

Finding of No Significant Impact
for the
ENVIRONMENTAL ASSESSMENT
FOR THE CHILOQUIN DAM FISH PASSAGE PROJECT
Klamath County, Oregon

In accordance with the National Environmental Policy Act and GSA Order ADM 1095.1F, implementing the regulations of the Council on Environmental Quality (40 CFR 1500-1508), I find that approval of the proposed action, removal of the Chiloquin Dam, will not constitute a major federal action significantly affecting the quality of the human environment. My finding is based on the attached final Environmental Assessment (EA) dated April 27, 2005, the Biological Opinion issued by the U.S. Fish and Wildlife Service (Service) dated June 28, 2005, and comments received from the general public. The implementation of the Dam Removal Alternative would result in the removal of the Chiloquin Dam and all of its associated structures, including the fish ladders, water delivery measures, and the concrete structures.

Removal of this gravity diversion dam would create the need for an alternative method of water delivery to Modoc Point Irrigation District (MPID). Switching from gravity to pumping plants would require that a fund be established to cover the increased electrical costs associated with pumping. The construction of new pumping plants and associated pipelines, in addition to fish screens, would be required at the water intakes to prevent fish entrainment. This project is anticipated to begin in March 2006, and be completed by December 2007.

My finding, as a Bureau of Indian Affairs (BIA) decision-maker, is in accordance with Section 1501.4(e) of the Council on Environmental Quality Implementing Regulations and, therefore, an Environmental Impact Statement will not be required.

This determination is supported by the following findings:

1. Agency, tribal and public meetings were conducted and environmental issues related to development were identified. See pages 89 through 93 of the EA and the attached public comment matrix, in which public comments are summarized and responses are provided.
2. The EA discloses the environmental consequences of a No Action Alternative, the Action Alternative, Dam Retention with Fish Passage Improvements Alternative, and a Partial Dam Removal Alternative. See Chapter 4 of the EA.

3. In accordance with Section 106 of the National Historic Preservation Act (NHPA), an archaeological survey which meets the appropriate Secretary of Interior Standards and Guidelines for archaeological work (36 CFR 61) was conducted. Consultation with the Oregon State Historic Preservation Officer is ongoing. The BIA has determined that this project will have no effect on cultural or historic resources.

In addition, in the event archaeological materials or human remains are discovered during project activity, work shall stop in the immediate area of the discovery. The Tribe and BIA will be notified, and the appropriate provisions of Section 106 of the NHPA; the Native American Graves Protection and Repatriation Act (NAGPRA), and the Archaeological Resources Protection Act (ARPA) shall be followed.

4. The BIA determined and the Service concurred that implementation of the proposed project has a "may affect, not likely to adversely affect" determination for the bald eagle (*Haliaeetus leucocephalus*) and a "may affect, likely to adversely affect" determination for the Lost River sucker (*Deltistes luxatus*) and the shortnose sucker (*Chasmistes brevirostris*). In addition, the project "may affect, but is not likely to result in the destruction or adverse modification" of the proposed critical habitat for both species of suckers.

The Service states in their June 28, 2005 Biological Opinion:

Section 9 of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act, provided that such taking is in compliance with the terms and conditions of a Biological Opinion's (BO) incidental take statement.

The Service concludes that based on the effects analysis, some suckers, mostly larvae, will likely be harassed, harmed, or killed as a result of the proposed action. Take is exempted under this BO from section 9 prohibitions for all listed suckers as a result of the proposed action, as long as the action is implemented as proposed and if the terms and conditions are also implemented as described in the BO. Take exemption will be in effect for the construction phase of the Project until it is completed on or about January 2007. Incidental take coverage provided by this BO for the proposed action extends to the BIA and its contractors, and to the MPID and its members as long as the Reasonable and Prudent Measures (PRMs) and Terms and Conditions (T&Cs) are being met.

The following Terms and Conditions implement Reasonable and Prudent Measures and are non-discretionary:

Term & Condition # 1: BIA minimizes take of suckers by ensuring that a

biologist will be on-site during key dewatering activities including the fish screen construction and Main Canal dewatering, and that salvaged suckers are released unharmed to the maximum extent possible.

Term & Condition # 2: MPID minimizes take of suckers as a result of fish screen operating by ensuring that:

- a. The fish screens are regularly inspected and properly maintained per instructions in the operations manual so they remain in good working order; and
- b. An inspection and maintenance log is kept for the main fish screen and a copy of the log is provided to the Service if requested.

Monitoring Requirements:

By January 1 of each year and until the proposed action is completed, BIA needs to provide the Service with a brief summary of Project implementation and the degree to which they believe take did or did not occur.

Reinitiation:

According to 50 CFR §402.16, reinitiation of formal consultation is required and shall be requested by the federal agency or by the Service, where discretionary Federal involvement or control over the action has been retained or is authorized by law and:

- a. If the amount or extent of taking specified in the incidental take statement is exceeded;
- b. If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered;
- c. If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion; and
- d. If a new species is listed or critical habitat designated that may be affected by the identified action.

In instances where the amount or extent of incidental take is exceeded, the BIA must immediately request reinitiation of formal consultation.

5. The proposed action would not cause a significant effect on energy resources, water resources, or wetlands. See pages 42, 58, and 69-70 of the EA.
6. The proposed action could improve public health or safety. See page 73 of the EA.
7. The proposed action does not affect unique characteristics of the geographic area such as proximity to park lands, prime farmlands, wild and scenic rivers, or ecologically critical areas.

8. The proposed action does not produce highly controversial effects on the quality of the human environment.
9. The proposed action does not have highly uncertain effects on the human environment or involve unique or unknown risks.
10. The proposed action does not establish a precedent for future actions with significant effects or represent a decision in principle about a future consideration.
11. There would be no disproportionately high and adverse human health or environmental effects on minority or low-income communities as defined by (E.O. 12898 Environmental Justice) and Title VI of the Civil Rights Act of 1964 (pages 73-74 of the EA).
12. The action is not related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment.
13. The action will not adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or cause loss or destruction of significant scientific, cultural, or historic resources.
14. The proposed action does not threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment.
15. The cumulative effects would not contribute to actions with individually insignificant but cumulatively significant impacts.

COMMENTS AND APPEAL RIGHTS

Individuals and entities who may be affected by, or interested in, the proposed action may provide oral comments regarding this FONSI and the accompanying EA to the BIA's Regional Office at (503) 231-6749. Written comments may be sent to 911 Northeast 11th Avenue, Portland, Oregon 97232. Comments will be accepted during a 30-day comment period that begins from the date the Notice of Availability for this FONSI is first published. Comments will be considered by this office prior to implementing the proposed action.

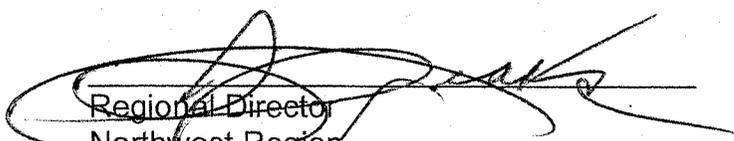
The opportunity to comment is not a right to appeal this FONSI or EA. Any challenge to the adequacy of this FONSI or EA must be made, if at all, in an appeal of the decision that relies upon this FONSI and EA.

For additional information concerning this FONSI or the BIA appeal process, contact June Boynton at the address /phone provided above.

PUBLIC COMMENT AVAILABILITY

FONSI – CHILOQUIN DAM FISH PASSAGE PROJECT EA, KLAMATH COUNTY, OREGON AUGUST 2005

Comments, including names and addresses of respondents, will be available for public review at the BIA address provided in the "CONTACT INFORMATION" section, during business hours, 8:00 a.m. to 4:30 p.m., Monday through Friday, except holidays. Individual respondents may request confidentiality. If you wish us to withhold your name and/or address from public review or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning of your written comment. Such requests will be honored to the extent allowed by the law. We will not, however, consider anonymous comments. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public inspection in their entirety.



Regional Director
Northwest Region
Bureau of Indian Affairs
U.S. Department of the Interior

8/15/05
Date

**CHILOQUIN DAM FISH
PASSAGE PROJECT
Comments on
Environmental
Assessment
August 11, 2005**

Name of Commenter	Designation
Dino Herrera	A
Melinda Cauvin (Letter 1)	B
Glen and Bonnie Kircher	C
Laura Schroeder	D
Bill Boyd	E
David and Jacqui Krizo	F
Melinda Cauvin (Letter 2)	G
Tom Burns	H
Roy Gienger	I
Charles Burt	J

Des.	Comment	Response
A	Recommends Traditional Cultural Properties (TCP) study.	The project is in compliance with the National Historic Preservation Act, of which a TCP is a component.
F	List reasons to remove the dam.	Please see EA, Section 1.1, Purpose and Need.
C	The EA only provides superficial and anecdotal analysis of the human environment and does not quantify those impacts.	See the EA, Pages 72 and 73. In addition, the BIA and MPID developed a mutually acceptable Cooperative Agreement that outlines the roles, responsibilities, and actions of both the government and the district. Human environmental impacts are further discussed and mitigated in the Cooperative Agreement.
C	Would like an update on the status of the Fish and Wildlife Service consultation.	The Fish and Wildlife Service has concurred with the effect determinations stated in the EA on Pages 68 and 69.
C	Wants EA to address the impacts to water delivery, land reclamation, and access in more detail.	Please see EA, Section 4.0.
C	Identify the adverse effects of abandoning the canal with regards to agriculture and riparian wetlands.	The wetlands in and near the canal are not considered jurisdictional to the Corps of Engineers, as they were constructed with the sole purpose of delivering water to irrigators and become dry during the off season. Most of the canal will be left open and will still capture

		precipitation and runoff during wet times of the year. The portion of the canal to be backfilled will be planted with pasture grasses to facilitate livestock grazing for the landowner.
C	Provide a brief summary of the detailed reports referenced in the EA.	As mentioned in this comment letter, it is appropriate for an EA to incorporate technical documents by reference only. These documents are available upon request.
C	Need landowner approval to use haul route described in EA in Section 3.13.	Haul routes across private property and landowner approvals are detailed in the Cooperative Agreement developed by MPID and BIA.
C	To what degree does the proposed action involve unique or unknown risks?	The FONSI concludes that an EIS is not warranted (i.e., there are no significant impacts), so there is little or no likelihood of the proposed action involving unique or unknown risks.
C	To what degree does the project establish a precedent for future dam removal actions?	Dam removals are relatively uncommon and are analyzed and implemented on a case-by-case basis. Therefore, it is unlikely that this project will set a precedent for future projects that are considering dam removal as a preferred action.
C	Are the effects of other projects in the Basin, when considered cumulatively with dam removal, considered significant?	<p>No. It is anticipated that when combined with restoration activities above the dam, that the project will have an overall beneficial effect to the natural and human environment. The Council on Environmental Quality's regulations (40 CFR, Section 1500-1508) implementing procedural provisions of NEPA, define cumulative effects as: "The impact on the environment which results from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions" (40 CFR, Section 1508.7).</p> <p>The CEQ's handbook, <u>Considering Cumulative Effects Under the National Environmental Policy Act</u> points out that "Scoping is the key to analyzing cumulative effects." The BIA carefully involved the public and collaborators in scoping this EA to ensure that the alternatives and the affected environment capture the impact of reasonably foreseeable effects. All Federal, state, and local agencies, private land owners, and other interested parties involved in Klamath</p>

		<p>Basin planning were invited to participate in scoping, and to participate on an ongoing basis as collaborators.</p> <p>For example, as a result of this process and the BIA's planning, the construction of new pumping facilities was incorporated into the proposed action, although these facilities are not located at the Chiloquin Dam site. Two other examples of the consideration of cumulative effects include potential habitat improvement upstream of Chiloquin Dam, and an analysis of compatibility with the Northwest Forest Plan, to which the U.S. Forest Service contributed.</p> <p>The BIA has determined that the potential effects of the proposed action do not rise to the level of significance as described in this FONSI.</p>
C	The benefits of the project to endangered species appear speculative and presumptuous.	Biologists from the ODFW, USGS, Fish and Wildlife Service, Forest Service, and Reclamation, all concluded that the benefits to listed suckers (as well as many other species of aquatic life) are clear and present. These benefits are discussed in Chapter 4 of the EA.
C	Discuss more clearly both the beneficial and adverse impacts of the project, and consider whether significant impacts exist.	See Chapter 4 of the EA, for a discussion of project impacts. The FONSI concludes (after detailed studies and collaborator input) that there are no significant impacts as a result of this project.
C	Requests another 30 days to review the EA.	Public comment periods are not a required component of the EA process under NEPA. The 30-day comment period was an "above and beyond" measure provided to the public by the BIA. In addition, collaborators (including landowners) have met several times annually over the past two years to provide input for this project.
E, C G, I, B	Will funding be adequate to offset any economic impact to the district?	Please see the EA, Page 73. Funding issues are also described in the Cooperative Agreement developed by MPID and BIA.
E, C	MPID established seven conditions for dam removal that have not been met.	Conditions established for dam removal are described in the Cooperative Agreement developed by MPID and BIA.
E, D	Adequate passage for fish is not clearly defined.	The EA describes the environmental consequences of removing Chiloquin Dam (the proposed action) and three other alternatives in

		order to determine if a Finding of No Significant Impact is warranted. The EA allows for a comparison of the potential affects resulting from the alternatives, but does not establish a threshold for which alternatives are adequate.
	Describe what fish population is adequate in order to remove fish from the endangered list.	The BIA does not have authority for determining the status of endangered species or critical habitat under the Endangered Species Act. See EA, Section 4.4, for a discussion of potential impacts to endangered species and critical habitat.
E, G, D, B	What is the impact on the environment by the new and permanent demand on power resources?	Annual power requirements for the pumping plant amount to less than 843 thousand kilowatt-hours (kWh) of electricity. This quantity of power is equivalent to an expected generation capacity of about 200 kilowatts (kW) at a 50% capacity factor (the percentage of capacity actually available for generation on an annual basis). This amounts to about 0.4% of the output of a single, natural gas-fired, combined cycle combustion turbine (CCCT) power plant with a typical capacity of about 500 megawatts (MW). In comparison, if the load were to come from a coal plant, which has a higher capacity factor of about 90%, the load would amount to needed capacity of 105 kW, or about 0.2% of a typical 500 MW plant capacity. Pacific Power anticipates that by 2011, 550 MW of CCCTs will be added to their generating resources, along with 600 MW of pulverized coal. Both types of power plants will be located in Utah. Based on a mix of 48% CCCT with a moderate heat rate of 8700 Btu/kWh (the Btus required to produce one kWh of electricity) and 52% of a coal plant with a heat rate of 9500 Btu/kWh, producing in combination all of the power required for the new pumping plants (ignoring renewables, existing generators, and conservation) the following approximate level of annual emissions may be expected from the power plants to meet this load: 275 pounds of sulfur dioxide, 373 pounds of nitrogen oxides, 3739 pounds of mercury, and 699 standard tons of carbon dioxide. This is approximately equivalent to the power consumption and associated emissions of 16, all-electric, new

		houses, based on the same generating resource mix. Pacific Power's estimated generating plant development and emission factors were taken from the 2004 Pacific Power Integrated Resource Plan, published in 2005, and its technical appendices, available at www.pacificpower.net .
E, G, B	How do the cost estimates for alternatives developed by CH2M Hill compare with the current cost estimates?	The cost estimates from the 1995 CH2M Hill study were included in a review of the literature included in the first phase of the <i>Chiloquin Dam Fish Passage Study</i> prepared in 2003 (see Attachment 8) and referenced in the EA. The CH2M Hill states that estimates were based on the author's experience and not on an engineering analysis of the facility. The cost estimates included in the EA are based on specific engineering analyses of the alternatives.
E	The EA is not clear on the relative importance of the Upper Klamath Lake, Williamson River, and Sprague River as spawning areas.	See EA, Sections 3.2 through 3.4 and 4.2 through 4.4 for discussions of these areas.
E	On Page 31, the EA states that 95% of the historical spawning runs are eliminated by Chiloquin Dam. Does this mean 95% of the Sprague River is above Chiloquin Dam, not the spawning area?	The reference in the EA is a citation of a 1988 document prepared by the U.S. Fish and Wildlife Service and that document should be consulted for the full context of the information. Page 3 of the EA states that: " <i>Chiloquin Dam is a partial barrier to approximately 80 miles of habitat for the endangered shortnose and Lost River suckers...</i> "
E	On Page 32, the EA states a total of 2,549 adult suckers were captured at the fish ladder; however, there is no information on how this number relates to the total population or the pre-1988 count.	The EA states (as was pointed out in this letter) that prior to listing in 1988 the spawning population was as low as 2,650 shortnose suckers and 11,680 Lost River suckers. The count from the fish ladder was determined in 2002. The full report of the fish count study should be consulted for the full context of the results.
E	Who will monitor sediment and fish populations?	The BIA, ODFW, USGS, Fish and Wildlife Service, Reclamation, and the Klamath Tribes have agreed to develop a monitoring plan to determine how fish populations and sediment levels respond to dam removal.
E,	Who will dredge sediment from	Dredging activities conducted by other agencies

D	Williamson River and Upper Klamath Lake and who pays?	may have occurred in the past, but dredging sediment from any location is not part of the proposed action or any of the alternatives.
E, D	Does dam removal include sediment, logs, and debris?	Sediments will move via natural river flows. A submerged car in the reservoir will be removed and disposed of. In addition, the BIA will remove a log crib in the front bay of the reservoir, which was built during dam construction, as well as other materials generated from deconstruction.
E	Recommends alternative sediment disposal.	BIA considered alternative sediment removal methods, but concluded that natural dispersal poses no significant impact based on sediment transport and toxicity studies and that alternative sediment disposal was unnecessary.
E	What if the dam is removed during a month other than October?	The proposal is to remove the dam in October.
E	EA should address ownership of dam, etc.	The dam is owned by MPID (see Figure 3-2, map of ownerships).
E	What was the message from Congress?	See Page 1 of the EA and the Summary (Page S-1) of the <i>Chiloquin Dam Fish Passage Study</i> prepared in 2003, for authorizations provided by Congress. In general, Congress directed the Secretary of Interior in 2002 to conduct a study to determine the feasibility of providing fish passage at Chiloquin Dam, including a dam removal option. In 2004, Congress authorized and the Secretary of Interior directed the BIA to conduct the necessary engineering and environmental studies to provide fish passage at Chiloquin Dam, including dam removal.
E	The MPID should have the right to perform any required operation and maintenance at any time without delay on the pumping plants.	The MPID will have this right unless they conduct activities outside the standard operating procedures developed for operation and maintenance of the fish screen, main pumping plant, and smaller pumping stations.
E, D	The Williamson and Sprague Rivers have been proposed as critical habitat for the suckers. The EA should state in detail how any special management protection will impact MPIDs ability to operate and maintain their facilities...and impact of costs associated with any	See previous response. Critical habitat designation falls under the jurisdiction of the Fish and Wildlife Service, and future costs and management direction are unknown at this time.

	requirements.	
E	Section 4.4.3 states “Construction activities at the dam site would be similar to the Dam Removal Alternative.” It is difficult to imagine that construction of a fish ladder is similar to demolition of a dam, impact on sediment and debris, and construction of several pumping plants.	See Chapter 2 for a description of the alternatives. The EA states that only the Proposed Action (Dam Removal) includes construction of the pumping plants to replace the dam. Construction activities that are similar in some of the alternatives include driving equipment to the dam, providing access roads to the dam, operating heavy equipment at the dam, operating equipment in the Sprague River, creating noise at the dam, and having work crews in the town of Chiloquin. See Section 4.4.3 for a description of differences that would arise from construction of fish ladders below the dam, such as covering existing riffle areas.
E, G, D, B	Foregone conclusion regarding the alternatives.	The EA describes the environmental consequences of removing Chiloquin Dam (the proposed action) and three other alternatives in order to determine if a FONSI is warranted. For many potential impacts, such as sediment dispersion, the removal of the dam represents the greatest potential impact to the environment. By evaluating the greatest potential impact and determining whether it reaches the threshold of significance, it is probable to conclude that lesser impacts (i.e., other alternatives) will also not reach the level of significance. The BIA has determined the level of significance for this project does not warrant the preparation of an EIS.
E, D	Construction schedule allows for only an EA, not enough time for an EIS.	The schedule would have been changed to accommodate the development of an EIS if an EIS had been warranted.
E	Will Section 106 consultation be completed prior to construction?	An EA does not require that resource consultations be completed before a FONSI is issued. Culture resource sites will either be avoided or mitigated, and contract language will further ensure their protection.
E	Are there additional areas that need archaeological surveys and how would they affect the project and the cost?	Section 4.6.2 states that unsurveyed areas will be surveyed prior to any ground-disturbing activities. BIA has contracted and funded the Klamath Tribes to conduct cultural surveys.
E	What is a “major role” with regards to subsistence of the Klamath Tribes and how does that impact the endangered	This is not under the scope of the EA to address.

	suckers?	
E	Section 4.9.2 is incomplete.	Costs are discussed in the Cooperative Agreement developed by MPID and BIA. All costs associated with construction and operation of a new pumping plant will be included within this agreement, including power, long-term capital maintenance, and rehabilitation.
E	What is the cost of the revegetation plan?	As stated in the EA, Page 49, the dewatered reservoir area will be given one year to revegetate naturally. All other ground disturbed by construction will be replanted in accordance with BMPs, landowner requirements, and Forest Service protocols.
E	Figures 4.2 and 4.3 do not portray the design structure.	A plan elevation for the proposed structure is shown in Figure 2-1, Pages 7 and 74 of the EA.
E, C	Who owns and is responsible for the dam salvage materials and who selects the sites for their disposal?	MPID owns all right, title, and interest to the dam and any salvage materials. The EA identifies potential disposal areas for materials from dam demolition.
E	Section 5.1: " <i>A fund would be established</i> " appears to be an incomplete sentence.	The complete sentence should read: " <i>A fund would be established to cover the increased electrical costs associated with pumping and operation.</i> " This same sentence appears in Section 4.9.2.
E	Discuss "substantial habitat improvement" upstream of the dam and associated costs (Section 5.2, Page 85).	In the summary, Section 5.2, the EA states that: " <i>Currently, substantial habitat improvement is needed upstream of the dam.</i> " Page 3 of the EA states that " <i>The BIA believes improved fish passage at Chiloquin Dam will be instrumental in taking full advantage of the benefits of upstream habitat restoration that may occur over time.</i> " None of the upstream habitat improvements or costs are included in this proposal. See <i>Chiloquin Dam Fish Passage Study</i> prepared in 2003, which provides preliminary estimates of the cost of upstream restoration opportunities.
E	What is the potential for suckers to move upstream of the dam to access new habitat (i.e., change their behavior)?	Under the proposed action, habitat downstream of Chiloquin Dam will still be available for fish preferring that environment, but biologists expect suckers will pass the former dam site and colonize upstream habitat. Continued monitoring of fish movement will occur after dam removal.
G, B	BIA is not an impartial agency.	The BIA is the lead agency undertaking the NEPA process for the proposed action.

G, B	Information was not developed within the parameters of the Data Quality Act.	The Data Quality Act generally requires sufficient transparency about data and methods such that an independent reanalysis could be undertaken by a qualified member of the public. The EA and its supporting documentation provides this level of information and the comment period has provided an opportunity for the public to review and comment on the analyses and data. The Department of Interior's regulations suggest that requests made under the Information Quality Guidelines for corrections of information in draft NEPA documents will be treated as a comment on the draft document. If the bureau or office determines that the requester had the opportunity to comment on an issue at the draft stage and failed to do so, it may consider the request to have no merit. The EA was available for comment for 30 days and this language from the regulations suggests that questions regarding information quality should have been raised in this process.
G, B	What is the legal authority for dam removal?	The Snyder Act , 25 U. S. C. Section 13, and the Fiscal Year 2005 Interior Appropriations Act provides the legal authority for BIA to implement this project.
G, I	What is the effect of the project on MPID's water rights, since they are not adjudicated yet?	OWRD has advised BIA that changing the point of diversion for MPID from Chiloquin Dam to the proposed pumping plant locations poses no risk to the district's water rights claim.
G, B	There is no cost-benefit analysis in the EA.	That is correct. NEPA does not require a cost-benefit analysis. In regulations regarding environmental documents, the Council on Environmental Quality regulations (Section 1502.23) state that " <i>For purposes of complying with the Act (NEPA), the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations.</i> "
G	There is no valid scientific analysis of the impact of silt and debris in riffles and on the mouth of the Williamson.	The analysis of silt is described in Sections 4.3 and 4.4 of the EA. Debris, such as logs, will redistribute with natural stream flows once the dam is removed. These logs will provide beneficial habitat to aquatic organisms, as do existing logs that are scattered throughout the Williamson and Sprague Rivers. Logs currently

		pass over the dam during high water events.
G, B	There is no historical perspective.	There was an ethnographic study conducted as part of the <i>Chiloquin Dam Fish Passage Study</i> prepared in 2003. This reconnaissance level study documented the historical and cultural significance of the dam to some members of the Klamath Tribes.
D	Purpose and need for the project should be clearly defined and fully justified.	Please see Section 1.1, Purpose and Need.
D	Discuss cumulative effects of increased power costs, natural seepage, de-watering of the existing reservoir, and sedimentation.	The EA assesses the environmental affects of each of these actions. See Chapter 4.
D	The removal of the dam will result in debris, dust, sediment and other hazardous material...presenting risk of exposure to those living near the affected environment.	These impacts are discussed in Chapter 4. Best practices for construction to manage some of these impacts are described in Appendix C.
D	Sediment impacts are inadequately analyzed. Long-term impacts of sediment are not addressed if sediment distributes differently than EA assumes.	Sediment impacts are described in Sections 3.3 and 4.3. The EA does not assume sediment deposition patterns. Deposition was modeled as described in Section 4.3, based on historic river flows.
D	Impacts of increased turbidity.	Turbidity impacts on threatened and endangered species are described in Section 4.4.
D	Vegetation losses and impacts on wetlands from dewatering the reservoir are not addressed.	See Sections 4.3 and 4.5.
D	Supersaturation is likely if drawdown is too fast.	Gas supersaturation is usually related to water released from high head dams with deep reservoirs, or where water spills over a dam into a deep plunge pool. Chiloquin Dam is essentially a run-of-river low head dam with little storage and there are no major plunge pools immediately below the dam. In addition, the proposed construction sequence to remove the dam will be done in staged manner to assure water is allowed to slowly drain from the reservoir; therefore, gas supersaturation is not expected to occur.
D, I	Colored balls for mitigating impacts to eagles would have a	Colored balls have been eliminated from the bald eagle mitigation measures, per discussions

	negative aesthetic impact.	with the Fish and Wildlife Service and consideration for aesthetics in this area.
D	Impact on bald eagle habitat from dewatering reservoir.	In the Biological Opinion, the Fish and Wildlife Service concurs that plenty of alternate habitat exists in the Basin for eagle use. Dewatering will likely create fringe wetlands over time and may provide new waterfowl habitat, thereby potentially increasing the waterfowl prey base for the eagle.
D	An official statement regarding the status of critical habitat for suckers should be included.	Critical habitat for endangered suckers is described in Section 4.4 and in the Biological Opinion issued by the U.S. Fish and Wildlife Service.
D	The EA concludes that the project overall is likely to have an adverse affect on endangered suckers.	The effect determinations to listed species and proposed habitat are discussed in Sections 4.4.2.3. A determination of a potential adverse impact is reached when even one fish may be harassed, injured, or killed. The Proposed Action is expected to be beneficial overall to both the endangered species and the critical habitat as described in the EA, Sections 4.3 and 5.2. This expectation is also supported by the Biological Opinion. The BIA determined that the potential adverse affects are not significant and do not warrant an EIS.
D	An informal conference with the USFW is not sufficient to address the likely adverse affect on endangered suckers.	The BIA underwent formal consultation with the Fish and Wildlife Service for impacts to endangered suckers based on a "may affect, likely to adversely affect" determination on these listed species. Sucker critical habitat is still proposed (not officially designated yet) so the proper level of coordination with the Fish and Wildlife Service (as stipulated in the ESA) is the conferencing process.
D, C	The impact associated with removing or burying all the structures removed from the dam has not been adequately explored.	Actions to backfill the canal with materials from the dam are covered under the Special Use Permit issued by the Forest Service and through permission received from the landowner. Little or no impacts are expected from burying the concrete away from the aquatic environment.
H	A letter from Tom Burns was submitted as part of the packet from Laura Schroeder. The letter goes into a great deal of detail about the requirement of making the MPID whole if the	This letter does not directly provide comments on the EA. Developing a mutually acceptable agreement between the BIA and the MPID is a condition of the project moving forward.

	Proposed Action is pursued.	
I	Right and left abutments may be reversed as described on Page 5.	The EA is correct as stated.
I, C	Describe in more detail the methods for abandoning the upper canal.	Concrete and steel from dam demolition will be physically buried in the first approximately ¼ mile of the Main Canal on Kircher property. The upper portion of the Main Canal will be backfilled. The compacted backfill surface will be covered by topsoil and will be seeded. Concrete materials may be buried beneath the canal backfill within 1,000 feet of the canal headworks, provided that at least two feet of earth backfill covers the materials, and that no steel reinforcement protrudes into the backfill.
I	Update pump sizes and capacity (Page 10).	Pumping plant details are discussed in the Cooperative Agreement developed by MPID and BIA.
I	Road width easements from the existing driveway to the pumping plant on the Hilbert property should be at least 25 feet (Page 10).	Easement information is outlined in the Cooperative Agreement developed by MPID and BIA.
I	A new design should be developed for the Hilbert pumping system.	Pumping stations for the Hilbert property are found on Page 15 of the EA, are detailed in the contract specifications, and are also discussed in the Cooperative Agreement developed by MPID and BIA.
I, C	Ensure the details of the Kircher pump controls, pump design and meters meet landowner approval.	Pumping details for the Kircher property are described on Pages 14 and 15 of the EA, will be included in the plans and specifications for the project, as well as discussed in the Cooperative Agreement developed by MPID and BIA.
I	Are the columns switched in the comparison cost chart (Page 18) – these were switched in the first year final report document.	The EA reflects the same table as was shown in the <i>Chiloquin Dam Fish Passage Study</i> prepared in 2003.
I	Full irrigation season is March 1 through October 31 – with water needed for stock year-round.	That is correct.
I	Electric supply to the Hilbert property should be underground.	Options for burying the power supply are being discussed with PacifiCorp.
I	Collaboration discussion should	The document outline follows a standard

	go earlier in the document.	approach used for EAs.
J	A letter from Charles Burt was submitted as part of the packet from Laura Schroeder. The letter goes into a great deal of detail about an engineering analysis of the proposed main pumping plant.	The document does not comment on the EA but was forwarded to the engineers and project manager and appropriate design changes were incorporated.
B	In dam decommissioning, little attention has been paid to ecological and economic costs if the dam is removed. Some removals have caused occasional but significant occurrences of released toxins or nutrients, channel instability, downstream sediment impacts, changes to invasive population distributions, and adverse hydrological alterations including open-water and ice-affected flooding.	In the analysis of the dam removal alternative for this project, the studies conducted to support the findings show that no significant environmental effects will result from the action.
B	The project will result in pork barrel costs to taxpayers.	Costs are discussed in Section 2.5.
B, C	Warm contaminated waters from the Sprague River will flow into the Williamson River.	A temperature analysis, performed by Reclamation, was conducted to determine how the warmer Sprague River water might impact water temperatures in the Williamson River. A model was developed to predict the temperature of the Williamson River below the Sprague River confluence after Chiloquin Dam is removed. The model's primary inputs are the river flow and temperature of the Williamson and Sprague Rivers above their confluence and the amount of flow diversion at Chiloquin Dam. Under a range of temperature assumptions for the Williamson and Sprague Rivers in the summer, the model predicts water temperature below the confluence would only increase by 0.7 degrees Celsius upon the removal of Chiloquin Dam.