, hazy, misleading, and likely incorrect. Clear language needs to be used to discuss the implications of the 500/5,000 alternative. | 23

P. III-30, Indian Trust Assets Impact Analysis No Action Alternative: The 1st sentence states that future Indian water development in the basin would probably not proceed as planned.

►**COMMENT**: The reason why water development would not proceed needs to be stated. | 24

P. III-31: The last paragraph states that future tribal water development and uses may be put "at risk".

►**COMMENT**: The use of this phrase needs to be explained, i.e., what is meant by "at risk"? | 25

P. III-32, Other Projects: *"also at possible risk . . ."*

►**COMMENT**: Once again, the meaning of the "risk" needs to be explained. Specific terminology should be used. | 26

P. III-32, 250/5,000 Alternative: The 2nd paragraph under this heading discusses potential negative impacts if no additional water development is possible.

►**COMMENT**: The reason no additional water development may be possible needs to be stated, i.e., failure to comply with the Endangered Species Act. This paragraph is very speculative and should be deleted or clarified. It implies only one outcome "if no additional water development is possible." | 27

P. III-51, 250/5,000 Alternative: The statement is made that there is flexibility in summer releases, which would reduce impacts on the San Juan River during the interim period.

►**COMMENT**: Once again, references to the interim period may tend to confuse issues regarding the alternative and comparison of alternatives. These references should be deleted in discussions of the alternatives. There should be a discussion of the interim period in the introductory material of the DEIS. | 28

P. III-53, 6th paragraph: The discussion that under this alternative (250/5,000) that impacts the trout habitat "could be potentially offset by increasing the physical habitat independent of flow . . ." then proceeds to describe how this could be done.

►**COMMENT**: Is this proposal part of the 250/5,000 alternative? Is it proposed as environmental mitigation or environmental commitment for this alternative? If it is not, then this discussion needs to be deleted. | 29

P. III-85 - Table 3-8: The table summarizes annual impacts and expresses financial impacts in terms of dollars.

►**COMMENT**: The table needs to make clear that these are recurring annual costs by adding "/year" to the listed costs for each entity. These costs appear to be the cost of structural modifications. It | 30

6

CA11-23 through 27 Comment noted.

CA11-28 Please see the response to General Comment 11.

CA11-29 Please see the response to General Comment 2.

CA11-30 Comment noted.

appears that there also would operation and maintenance costs associated with these structures. This is indicated by the fact that repairs will be necessary on both irrigation diversion structures and structures owned by domestic and M&I water users (see 2nd and 3rd paragraphs on p. III-87). These costs should be included. 30 cont

WATER QUALITY

P. III-90: At the bottom of the 3rd paragraph, the next to the last sentence states "The predicted dissolved selenium levels is 1.9 ug/l, while standard for total selenium is 2.0 ug/l in the San Juan River."

►**COMMENT**: The 2.0 ug/l standard is the standard adopted by the Navajo Nation. New Mexico selenium standard to 5.0 ug/l. This should be stated in the text. According to Table III-9, both standards are met. 31

P. III-90, 1st paragraph: This paragraph discusses potential impacts on the Bloomfield wastewater treatment plant. "Where the critical low flow are 373 cfs is much higher than would occur under the 250/5,000 alternative. During the summer low flow test, the flows in the vicinity of the Bloomfield wastewater treatment plan were 130 cfs, significantly lower than the critical low flow loading requirements for the permit. The facility may have to modify its treatment of wastewater to meet new discharge values when the permit comes for renewal. . . ."

►**COMMENT**: According to the 2000 census, the City of Bloomfield has a population of approximately 6,400. At 100 gallons/day, this would be a wastewater treatment plant discharge of 640,000 gallons, or slightly less than one cfs. The low flow of 130 cfs would still provide more than a 100 to1 dilution factor.

The critical low flow is technically defined under state permit requirements based on historical hydrology. However, if there is still a 100-1 dilution factor for the effluent, it is highly unlikely that the Bloomfield wastewater treatment plant would violate water quality standards, and thus it is unlikely Bloomfield would have to reduce its wastewater loading by modifying its treatment plant. Reclamation should verify this, and eliminate the speculation that is currently included in the draft report. 32

P. III-96, 2nd paragraph: This paragraph indicates that several water quality parameters exceeded state standards for this reach during the summer low flow test, and it "exceedences of water quality standards will probably increase at these lower flows over the long term." This is in the reach from Citizens Ditch to Farmington.

►**COMMENT**: The City of Bloomfield presently takes its water out of the Citizens Ditch diversion (river mile 217) and diverts this water into the City's system off the Citizens Ditch at approximately river mile 200.

Changes in water quality could affect water treatment costs by the City of Bloomfield. Changes in water quality above the Citizens Ditch could increase municipal raw water treatment costs for the City of Bloomfield. In the future, Bloomfield intends to construct its own diversion structure, possibly below Citizens Ditch. Water quality exceedences at low flows could impact the City's raw water treatment costs. 33

7

CA11-31 The paragraph refers to the Navajo Nation water quality assessment only. The State of New Mexico water quality standard for selenium applies to non-reservation reaches of the San Juan River and is 5 ug/l total recoverable selenium.

CA11-32 Please see the response to General Comment 23.

CA11-33 Please see the response to General Comment 23.

Any costs to the City of Bloomfield resulting from its current operation, i.e., diversion from Citizens Ditch, and its future operation, i.e., a diversion from the river should be considered in the water quality section, and in the socioeconomic section.

The EIS does not address possible increased raw water treatment costs to all municipal and industrial water users that divert from the river. The EIS needs to address those costs. 34

P. III-98: The 1st paragraph discusses impacts to the Bloomfield wastewater treatment plant.

►**COMMENT**: The impact summary discussion with respect to impacts on Bloomfield and other municipal and industrial water users needs to reflect the comment above.

SOCIOECONOMICS

Other Socioeconomic Impacts

P. III-128: The last paragraph under water quality references negative impacts to Bloomfield wastewater treatment plant facility.

►**COMMENT**: See comments above. The Commission questions whether or not these impacts would occur. If they do occur, Reclamation should develop an estimate of these costs and include them in this document, in order to provide full public disclosure of the impacts of the preferred alternative. 35

P. III-129: The 1st paragraph discusses the impacts on the City of Farmington's hydropower operation.

►**COMMENT**: The San Juan Water Commission is concerned about the loss of power production and costs associated with the preferred alternative that will be incurred by the City of Farmington at an annual average of $5.32 million, based on a 10-year average of power replacement costs. This is a real cost of implementing the Endangered Species Act.

This section notes that the City of Farmington may have to upgrade equipment at the Navajo Dam power plant for more efficient power generations at lower flows through the pin stocks. However, it does not indicate the magnitude of the potential benefit to Farmington of such an upgrade. The costs and benefits should be discussed. 36

If there are benefits to Farmington through equipment upgrades, the Commission would support the City in pursuing separate congressional appropriations for the equipment upgrade, given the national priority put on protection of endangered species.

►**GENERAL COMMENT ON SOCIOECONOMICS**: The section on socioeconomics fails to address the benefits of the continued production of power at the PNM power plant as a result of being able to implement the Jicarilla Apache third party contract, and to deplete 16,000 acre-feet/year of water for operation of the plant in compliance with the ESA. This should be included in the discussion. In addition, the potential increased raw water treatment costs to municipal and industrial water users should be addressed. 37

The EIS should provide a summary comparison of alternatives that sums up all the economic impacts that are identified in this section. The socioeconomic section should include a list of all economic costs, including those which would be quantified and those which could not. This would provide the public with an overall view of the cost and benefits of the various alternatives. Failure to 38

8

CA11-34 Comment noted.

CA11-35 As noted in Chapter III, cost estimates are not available at this time and their significance is yet to be determined.

CA11-36 Please see the response to General Comment 26.

CA11-37 Please see responses to General Comments 31a and 31e.

CA11-38 Please see the response to General Comment 31e.

do so leaves an unanswered question regarding the overall benefits and costs of the alternatives. 38 cont.

P. III-138 - 250/5,000 Alternative: The 4th and 5th paragraphs address benefits to the Colorado pikeminnow and razorback sucker from the "more natural hydrograph."

►**COMMENT**: Recent data has been discussed by the San Juan Recovery Program Biology Committee that indicates that the operations of Navajo Dam during the research period, and afterwards, result in a significant loss of low velocity habitat for endangered fish. This loss needs to be discussed in this report, as it is an uncertainty to be addressed that may result in modification of the flow recommendations. 39

P. III-138 - 250/5,000 Alternative: The 6th paragraph states that under the preferred alternatives, flow reductions would concentrate pollutants in the river, including "trace elements, such as selenium and polycyclic aromatic hydrocarbons (PAHs)."

►**COMMENT**: There is no indication whatsoever from water quality studies conducted by the Recovery Program that selenium and PAHs are causing a problem in the San Juan River. The statement is speculative and unsubstantiated, and needs to be deleted. 40

FLOOD CONTROL

P. III-158 - 250/5,000 Alternative: It is noted that under this alternative that Fall spike releases for flood control will require careful coordination among agencies and local entities. In earlier sections of the report it was noted that Navajo Dam releases would have to be adjusted to account for high runoff from tributaries.

►**COMMENT**: The environmental commitments associated with the preferred alternatives should include:

1. Coordinated operations with the Corps, National Weather Service, and local entities to avoid causing flooding during the fall. 41

2. Gauging and real time reporting of conditions on tributaries to the San Juan between Navajo Dam and the Animas River, and the Animas River, so that flows from Navajo Dam can be adjusted as soon as possible in an effort to curtail flows above 5,000 that would exceed the channel capacity of the San Juan River in Farmington. 42

SOILS

P. III-170, 171: The 250/5,000 and 500/5,000 alternatives would both increase erosion downstream of Navajo Dam. The DEIS states that short term impacts "would occur from bank erosion until the river stabilized itself or property owners stabilize the banks using best management techniques. . . Long term impacts from bank erosion would likely not be adverse due to stabilization of the banks."

►**COMMENT**: Apparently Reclamation anticipates that property owners will stabilize the banks, and this will minimize long term impacts. Costs to property owners should be estimated and included in the socioeconomics section. 43

9

CA11-39 Please see the responses to General Comments 20a and 20c.

CA11-40 Please see the response to General Comment 20f.

CA11-41 The EIS has been revised to accommodate your concern.

CA11-42 Please see the response to General Comment 15 which discusses monitoring flows in the San Juan River.

CA11-43 The maximum releases adopted by this EIS should not cause damage to landowners additional to that which has previously occurred since the construction of Navajo Dam. Also, see the response to General Comment 24.

CHAPTER IV - ENVIRONMENT COMMITMENTS AND MITIGATION MEASURES

P. IV-1, Reservoir Operations, 3rd paragraph: This paragraph discusses operations during the interim period. It appears in the "Environmental Commitments and Mitigation Measures" section of the report. It includes the statement "The use of this additional water would be determined through the Navajo Unit operation meetings and discussions with the U.S. Fish and Wildlife Service."

►**COMMENT**: This appears to be an inappropriate place to discuss flexibility during the interim period. If it is, in fact, regarded as "an environmental commitment or mitigation measure", it might tend to be considered a permanent situation. As stated above, the Commission has serious reservations about the manner in which the "interim period" is addressed in this document. There will be an interim period in which there will be some operational flexibility. However, this is not part of any alternative, and any discussion of it needs to recognize that in the future, full depletions under the authorization for Navajo Reservoir will occur. The Commission recommends that this discussion be removed from the section entitled "Environmental Commitments and Mitigation Measures." Furthermore, if there is any statement made about "The use of this additional water would be determined through the Navajo Unit operation meetings and discussions with the Service." then such statements need to be qualified by stating that this water use is not permanent, and it is intended that full depletions will occur pursuant to the congressional authorization for Navajo Reservoir. 44

P. IV-2, Fish and Wildlife: The DEIS reports that USFWS and New Mexico Department of Game and Fish have proposed measures to mitigate for and enhance the trout fishery below Navajo Reservoir, including placing fish passages on private diversion structures, and augmentation of the roundtail chub, a native but not endangered species. The recommendations also include enhancing riparian habitat and water quality monitoring.

Reclamation's response is to commit to working with resource agencies, but not to take a lead in terms of responsibilities of funding or implementation. Reclamation further states:

"Reclamation believes that any mitigation measures that require funding and that are in response to implementing the preferred alternative should be shared by all parties that benefit from implementation of the preferred alternative. These parties should include participants in the San Juan River Basin Recovery Implementation Program (SJRBRIP) and other beneficiaries."

►**COMMENT**: The Commission offers the following comments:

1. Any cost of mitigation or enhancement to the trout fisheries, or native (but not endangered fish), or riparian habitat, should not be passed on to contractors receiving water from the Navajo Project. If Reclamation incurs expenses associated with such mitigation, those expenses should be "non-reimbursable." 45

2. The Commission sharply disagrees with Reclamation's comment that funding should be shared by "all parties that benefit from the implementation of the preferred alternative, including those participants in the San Juan River Basin Recovery Implementation Program." 46

   The San Juan River Basin Recovery Implementation Program participants include federal

10

CA11-44 Reclamation recognizes that flexibility will diminish as future water development occurs. However, Reclamation is committed to using flexibility whenever possible.

CA11-45 Please see the response to General Comment 2.

CA11-46 Please see the response to General Comment 2.

agencies (BIA, Reclamation, USFWS, and BLM), the States of Colorado and New Mexico, and water development interests. The San Juan Water Commission has participated in the Program since its inception.

P.L. 106-392 sets forth the agreed upon funding and cost sharing arrangements agreed to by participants in the San Juan Recovery Implementation Program. This funding is solely for the benefit of endangered species, and is not, in any way whatsoever, intended to provide funding for non-endangered species, including any mitigation measures associated with the cost of re-operating federal reservoirs anywhere in the Upper Colorado River Basin.

The participants in the San Juan Program are bearing substantial costs for annual operations and capital projects, as well as overall participation in the Program. 46 cont.

Reclamation's recommendation in the "Environmental Commitments and Mitigation Measures" section, that parties to the San Juan Program participate in mitigation for re-operation of Navajo Reservoir is inconsistent with P.L. 106-392, the objectives and goals of the San Juan Recovery Program, and should be deleted from the report.

P. IV-3, Water diversion structures: Reclamation states that it has a technical systems program, but does not otherwise make any commitments to assist water diversion owners with this program, and only provides an example regarding the Turley-Manzanares Ditch.

►**COMMENT**: If Reclamation is making a commitment to provide this technical assistance, it needs to be clearly stated. 47

►**GENERAL COMMENT**: The San Juan Water Commission has recommended (see comments above) that, as part of its environmental commitments and mitigation, Reclamation commit to coordinated operations with the Corps, local agencies, National Weather Service, and others to ensure that operation of the Navajo Dam does not create flooding conditions in the Farmington area. This should be included as a environmental commitment and mitigation measure. 48

In addition, San Juan Water Commission, in comments above, recommended that Reclamation provide real time monitoring of significant tributaries between Navajo Dam and Farmington, that could, under certain weather conditions, contribute to flooding in the Farmington area, and result in a need for adjustment of flows at Navajo Dam. This should be included as a environmental commitment and mitigation measure by Reclamation. 49

11

CA11-47 Reclamation is not making a specific commitment to provide technical assistance to each entity for design and/or modification of existing structures. There is a technical assistance program available through several different methods to assist with design and feasibility work associated with diversion and water conveyance structures. This assistance is based on technical merit and need based on yearly available federal funding. Each entity applying for funding/assistance must meet the deadlines and application criteria as set forth in the program.

CA11-48 Please see the response to General Comment 24. Reclamation has added agency coordination on flood control into the environmental commitments in Chapter IV.

CA11-49 Please see the response to General Comment 24.

GREENE, MEYER & McELROY
ATTORNEYS AT LAW

BRUCE R. GREENE
ELIZABETH MEYER
SCOTT B. MCELROY
ALICE E. WALKER
M. CATHERINE CONDON

PATRICIA A. MCENERNY

OF COUNSEL
PHOEBE ANNE GREYSON

December 4, 2002

Via e-mail and U.S. Mail

Ken Beck
U.S. Department of the Interior
Bureau of Reclamation
Western Colorado Area Office
Southern Division
835 East Second Avenue, Suite 300
Durango, Colorado 81301

Re: *Comments re Southern Ute Indian Tribe re Draft Environmental Impact Statement for Navajo Reservoir Operations*

Dear Mr. Beck:

On behalf of the Southern Ute Indian Tribe, we enclose our comments on the *Draft Environmental Impact Statement, Navajo Reservoir Operations, Navajo Unit -- San Juan River, New Mexico, Colorado, Utah*, No. DES-02-03 (Sept. 3, 2002), together with the comments of our consultant, Bill Miller of Miller Ecological Consultants, Inc.

If you have any questions, please give me a call.

Sincerely,

M. Catherine Condon

M. Catherine Condon
MCC/dav

enc. As stated

cc: Pearl Casias, Chair, Jim Formea, Steve Whiteman, Sam Maynes

1007 PEARL STREET, SUITE 220 BOULDER, COLORADO 80302 303-442-2021 FAX 303-444-3490
A Professional Corporation

COMMENTS ON BEHALF OF THE SOUTHERN UTE INDIAN TRIBE RE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR NAVAJO RESERVOIR OPERATIONS

These comments are submitted on behalf of the Southern Ute Indian Tribe ("Tribe") in response to the *Draft Environmental Impact Statement, Navajo Reservoir Operations, Navajo Unit – San Juan River, New Mexico, Colorado, Utah*, No. DES-02-35 (Sept. 3, 2002) ("DEIS"). In addition, we have attached and incorporate the comments of our consultant, Bill Miller of Miller Ecological Consultants, Inc. *See* Memorandum from Bill Miller to Catherine Condon (Dec. 3, 2002). The DEIS represents significant progress in this matter thanks to the efforts the Bureau of Reclamation ("Reclamation"). However, there are a number of deficiencies in this document, many of which were in the earlier drafts. These comments are submitted in addition to comments previously submitted on October 3, 2001, December 19, 2001, February 8, 2002, and March 25, 2002. Although we will not reiterate those comments, certain concerns have not been addressed.

I. GENERAL COMMENTS

The DEIS has selected the right alternative as the Preferred Alternative -- the 250/5000 Alternative. DEIS at S-17. This alternative best meets the purpose and need for modifying the operations of Navajo Dam and Reservoir which is:

> [T]o provide sufficient releases of water at times, quantities, and durations necessary to conserve the two endangered fish species and their designated critical habitat as recommended in the San Juan River Basin Recovery Implementation Program . . . . Reclamation would maintain the authorized purposes of the Navajo Unit . . .which include enabling future water development to proceed in the Basin in compliance with applicable laws, compacts, decrees, and Indian trust responsibilities.

DEIS at I-2, I-4. However, there are several instances in which the DEIS has overvalued the likely negative impacts of the Preferred Alternative and undervalued the negative impacts of the No Action Alternative and the 500/5000 Alternative as reflected in the specific comments set forth below. 1

The DEIS needs to emphasize the importance of implementing the Preferred Alternative. The Preferred Alternative is the only scenario that is consistent with the flow recommendations promulgated by the San Juan River Basin Recovery Implementation Program ("SJRBRIP"). The Preferred Alternative protects the two endangered fish, and as such, allows existing development to continue and further water development to occur in the San Juan River Basin ("Basin"). If Reclamation does not implement the Preferred Alternative, there will not be future development in the Basin. In addition, under all of the other alternatives, those water uses with a federal nexus that are subject to Section 7 of the Endangered Species Act, 16 U.S.C. § 1536, ("ESA") would have to consult with the U.S. Fish & Wildlife Service. Thus, current water development would be put at substantial risk. 2

The DEIS also needs to clarify that if the flow recommendations are not implemented, the operation of Navajo Dam will not remain the same as it has been for the past several years. Rather, the Dam will be operated under its historic operating criteria which would continue the adverse flow effects on the endangered fish habitat; put both Indian and non-Indian current and future water development at risk, which in turn adversely affects economic development and opportunities; and fail to meet certain Indian tribes' water rights settlement agreements, which could lead to potential litigation and displacement of senior water right users along various rivers. In short, the No Action Alternative is extremely unattractive. 3

CA12-1 Please see the responses to General Comments 3 and 31e.

CA12-2 Comment noted.

CA12-3 Please see the response to General Comment No. 3. The EIS has been revised to accommodate your concern.

II. SPECIFIC COMMENTS

A. EXECUTIVE SUMMARY

DEIS at S-9, first paragraph. The discussion regarding Reclamation's decision to eliminate the 250 Variable/5000 Alternative is confusing. The DEIS states that "it was determined that the Flow Recommendations contain flexibility, at least in the short term, that might allow for operations similar to those proposed in the 250 Variable/5000 Alternative. This alternative was eliminated because it did not meet the Flow Recommendations." Based on the first sentence quoted above, the last sentence of the paragraph should be revised as follows: "This alternative was eliminated because it did not meet the Flow Recommendations in the long term." This change should also be reflected at II-25, first full paragraph. 4

DEIS at S-10 to S-11. The DEIS needs to state that implementing the No Action Alternative would also put the Navajo Nation Municipal Pipeline at risk. 5

DEIS at S-12 n.10. Footnote 10 of the DEIS needs to be revised to reference the memorandum from the SJRRIP Biology Committee dated July 16, 2002. The Biology Committee provided clarification in that memorandum regarding target summer base flow. It also pointed out that the intent of the flow recommendations is to have the average weekly low flows in the critical habitat range between 500 and 1,000 cfs. *See* Memorandum from Bill Miller, Chair of the SJRRIP Biology Committee, to Ed Warner, Bureau of Reclamation at 1 n.1 (July 16, 2002) ("July 16, 2002 Memorandum"). 6

B. CHAPTER 1 - INTRODUCTION: PURPOSE OF AND NEED FOR ACTION

DEIS at I-4, first full paragraph. The DEIS acknowledges that

> [t]he need for a plan to modify operations has resulted from previous ESA consultations with the Service on other Basin

CA12-4 The EIS has been revised to accommodate your concern.

CA12-5 Throughout the DEIS, Reclamation references the ALP Project which has several components including the Navajo Nation Municipal Pipeline. None of the ALP Project components have been identified separately.

CA12-6 Flexibility and base flow monitoring have been clarified in the EIS.

> projects that affect flows in the San Juan River. Reclamation is *required to comply with the ESA* for operation of the facilities of the Colorado River Storage Project (CRSP), which include Navajo Dam. (emphasis added).

The DEIS cannot overemphasize this fact. If Reclamation does not comply with the ESA, current and future water development will be at risk. 7

C. CHAPTER II - PROPOSED ACTION AND ALTERNATIVES

1. Alternatives Description.

a. 250/5000 Alternative (Flow Recommendation). DEIS at II-8 n.4. This footnote should be revised to remove the reference to jeopardy. At this point in the document, the DEIS is merely providing a description of the alternatives and the water depletions which were analyzed under each alternative. Thus, if the 1,500 acre-feet of depletions approved by SJRBRIP in 1992 is included in the water depletions considered, footnote 4 should be revised to indicate that to be the case. The remainder of the footnote should be included at the end of the last paragraph at II-22 and provide that: "An additional 1,500 acre-feet of depletions approved by SJRBRIP in 1992 might also be at jeopardy. However, the impact of the additional 1,500 acre-feet is not considered substantial in this analysis." 8 9

b. 500/5000 Alternative. DEIS at II-9, second paragraph. The last sentence of this paragraph should be revised to indicate that under the 500/5000 alternative, re-consultation under the ESA "will" be required on water projects that depend on the re-operation of Navajo Dam for their biological opinions. This is consistent with the statement on II-24 that states: "Because Flow Recommendations are not fully met by [the 500/5000] alternative, reconsultation under ESA on the ALP Project, NIIP completion, and 3,000 acre-feet of minor unspecified depletions *would* be required." (emphasis added). 10

CA12-7 Comment noted.

CA12-8 The EIS has been revised to accommodate your concern.

CA12-9 The EIS has been revised to accommodate your concern.

CA12-10 The EIS has been revised to accommodate your concern.

c. ***Characteristics Common to Action Alternatives.*** DEIS at II-10, first paragraph. The DEIS notes that additional operational flexibility may exist to provide supplemental flows for various purposes in this interim period as a result of these unutilized depletions. The DEIS needs to point out, however, that it is the intent of the flow recommendations to have the average weekly low flows in the critical habitat range between 500 and 1,000 cfs. *See* July 16, 2002 Memorandum. 11

2. Alternatives.

DEIS at II-23 n.9. Footnote 9 should be revised to reference the July 16, 2002 Memorandum. The Biology Committee provided clarification in that memorandum regarding target summer base flow. It also pointed out that the intent of the flow recommendations is to have the average weekly low flows in the critical habitat range between 500 and 1000 cfs. *See* July 16, 2002 Memorandum. 12

3. Preferred Alternative.

DEIS at II-26, last paragraph. Table II-9 provides a summary of the impacts of the Preferred Alternative and the 500/5000 Alternative as compared to the No Action Alternative. However, Chapter III contains the detailed description of the environment and how it may be affected by the Preferred Alternative, the 500/5000 Alternative and the No Action Alternative. Thus, it seems that it would be more appropriate to move Table II-9 to the end of Chapter III. 13

DEIS at II-29 to II-32, Table II-9. The summaries provided in Table II-9 need to be revised consistent with the following comments: 14

D. CHAPTER III - AFFECTED ENVIRONMENT/ENVIRONMENTAL CONSEQUENCES

CA12-11 The EIS has been revised to accommodate your concern. Please see the response to General Comment 15 for further information.

CA12-12 See response to CA12-6.

CA12-13 The summary table should be attached to the end of the Alternatives chapter (Chapter II) in NEPA documents.

CA12-14 The EIS has been revised to accommodate your concern.

1. **Water Uses and Water Resources.**

a. No Action Alternative and 500/5000 Alternative. DEIS at III-15 and III-17. The DEIS should elaborate on the risks to non-Indian water rights and non-Indian water users under the No Action and the 500/5000 Alternatives. Clearly, putting Indian water rights settlements in jeopardy could cause presently used non-Indian water rights in the Basin to be at risk to Indian senior water rights claims. It is reasonably certain that litigation is a consequence as well. It could also cause uncertainty and disruption in existing water deliveries which would have economic consequences. The DEIS should describe the economic consequences as well. 15 16

b. 500/5000 Alternative. DEIS at III-17, first paragraph. The last sentence should be revised to read: 17

> Because this alternative does not meet the Flow Recommendations, new ESA consultations on the ALP Project, NIIP (Blocks 9-11), and the Jicarilla Apache Nation third-party water contract with PNM ~~may~~ will be required and could impact the ability to effectuate future Indian water rights settlements; it could also consequently result in risks to presently used non-Indian water rights.

2. **Indian Trust Assets.**

a. Colorado Ute Tribes. DEIS at III-29, fifth paragraph. The fifth paragraph should be revised as follows: 18

> The original Ute Indian reservations were carved out of the historical Ute homelands in 1868. The present lands of the Ute Mountain Ute and Southern Ute Indian Tribes are in southwestern Colorado and northwestern New Mexico. The Ute Mountain Ute lands include 890 square miles in Colorado and New Mexico. Southern Ute Indian trust lands include 470 square miles within the Tribe's 1,250 square miles of checkerboard reservation. Seven rivers in southwestern Colorado flow through the Southern Ute Indian and Ute Mountain Ute reservations. Given the seniority of the Tribes' reserved water rights in the San Juan and Dolores

CA12-15 Please see the response to General Comment 19.

CA12-16 Please see the response to General Comment 19. An accounting of the economic impacts of not constructing the ALP Project is addressed in the ITA/EJ section within Chapter III, Volume I.

CA12-17 The EIS has been revised to accommodate your concern.

CA12-18 The EIS has been revised to accommodate your concern.

Basins in Colorado, the resolution of these reserved water rights claims was critical to all water users in both basins in Colorado. The Colorado Ute Indian Water Rights Final Settlement Agreement was signed on December 10, 1986, and quantified the Colorado Ute Tribes' water rights. The Settlement Agreement also quantified water rights of the Colorado Ute Tribes within the State of Colorado on rivers in the San Juan and Dolores Basins.

18 cont.

In addition, the following information should be included in the DEIS as it is information the public should know when assessing the document:

Congress subsequently authorized legislation to implement the preferred alternative. [Title III of Public Law 106-554, The Colorado Ute Settlement Act Amendments of 2000 (2000 Amendments)]. Specifically, the preferred alternative provides for an off-stream reservoir of 120,000 acre-feet total capacity (including a conservation pool of approximately 30,000 acre-feet per year) at Ridges Basin, a 280 cfs pumping plant, a pipeline from the pumping plant to the reservoir and a pipeline to transport M&I water to the Shiprock area for the benefit of the Navajo Nation. Most importantly, the legislation entitles both the Southern Ute Indian Tribe and the Ute Mountain Ute Tribe to deplete up to 19,980 acre-feet per year. In addition, Congress authorized the appropriation of $4 million per Colorado Ute Tribe, per year, for five years (2002-2006), to establish a "resource fund" for each of the two Ute Tribes. The Tribes will be able to use the funds, in accordance with a Secretary of the Interior approved "Resource Acquisition and Enhancement Fund," to protect, acquire, enhance, or develop natural resources of benefit to their members, including municipal water systems. *Id.*

The ALP Project settles the Colorado Ute Tribes' reserved water rights claims on the Animas and La Plata Rivers, provided the ALP Project is built in a timely manner. Since ALP has not delivered water as of January 2000, the Tribes originally had until January 1, 2005, to determine whether to retain their ALP Project water allocation or to commence litigation or renegotiation of their reserved water rights claims on both the Animas and La Plata Rivers. However, the 2000 Amendments provide the Attorney General the authority to file such instruments as may be necessary to request the court to amend the final consent decree to provide for the amendments made to the original Settlement Agreement

and to extend the deadline for the Tribes to commence litigation of their reserved rights claims on the Animas and La Plata Rivers. 18 cont.

b. Indian Trust Assets Economic Impacts Summary.

i. ALP Project Construction. DEIS at III-35, first paragraph. The DEIS sets forth the positive impacts of this action. In addition to those listed, the DEIS should include the following facts: (1) that the Colorado Ute Tribes will also benefit from construction costs of and revenue from non-binding end uses; and (2) that the water supply to the Shiprock area and the other ALP water users will enable the communities to prosper by developing their economies and opportunities for the people. 19

ii. Navajo Indian Irrigation Project (NIIP) (Blocks 9-11). DEIS at III-36, first paragraph. The DEIS underestimates the positive benefits to the Navajo Nation from completion of Blocks 9, 10 and 11. 20

iii. Water Contracts Associated with the Jicarilla Apache Nation. DEIS at III-36, second paragraph. The DEIS underestimates the positive benefits to the Jicarilla Apache Nation from the continued operation of the San Juan Generating Station and the mine. For example, the generating station and mine employ tribal members. 21

DEIS at III-37, first paragraph. The DEIS states that the total annual estimated benefit to the Tribes and Nations range from approximately $81,673,000 to $123,882,000. This range dramatically undervalues the full scope of the benefits to the Tribes and Nations from the economic development that is associated with the water that will be available under the Preferred Alternative, but will not be available under the No Action and the 500/5000 Alternatives. The DEIS should at least include an estimate of the tribal jobs and payroll that would be foregone if the Preferred Alternative is not adopted. 22

8

CA12-19 The EIS has been revised to accommodate your concern.

CA12-20 Please see the response to General Comment 31a which discusses economic impacts.

CA12-21 The EIS has been revised to accommodate your concern.

CA12-22 Please see the response to General Comment 31(a) which discusses economic impacts.

c. ***Environmental Justice.*** DEIS at III-40, second full paragraph. There appears to be a discrepancy in the last line of this paragraph: "high unemployment rates ranging between 42 and 28 percent . . . ." 23

3. **Aquatic Resources.** DEIS at III-45, Summary of Impacts, first paragraph. The DEIS should indicate what the negative impacts to the downstream native fish population will be under the No Action Alternative rather than stating that "downstream native fish populations would be negatively impacted in a manner similar to what occurred during that time frame." 24

DEIS at III-52, first full paragraph. For the reasons stated in our previous filings, the Tribe does not believe that the impacts to the trout habitat are as severe as Reclamation projects. 25

DEIS at III-52, first full paragraph. The DEIS appears to be using 500 cfs as the baseline. This is incorrect. The No Action Alternative forms the basis against which impacts of the various action alternatives are evaluated, as required by NEPA. *See* DEIS at II-5. 26

DEIS at III-52 to 53. The DEIS acknowledges that the trout health assessment showed that the trout were not stressed from crowding resulting from habitat loss as a result of a 250 cfs dam release during the low flow tests and that while there was a change in macroinvertebrate levels, there was not a significant reduction in the trout condition. Nonetheless, the DEIS assumes that the loss to the trout population will be above the 20 percent threshold considered adverse. This determination needs to be better documented. 27

DEIS at III-53, fifth full paragraph. The DEIS notes that "[t]he reduced available trout habitat associated with a 250 cfs release under this alternative could be potentially offset by increasing physical habitat independent of flow. This could be done by increasing pool habitats and/or placing structure in the river to increase the availability of trout habitat." The DEIS also

CA12-23 The EIS has been revised to accommodate your concern.

CA12-24 Unfortunately, there are no data that describe the effect flow releases had to downstream native fish populations prior to 1987. It was assumed that the effect was negative since the dam was operated in a manner to limit seasonal flow fluctuations and did not represent a natural hydrograph. Similar problems have hindered the recovery efforts of the Colorado pikeminnow and razorback sucker due to lack of information pertaining to the occurrence of these two species prior to study efforts initiated in 1987.

CA12-25 Please see the response to General Comment 28.

CA12-26 Comment noted.

CA12-27 Please see the responses to General Comments 22 and 28. The associated adverse impact to the trout population is difficult to determine, but discussions with several fishery biologists both within and outside of government, have agreed it is likely that the loss would exceed 20 percent.

indicates that other mitigation ideas include monitoring of riparian and fishery resources, supporting the trout stocking program, and reducing impacts of future water developments. DEIS at IV-2. Since the largest water projects will not be completed and operational for several years, some of the mitigation measures could be implemented before the full impacts are in place. Thus, the potential mitigation measures should be emphasized and if possible, analyzed to determine trout conditions with the mitigation measures in place. To the extent these mitigation measures are feasible, the references to the loss of trout habitat should be clarified throughout the text. 28

4. **Recreation.** DEIS at III-67, third and fourth paragraphs. The DEIS indicates that the 250/5000 Preferred Alternative would have a "moderate" impact on reservoir recreation. This classification may be overstated. The DEIS estimates that the average reservoir reduction would be approximately 10 feet, and during infrequent dry periods as much as 30 feet. These levels are still above the existing concrete boat ramp. Thus, implementation of the 250/5000 Preferred Alternative would have a minimum impact on reservoir recreation. 29

DEIS at III-68, second full paragraph. The DEIS references Table II-4 and indicates that the flows in the trout fishery immediately below Navajo Dam under the 250/5000 Alternative would range from approximately 250 to 500 cfs 70 percent of the time. The DEIS needs to indicate how often the flows reach 250 cfs. 30

DEIS at III-69, second paragraph. The DEIS indicates that the trout habitat is expected to be reduced 30 to 37 percent when dam releases decline from 500 to 250 cfs. For the reasons stated in our previous filings, the Tribe does not believe that the impacts to the trout habitat are 31

CA12-28 Please see the response to General Comment 2 which discusses mitigation.

CA12-29 The EIS has been revised to accommodate your concern.

CA12-30 Flows reached 250 cfs for 222 out of the 780 months of the 1929 to 1993 hydrology period for the Preferred Alternative. Please refer to Table II-6.

CA12-31 Please see the response to General Comment 30.

as severe as Reclamation projects. In addition, the DEIS needs to indicate how often the flows reach 250 cfs. 31 cont.

DEIS at III-70, first paragraph following points. The DEIS assumes that the quality of the angler experience will be reduced under the 250/5000 Alternative. It assumes that the losses will be directly related to change in stream surface area or directly related to the apparent changes in the trout habitat. This assumption may inadvertently result in over-estimating the impact of the 250/5000 Alternative on the angler days. The relationship between angler days and surface area needs to be better justified. Indeed, "[n]either the Summer Low Flow Test nor the Winter Low Flow Test showed a decrease in angler use . . . ." DEIS at III-69. 32

DEIS at III-71, first full paragraph. The DEIS should point out that rafting is a summer, not winter, sport. Thus, the fact that the "flows over 800 cfs would decrease substantially, particularly in the September through March period" seems relatively minor. 33

5. **Hydropower.** DEIS at III-73, Summary of Impacts, third paragraph. The DEIS suggests that the projected 10-year financial impact to the City of Farmington ("City") ranges from $5.3 million to $7 million annually. The $7 million dollar value is based on taking the unit out of service during the low flow period. However, during much of the low flow period, the flows are much closer to 500 cfs than 250 cfs. Therefore, the assumption that the units cannot operate over-estimates the impacts to the City. 34

The DEIS should also note that the City constructed the hydroelectric plant with full knowledge that the authorized purposes of Navajo Reservoir, including NIIP, would be developed. 35

CA12-32 Please see the response the General Comment 29b.

CA12-33 In Chapter III, Recreation Section (Commercial Rafting), the DEIS identifies the months when rafting occurs along the San Juan River-- March through October with the core months being June, July and August. Also, please see the response to General Comment 32.

CA12-34 Please see the responses to General Comments 8 and 26.

CA12-35 Comment noted.

DEIS at III-77, first full paragraph. The DEIS indicates that a potential impact to the hydroelectric plant from implementing the Preferred Alternative concerns operating the turbines for extended time periods at flows lower than 350 cfs. The DEIS also notes that "[s]ubsequent investigation has revealed that a design modification could help to alleviate the problem. Cost for the modification and its ability to mitigate the damage is conservatively estimated at $75,000 to $100,000." It appears this design modification significantly reduces the impacts on the City and should be described in greater detail. Indeed, to the extent that this modification is feasible, the references to the $7 million dollar impact should be clarified. 36

6. **Water Quality**. DEIS at III-88, Summary of Impacts, sixth paragraph. The statement that "[u]nder the No Action Alternative, existing trends of water quality degradation would be expected to continue in the San Juan River below Navajo Dam," is misleading since the dam has not been operated under the historical regime since 1991. 37

7. **Socioeconomics**.

a. Impacts Analysis.

i. No Action Alternative. DEIS at III-121, first full paragraph. The DEIS states that "[t]he area would continue to follow the economic course which is currently being pursued." This statement is incorrect because the status quo cannot be maintained without violating the ESA. Existing water uses with a federal nexus that are subject to Section 7 of the ESA would be forced to consult with the U.S. Fish & Wildlife Service. 38

DEIS at III-122, second paragraph. The second sentence should be revised as follows: "This could result in possible loss of projected water development capital expenditures of 39

CA12-36 Please see the response to General Comment 26.

CA12-37 The water quality degradation is based on a general increase in water use. Water quality data from Table III-9 shows a general degradation trend downstream for some parameters. Please see the response to General Comment 23.

CA12-38 The EIS has been revised to accommodate your concern.

CA12-39 The EIS has been revised to accommodate your concern.

approximately $227 million, not including construction costs for and revenue from non-binding end uses."

39 cont.

ii. 250/5000 Alternative (Preferred Alternative (Flow Recommendations). DEIS at III-124, carryover paragraph. The DEIS assumes that there is a linear correlation between recreation and trout habitat to determine the range in losses in direct angler expenditures and associated indirect, induced and employment impacts that could be experienced in San Juan County. However, the DEIS provides no basis for assuming that angler visitation for a given year will change in equivalent proportion to the estimated percentage of trout habitat that would be temporarily lost at times when Navajo Dam releases would be 250 cfs under the 250/5000 Alternative. Further, releases under the 250/5000 Alternative would be greater than 250 cfs during much of the year. In addition, since the largest water projects will not be completed and operational for several years, the full impacts will not be felt immediately. Thus, the total estimated economic loss due to angler reduction is likely to be substantially overstated.

40

DEIS at III-125, second paragraph. The DEIS must provide some justification to support the contention that there will be a 10 to 34 percent loss in out-of-State anglers under the 250/5000 Alternative.

41

iii. 500/5000 Alternative. DEIS at III-128, carryover paragraph. The DEIS states that "[s]pecific details and estimates for non-completion of the ALP Project and the associated impacts to La Plata County, Colorado, can be referenced in the ALP Project FSEIS

CA12-40 Please see the responses to General Comments 29 and 30.

CA12-41 Please see the response to General Comment 30.

. . . ." The specific details and estimated impacts associated with the inability to complete the ALP Project should be described in the DEIS rather than simply referenced. 42

8. **Cultural Resources.** DEIS at III-153, fourth full paragraph. As written, a higher score equals higher impact to the resource. The No Action Alternative has an impact score of 4,042, the 500/5000 Alternative has an impact score of 3,846, and the Preferred Alternative has an impact score of 3,539. Thus, implementing the Preferred Alternative will have the least amount of impact on the cultural resources. However, Table II-9 at II-32 indicates otherwise. 43

CA12-42 Comment noted.

CA12-43 The EIS has been revised to accommodate your concern.

MILLER
ECOLOGICAL
CONSULTANTS
INC.

MEMORANDUM

December 3, 2002

TO: Catherine Condon, Greene, Meyer & McElroy

From: Bill Miller, Miller Ecological Consultants, Inc

Subject: Comments on Draft Navajo Reservoir Operations Environmental Impact Statement

---

These comments are in addition to comments previously submitted in December 2001, February 2002 and March 2002, which were not fully addressed in the September 2002 DEIS. I have the following general comments on the document.

The document correctly identifies the appropriate alternative to meet the purpose and need listed in the EIS. The information presented identifies impacts to aquatic resources, in particular the tailwater trout fishery, and presents some of the potential mitigation measures. I recommend that additional mitigation be presented as appropriate in the document. A separate mitigation section in each resource category, as applicable, should be added. 44

The aquatic resource section states that the low flow studies on trout health showed no difference between the 250 cfs flow and 500 cfs flow. These studies are presented in the narrative of the document and should be added to the summary tables. These data further support the conclusion reached by Reclamation on the preferred alternative and should be emphasized. Both the positive and negative impacts should be presented as appropriate. 45

Several sections in the document reference flexibility in operations to meet the flow recommendations. The SJRBRIP Biology Committee provided clarification to Reclamation regarding target summer base flows in a memo dated July 16, 2002. That memo should be used instead of the February 2002 letter referenced in the DEIS. The intent of the flow recommendations is to have the average weekly low flows in the majority of the critical habitat remain between 500 and 1000 cfs. That condition is still the recommendation as clarified by the July 16, 2002 memo. 46

CA12-44 Please see the response to General Comment 2.

CA12-45 Please see the responses to General Comments 27 and 28.

CA12-46 Flexibility and base flow monitoring have been clarified in the EIS. Please see the response to General Comment 11.

The intent of the February 2002 letter was in response to Reclamation's concern that daily flow manipulations from Navajo Dam were not feasible. The lag time from when the flow is released at the dam to when it reaches the critical habitat ranges from 1.5 to 3 days. In addition, some response time is needed to adjust flows. Therefore, it is not feasible to operate the dam on a day-by-day basis. The February letter clarified the use of average weekly flows for operations. The July 16, 2002 letter provided further clarification on which gages to use in determining the average weekly flows. Again, the intent of the Biology Committee's recommendation was to provide the specified base flows to the majority of the critical habitat. I recommend that all references to the February 2002 letter be deleted and where appropriate, the July 16, 2002 memo should be referenced.

47

CA12-47 Comment noted.

State of New Mexico
ENVIRONMENT DEPARTMENT
Office of the Secretary
Harold Runnels Building
1190 St. Francis Drive, P.O. Box 26110
Santa Fe, New Mexico 87502-6110
Telephone (505) 827-2855
Fax (505) 827-2836

GARY E. JOHNSON
GOVERNOR

JOHN D'ANTONIO, JR.
SECRETARY

December 4, 2002

Carol DeAngelis
Area Manager
Western Colorado Area Office
U.S. Department of the Interior
Bureau of Reclamation
Grand Junction – Durango, Colorado

Dear Ms. DeAngelis:

RE: DRAFT ENVIRONMENTAL IMPACT STATEMENT: NAVAJO RESERVOIR OPERATIONS; NAVAJO UNIT – SAN JUAN RIVER, NEW MEXICO, COLORADO, UTAH; US DEPARTMENT OF THE INTERIOR, BUREAU OF RECLAMATION, UPPER COLORADO REGION, WESTERN COLORADO AREA OFFICE; SEPTEMBER 2002

This transmits New Mexico Environment Department (NMED) comments concerning the above-referenced Draft Environmental Impact Statement (DEIS).

This memo transmits the Department's comments on the DEIS the Bureau of Reclamation (Reclamation) has prepared to guide the agency in timing and sizing releases of water from Navajo Reservoir into the San Juan River. The purpose of the proposed action is to "provide sufficient releases of water at times, quantities, and durations necessary to conserve the two endangered fish species [razorback sucker and Colorado pikeminnow] and their designated critical habitat" while "enabling future water development to proceed in the Basin in compliance with applicable laws, compacts, decrees, and Indian trust responsibilities" (pp. I-2 and I-4).

Central to the alternatives are flow recommendations developed through the San Juan River Basin Recovery Implementation Program that would mimic the natural (pre-dam) hydrologic regime within the designated critical habitat. The flow recommendations primarily are intended to provide sufficient peak flows (in the spring) for specified durations to accomplish various geomorphic conditions. The need to support increased flows in the spring, while meeting obligations to water users, would require that less water be released (relative to current operations) during the summer, fall, and winter months. Contribution of flow from the Animas River (upstream of the critical habitat) and

irrigation return flow (largely upstream of the critical habitat) could permit the purposes of the proposed action to be met while leaving reaches of the San Juan River upstream of the Animas River with less water than would have been expected under either the current or the pre-dam hydrologic regimes.

Many of the potential undesirable impacts of the proposed action would result from low flows of sixty to 150 cubic feet per second (cfs) anticipated (p. III-96) in the San Juan River between the Animas River (at river mile 181) and the Citizens Ditch diversion (at river mile 217). During a low flow test conducted during the summer of 2001 by Reclamation, a flow of 61 cfs was measured below the Hammond Diversion (a significant diversion between the Animas River and Citizens Ditch diversion), and exceedences of standards for several water quality parameters (temperature, aluminum, fecal coliform, total organic carbon, and conductivity) were observed at various locations within the reach. Reclamation estimates that similar water quality exceedences would occur were the preferred alternative implemented.

As a statement of general principle, the Department's Surface Water Quality Bureau (SWQB) is strongly in favor of river operations that, to the extent practical, mimic the natural flow regime that occurred prior to modification by impoundments or construction of flood control or diversion structures. It is also clear that the constraints to the system have created a major challenge for Reclamation to balance all needs, including regulatory requirements, within the basin. With this communication, however, we are obligated to inform Reclamation of the applicable regulations with regards to water quality. In light of the existing point and non-point discharges into the San Juan River, SWQB is concerned that the proposed action would result in violations of Water Quality Standards under the New Mexico Water Quality Act ("WQA"). See 20.6.4 NMAC. Because the proposed action would likely result in degradation of water quality, it is appropriate that the Water Quality Control Commission have a role in issuing approval of the proposed action. The Antidegradation Policy found at 20.6.4.8 NMAC, states (in part): 1

Where the quality of a surface water of the state exceeds levels necessary to support the propagation of fish, shellfish, and wildlife, and recreation in and on the water, that quality shall be maintained and protected unless the commission finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the state's continuing planning process, that allowing lower water quality is necessary to accommodate important economic and social development in the area in which the water is located. In allowing such degradation or lower water quality, the state shall assure water quality adequate to protect existing uses fully. Further, the state shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable BMPs for nonpoint source control. Additionally, the state shall encourage the use of watershed planning as a further means to protect surface waters of the state.

The commission would not be obligated to approve of the proposed action unless the commission is assured that additional water quality standards exceedences will not occur as a result. The SWQB is charged with assessing all surface waters of the state to determine whether water quality standards are being met. As a constituent agency, if the NMED determines that actions by Reclamation have resulted in violations of water quality standards, NMED has the authority under Chapter 74, Article 6-10 NMSA 1978 to 2

CA13-1 Please see the response to General Comment 23.

CA13-2 Please see the response to General Comment 23.

issue a compliance order or commence civil action in district court for appropriate relief, including injunctive relief. 2 cont.

One consequence of reduced flow in the San Juan River that would likely follow implementation of the preferred alternative would be modification of the discharge permits for Bloomfield and Farmington wastewater treatment plants (or others) to reduce or eliminate the frequency of Water Quality Standards exceedences. Effluent limitations of National Pollutant Discharge Elimination System (NPDES) permits are calculated based on a minimum average flow for four consecutive days, which occurs with a frequency of once in three years (a "4Q3"). These 4Q3's are calculated based on flow records for the period of time preceding the permit application during which flow conditions were not substantially different than the present. For the San Juan River, this has usually meant the period of time since Navajo Dam was closed. Reduction of flow in the San Juan River as a result of the proposed action could result in a secondary effect where water quality based effluent limits in existing NPDES permits would no longer be protective of water quality standards and could result in water quality impairment. When these permits are reauthorized, lower 4Q3's would likely be calculated, resulting in stricter effluent limitations.

The National Pollutant Discharge Elimination System (NPDES) permitting program is the mechanism by which the state shall implement the Antidegradation Policy with respect to point source discharges, but the state cannot assure that all cost-effective and reasonable BMPs for nonpoint source control will be utilized under the preferred alternative without support from other agencies whose actions affect water quality in the San Juan River. While it is not within the traditional range of Reclamation's activities to address nonpoint source pollution along rivers affected by Reclamation projects, modification of the preferred alternative to include nonpoint source pollution controls would contribute to the state's assurance that all current uses will be protected, and justify a decision by the commission to allow the alternative to be implemented. 3

Another change to the preferred alternative that may reduce water quality impacts may be to consider a low flow between 250 and 500 cfs. This was the intent of the "250 Variable/5000" alternative, which Reclamation states (p. II-25) was not selected as the preferred alternative because it would result in insufficient reservoir storage to meet spring peak flow criteria. Furthermore, under the "250/5000" alternative (the preferred alternative), a minimum flow greater than 250 cfs would be released during years when sufficient reservoir storage is available. However, the method of selection of 250 cfs as a lower limit was not presented in the DEIS. Perhaps the same models used to evaluate each alternative could be used to identify a flow above 250 cfs that would meet the purpose and need of the project. While it may not be practical to adjust the flow from Navajo Dam with this precision, more explanation of how the alternatives were developed, and consideration of an alternative with a minimum flow between 250 and 500 cfs, would ensure SWQB that Reclamation has taken the impacts of Navajo Reservoir operation into full consideration. 4

Participation by Reclamation in the San Juan Watershed Group (a water quality oriented, watershed-based, planning committee) has provided NMED and other parties in the basin with useful information relevant to this project and other activities in the basin, and it is hoped that Reclamation can benefit from the products of this planning effort to identify ways to reduce the water quality impacts of Navajo Dam operation.

CA13-3 Please see the response to General Comment 23.

CA13-4 Please see the response to General Comment 5.

We appreciate the opportunity to comment on this document.

Sincerely,

John R. D'Antonio Jr.
Secretary

NMED File No. 1642ER

NAVAJO NATION DEPARTMENT OF JUSTICE
OFFICE OF THE ATTORNEY GENERAL

LEVON B. HENRY
ATTORNEY GENERAL

BRITT E. CLAPHAM, II
DEPUTY ATTORNEY GENERAL

December 3, 2002

Mr. Ken Beck
Bureau of Reclamation
Western Colorado Area Office
Southern Division
835 East Second Avenue, Suite 300
Durango, Colorado 81301

Re: **Comments on the Draft Environmental Impact Statement, Navajo Reservoir Operations Navajo Unit - San Juan River, New Mexico, Colorado, Utah**

Mr. Beck,

The Navajo Nation concurs with Reclamation's selection of the 250/5000 Alternative (Flow Recommendations) as the Preferred Alternative identified in the *Draft Environmental Impact Statement, Navajo Reservoir Operations, Navajo Unit - San Juan River, New Mexico, Colorado, Utah* (DEIS), September 2002, prepared by the U.S. Bureau of Reclamation.

Staff from the Navajo Nation Department of Water Resources Water Management Branch and the Navajo Nation Department of Water Resources Natural Resources Unit reviewed the DEIS, and their comments are attached to this letter. These comments are submitted on behalf of the Navajo Nation.

The DEIS represents a significant improvement over the earlier draft; however, there are a number of deficiencies in this document, many of which remain from the earlier draft. The comments submitted here should be considered supplemental to the comments previously submitted by the Navajo Nation.

Please ensure that these comments are made part of the administrative record for the DEIS. If you have any questions concerning these comments, please contact me or Dr. John Leeper, Branch Manager, Water Management Branch, (928) 729-4004. Thank you for your anticipated cooperation.

Respectfully submitted,
NAVAJO NATION DEPARTMENT OF JUSTICE

Stanley M. Pollack
Water Rights Counsel

P.O. Drawer 2010 • Window Rock, Navajo Nation (AZ) 86515 • (928) 871-6931 • Fax (928) 871-6200

COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT NAVAJO RESERVOIR OPERATIONS NAVAJO UNIT - SAN JUAN RIVER, NEW MEXICO, COLORADO, UTAH

Prepared by
The Department of Water Resources, Water Management Branch
&
The Department of Justice, Natural Resources Unit
The Navajo Nation
December 2, 2002

GENERAL COMMENTS

Although Reclamation reached the correct conclusion with respect to the selection of the preferred alternative, Reclamation undervalued the negative impacts of the No Action Alternative (Historic Operation) and the 500/5000 Alternative, and over valued the likely negative impacts of the 250/500 Preferred Alternative. The preferred alternative is the only scenario that is consistent with the flow recommendations promulgated by the San Juan River Recovery Implementation Program. Under all the other alternatives, those water uses that are subject to Section 7 of the Endangered Species Act (ESA) would be forced to reinitiate consultation with the U.S. Fish & Wildlife Service, and the Service would likely opine that those uses jeopardize the continued existence of the endangered fish or damage the critical habitat. Moreover, all other water uses could conceivably be enjoined or curtailed if found to be in violation of Section 9 of the ESA ("take" of endangered species). 1

The Final Environmental Impact Statement should clarify that adoption of the No Action Alternative would not result in continuation of the status quo because the status quo cannot be maintained without violating the ESA. The Service previously opined in its Biological Opinion for the Animas-La Plata Project that even without further water development, the endangered fish would be extirpated from the San Juan River without implementation of the reasonable and prudent alternative, which included reoperation of Navajo Dam. Since neither the status quo nor any scenario arising from any of the alternatives other than the preferred alternative, are legally permissible, none of the benefits that could theoretically accrue from those alternatives can actually be realized. 2

CA14-1 Please see the response to General Comment 31.

CA14-2 Please see the response to General Comments 3

SPECIFIC COMMENTS

The following specific comments refer to specific portions of the Draft Environmental Impact Statement (DEIS).

EXECUTIVE SUMMARY

Comment 1. Page S-11, Second, Third & Fourth Paragraphs

The DEIS correctly concludes that the No Action Alternative would put the completion of the Animas-La Plata Project (ALP) is at risk. However, because this project also includes the Navajo Nation Municipal Pipeline, Reclamation should explicitly note that this risk extends to this component. The community of Shiprock, New Mexico is the largest community on the Navajo Nation. Water from ALP is critical to meet the current and future water needs of this community. The DEIS does not fully evaluate the impacts to the Shiprock Community if ALP is not completed. 3

The DEIS also concludes that the No Action Alternative may limit the Navajo Indian Irrigation Project (NIIP) to 54,500 acres. However, Reclamation undervalues the impact by limiting its analysis to lost crop revenues. A larger NIIP allows for vertical integration which would provide benefits far greater than just the gross crop revenues. By limiting the acreage of NIIP, the No Action Alternative would also jeopardize the proposed $70 million potato processing plant, $20 million in the growing venture's storage buildings, a 40,000-head feed lot, and a 25-MW steam co-generation plant. This complex alone will employ more than 400 people. The Navajo Nation has successfully consulted on 450 acre-feet of annual water depletions for this processing plant. This depletion is also at risk. 4

INTRODUCTION: PURPOSE OF AND NEED FOR THE ACTION

Comment 1. Page I-1, First Paragraph

Reclamation clearly states its intention "to operate Navajo Dam and Reservoir to implement Endangered Species Act (ESA)-related flow recommendations on the San Juan River, or a reasonable alternative." (Emphasis added.) The potential opportunity to develop reasonable alternatives is very important and that point should be noted elsewhere in the document. 5

PROPOSED ACTION AND ALTERNATIVES

Comment 1. Page II-10, First Paragraph

The DEIS recognizes that the largest water projects will not be completed and operational for several years. For instance, Reclamation speculates on Page III-26 that it will take ten years to complete NIIP and that full irrigation would not be reached until

CA14-3 The ALP Project includes the Navajo Nation Municipal Pipeline. In the EIS, none of the ALP Project components are identified or analyzed separately.

CA14-4 The ITA section of the EIS recognizes that additional revenue, income and employment impacts would occur as a result of vertical integration related to NIIP agricultural production.

CA14-5 Please see the responses to General Comments 5a and c.

2032. Consequently, there is an interim period during which flexibility may exist to provide supplemental flows for various purposes. However, the impacts presented in this document are based on the presumption that the onset of all of these impacts will occur immediately. This interim period will provide the opportunity to adaptively manage the resources and mitigate impacts. During this interim period a positive biological response may result in the development of other reasonable alternatives. Thus, the adverse impacts that may occur from dam operations under the preferred alternative tend to be overstated throughout the document. 6

Comment 2. Page II-12, Paragraph 6

Reference is made to Reclamation's contractual obligations with the City of Farmington. The DEIS should also describe the limits of those contractual obligations, for instance, the limited duration of the related FERC license. The DEIS should also clarify potentially conflicting obligations to the Navajo Reservoir water contractors. 7

Comment 3. Page II-17, Figure II-3.

This figure indicates that the minimum elevation of active storage at Navajo Reservoir is 5,985 feet. However, Reclamation has previously opined that at elevations below 5,990 feet the NIIP intake may be severely damaged. If 5,985 feet is to be evaluated as the minimum elevation of active storage the DEIS should describe the hydraulic impacts to the NIIP inlet works with flows at water levels below 5,990 feet. 8

Comment 4. Page II-18, Table II-4

The note below the table indicates that with the 500/5000 Alternative the reservoir is occasionally drawn below the NIIP inlet. As the water demands have been modeled by Reclamation, this level is only reached during the non-irrigation season. However, the DEIS should describe the consequences of dropping below the minimum inlet level during the irrigation season. NIIP's annual gross crop value, which exceeds $30 million, may be at increased risk. In addition, the water contractors that share shortages with NIIP may also be impacted. 9

Comment 5. Page II-22, No Action Alternative, Second Paragraph

Under the No Action Alternative the completion of the Animas-La Plata Project and the settlement with the Ute tribes is at risk. As noted in the comments concerning the Executive Summary, the DEIS should explicitly note that this risk also extends to the Navajo Nation Municipal Pipeline that will convey more than 4,000 acre-feet of water to Shiprock, New Mexico. 10

The No Action Alternative may limit the Navajo Indian Irrigation Project (NIIP) to 54,500 acres. The No Action Alternative may also jeopardize the proposed $70 million potato processing plant and its related industry which will employ more than 400 people. The Navajo Nation has successfully consulted on 450 acre-feet of annual water depletion for this processing plant. This depletion would also be at risk. 11

CA14-6 Please see the response to General Comment 11.

CA14-7 A sufficient discussion of the City of Farmington's hydropower plant is contained in the Chapter III Hydropower section of the EIS. Contractual details are beyond the scope of this document.

CA14-8 The minimum reservoir water surface elevation is set at 5,985 feet. In the Preferred Alternative analysis, monthly water surface elevation drops below 5,990 feet four times during the 65 year study period. This elevation is reached only in the winter months when the NIIP inlet works are not being used.

CA14-9 For the 500/5000 Alternative, the end of the month water surface elevation drops below 5990 feet 20 times as modeled from 1928 to 1993. Irrigation diversions to NIIP would be curtailed or eliminated 13 months due to drought conditions over the period of July 1955-March 1957. Under actual operations, shortage sharing would keep the reservoir above 5990 feet, but provide a 67 percent supply to Navajo contractors and target base flows in the critical habitat reach below Farmington.

CA14-10 Please see the response to Comment CA14-3.

CA14-11 Please see response to Comment CA14-4.

Comment 6. Page II-30, Table II-9

For the hydro power resource the DEIS states that with the Preferred Alternative the City of Farmington's annual replacement cost is up to $7 million. This impact is based on taking the unit out of service during the duration of the Low Flow Period. However, because much of this impact can be readily mitigated, the likelihood of the impact reaching $7 million is remote. The hydro power impact for the preferred 250/500 Alternative should include the impact that is most likely, and the $7 million impact should be placed into the appropriate context. Furthermore, the DEIS does not distinguish between the impacts due and the Flow Recommendations and the impacts due to the full development of water supplies out of Navajo Reservoir. 12

AFFECTED ENVIRONMENT/ENVIRONMENTAL CONSEQUENCES

Comment 7. Page III-11, Penultimate Paragraph

The DEIS states that the total consumptive use in the Upper Basin in Arizona is about 45,000 acre-feet per year. The Navajo Nation Department of Water Resources has questioned Reclamation's consumptive use and loss methodology and anticipates that a more accurate methodology may demonstrate that the consumptive uses are lower. 13

Comment 8. Page III-15, No Action Alternative, First Paragraph

The DEIS states that under the No Action Alternative, the average reservoir elevations would generally be higher. As presented, these higher reservoir elevations may be interpreted as benefits of the No Action Alternatives; however, the primary reason that reservoir levels are higher is the assumption that NIIP and other authorized water demands do not occur. The DEIS should distinguish between the impacts attributable to the flow recommendations as described under the Preferred Alternative, and the impacts associated with the completion of NIIP and other authorized purposes. 14

Comment 9. Page III-15, Last Paragraph & Page III-17, 500/5000 Alternative, First Paragraph 6

The DEIS should elaborate on the risks to non-Indian water rights and non-Indian water users under the No Action and the 500/5000 Alternatives. Costly litigation is one, almost certain consequence. Uncertainty and disruption in existing water deliveries are also possible. These disruptions have economic consequences that should be described. 15

Comment 10. Page III-22, Table III-3

Table III-3 purports to include the San Juan River Basin water uses. However, the existing Navajo Nation uses listed in this table exclude the current municipal water use in the Shiprock area. It also excludes the Navajo tributary irrigation, Navajo evaporation from stock ponds and reservoirs, and groundwater used for livestock and municipal purposes. Even if these uses are not precisely quantified in the basin, they do occur and their omission from Table III-3 should be included in a footnote. 16

CA14-12 Please see the responses to General Comments 1c and 26.

CA14-13 Comment noted.

CA14-14 Please see the response to General Comment 1c.

CA14-15 Please see the responses to General Comments 18 and 19.

CA14-16 The EIS has been revised to accommodate your concern.

Comment 11. Page III-25, First Paragraph

The DEIS states that it is not currently economically "practicable" to construct pipelines and pump water to many irrigation tracts or projects scattered throughout the Navajo Indian Reservation. This phrase should be rewritten without the word "practicable." That word may be construed to have legal implications in future irrigation claims asserted for the Navajo Nation. Although it may be true that there are many irrigation tracts that cannot be economically irrigated directly from the San Juan River, many irrigation tracts may be economically irrigated. Furthermore, many of the San Juan River Basin tributary irrigation projects are viable. Even without long pipelines, these tributary tracts could readily utilize water that is tributary to the San Juan River. 17

Comment 12. Page III-26, Top Paragraph

The DEIS speculates that it will take ten years to complete NIIP and that full irrigation would not be reached until 2032. The DEIS should provide some justification for this schedule or perhaps provide a range of schedules. Navajo Nation Department of Water Resources opines that a block of NIIP should be fully functional within five years of its completion. Perhaps the DEIS is intending to describe the point in time when NIIP's return flows would reach equilibrium. 18

Comment 13. Page III-26, San Juan River Irrigation Projects

The reference to irrigation projects along the San Juan River being initiated between 1900 and 1937 is generally true with respect to non-Indian farming. However, Navajos have been irrigating along the San Juan River prior to the first non-Indian farmers. 19

Comment 14. Page III-26, Paragraph #2

Contrary to the assertion that the Cudei Siphon is scheduled to be completed in 2002, the siphon is completed and was functioning during the 2002 irrigation season. 20

Comment 15. Page III-35, ALP Project Construction

The DEIS calculates benefits from the Animas-La Plata Project water by projecting estimated annual revenue generated from "water sales." The range of these values is $68.57 to $600 per acre-foot. The $68.57 per acre-foot value is the CRSP M&I rate for raw, untreated water. This is not a market value for the water. The CRSP rate is based on the federal rates for capital repayment, and for the CRSP operation and maintenance. The $600 value represents the typical retail rates in the surrounding communities for treated M&I water. Thus, the DEIS compares "apples" to "oranges." If the DEIS evaluation is based on a "market value" for raw water, comparable benchmarks for long-term water leases in the basin should be utilized. 21

However, the real benefit of the water supply should not be measured by assuming that the water has value only as a commodity. In the case of the Shiprock area, the 4,680 acre-feet of may water may readily sustain a community with a population of 20,000 people. Therefore, the real benefit of this water supply goes beyond the market value of

CA14-17 The EIS has been revised to accommodate your concern.

CA14-18 Table 1 in the NIIP Development Schedule, found in the Navajo Indian Irrigation Project Biological Assessment, June 11, 1999, shows completion of NIIP in the year 2032.

CA14-19 Comment noted.

CA14-20 The EIS has been revised to accommodate your concern.

CA14-21 The EIS has been revised to accommodate your concern.

4,680 acre-feet. Under the No Action Alternative, the community of Shiprock will be unable to thrive without severe economic impacts on both the Indian and non-Indian economies. 21 cont.

Comment 16. Page III-36, Navajo Indian Irrigation Project

The DEIS underestimates the positive benefits from the completion of Blocks 9, 10 and 11. The Navajo Nation anticipates the construction of a $70 million potato processing plant, $20 million invested in the growing venture including storage buildings, a 40,000-head feed lot, and a 25-MW steam co-generation plant. This complex will employ more than 400 people. Vertical integration is critical to the success of NIIP and its benefits are far greater than just the gross crop revenues. 22

Comment 17. Page III-36, Water Contracts Associated with the Jicarilla Apache Nation

The DEIS underestimates the possible consequences to the water supply to the San Juan Generating Station attributable to the No Action Alternative. The Public Service Company of New Mexico employs more than 100 tribal members and contributes millions of dollars per year to the regional economy. The benefits of the continued operation of the San Juan Generating Station and the mine are far greater than the total annual dollar benefit of $1,110,800 per year derived from the sale of the water by the Jicarilla Apache Nation to PNM. 23

Comment 18. Page III-37, First Paragraph

The annual economic benefits for both the Navajo and Jicarilla tribes are estimated to range from $81 to 124 million. This range dramatically undervalues the full scope of the benefits to the tribes from the economic development that is associated with the water that will be available under the Preferred Alternative, but will not be available under the No Action Alternative and the 500/5000 Alternative. At the very least, The DEIS should include an estimate of the tribal jobs and payroll that would be lost or foregone if the Preferred Alternative is not adopted. 24

Comment 19. Page III-40, Top Paragraph

The population data should be updated based on the 2000 census. The current Navajo on-reservation population exceeds 180,000. 25

Comment 20. Page III-40, Fourth Full Paragraph

The Navajo Nation Department of Water Resources Water Development Strategy Document is referenced. That document focuses on municipal development, but it does not include industrial development. 26

Comment 21. Page III-40

This section excludes any reference to livestock and traditional agriculture including tributary irrigation. 27

CA14-22 Please see the response to Comment CA14-4.

CA14-23 The EIS has been revised to accommodate your concern.

CA14-24 Please see the response to General Comment 19.

CA14-25 Complete Census 2000 information was not available at the time of analyses for the DEIS. 2000 Census information was being adjusted based on "undercounting" (not accounting for all tribal members) issues that were raised.

CA14-26 The "Water Development Strategy for the Navajo Nation" does address some current commercial and industrial water uses and identifies the need for future water supplies to meet those needs. See page ES-3 and page 49, section 6 of the referenced document.

CA14-27 Comment noted. Information concerning these activities was not available at the time this EIS was prepared.

Comment 22. Page III-53, Fourth Full Paragraph

The DEIS projects reductions in trout habitat of 30 to 37 percent going from 500 to 250 cfs releases; however, this conclusion does not appear to be well documented. Since the DEIS considers this "to be significant adverse impacts," a better explanation should be included. Even if such a reduction would occur, the DEIS neglects to describe how the current trout habit cannot be sustained in the future. Since the Preferred Alternative is the only alternative consistent with the Flow Recommendations, all other operational scenarios jeopardize the survival of the endangered fish. Thus the DEIS analysis of the impact on the trout fishery is fundamentally flawed and overstated. 28

Comment 23. Page III-67, 250/5000 Alternative (Preferred Alternative)

The DEIS suggests that the 250/5000 Preferred Alternative would have a "moderate" impact on the reservoir recreation. The DEIS estimates that the average reservoir reduction would be approximately 10 feet, and during infrequent dry periods as much as 30 feet. These levels are still above the existing concrete boat ramp. One might just as readily conclude that the associated impacts are minor. 29

The DEIS needs to distinguish between the impacts associated with the full development of Reservoir's authorized purposes, including NIIP, and the impacts associated specifically with the Flow Recommendations and the Preferred Alternative. 30

Comment 24. Page III-68, River Recreation

In this section the DEIS should reemphasize that, until the full authorized project depletions occur, there will be operational flexibility that may enable Reclamation to augment some periods of low flows. The DEIS should quantify the apparent durations of the various flows. For instance, from the figures provided by Reclamation, it appears that the lowest flows that are close to 250 cfs occur only during January and February. 31 During July, August, September and October the flows are closer to 500 cfs than 250 cfs. During March, April, May, and June the flows exceed 500 cfs. Thus, the projected adverse impacts to river recreation are overstated in the DEIS. 32

Comment 25. Page III-69, Bottom of Page

The DEIS reiterates the expectation that trout habitat would be reduced 30 to 37 percent when flows are reduced from 500 cfs to 250 cfs. As stated above, the DEIS does not provide sufficient justification for this conclusion. 33

The DEIS also estimates that the average river depth would be reduced by 4.5 inches and the wetted perimeter by 50 to 10 percent as a consequence of implementing the Preferred Alternative. The DEIS needs to distinguish between the impacts associated with the full development of those projects authorized to utilize water from Navajo Reservoir, including NIIP, and those impacts associated specifically with the Flow Recommendations and the Preferred Alternative. 34

CA14-28 Reclamation's assessment of worst case impacts to the trout fishery was based on the best science available. This assessment was reviewed by Reclamation, the New Mexico Department of Game and Fish and the Fish and Wildlife Service. Also, see the responses to General Comments 6 and 30 which discuss alternatives and trout habitat loss, respectively.

CA14-29 The EIS has been revised to accommodate your concern.

CA14-30 Please see the response to General Comment 1c.

CA14-31 Reclamation agrees that flexibility will reduce impacts and this is discussed in more detail in the EIS. However, in the long term 250 cfs will be frequent, as shown in Table 11-6.

CA14-32 Table II-6 in Chapter II shows long-term impacts on streamflows. Minimum releases of 250 cfs will be frequent in the future. Reclamation agrees that flexibility can reduce these impacts in the short term.

CA14-33 See response to Comment CA14-28.

CA14-34 Reclamation's assessment of impacts to the trout fishery was based on cumulative impacts of new water operations and water development. The introduction to Chapter III has been expanded accordingly.

Comment 26. Page III-70, First Full Paragraph

The DEIS assumes that the economic losses would be directly related to changes in stream surface area, or directly related to the apparent changes in trout habitat. This assumption may inadvertently result in over estimating the Flow Recommendation's impact on the angler days. The relationship between angler days and surface area needs to be better justified. 35

Comment 27. Page III-73, Hydro Power Overview, Summary of Impacts

The DEIS suggests that the projected 10-year financial impact to the City of Farmington ranges from $5.3 to $7 million annually for lost power revenues. The $7 million dollar value is based on taking the unit out of service during the low flow period. It is possible that some of these losses can be offset by utilizing some the operational flexibility that exists until the full authorized project depletions occur. Thus, Reclamation may be able to augment dam releases during some periods of low flows. Moreover, Table II-4 indicates that during much of the low flow period, the flows are much closer to 500 cfs than 250 cfs. The units will be able to operate more frequently than Reclamation estimates; consequently, the DEIS overstates the power revenue impacts to the City. In addition, for reasons discussed at Comment 30 below, the total annual lost power revenues should never approach $7 million if a relatively modest sum of money were spent on retrofitting the turbines, thereby mitigating the potential loss. 36

Once again, the DEIS should draw a distinction between the impacts associated with full development the authorized water projects, including NIIP, and the impacts associated specifically with the Flow Recommendations. The City of Farmington constructed this hydro power unit with a full knowledge that eventually the authorized purposes including NIIP would be developed. 37

Comment 28. III-74, Affected Environment

The impacts of the lost hydro-power under the Preferred Alternative need to be compared to lost power generation that will be foregone if NIIP remains uncompleted. As discussed above, if NIIP development is limited to 54,500 acres, the opportunity for vertical integration may be lost such as the construction of a 25-MW steam co-generation unit associated with the potato processing plant. The DEIS does not consider this lost power, thus undervaluing the benefits of the Preferred Alternative and overvaluing the adverse impacts on the affected environment from the Preferred Alternative. 38

To put the impacts to the City of Farmington into perspective, the DEIS should describe the total power generating capacity available to the City. The Navajo Dam unit provides less than 10 percent of the City's total available power capacity. 39

Comment 29. III-75, Federal Energy Regulatory Commission (FERC)

The City's FERC license has less than 33 years left. The related agreement between Reclamation and the City of Farmington cannot be considered permanent obligations. Moreover, the conditions of that license clearly establish that power 40

CA14-35 Please see the responses to General Comments 29 and 31.

CA14-36 Please see the responses to General Comments 8, 11, and 26.

CA14-37 Please see the response to General Comment 1c.

CA14-38 Future development of industrial and commercial facilities by the Navajo Nation and all their associated impacts was beyond the scope of this document. However, it is recognized that without the future NIIP water supply, agricultural development and some resulting vertical integration of NIIP products or by-products may not occur.

CA14-39 Please refer to the response to General Comment 26. Impacts were measured on affected resources.

CA14-40 Comment noted.

generation is an opportunistic use – the City has no water right associated with the generation of hydropower. 40 cont.

Comment 30. III-77, First Full Paragraph

With respect to possible damage to the hydropowerplant, the DEIS states that "Subsequent investigation has revealed that a design modification could help to alleviate the problem. The cost for the modification and its ability to mitigate the damage is conservatively estimated at $75,000 to $100,000." Apparently this design modification can reduce the potential financial impact by $2 to $3 million per year, significantly reducing the impacts on the City. This modification should be described in greater detail. To the extent that this modification is feasible, the references to the $7 million dollar impact should be clarified throughout the text. 41

Comment 31. III-78, Footnote 37

The replacement power costs cited here appear to be inconsistent with the costs cited in the Appendix to the DEIS. 42

Comment 32. III-79, Paragraph 2

The DEIS suggests that the financial impact of the 500/5000 Alternative on hydropower is approximately $3.2 million. The DEIS needs to distinguish between the impacts associated with the full development of the authorized water projects, including NIIP, and the impacts associated specifically with the Flow Recommendations. The City constructed this hydro-power unit with a full understanding that someday NIIP and other project would be constructed. The impacts of to the City should only be based on the net increase to the City above and beyond what was already anticipated. 43

Comment 33. III-111, Overview, Scope

The DEIS states that "Other counties are outside the above scope may be negligibly affected, and as a result, have not been included in this analysis of work." However, if the Preferred Alternative were not implemented, there would be substantial impacts on water users outside the counties identified in this section. For example, the users of water from the San Juan-Chama Project are dependent on the implementation of the Flow Recommendations in order for that project to satisfy the requirements of the ESA. Likewise, there are significant impacts to potential users of ALP water outside of the counties identified in the Scope. Without implementation of the Flow Recommendations, there is no chance that the Navajo-Gallup Water Supply Project can be built, thus, adversely affecting McKinley County in New Mexico. An IMPLAN model should be conducted that reflects the foregone economic benefits due to the inability to provide these water supplies. The impacts of the No Action Alternative clearly affect the economies of McKinley and La Plata Counties. These impacts include the inability to proceed with planned projects, and the unpredictable outcome of lawsuits and litigation. 44

CA14-41 Please see the response to General Comment 26.

CA14-42 Comment noted.

CA14-43 Please see the responses to General Comments 1c and 26.

CA14-44 Please see the responses to General Comments 19 and 31a.

Comment 34. III-112 through 122, San Juan County

The analysis of impacts on San Juan County does not include impacts attributable to the loss of M&I water from the Farmington-to-Shiprock Pipeline if ALP is not constructed or the loss of water from the Navajo Gallup Water Supply Project. Nor is any analysis provided concerning the possible closure of the San Juan Generating Station and its associated mines. 45

Comment 35. III-120 and 121, Impacts Analysis

The No Action Alternative may limit the Navajo Indian Irrigation Project (NIIP) to 54,500 acres. Vertical integration is critical to the success of NIIP and its benefits are far greater than just the gross crop revenues. In addition to these lost NIIP benefits, the No Action Alternative would also jeopardize the proposed $70 million potato processing plant, $20 million in the growing venture for storage buildings and equipment, a 40,000-head feed lot, and a 25-MW steam co-generation plant. This complex alone will employ more than 400 people. The IMPLAN model should explicitly include these components and others for a vertically integrated NIIP. 46

Moreover, the DEIS should not assume that Blocks 1 through 8 are protected under the No Action Alternative. As stated throughout these comments, it is unclear whether any of the existing uses could continue under the No Action Alternative. The Service has never guaranteed that, in the absence of reoperation of Navajo Dam, NIIP could be developed through Block 8 in accordance with the requirements of the ESA. The Reasonable and Prudent Alternative identified in the October 28, 1991 Biological Opinion for Blocks 1 through 8 did not require reoperation of Navajo Dam; however, that biological opinion was issued after the October 25, 1991 biological opinion for ALP that required Navajo Dam to be operated consistent with the flows that would be determined as a result of the seven-year research program as to the flow requirements for the endangered fish. The Service has never opined that reoperation of Navajo Dam is necessary for the development of NIIP through Block 8; however, it is likely that the Service would request that consultation be reinitiated pursuant to 50 CFR § 402.16 if Navajo Dam were not operated consistent with the Flow Recommendations. Thus, the DEIS understates the potential adverse impacts on NIIP if the No Action Alternative were implemented. 47

Comment 36. III-122, Jicarilla Apache Nation Third-party Contract with PNM

The IMPLAN model should include the impacts of losing the water supply to the San Juan Generating Station and the mines. It should also include the impacts at TeePee Junction if that area is not able to receive water from the Navajo-Gallup Water Supply Project. 48

Comment 37. III-123 Bottom Paragraph through III-124

The DEIS assumes a linear correlation between recreation and trout habitat. Given the sensitivity of the results based on this assumption, the DEIS should include greater justification. For instance, much of the habitat loss will only be temporary in nature during 49

CA14-45 Please see the response to General Comment 19. Also, the EIS has been revised to accommodate your concern.

CA14-46 Please see the responses to General Comments 19 and 31f as well as the response to Comment CA14-22.

CA14-47 Please see the response to General Comment 31e.

CA14-48 Please see the responses to General Comments 19 and 31.

CA14-49 Please see the response to General Comment 30.

periods of low flows. The DEIS's assumed relationship should be modified based on the short duration of the low flows. 49 cont.

Comment 38. III-125, Second Paragraph

The DEIS's assumption regarding the impacts on recreation and trout habitat manifests itself in the results on Page III-125. The DEIS does not provide a readily defensible relationship to support the contention that there would be a 10 to 34 percent loss in out-of-state anglers. 50

Comment 39. III-127, First Paragraph

Reclamation's IMPLAN model suggests NIIP would employ 921 employees. However, with vertical integration NIIP will generate thousands of jobs. The potato processing complex alone would generate more than 400 jobs. 51

For San Juan County, the IMPLAN model should also include the economic benefits associated with the economic development associated with the Farmington to Shiprock pipeline. 52

Comment 40. III-127, 500/5000 Alternative, Agriculture

The potential impact to NIIP under the 500/5000 Alternative is potentially greater than the loss of Blocks 9, 10 and 11 that are at risk. The discussion at Comment 35 concerning the No Action Alternative may be equally apposite here. We do not know with any certainty how much development would be permitted at NIIP if the Flow Recommendations are not implemented under the No Action Alternative, or if the 500/5000 Alternative were implemented, which does not satisfy the requirement under the ALP Biological Opinion to operate Navajo Dam in a manner consistent with the Flow Recommendations. Moreover, even if the Dam is operated consistent with the Flow Recommendations, if the endangered fish fail to show a positive biological response, consultation may be reinitiated. Clearly, the Preferred Alternative provides the best chance for completion of NIIP, and any alternative that does not meet the Flow Recommendations puts water development for the Navajo Nation, and all other entities, at greater risk. 53

Comment 41. III-128, Top of the Page

The DEIS does not present any quantified impact associated with the inability to complete the ALP Project. These impacts should not remain unspecified. In the ALP Environmental Impact Statement, Reclamation has prepared very specific estimates of the benefits associated with the 57,100 acre-feet per year of ALP depletions. These quantified benefits should be described in this document. 54

Comment 42. III-129, Hydro-power

This section should be modified consistent with the discussion at *Comment 27*, above. 55

CA14-50 Please see the response to General Comment 29.

CA14-51 The EIS has ben revised to accommodate your concern.

CA14-52 Please see the response to General Comment 19.

CA14-53 Comment noted.

CA14-54 Please see the ITA/EJ section in Chapter III of Volume I.

CA14-55 Please see the response to Comment CA14-27.

Comment 43. III-137, No Action Alternative

The DEIS characterizes the No Action Alternative with the following: "Under the No Action Alternative, river conditions would be similar to those that occurred from 1973-1991, and riparian habitat conditions would remain similar to those that presently occur." For reasons stated at Comment 35, it is unclear what the river conditions would be under the No Action Alternative. The Service opined in the May 7, 1990 Draft Biological Opinion for ALP that the conditions on the San Juan River were already at the point where the fish would be extirpated from the river. Thus, even under the No Action Alternative, it is impossible to say with any certainty what the river conditions would be like because the Service would likely require reoperation of Navajo Dam for the benefit of endangered fish. 56

Comment 44. III-139, 250/5000 Alternative (Preferred Alternative) (Flow Recommendations), Fourth Paragraph

The statement that the 250/5000 Alternative "provides a more natural hydrograph than does the No Action Alternative, and thus would be expected to benefit the fish" is an understatement. The Service has already opined that without reoperation of Navajo Dam, the fish will be extirpated from the river. Thus, under the No Action Alternative, the fish will eventually be extirpated. 57

Comment 45. III-144, Navajo Reservoir, No Action Alternative & San Juan River, No Action Alternative

As discussed above, the No Action Alternative cannot be sustained without causing jeopardy to endangered fish. Thus, the conditions described in this section for reservoir levels and river flows are unlikely to be sustained. 58

Comment 46. III-144, Navajo Reservoir, 500/5000 Alternative & III-144 through 146, San Juan River, 500/5000 Alternative

Nor does the 500/5000 Alternative satisfy the Flow Recommendation. Thus, this alternative is not likely to pass legal muster under the ESA. Thus, the conditions described in this section for reservoir levels and river flows are unlikely to be sustained. 59

Comment 47. III-154, CULTURAL RESOURCES, Impacts Analysis, No Action Alternative

Again, the DEIS assumes that the No Action Alternative can be sustained. In this case, the DEIS states that "the No Action Alternative would result in net impacts similar to those experienced from 1973-1991." Based on that assumption, the DEIS states that "water releases under this alternative would not result in levels as low as those identified under the action alternatives." However, as discussed at Comment 43 above, in 1990, the Fish & Wildlife Service opined that under the conditions existing at that time, the endangered fish were likely to be extirpated from the San Juan River. Thus, it does not appear likely that the No Action Alternative can be sustained. Under these circumstances, it is unclear what the water release patterns may be. The Service could require dam releases to mimic the natural hydrograph or for the dam to be removed entirely. In any event, water releases will be lower than the 1973-1991 levels. In short, the 1973-1991 60

CA14-56 Comment noted.
through 61

conditions are not sustainable; therefore, the DEIS overstates various benefits that could accrue under the No Action Alternative. 60 cont.

Comment 48. III-158, FLOOD CONTROL, Impacts Analysis, No Action Alternative; III-160, NAVAJO DAM OPERATIONS AND MAINTENANCE, Impacts Analysis, No Action Alternative; III-162, SAFETY OF DAMS Impacts Analysis, No Action Alternative; ETC.

Comment 47 is equally applicable to the analysis of impacts on all other components of described as the Affected Environment in Chapter III. 61

ENVIRONMENTAL COMMITMENTS AND MITIGATION MEASURES

Comment 49. IV-1, Environmental Commitments and Mitigation Measures, Reservoir Operations

The DEIS recognizes that there is some flexibility in reservoir releases, due largely to the fact that NIIP is not fully developed. There is the possibility that this water could be used to mitigate some of the impacts resulting from reservoir operations consistent with the Preferred Alternative. However, two points should be emphasized. First, the Navajo Nation should have the ultimate say in how undeveloped Navajo water is to be utilized. And second, mitigation is not legally required; therefore, no entity may require Reclamation to release unused Navajo water as a mitigation measure. Based on the information available at this time, the Preferred Alternative is the only alternative that is legally sustainable, with or without mitigation. 62

SUMMARY

The DEIS provides an overly conservative analysis of dam operations. The benefits from the Preferred Alternative are consistently undervalued, while costs of the adverse impacts associated from that Alternative are consistently overstated. Nevertheless, the DEIS reaches the only conclusion that is technically, legally, and environmentally defensible – that Navajo Dam must be operated consistent with the Flow Recommendations developed to enhance the habitat for the endangered fish in the San Juan River. Thus, the Preferred Alternative is the only alternative that can pass legal muster under the Endangered Species Act and the Nation Environmental Policy Act. 63

CA14-62 Please see the response to General Comment 11.

CA14-63 Please see the response to General Comment 31e.

Durango Official File Copy

THE SOUTHWESTERN WATER CONSERVATION DISTRICT

A Municipal District Organized Under State Law For Development And Conservation Of The Waters In The SAN JUAN AND DOLORES RIVERS AND THEIR TRIBUTARIES IN SOUTHWESTERN COLORADO

West Building — 841 Second Avenue
Post Office Box 475
DURANGO, COLORADO 81302
(970) 247-1302 • Fax (970) 259-8423

November 1, 2002

Carol DeAngelis
US Bureau of Reclamation
2764 Compass Drive
Grand Junction, Colorado 81506-8785

Re: Navajo Unit Re-Operation EIS, Comments on Draft EIS

Dear Carol:

The Southwestern Water Conservation District (SWCD) is pleased to provide these comments on the September, 2002 Draft of the Environmental Impact Statement (DEIS) for the Navajo Reservoir Operations. The completion of this EIS will allow the Flow Recommendations for the San Juan River Basin Recovery Implementation Program (SJRIP) to proceed. Overall the DEIS appears to address the major issues. The following comments regard specific sections of the DEIS.

Comments:

S-1, First paragraph of the Executive Summary. Recommend that the last portion of the sentence "in a manner which allows for both current and certain future water depletions to proceed" be deleted. This statement is contradictory to the goal of the SJRIP to "enable water development to proceed". The Navajo EIS allows the Flow Recommendations to be implemented and will therefore likely provide for water development well beyond "certain future water depletions". The statement gives the impression that the EIS applies only to "certain future water depletions" which is not correct. 1

S-12, First whole paragraph. The statement "Some flexibility in reservoir releases already exists because water committed for present or future development is not currently used." My understanding of the Flow Recommendations is that flexibility does NOT exist. The annual volume and daily flow releases are controlled by the criteria in the Flow Recommendations and there are no provisions for much flexibility, if any. The Flow Recommendations require a release of 250 cfs from Navajo Reservoir unless a spring peak is being released according to set critieria, or there is not 500 cfs in the habitat reach as defined in the Flow Recommendations. There is NO flexibility to increase the 250 cfs release because some future water is unused. Flexibility may be good idea but a change of the Flow Recommendations will be required to implement the idea. Therefore, the EIS should state that there is physical flexibility but a change in the Flow Recommendations will be necessary and no proposal for change has been made as a result of this EIS process. This issue shows up numerous times in the EIS and I will note a few. 2

CA15-1 Comment noted.

CA15-2 Please see the response to General Comment 11. The Flow Recommendations can also be met when future projects that have obtained ESA clearance are implemented. This does not mean that future projects without ESA clearance would not occur. They would be reviewed individually by the Fish and Wildlife Service to determine if they could proceed without jeopardizing endangered fish populations and their designated critical habitat.

I-2, first paragraph. same comment as S-1 above | 3

II-10, Second bullet under "Reclamation will also do the following". The Durango Pumping Plant has a capacity of only about 280 cfs. How is Reclamation going to limit pumping to decrease releases from Navajo. If Reclamation curtails all pumping, wouldn't the 250 cfs be used by other diverters before it ever reached the San Juan in a dry year? Assuming the 250 cfs could reach the San Juan River, that amount may not show up at the gages because it is so small. This supposed action sounds good but has little or no practical benefit in meeting the Flow Recommendations. | 4

II-11 & 12, First bullet under "Variables". Suggest that only the first sentence be included in bullet 1 and the last two sentences be deleted. The last two sentences do not involve forecasting and confuse the intent of the bullet. | 5

II-12, Number 2 bullet under "variables". The Flow Recommendations describe exactly how releases are to be made from Navajo Reservoir to match the Animas Peak. There is no variable with this issue. Does Reclamation propose to change the Flow Recommendations for matching the Animas peak? If so that proposal should be described. Otherwise this bullet should be deleted because it is not a variable. | 6

II-23, footnotes 8 and 9. These footnotes are misleading because they indicate that there is flexibility in use of gages and releases. This is not the case. The Flow Recommendations are very specific on both counts. Therefore the "flexibility" referenced in the footnotes is dependent on changing the Flow Recommendations and this should be acknowledged. | 7

II-23, paragraph beginning "Some flexibility ..". Same comment as in S-12 above. In addition the statement "The regulation of this water would be determined through the Navajo Unit operation meetings and discussions with the Service" is not true. The regulation of releases from Navajo Reservoir is controlled by the Flow Recommendations and flexibility exists only if the Flow Recommendations allow for flexibility. Unfortunately there is no flexibility in how the releases are made once the volume of water available in Navajo is determined. The releases cannot be determined by Reclamation in consultation with anyone. In short, the Flow Recommendations must be followed unless changed. | 8

III-15, bullet #2 under "Impact Analysis". The first paragraph, second sentence is misleading. The Flow Recommendations are NOT the RPA for projects, the SJRIP is the RPA. The Flow Recommendations are only one component of the SJRIP. This concept would be better explained as follows: "If an alternative is selected that does not allow the Flow Recommendations to be met, and though the Flow Recommendations are only one component of the SJRIP, the Fish and Wildlife Service may decide that the SJRIP is not making sufficient progress towards recovery and is no longer an RPA for existing and future depletions." | 9

III-19, under "Summary of Impacts", 250/5000 alternative. Suggest the description be reworded to read: "Positive impacts would occur for projects which have received environmental clearance and therefore, this alternative has the best potential for future water development." The part to be left out is unnecessary and confusing. | 10

CA15-3 Comment noted.

CA15-4 Pumping would be decreased or stopped during certain periods in order to meet the Flow Recommendations. When there have been no endangered fish releases from Navajo Dam for three years and the planned release for the current year is the minimum release specified in the Flow Recommendations, the Durango Pumping Plant would not pump during June, increasing flow in the Animas River by an additional 280 cfs to meet Flow Recommendations for endangered fish below the Animas River confluence in the San Juan River. Since the 280 cfs is in addition to the water needed for downstream diversions, it is assumed that the 280 cfs will not be diverted. This action would allow Navajo Reservoir to conserve stored water by not having to release this volume of water.

CA15-5 The EIS has been revised to accommodate your concern.

CA15-6 The bullet refers to base flow periods, not peak flow periods, and therefore is appropriate.

CA15-7 The EIS has been revised to accommodate your concern. See the responses to General Comments 11 and 15.

CA15-8 Please see the response to General Comment 11 concerning flexibility.

CA15-9 through 13 The EIS has been revised to accommodate your concern.

III-24, Table of Tribal uses. The 1850 acre-feet of Southern Ute water on Stollsteimer Creek is composed partially of existing uses and partially of new uses. Therefore, a portion of the 1850 acre-feet and the 3.5 cfs is included in the existing uses. Reclamation should check with Southern Ute Indian Tribe attorneys for exact amounts. | 11

III-34, last sentence of the paragraph beginning "It was outside the scope ...". I believe the Navajo settlement is the only remaining quantification. The sentence gives the impression there are others. | 12

III-38, paragraph beginning with "Reasonable alternatives to operating ..". This entire paragraph fails to reflect the procedures established for Section 7 consultations. Suggest that the paragraph be removed and a reference to the Principles of Consultations be included. | 13

III-40, paragraph beginning with "Water use on the reservation ...". The comparison of 10 to 100 gpcd on the reservation which is for individual homes with the 206 gpcd for Arizona communities is not appropriate. The reservation use is primarily for individual homes, whereas the use of communities includes significant commercial and tourist water usage which likely doubles the gpcd. This paragraph grossly oversimplifies a complex evaluation of reservation water usage. It should be expanded significantly or deleted. I do not believe the 89,000 acre-feet is used again so this section could be deleted. | 14

III-43, last paragraph under "Methodology". The model is incorrectly named. See John Simons for the correct name. Also, the reference to a new model is not appropriate. I would suggest the entire paragraph be deleted or shortened to just refer to the model and not changes to the model. | 15

III-70, paragraph beginning "It is concluded ..". The assumption that angler losses will be directly related to changes in trout habitat has no basis. Recommend that a better indicator be used. | 16

III-123, last paragraph beginning with "The recreation section identifies ...".The statement that "if one were to assume that there is a linear correlation between recreation and trout habitat ..." has no basis. See comment for page III-70. | 17

III-143, paragraph "Animas River to Lake Powell". The conclusion that "overgrazing by livestock is one of the major factors adversely impacting riparian vegetation" is not supported by backup data. Please include support data or delete. | 18

III-182, Biodiversity section. This section is more philosophy that science and does not belong in the EIS. This needs to be completely rewritten, it is primarily based on the personal beliefs of unknown persons based on theories tested during the last 10 years on the San Juan River and found to not be true. This is a grossly misleading section. | 19

(1) The following sentence has absolutely no scientific basis: "It is generally accepted that the more natural an environment remains, the healthier, or better able, it is to withstand all but major

CA15-14 Comment noted.

CA15-15 The EIS has been revised to accommodate your concern.

CA15-16 Please see response to General Comments 29b and 30.

CA15-17 Please see response to General Comment 30.

CA15-18 Comment noted.

CA15-19 Comment noted.

catastrophic events." Who is it generally accepted by? What is definition of "healthier"? What is a natural environment?

(2) The premise "and indirectly, through changes in water quality, as a result of the water acquiring salts, pesticides and fertilizers" was well tested through data collection in the 1990's and it was found to not be an issue. Refer to the Program Evaluation Report prepared by the Biology Committee. 19 cont.

(3) The data collected in the last 10 years indicate that the implementation of the Flow Recommendations have been neutral at best to native and non-native fishes.

IV-1, 3rd paragraph under "Reservoir Operations" beginning with "Some flexibility …". See comments on S-12 and II-23 above. 20

Biological Assessment page 12 paragraph beginning with "Two areas of flexibility …". See comments on S-12 and II-23 above. 21

Biological Assessment page 22 paragraph beginning with "There is potential …". Again testing over the last 10 years has shown that water quality is not a constraint to endangered fish recovery and the statements indicating there is a problem should be deleted. 22

Biological Assessment page 12 paragraph beginning with "Two areas of flexibility …". See comments on S-12 and II-23 above. 23

Biological Assessment page 24 paragraph beginning with "Overall, the proposed …". Please provide data to show that low flow water quality is a problem to endangered fish. I thought the problem was with non-native fish and some native fish upstream from Animas River confluence. 24

Please contact Steven Harris (970-259-5322), the engineer for SWCD if you have any questions regarding these comments.

Sincerely,

Fred Kroeger, President

CA15-20 Please see the response to General Comment 11.

CA15-21 Please see the response to General Comment 11.

CA15-22 Please see the response to General Comment 20f.

CA15-23 Please see the response to General Comment 11.

CA15-24 Please see the response to General Comment 20f.

Durango Official
File Copy

1020 10th Street
Boulder, CO 80302

Law Office
Of
Daniel H. Israel, P.C.

Ph: 303-543-0384
Fax: 303-494-1297
e-mail: Adam Atronics@aol.com

November 29, 2002

To: Carol D'Angelis
Bureau of Reclamation
Grand Junction, Colo

From: Dan Israel. counsel for the Ute Mountain Ute Tribe

Re: **Comments of the Ute MT Ute Tribe to the Sept. 2002 draft Navajo Reservoir EIS Rights**

The EIS continues to avoid any mention of the Tribe's federal reserved water right claims on the San Juan River. The Tribe has an 1895 claim that we will be asserting for municipal purposes. While the San Juan River does not flow through the Reservation, a reserved right water claim for a Tribe using surface supplies from a river that flowed near but not on the Reservation was recognized in Arizona v. California. Moreover, the San Juan generating station – located just off our Reservation – uses nearby coal and San Juan River water, so we have a strong economic model. The United States will be asserting a claim on our behalf as well. The description of tribal water rights in the San Juan River must be amended to include these senior claims. 1

Future Water Development. The EIS briefly addresses a future circumstance where a party – say the Ute Mountain Tribe – wants to utilize its 1868 priority San Juan River supply. In the event we needed to secure a new depletion from the Endangered Species Act recovery program to deplete this allocation, we would need to make a showing of sufficient progress under the ongoing recovery program – that is we would need to show that there has occurred a positive fish response and there has occurred adequate flows. In the event additional depletions were not permitted, the Tribe would be forced to" bump" a junior depletion holder. This problem – unique to Tribal reserved water rights – needs to be discussed in the EIS. 2

The Tribe is also concerned with what the draft EIS describes as several significant impacts to a variety of economic interests. The preferred alternative calls for low flows in the range of 250-5000 cfs. Basically this calls for low flows at several points in the year to create suitable backwaters and is also used to save water in the reservoir to allow for spring high flows. This alternative meets the flow recommendations, but causes economic injuries. For example, the well known trout fishery just below the dam loses up to 34% of its habitat when flows go to 250 cfs. At the same time the research shows that there is no trout stranding and no deterioration in water quality. So, the actual impact to trout may be modest. 3

As expected, there is a loss of rafting because of the reduction in flows. Also it is projected that guided fishing trips using floating devices would be reduced by up to 50%. While

CA16-1 The EIS has been revised to accommodate your concern.

CA16-2 Please see the response to General Comment 18e.

CA16-3 Please see the responses to General Comments 29 and 31.

the summer of 2001 short 250 cfs test was found to have provided sufficient water for senior ditches, the EIS contains a list of 30 or so ditches and costs estimated by Reclamation which would have to be taken to assure that the ditches function during a low flow. Also the EIS states that with the high spring flows, Navajo Reservoir levels can be expected to drop on average from 10 to 30 feet. The 30 feet drop would be in a worst case drought. Obviously such reductions can have serious economic ramifications primarily in Colorado. 4

Finally. Farmington has a right to all flows which pass out of the Reservoir for use for hydropower. The EIS projects that with the new flow regime, Farmington could lose up to $54-million in power, for it would have spent that amount of money to buy substitute power. 5

We request that Reclamation review its flow operations to determine whether endangered fish recovery can proceed with fewer impacts to our non-Indian neighbors. Thank you for your consideration of these matters. 6

CA16-4 Comment noted.

CA16-5 Comment noted.

CA16-6 Comment noted.