

Table L-1 Thematic Comment Responses

Thematic Comments	Responses
Cost/Funding (F)	
<p>1. Long-Term O&M should be the financial responsibility of the federal government (1-1, 4-1, 14-2)</p>	<p>Based on the laws authorizing the LYIP (Reclamation Act of June 17, 1902, as amended; Water Conservation and Utilization Act of August 11, 1939, as amended) and the contract between Reclamation and the LYIP, any federal funds used to operate or maintain the LYIP are to be reimbursed by the district. The proposed new weir and bypass channel would be features of the LYIP and operation and maintenance costs for these features would be the responsibility of the LYIP under existing law.</p>
<p>2. Implemented project should not result in an increase in O&M costs for the irrigators. Any additional costs would be considered damage to the water rights holder and would require just compensation for the loss. (5-1)</p>	<p>Anticipated operation and maintenance costs for the No Action and action alternatives are presented in Section 2.3 of the draft Supplement EA. The economic effects of operation and maintenance costs are presented in Section 4.3.8.1 under the heading <i>Effects of O&M Payments on Irrigation Districts</i>. No significant change in operation and maintenance costs are anticipated between the No Action and action alternatives, although a slight decrease in costs is projected under the Bypass Channel (Preferred) Alternative.</p>
<p>3. Would FEMA cover flood damage to the structure(s)? (14-2)</p>	<p>FEMA would not be responsible for costs that may be accrued during a flood situation. Like O&M, replacement of a damaged structure would be the responsibility of the LYIP under the laws authorizing the project (Reclamation Act of June 17, 1902, as amended; Water Conservation and Utilization Act of August 11, 1939, as amended)</p>
<p>4. Adaptive Management and Monitoring to ensure the project's success should be the financial responsibility of the federal government. (19-2)</p>	<p>Funding responsibility for monitoring and any necessary adaptive management measures depend on a number of factors including applicable laws, regulations, and policies; opportunities for cooperative funding; the nature of the activity; and likely other factors specific to a given monitoring or adaptive management measure. Based on the laws used to establish the LYIP (Reclamation Act of June 17, 1902, as amended; Water Conservation and Utilization Act of August 11, 1939, as amended) and the contract between Reclamation and the LYIP, any federal funds used to operate or maintain the LYIP are to be reimbursed. Reclamation understands the implications this has for the LYIP and continues to work cooperatively with the LYIP and the State of Montana to identify funding resources for monitoring bypass channel physical conditions, monitoring fish passage, and adaptive management to avoid significant adverse financial impacts to the LYIP or significant adverse impacts to Yellowstone River fish populations.</p>
<p>5. The preferred alternative includes no funding for AM and Monitoring.</p>	<p>See response to Comment #4.</p>
<p>6. The concrete weir and water control structures associated with the bypass channel would include on-going maintenance costs that were not included in the EA (35-11).</p>	<p>Anticipated operation and maintenance costs for these features are presented in Section 2.3 of the draft Supplement EA. The economic effects of operation and maintenance costs are presented in Section 4.3.8.1 under the heading <i>Effects of O&M Payments on Irrigation Districts</i>.</p>
Impact Analysis (IA)	
<p>7. The analysis of impacts to the side channel is inadequate (2-1)</p>	<p>The analysis in 4.3 has been updated to include what effects the loss of side channels has on the Yellowstone River as well as how much habitat could be lost under the preferred alternative.</p>

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<p>8. What are the impacts to existing grazing leases (3-1)?</p>	<p>There would be minor impacts (loss of forage within the channel alignment) to the existing grazing leases due to the construction and operation of the proposed project. Joe's island would still present an opportunity for grazing of livestock.</p>
<p>9. What are the impacts of the new weir on paddlefishing (12-2)</p>	<p>During construction of the preferred alternative, snagging for paddlefish could be impacted. Project construction activities may alter paddlefish concentrations at the dam site discouraging paddlefish from lingering below the dam. This may reduce the number of paddlefish snagged at the FAS.</p> <p>The new weir would continue to be a passage barrier in the main channel but with the construction of a passage alternative these fish would be less likely to congregate below the dam as they do now. It is anticipated that paddlefish would continue to move upstream through the bypass channel which should increase snagging opportunities further upstream. By providing passage for other native species like paddle-fish at Intake, it is anticipated that population numbers would have the opportunity to increase, in turn increasing the amount of paddlefish that could be caught each year.</p>
<p>10. Removal of the weir would result in economic hardship on the community. Economic impacts should be analyzed. (19-1)</p>	<p>Removal of the weir is not an alternative being considered. This alternative is not being considered because it would not meet the project purpose and need identified in the 2010 EA as well as the 2014 Supplemental EA.</p>
<p>11. Concern that pallid larvae will not survive the turbulence of passing over the newly constructed weir during downstream drift. (25-1)</p>	<p>Pallid sturgeon larvae are not expected to be affected by the newly constructed weir. Fill will be placed between the new weir and existing diversion dam that will provide a smooth transition between the structures. Turbulence is not expected to increase with the construction of the new weir.</p>
<p>12. Must analyze the economic impacts of increased O&M on the irrigation district. (25-6)</p>	<p>See response to Comment #2</p>
<p>13. Ensure the EA is accurate in its explanation on the amount of flow that would be expected in the existing high flow channel. (28-3)</p>	<p>The EA has been updated to reflect changes to the bypass channel design and clarifies that there will likely be no flow in the existing high flow channel other than backwater effects.</p>
<p>14. The BRT should evaluate the use of tributaries by pallid sturgeon and establish the distance upstream which they travel, the physical or hydrological features which inhibit that migration, and determine any features of the bypass which makes it dissimilar to natural tributaries. (28-4)</p>	<p>Pallid sturgeon have been shown using side channels more often than tributaries in the Lower Yellowstone River. Velocity, depth, and flow split data was collected from these side channels when passage occurred. This information was used by the Biological Review Team and incorporated into the design criteria for this project.</p>
<p>15. The analysis fails to account for the benefits of ecosystem services as required by the "Principles and Requirements for Federal Investments in Water Resources" (P&R). (31-10, 31-11, 31-12)</p>	<p>The "Principles and Requirements for Federal Investments in Water Resources" have not been finalized therefore the Corps and Reclamation are still required to use the 1983 standards. Once the new Guidelines are finalized, each agency will update its procedures as needed to apply the new P&G to their agency-specific missions.</p>

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<p>16. The P&Rs require evaluation of projects at a watershed scale so the agencies should maintain priorities upstream of Ft Peck as well as the proposed project.</p>	<p>See response to Comment #15.</p>
<p>17. Need to complete a more comprehensive cumulative effects analysis. If the preferred alt doesn't work the situation would be worse than before the project was implemented (32-11, 32-16).</p>	<p>The cumulative effects analysis has been expanded within the document.</p>
<p>18. Cumulative Effects section must include a detailed list of past, present and future projects and their impacts (32-12, 32-13).</p>	<p>The cumulative effects analysis has been expanded within the document.</p>
<p>Review (R)</p>	
<p>19. Comment period should be extended (10-1, 25-4, 26-6, 35-2).</p>	<p>As requested by many of the commenters, the comment period was extended 15 days from June 1 to June 15.</p>
<p>20. The project needs an independent scientific review. (25-4)</p>	<p>An independent review of the science was completed in 2010. The supplemental EA underwent an Independent External Peer Review (IEPR) in 2013. The Corps and Reclamation have also coordinated extensively with an advisory panel put together by USFWS. The panel includes experts from USGS, Reclamation, USFWS and Montana FWP.</p>
<p>NEPA (NE)</p>	
<p>21. Analysis should be an Environmental Impact Statement due to high federal expenditure, dependency of an entire species on the project, large state and federal involvement, high degree of uncertainty and cumulative effects on pallid sturgeon and native species (32-2, 35-10).</p>	<p>The Council of Environmental Quality's Regulations for Implementing the Provisions of NEPA (NEPA Implementing Regulations) permit agencies to use an environmental assessment to determine whether to prepare an environmental impact statement (40 CFR 1501.4(c)). If no significant environmental impacts are identified, a Finding of No Significant Impacts may be prepared (40 CFR 1501.4(e)) and the project implemented. If the environmental assessment indicates the proposed action will have significant environmental impacts, including significant cumulative impacts based on context and intensity, then an environmental impact statement must be prepared. Project cost, degree of agency involvement, degree of uncertainty, and species dependency on a project are not identified in the NEPA Implementing Regulations as reasons for preparing an environmental impact statement.</p>
<p>22. Construction of the concrete dam represents an irretrievable commitment of resources because it limits further modification. (32-3, 35-1, 35-9)</p>	<p>According to CEQ, agencies must not commit resources prejudicing selection of alternatives before making a final decision. Courts have established a threshold for such predetermination, namely the "irretrievable and irreversible commitment of resources" to a course of action prior to the completion of the environmental impact analysis. The Corps and Reclamation will not commit resources towards construction of the weir until a decision has been made on the project.</p>

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<p>23. The agency's decision to not prepare an EIS violates NEPA as the lack of an adequate cumulative impacts analysis renders any FONSI inadequate and arbitrary and capricious. (32-4)</p>	<p>The lead agencies have taken a hard look at cumulative effects including expanding the analysis provided in the EA. No significant cumulative effects have been identified that warrant preparation of an EIS.</p>
<p>24. EA must present why impacts are insignificant. (32-5)</p>	<p>Chapter 4 of the EA presents the impacts to each resource of concern.</p>
<p>25. Not all references cited are found in the references section and many located online do not support the assertions in the EA (35-3, 35-4).</p>	<p>The reference section has been updated with all cited material. Reclamation and the Corps believe the citations provided support the analysis and represent the best available information.</p>
<p>26. What is the next step after public meetings? What agency makes the next decision? (30-1)</p>	<p>The EA will be revised based on public input and final agency reviews. Once final, a Finding of No Significant Impact (FONSI) will be signed, if appropriate, by the Corps of Engineers and Bureau of Reclamation.</p>
<p>Adaptive Management/Monitoring/ESA (AM/M)</p>	
<p>27. Success criteria should include population targets and AM plan should identify actions the responsible agencies will take should the project not meet those targets. (24-1)</p>	<p>There are many variables associated with spawning and recruitment that are outside of Reclamation control. Consequently, it is not appropriate to use population targets to determine success of the project. Improving fish passage, not spawning or recruitment is the objective of the project. Therefore, the Adaptive Management and Monitoring Plan is tiered to the fish passage objective.</p>
<p>28. An Adaptive Management and Monitoring Plan must be implemented in coordination with USFWS that evaluates the project's success and implements changes to ensure success. (25-3, 33-3)</p>	<p>The Adaptive Management and Monitoring Plan will incorporate appropriate measures and monitoring that facilitate meeting agreed upon success criteria, including consideration of any information provided by the Service.</p>
<p>29. Project is not based on best available science and discounts recovery efforts on the Upper Missouri River above the confluence with the Yellowstone. (26-1, 33-1)</p>	<p>See response to Comment #20.</p>
<p>30. AM and Monitoring Plan lack detail and accountability. (31-14, 31-16)</p>	<p>Reclamation has revised the Adaptive Management and Monitoring Plan in response to comments and new information; however, these plans often consist of only a framework at this point in the process. As the project design is further refined and as the project is constructed and operated, additional adaptive management measures are expected to be identified and incorporated into adaptive management plans. Reclamation will be responsible for ensuring that adaptive management measures, when appropriate, are implemented.</p>
<p>31. AM plan should include strategies to ensure recruitment is taking place (31-15).</p>	<p>Improving fish passage, not recruitment, is the objective of the project (see response to Comment #28). Therefore, the Adaptive Management and Monitoring Plan is tiered to the fish passage objective.</p>

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<p>32. Project success should be measured biologically, including passage, spawning and recruitment. (31-17, 33-2)</p>	<p>There are many variables associated with spawning and recruitment that are outside of Reclamation control. Consequently, it is not appropriate to use spawning and recruitment to determine success of the project. However, because there is uncertainty regarding native fish passage under the proposal, Reclamation believes it is reasonable to conduct fish passage monitoring to determine their response to the project.</p>
<p>33. The preferred alternative may be impractical to modify through adaptive management (34-5)</p>	<p>Reclamation believes adaptive management measures can be implemented to make sure the bypass channel continues to perform consistent with the success criteria the Service identified for the Corps (see adaptive management plan Appendix J).</p>
<p>34. Building the dam would jeopardize the pallid sturgeon if the bypass channel doesn't work (35-1).</p>	<p>Reclamation and the Corps are making every effort to ensure that the proposed action (bypass channel with a new weir) will perform consistent with Service's success criteria, including use of both numerical and physical modeling of the proposal. The lead agencies acknowledge there is uncertainty with the proposal. An adaptive management plan will be used to "adapt" the proposal as necessary and feasible to improve performance of the bypass channel. Ultimately, Reclamation is responsible for avoiding jeopardizing pallid sturgeon due to operation of the Lower Yellowstone Irrigation Project through this proposal or other measures as may be necessary in the future.</p>
<p>35. EA states Section 7(a)(2) consultation is complete since the project is implementation of an RPA, however the EA doesn't support that conclusion with literature cited (35-7).</p>	<p>The EA has been updated to reflect this.</p>
<p>36. An alternative should not be chosen until uncertainties on whether pallid sturgeon will use the side channel are addressed and BOR has completed Section 7 consultation.</p>	<p>Recent monitoring by Montana Fish, Wildlife & Parks has shown that pallid sturgeon will use side channels to migrate upstream in the Yellowstone River. In June of 2014, five pallid sturgeon were documented using the existing side channel around Intake to continue their upstream migration. This significantly lessens uncertainties as to whether pallid sturgeon would be expected to use a bypass channel like that identified in the preferred alternative. Reclamation is currently in the process of completing Section 7 consultation. Consultation will be complete before the implementation of this project.</p>
<p>37. The Service hasn't provided evidence that replacement of the Ft Peck RPA with Intake will remove the jeopardy threat to pallid sturgeon. Replacement of this RPA with an unproven RPA without documented effects analysis or biologically relevant performance measures is arbitrary and designed to obviate the need to implement a known, albeit expensive mitigation measure on the Missouri River System (35-12).</p>	<p>This is outside the scope of this document.</p>

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<p>38. Absent proof that pallid sturgeon will use a constructed side channel for upstream passage, construction of an impassable concrete dam appears by the Service's own analysis to constitute jeopardy therefore the Service must convene the Endangered Species Committee as provided in Section 7(e) (35-12).</p>	<p>This is outside the scope of this document.</p>
<p>39. Reclamation must complete a BA and consult on construction of the bypass channel and weir. EA should be re-circulated for public review once that consultation is underway. The public cannot effectively comment on the EA without the FWS's Biological Opinion. (32-6, 32-7, 32-8)</p>	<p>The Service stated that because there is a Reasonable and Prudent Alternative requiring construction of pallid sturgeon passage at Intake, no further consultation on construction is required (Service, 2012). Reclamation has initiated formal consultation with the Service under ESA on operation and maintenance of the Lower Yellowstone Irrigation Project including preparation of a Biological Assessment. Federal agencies often concurrently conduct the NEPA process and ESA consultation, which is the situation for this project. Reclamation intends to complete ESA consultation prior to making a decision on the project, and will consider the Service's Biological Opinion on operations and maintenance in its decision.</p>
<p>40. Project does not meet the intent of the updated Pallid Sturgeon Recovery Plan (33-4).</p>	<p>Passage at Intake has been identified as a priority within the final version of the Pallid Sturgeon Recovery Plan. The Service has continued to state that the Yellowstone River provides the best possibility for the recovery of the species because of the near natural hydrograph, unaltered sediment regime, and suitable habitat upstream from Intake.</p>

Design (D)

<p>41. Using local rock would cut costs (11-1).</p>	<p>There aren't sufficient quantities of local rock that meet the engineering standards required for construction of this project.</p>
<p>42. Concern that fish screens, bypass channel and new weir will not withstand ice events. Have they been designed to withstand ice forces? (14-1, 25-2, 27-1)</p>	<p>The new Intake headworks and fish screens were designed to withstand ice forces. The design of the headworks structure accounted for ice forces, and the fish screens were designed to be raised out of the river when not in use. Both the headworks structure and the fish screens performed well during the Spring 2014 ice jam affected flood event on the Yellowstone River. The design of the new weir also accounts for ice forces, and the USACE Cold Regions Research and Engineering Laboratory reviewed the ice forces to be applied in the weir design. The design of the bypass channel will incorporate rock structures at critical locations to help prevent channel damage or migration during ice and flooding events. USACE engineers visited Intake after the Spring 2014 ice jam affected flood event to survey damage to the existing high-flow channel, and observed only minimal damage as a result of that event. However, future events could cause greater impacts to the bypass channel that would require repairs. The cost of such repairs has been estimated and considered as part of the required ongoing operation and maintenance of the channel.</p>

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<p>43. Uncertainty how fish bypass will operate during extreme events (high and low). (14-1, 27-1)</p>	<p>Some uncertainty exists pertaining to operation of the fish bypass during extreme events. During extremely low flows, the bypass will cease diversion of water and will not function. However, at the same time, much of the main channel would be impassable at these extreme low flows. During high flows, the potential for damage to the bypass exists. Erosion protection is proposed at the most vulnerable locations. Minor damage that does not affect hydraulic performance may add to depth and velocity diversity and may be desirable. Major damage that affects the hydraulic performance would need to be repaired.</p>
<p>44. Concerns over sedimentation due to construction of the bypass channel (14-2, 27-1).</p>	<p>Sedimentation issues are being modeled and will be considered in development of the final design.</p>
<p>45. The bypass channel will be wiped out if the Yellowstone River were to migrate laterally during a major flood or ice jam event. (26-3)</p>	<p>The Yellowstone River has migrated laterally approximately 350 ft over the last 60 years at the upstream end of the bypass based on available aerial imagery. Riprap protection is included at the upstream end to reduce the risk of flanking during a large flood or ice related event.</p>
<p>46. The design appears to fail the biological design criteria and provides little evidence sturgeon will successfully pass. (31-1, 31-4)</p>	<p>Based on the results of USACE hydraulic modeling, the 30% bypass channel design will meet the USFWS supplied design criteria at most Yellowstone River discharge levels and most bypass channel cross sections. These same design criteria will continue to guide the design team as the design progresses. The bypass channel will be designed to mimic as closely as possible a natural channel. Therefore, the bypass channel flow characteristics will vary in response to a number of factors, and it is not possible to guarantee that the bypass channel will meet the design criteria at every Yellowstone River discharge level and bypass channel cross section at any given time.</p>
<p>47. Design should be flexible enough to accommodate natural sediment and debris transport. (31-8)</p>	<p>Sediment and debris movement will be considered in development of the final design.</p>
<p>48. Design should plan for incorporation of woody debris buildup in the bypass channel.</p>	<p>Some natural woody debris will be allowed to build up as long as it doesn't impact the flood capacity of the channel.</p>
<p>49. The replacement of a natural side channel with a constructed side channel contributes to the negative trend in side channel loss on the Yellowstone River. The constructed channel may not have the characteristics of a natural channel and may not function as well (32-17).</p>	<p>Overall, the preferred alternative would decrease the total length of side channels in the Yellowstone River but the constructed bypass channel would have a much greater functional frequency and duration compared to the existing side channel. Currently, the existing natural side channel begins to convey water when the flows in the Yellowstone River are around 30,000 cfs or greater and only conveys approximately 2.5% of the total river flow during an average runoff year. In the current design of the constructed bypass channel, the channel would average 12% to 13% of the total river flow when flows are above 7,000 cfs, which will provide better passage opportunities more often. The increased frequency and duration of flows in the bypass channel can reasonably be considered to off-set the loss of the existing side channel.</p>
<p>50. Should consider construction of the bypass first and determining if it works before constructing the weir (32-18, 32-19).</p>	<p>Part of the purpose of this project is to provide the Lower Yellowstone Irrigation Project with its statutory water right. The new weir is required to reliably divert irrigation water into the Intake Canal. Without the new weir, the LYIP would need to continue to add rock to the existing diversion weir, which already prevents passage of pallid sturgeon. Additionally, constructing the bypass channel and new weir as separate projects would increase the overall construction cost of the project.</p>

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Alternatives (A)	
<p>51. Clean out existing high flow channel and use that for passage (12-1)</p>	<p>Flow through the existing high flow channel does not meet the USFWS supplied design criteria, which are intended to maximize the potential for fish passage through the bypass channel. In particular, the existing high flow channel only flows infrequently during high water events and does not convey as high a percentage of the Yellowstone River flow as specified by the design criteria. The bypass channel as currently designed will more closely meet the design criteria than the existing high-flow channel. Additionally, research has shown that fish are more likely to use a bypass channel if the fish inlet is located near the obstruction to be bypassed, in this case the Intake diversion weir. The bypass channel fish entrance will be located immediately below the weir, while the high-flow channel fish entrance is located approximately 2 miles below the weir.</p>
<p>52. Pumping should have been looked at more closely. Appears O&M costs (including power) are not much more than the bypass channel. It appears that the O&M cost for pumping at Intake would be \$2 per acre for electricity alone (Buffalo Rapids electricity bill for 15,500 acres last year was \$62,000). Add \$2 per acre for pump maintenance and you end up with a total of \$4 per acre for pumping costs. The proposed weir and bypass channel has an estimated maintenance cost of about \$2.50 per acre which is only a difference of \$1.5 per acre. (16-1) (31-2)</p>	<p>Pumping and the costs associated with pumping have been looked at several times during the multiple planning efforts conducted by Reclamation and the Corps (2000, 2002, 2005, 2010, 2012, 2013). Alternatives ranged from a single pumping plant to multiple pumping stations along the Yellowstone River. Recent efforts to look at the pumping alternatives again in 2013 by Reclamation provided similar results as past studies. Analysis indicated that O&M costs, energy costs, energy reliability (brown outs) within the region, the design of the canal, inability to pump full water right without a checking structure in the river during low flows, and initial construction costs were significant obstacles to considering pumping alternatives for further analysis. In particular, many of these issues would result in potentially significant financial impacts on the LYIP, which is not consistent with the Project purpose and need of being able to continue effective operation of the LYIP.</p>
<p>53. Natural gas would be a cheaper alternative to electricity on the pumping alternative. (16-2, 23-1)</p>	<p>Natural gas as an energy source was not specifically looked at during recent planning efforts but as mentioned above (Comment #52), pumping alternatives contained multiple obstacles to considering them for detailed analysis in the EA.</p>
<p>54. Remove/modify the dam to provide fish passage and use pumps to supplement the flow during low flow (23-1).</p>	<p>This alternative was considered during the last planning effort in 2013, as well as in previous planning efforts. Removal of Intake Dam raised significant concerns about the Yellowstone River migrating away from the new headworks after weir removal. Once the weir is removed there is a high degree of uncertainty about how the river will re-stabilize. There would be real potential for the river to migrate away from the headworks, leaving the LYIP without the ability to divert water. Consideration of pumping alternatives is addressed under Comment #53.</p>

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<p>55. The EA should include a dam removal alternative (26-5)</p>	<p>Dam removal by itself would not meet one of the purpose and needs for the project – continue effective operation of the LYIP – and was therefore not considered. A complete dam removal alternative was considered as part of other alternatives during planning efforts. For example, the pumping alternative was intended to remove the existing dam but the obstacles described in Comments #52 and #54 precluded detailed analysis of these alternatives in the EA.</p>
<p>56. Use telemetry data to track the location of where the fish appear to be repelled by the metal on the existing weir and locate the bypass channel entrance just downstream of that.</p>	<p>Fish have never been documented being repelled by metal in the current diversion weir. Telemetered fish have been documented coming up to the bottom of the rubble field and searching for a passage way around the turbulence (Backes, Personal Communication, 2014). The current design has the bypass channel entrance near the bottom of the rubble field where fish have been known to congregate.</p>
<p>57. The EA should reconsider open-river designs (rock ramp, inflatable weir, passive flows, floating pumps) and look at potential cost saving measures to make them viable. (31-2, 32-20, 35-5)</p>	<p>Several versions of an open channel concept have been evaluated as well as potential cost savings measures to make them viable (see Appendix A, <i>Alternatives Considered but Dropped</i>). Reclamation recently initiated a re-planning effort to look at new and past alternatives. A complete list of alternatives can be found in the Reclamation “Lower Yellowstone Fish Passage Alternatives Planning Study 2013” document, which provides reasons why certain alternatives were not carried forward in the process.</p>
<p>58. The EA states that the first filter applied in the alternatives analysis was a biological filter however it appears in Appendix A1 that water delivery is the first filter applied.</p>	<p>The alternatives were evaluated on both biology and water delivery which were both purposes and needs of the project. Both filters were given equal weight. If the alternative met one purpose and need but not the other, the agencies tried to identify potential fixes that would satisfy both water delivery and biology. For complete details see Appendix A and the “Lower Yellowstone Fish Passage Alternatives Planning Study 2013 (Reclamation 2013).</p>
<p>59. Should consider options to address potential sedimentation issues in front of the headworks as opposed to cutting bypass flows to 15%.</p>	<p>Based on information provided in the supplemental EA, the biological risks were considered lower for an open channel concept (rock ramp) compared to the preferred alternative. But at the same time, risks for the open channel concept were considered significantly higher for water delivery, O&M costs, and providing fish passage long-term compared to the preferred alternative. Reclamation and the Corps feel the preferred alternative better meets the purpose and need of the project which was to provide passage around Intake for the endangered pallid sturgeon and provide reliable delivery of water to the LYIP.</p>
<p>60. The risks of the bypass channel exceed those in the open-river designs</p>	<p>Risk has been considered across the alternatives and is discussed in Section 2.5.7.</p>
<p>61. None of the reasons stated in the EA for selecting the bypass channel over the rock ramp includes the effectiveness in meeting the RPA set forth in the BiOp.</p>	<p>As stated in the EA, both alternatives are designed to meet the purpose and need of improving fish passage, which is the RPA in the BiOp. The bypass channel does so more cost effectively with more confidence in its constructability and ability to withstand ice forces.</p>
<p>62. The preferred alt has too much uncertainty to constitute a measure that is reasonably expected to provide fish passage (32-14, 32-21).</p>	<p>All alternatives considered during the alternative planning processes (2000, 2002, 2005, 2010, 2012, 2013) presented their own unique uncertainties. Reclamation and the Corps feel the preferred alternative presented in this document presents the least risk and uncertainty for both biology and water delivery which are the purposes and needs of the project. In June of 2014, five pallid sturgeon were monitored using the existing side channel around Intake. This alleviates some uncertainties that pallid sturgeon would not use side channels within the Yellowstone River.</p>

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<p>63. Should implement an alternative that reduces the amount of structure in the river (32-22).</p>	<p>A full range of alternatives was considered as discussed in Appendix A1.</p>
<p>64. Should consider an alternative that moves the intake upstream in which the canal is excavated deep enough to take advantage of ground water to provide base flows into canal. Use overshot gates for inlet control to eliminate fish and debris from entering the canal (34-1, 34-2).</p>	<p>A version of this alternative was considered and is discussed in Appendix A1.</p>
<p>65. The EA does not present a reasonable range of alternatives since the preferred alternative has not been demonstrated to actually work. Rejection of alternatives due to cost or O&M is inappropriate. (32-9)</p>	<p>A full range of alternatives was considered as discussed in Appendix A1. Risk and uncertainty has been considered as discussed in Section 2.5.7.</p>
<p>Other (O)</p>	
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<p>66. Project impacts individuals' state granted rights to divert water. (10-2).</p>	<p>The proposed project will not impact individuals' state granted water rights. Under the proposed alternative the LYIP would have the ability to divert their full water right down to 3,000 cfs in the Yellowstone River which is what occurs currently.</p>
<p>67. A floodplain permit would be required for construction of this project (15-1).</p>	<p>The Corps plans to request a floodplain permit prior to construction and will submit required documentation at that time.</p>