

Comments Received and Responses on the Henrys Fork Special Study Interim Report

No.	Page	Line	Comment	Response
1	1	3	The draft report states that the Henry's Fork Basin is experiencing increasing irrigation needs. Yet on page 40 of the Needs Assessment, it is stated that, "For this study, it was assumed that there would be no increase in the number of irrigated acres in the future." Please clarify whether the Henry's Fork Basin is in fact experiencing increasing irrigation needs, and if so, clearly explain the nature of those needs.	Page 1 line 3 has been changed to omit reference to a current increase in irrigation within the Henrys Fork Basin.
2	4	18	The draft report states that the Omnibus Public Land Management Act of 2009 is also known as the Secure Water Act. This is factually incorrect. The Secure Water Act was included as a provision (Subtitle F) of the Omnibus Public Land Management Act.	Text was changed: "Under the Omnibus Public Land Management Act of 2009, Subtitle F – SECURE Water (Public Law 111-11, March 30, 2009)...."
3	6	5	The draft report states that fish habitat is an intended beneficiary of improving water supply reliability, but fails to mention habitat for other wildlife such as birds and mammals.	It was recognized early in the Basin Study process that there are many water needs within the Henrys Fork Basin. This is documented in the Needs Assessment. However, it became clear that the major basin needs were 1) the ESPA deficit, 2) within basin agricultural, and 3) environmental, primarily related to instream fish needs. This focus has been mentioned at watershed council meeting on numerous occasions. Evaluation of alternatives includes an estimate of their impact on habitat for wildlife.
4	10	30-31	The draft report states, "Recent IDFG surveys suggest an increase in Yellowstone cutthroat trout populations" in the Teton River basin. A similar statement is found on page 10 of the Needs Assessment. Please provide supporting documentation.	Citation is provided: Personal communication from Tom P. Bassista, Environmental Staff Biologist, Idaho Department of Fish and Game (Salmon and Upper Snake Regions, Idaho Falls, Idaho) to Bureau of Reclamation on November 15, 2012. See comment #29.
5	11	8-9	The draft report states, "Hydrologic alteration of the rivers by the diversion of flows during the spawning times of the Yellowstone cutthroat trout may have also contributed to their reduced numbers." Diversion of flows following spawning is a greater threat to Yellowstone cutthroat trout survival.	This statement has been changed to reflect that diversion of flows may have contributed to reduced numbers of Yellowstone cutthroat trout.
6	11		The last paragraph under 1.7.3 (Fish and Wildlife) should highlight the role that the canyons along Teton, Bitch, Badger, and Canyon creeks play in providing winter range and linkage corridors for big game animals, especially mule deer and elk.	A statement has been added to highlight the role of canyons in providing winter range and linkage corridors for big game animals, especially mule deer and elk.
7	13	8	Fremont is incorrectly spelled as "Freemont."	Spelling has been corrected.

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8	14	4-7	<p>The draft report states that the installation of more efficient irrigation systems across the basin study area has resulted in decreased aquifer recharge and decreased groundwater inflows to the rivers, which, over time, could impact fish and wildlife. Please provide some documentation to support this claim (e.g., which species would be affected and how?). Likewise, the draft report should address whether increased irrigation efficiencies have benefitted any fish and wildlife, particularly in headwaters areas where low summer stream flows can harm Yellowstone cutthroat trout and other fish species.</p>	<p>The Technical Series Report No. PN-HFS-006 Conservation Alternatives documents the predicted impacts of recharge using existing canals, canal automation, piping and lining of canals, and demand reduction to in stream flow, at several stream gage locations, for total annual flow, peak season flow, and non peak season flows. In many instances these conservation practices would result in decreased recharge to the rivers. In general it was considered detrimental to fish to reduce non peak season flows, in particular late summer and early fall river flows. Other than the documented reduction in cutthroat trout populations as described in the Needs Assessment, there are no other detailed studies showing a direct link between a specific species population and the implementation of conservation measures. However, the general assessment that lower non-peak season flows are detrimental to fish is considered valid.</p> <p>Please note, that the analysis of conservation alternatives documented impacts at existing stream gages. In all instances these gages were not located in the most upper portions of a river system. For example, for the Teton Valley where upper Teton River tributaries may be dewatered early due to irrigation withdrawal modeling analysis was not representative of the river system above the South Leigh gaging station.</p>
9	14	19-20	<p>The draft report assumes a future population growth rate in Fremont, Madison, and Teton counties of 2 percent based on observed population growth from 1980---2006, but the Needs Assessment identifies the population growth rate as 1.84 percent. In any case, since population growth in the three counties during this period was unprecedented, it is unlikely that it will continue on the same trajectory over the next 40 years.</p> <p>Furthermore, the draft report infers that if population doubles over the next 40 years, as is projected, municipal and household water demand also will double. This ignores that role that aggressive water conservation can play in reducing demand. Other cities throughout the country (e.g., Seattle) have doubled in size without increasing water demand.</p>	<p>See response to comment 2 under General Comments.</p>
10	15	1-2	<p>The draft report states that IDFG has recommended minimum flows in various rivers and streams in the Henry's Fork Basin, but provides no documentation of where these minimum flows have been recommended or what those minimum flows should be. Likewise, the Needs Assessment identifies stream reaches of concern and primary stream flow needs on page 42, but only in very general terms.</p>	<p>The interim report notes the sources of the recommendations from IDFG. More specifically, Figure 13 of the Needs Assessment shows these recommended flows throughout the year and calculates historic shortfalls between actual river flow and IDFG recommendations.</p>

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11	25-26	Table 7	Several of the proposed surface storage sites (e.g., Moose Creek, Teton River, Lower Badger, Marysville Headworks, Warm River, Felt Dam, Robinson Creek) in Table 7 are on or adjacent to stream reaches that have been found eligible for Wild & Scenic designation, yet the impact potential on special designations is listed only as “moderate.” On page 23, a moderate impact is defined as “adverse but not significant, or significant but mitigable adverse impact.” Likewise, a high impact is defined as a “significant impact not subject to mitigation.” Based on these definitions, the impact potential on these streams should be reclassified from moderate to high, and the projects should be re-scored accordingly.	Given that these sites are eligible but have not been classified as Wild & Scenic (a special designation), the existing constraints are properly considered moderate. The classification is of existing constraints, not potential impacts to possible future designation.
12	26-26	Table 7	Table 7 classifies the impact potential on special designations on Upper Badger Creek and Bitch Creek as “low to none,” yet each stream has been found to be eligible for Wild & Scenic designation. The impact potential on special designations on these two streams should be reclassified as high, and the projects on these streams should be re---scored accordingly.	The existing constraints on special designation on Upper Badger Creek and Bitch Creek have been reclassified as moderate. Also see comment 11.
13	35	Table 11	Why, under general demand reduction alternatives, are there not alternatives that focus on converting from irrigated to dry land crops, and paying farmers not to grow crops in low water years?	The referenced table is in Section 2 Formulation of Reconnaissance Alternatives and documents the Study process. As such Table 11 reflects the stakeholder workgroup’s initial concepts only. Since the formulation of reconnaissance alternatives, several technical memos were completed which evaluated the potential of reducing irrigated acres. Section 3.5.4 summarizes the conclusions of the analyses. The alternatives for further study have been refined based on input from stakeholders, state and federal agencies and the data generated through the reconnaissance analysis. As a result, demand reduction is being carried forward to the appraisal level as documented in Section 4 Next Step: Appraisal-Level Studies specifically states “Demand reduction – augment technical report to include the costs associated with deficit irrigation and crop mix modification. Evaluate the potential to increase enrollment in CREP and encourage participate in the AWEP endgun program.”
14	37	19-20	Why was hydropower potential evaluated at each site? Also, does the estimated cost of each project include hydroelectric facilities? In the BOR’s discussion of the four basic components of a Basin Study, there is no mention of evaluating the hydropower potential of projects that don’t already exist.	Hydropower development was added to the list of Opportunities and Constraints, used for Table 7, by the workgroup at a Watershed Council meeting. During the reconnaissance evaluations of storage there was some qualitative information presented related to hydropower potential, but no technical design scoped or cost estimate made.
15	57	15-17	The draft report states, “Canal automation reduces flows during the low flow season in the Teton Valley and Lower Watershed irrigated regions, which would have a negative effect on environmental needs.” Please explain the nature and magnitude of this negative effect in more detail, including which fish and wildlife species would be most directly impacted.	See response to comment 8.

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16	60	7-9	The draft report states, "The reduction in total annual flows and of non---peak flows would have a negative impact on the Henry's Fork River basin's water budget and environmental needs." Please explain the nature and magnitude of the negative impact in more detail, including which fish and wildlife species would be most directly impacted.	See response to comment 8.
17	61	4-6	The draft report states, "Demand reduction would reduce seasonal low flows in the Teton Valley irrigated region, which would have a negative impact on environmental needs." Please explain the nature and magnitude of the negative impact in more detail, including which fish and wildlife species would be most directly impacted.	See response to comment 8.
18	62-63	31-32 and 1-3	The draft report states, "Growth in domestic, commercial, municipal, and industrial water use is currently considered to be limited by inadequate water supplies or an inability to balance use of surface water and groundwater supplies." Please provide documentation to support this claim.	<p>Municipalities in the upper Snake River attempting to secure new sources of water to meet current and future needs have struggled to find the source of water to mitigate the effects of new ground water pumping on the Snake River flows. As with any mitigation plan, mitigation options would need to be effective in quantity, timing, and location. The costs and regulatory constraints associated with some of these options have been prohibitive for a number of municipalities filing for new groundwater rights in the upper Snake River in recent years.</p> <p>Section 1.9.3 has been reworded to more accurately reflect this.</p> <p>IDWR staff assisted with the response to this comment.</p>
19	11	23	HF is not largest trib to Snake River, Payette about 2.1 MAF w/ present development & out of basin diversions, Salmon 8 MAF+, Clearwater 10 MAF+	HF provides 2.5 MAF which is larger than Payette. Not sure where numbers came from for Salmon and Clearwater
20	14	32	minimal should be minimum	Changed.
21	32	5-6	# of sites dropped should agree	The number of sites matches the table. Seven sites were dropped and eight sites were carried forward.
22		9	Table 8 should agree w/ text, Moose Creek should be dropped	Table 8 properly reflects that the Moose Creek Alternative was carried for forward to the reconnaissance-level study. After the reconnaissance-level analysis, this alternative was dropped from further consideration.
23	37	3	You met with yourself?	Reclamation was taken out of the list.
24	44	24	Remove "in"	Done.
25	60	33	What irrigation efficiency was used? If 100% results are of little value.	Detailed email thread between Bob Schattin, Jon Rocha, and Rob VanKirk forwarded to Dave Shaw. The thread discussed the details of the modeling effort.

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26	61	1	Table 25 does not match text in following paragraph	Changed to “Model output from this alternative indicated that reducing the number of acres irrigated would increase total annual flows in all of the irrigated regions, resulting in a positive impact on water supplies across the watershed; however, demand reduction would reduce seasonal low flows in the Teton Valley and Lower Watershed irrigated regions which would have a negative impact on environmental needs. Seasonal low flows would increase in the North Fremont and Egin Bench regions which would have a positive impact on environmental needs.”
27	66	17	Current version is ESPAM 2.1, it is a ground water model, not specifically a recharge model	Change to the current version of ESPAM, a ground water model.
28	1, 12	5, 18	Page 1, line 5 states that the Henrys Fork watershed provides irrigation to over 200,000 acres. Page 12, line 18 states that FMID provides supplemental water to over 285,000 acres. It is my understanding that all FMID lands are located in the Henrys Fork watershed. How many acres are actually irrigated in the watershed – 200,000 or 285,000?	The text on page on page 1 was changed to “over 280,000 acres.” It is intended as a generalized number to provide perspective of water use in the basin.
29	10	30-31	Native Yellowstone cutthroat trout populations are NOT increasing. See, Idaho Fish and Game’s most recent Fisheries Report, at page 5, for a more accurate description of the status of the species. The report provides in part as follows: “The species were petitioned for listing in the early 2000’s, but were found not warranted. Since that time, conditions across cutthroat trout range have remained similar or in some cases gotten worse. As such, it is likely that another petition for listing could occur at some point in the future....”	There is a direct conflict for this paragraph: Bassista says increase (e-mail) and the IDFG report says decrease or same. SO which source should we use?  Recently IDFG biologist suggested an increase in YCT populations, although IDFG documents mention a decrease.
30	11	8-10	The sentence should be re-written as follows: Hydrologic alternation of the Teton River and its tributaries, resulting from the diversion of water for irrigation use during and after the time when Yellowstone cutthroat trout spawn, has contributed significantly to reduced numbers of YCT.	Reworded to “Hydrologic alteration of the rivers by the diversion of flows has also contributed to reduced numbers of Yellowstone cutthroat trout (Van Kirk and Jenkins 2005).”



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31	14-15		<p>Section 1.9.4, seems to have several shortfalls. For starters, this portion of the report, as well as the Needs Assessment upon which this portion of the report is based, do not even attempt to quantify the amount of water needed to support future wildlife and fisheries needs throughout the watershed. In addition, neither of the documents recognize nor acknowledge that current water use practices, which result in the annual dewatering of tributaries and rivers, negatively impact YCT. There is, in fact, no mention of YCT in the Current Water Use portion of the Needs Assessment. Discussion centers wholly upon fishery needs in the Henrys Fork River.</p> <p>The framework of the Study calls for identification of alternatives which sustain environmental quality. Failing to accurately account for current and future environmental/wildlife/fisheries water needs is a poor platform from which to “sustain” environmental water supply needs, or identify alternatives which both increase water availability for environmental purposes in key river reaches, while simultaneously satisfying other downstream water needs as well. I would suggest that this portion of the study be given more attention, especially given the status of YCT in the State of Idaho and the region. As indicated in the IDF&amp;G report, is likely that a petition to list the species will be forthcoming. Should that occur, this single fish could stand to influence the development of any storage proposal more than ever. The bottom line is this - the likelihood of moving forward with a storage proposal in cutthroat country is slim, unless the alternative can be implemented without impacting the populations, or by demonstrating that populations will someone be bolstered. The Bureau of Reclamation and the State of Idaho would be wise to properly evaluate the alternatives, at this stage, with this mind.</p>	<p>Under Section 1.0 – Fish and Wildlife of the needs assessment there is discussion of the declines in Yellowstone Cutthroat Trout population and changes in the river system related to these declines. It is noted that the primary current Yellowstone Cutthroat Trout populations exist in the Teton watershed. The needs assessment Table 13 and Figure 14 presents “stream reaches of concern” which documents low flows throughout the Henrys Fork watershed, including the Teton watershed. In the discussion of Table 13 and Figure 14, it is stated that these stream reaches are places where flow alterations would negatively affect fisheries and/or ecological functionality.</p> <p>Figure 13 “Stream Maintenance Flow Recommendation” provides the only quantitative IDFG flow recommendations in the Henrys Fork Basin. The Needs Assessment did not attempt to develop new information such as instream flow requirements.</p> <p>Section 4.0 Next Step: Appraisal Level Studies of the Interim Report states the need to evaluate hydrologic and environmental impacts of alternatives and to document potential climate change impacts.</p>
32	23-30		<p>The ranking of surface water storage alternatives was not a transparent process, as the Interim Report seems to indicate. For example, it was not clear how many alternatives would move forward into the next phase of the study. Ultimately those with a ranking of 6 or less moved forward. Perhaps most concerning is that two of the most contentious alternatives, Upper Badger Creek and Teton Dam, held a ranking of 7 until the last version of the matrixes were distributed to the group. At which point, the rankings associated with the Island Park Enlargement and Ashton Enlargement alternatives were altered, thereby elevating Upper Badger Creek and Teton Dam in the ranking system.</p> <p>Re-review of the ranking associated with each storage alternatives indicates that the criteria were not applied consistently to each alternative, or were applied with blatant disregard for relevant information, such that some alternatives would</p>	<p>Table 7 “Preliminary screening of water storage and resource management options: opportunities and constraints” was first presented to the workgroup on April 19, 2011 and also emailed to workgroup members. On October 25, 2011 the 17 “carry forward” alternatives were presented to the workgroup. It is noted that from April to October, Reclamation conducted several small group meeting with irrigation interests, environmental groups, and State and Federal agencies to facilitate the selection of a broad basket of “carry forward” alternatives.</p> <p>While Table 7 provided a format for displaying existing information relative to the alternatives show, it is true that it was not strictly followed when the list of “carry forward” was developed. The small group meetings influenced the development of this list. This has been clarified in the Interim Report.</p>

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			<p>intentionally score more favorably. There are three specific instances of this issue:</p> <ol style="list-style-type: none"> <li>1. The Conant Creek storage option, while it ranked quite high overall, was removed from consideration because of the anticipated impact to YCT. Conant Creek has a resident population of YCT. By that logic all alternatives which may inundate a resident population of YCT should have been removed from consideration. That would include removal of the following storage alternatives: Teton Dam, Spring Creek (Canyon Creek), Badger Creek, and Moody Creek.</li> <li>2. The ranking associated with the flood control capacity of Island Park Enlargement should not have been rated as “poor.” There is no documentation, in the technical memorandum or otherwise, which would support the selected rating. To the contrary, review of the matrixes reveals that those alternatives which can provide flood control to river reaches with flooding as identified in the Resource Evaluation (IWRB 1992) – including the stretch of the Henrys Fork, from to Ashton Dam and the mouth, and that stretch of the Lower Teton River, from the N. &amp; S. Branch of the Teton River to the confluence of the Henrys Fork – should be ranked as providing good, or at least moderate in the flood control category. Island Park Reservoir, and certainly and enlargement of that facility, has the ability to hold and store flood waters which may inundate the Henrys Fork reach. Therefore, that specific ranking should be altered to reflect a “good” or “moderate” rating.</li> <li>3. The ranking associated with the recreational and economic value of the Ashton Dam alternative also reveals flaws, or inconsistencies in ratings. I struggle with this ranking category a bit, as it is unclear to me if the ranking applies to the current use (i.e. – Ashton currently has a high recreational and economic value) or if it applies to the anticipated impact of the proposed project (i.e. – Expansion of Ashton will have a high negative impact on the relational and economic values of the area). Regardless, I fail to understand why the recreational and economic values associated with an expansion of Island Park would be any less or more significant than an expansion of Ashton Dam. Each of those alternatives should rank similarly in that category.</li> </ol> <p>Each of these issues evidence inconsistencies and contradictions in the ranking system which effectively negate the attempt to provide an objective, transparent basis for decision making.</p>	<p>Also, the individual comments related to Table 7 are indicative of the challenges faced when this information was presented. As such, Table 7 is presented to document the information made available to the workgroup.</p>

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33	39	1-8	The Lane Lake option contemplates utilizing water from the Teton River Canyon. That portion of the Teton River contains fluvial YCT. Therefore, it is critical that the appraisal level study evaluate and discuss the anticipated impacts resulting to hydrologic changes in the Teton River Canyon and the associated impact on YCT.	Comment will be forwarded to the appraisal-level study for consideration.
34	40	9-11	Canyon Creek is utilized by both resident and fluvial populations of YCT. The headwaters of Canyon Creek, including the Spring Creek tributary, are utilized by these resident and fluvial YCT populations to fulfill all stages of their life history patterns. As such, it is critical that the appraisal level study evaluate and discuss the anticipated impacts on YCT.	Comment will be forwarded to the appraisal-level study for consideration.
35	41	14-16	It is my understanding that Moody Creek is utilized by both resident and fluvial YCT, at least at certain times of the year. As such, it is critical that the appraisal level study evaluate and discuss the anticipated impacts on YCT.	Comment will be forwarded to the appraisal-level study for consideration.
36	42	12	Badger Creek is Wild and Scenic Eligible. It is not just “perceived to be scenic.”	Changed to “The surrounding area is scenic.”
37	42	29-30	The analysis on impacts to YCT must not only address potential impacts to the resident population, but also identify and address potential impacts to the fluvial population of YCT located in the Teton River Canyon. If a project is constructed on Badger Creek, at least at certain times of the year, less water will enter the Teton River Canyon. This will lower river levels and change the hydrology away from a snow-melt, flashy system which favors YCT. Further, the development of a reservoir creates a very significant, detrimental opportunity for the introduction of non-natives. The potential of introducing non-natives to the newly built reservoir, as well as the impacts which may result to both the Badger Creek resident YCT population as well as the fluvial YCT population in the Teton River Canyon must be evaluated.	Comment will be forwarded to the appraisal-level study for consideration.
38	44	22-26	The Teton River Canyon supports a fluvial YCT population throughout significant portions of the year. As such, it is critical that the appraisal level study evaluate and discuss the anticipated impacts on YCT, and include the information presented by IDF&G and other YCT experts who have indicated, over and over again throughout the Basin Study process, that the construction of Teton Dam or a similar project will irreparably negatively impact YCT populations in the Teton River.	Comment will be forwarded to the appraisal-level study for consideration.



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39	54	30-32	<p>This portion of the document must be re-written to reflect the true opportunities for addressing water supply shortages through the use of markets. Markets can and are being used successfully to acquire water for environmental purposes and to reallocate water to its highest and best use. Specifically, markets can be a very valuable tool for addressing the water “need” identified in the Upper Teton River, where not a single storage alternative provides a viable opportunity to address the needs of the agricultural community. Additionally, while it is clear that the Bureau of Reclamation and the State would prefer to overlook the environmental need for water, markets are viable means to address this component of the study, particularly in the Upper Teton River basin.</p> <p>Further, it would be beneficial to address the legal and policy constraints in Idaho that currently preventing the existing water markets (or the development of new markets) from being used to address water shortages; notably, those constraints that limit the protection of instream flows, the conversion of traditional consumptive use water rights to instream flow water rights, and the protection of water leased into the Water Supply Bank. If those legal hurdles are addressed, it is likely that the private sector will step forward to support the purchase and lease of water rights for instream flow purposes. In fact, in many states the market is driven to a large extent by private individuals interested in bringing balance to a watershed by acquiring water for instream flow purposes. Focusing exclusively on agricultural producers’ inability or unwillingness to pay the “true” cost of water is short sighted, incomplete, and inconsistent with best management practices being used successfully throughout the Western United States.</p>	<p>Water markets in Idaho managed through IWRB processes and are extensively used to reallocate water supplies and provide water supplies for environmental purposes. Reclamation utilizes Idaho water markets to assist with downstream ESA-listed salmon recovery. In the Upper Salmon River Basin the IWRB utilizes market strategies to help undertake projects to provide flows needed for ESA-listed salmon while maintaining the agricultural economic base of the area. Through other programs, the IWRB has been supportive of exploring whether these strategies can be used in other basins, including the Upper Teton Basin.</p> <p>The IWRB’s water supply bank and rental pools have a high level of usage for a wide range of projects statewide. In most cases, projects authorized through these programs have unique issues that must be addressed within the confines of these programs to be successful. This is true in the case of the in the Upper Teton Valley.</p> <p>However, both water markets and the closely related conservation alternative of demand reduction will be evaluated further.</p> <p>Demand reduction is an option for addressing stream flows in the Upper Teton.</p> <p>After much discussion on water marketing processes, Reclamation determined this could be best addressed as consideration is given to implementing alternatives. In other words, how can markets be used to help implement alternatives. This approach also directly relates to the concern of who is willing to pay. Additionally, constraints to implementing alternatives will be analyzed.</p> <p>Section 4.0 Next Step: Appraisal Level Studies of the Interim Report states the need to evaluate hydrologic and environmental impacts of alternatives.</p>
40	55	6-9	<p>The document states: “Due to the lack of extensive surface irrigation systems...” Earlier in the document, at page 12, line 22, it is asserted that 70 percent of all acreage within the FMID service area is sprinkler irrigated. These statements seem contradictory.</p>	<p>Surface irrigation typically refers to types of flood irrigation and not sprinkler irrigation.</p>

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41	57	15-17	<p>The document states: “Canal automation reduces flows during the low flow season in the Teton Valley and Lower Watershed irrigated regions which would have a negative impact on environmental needs.” This statement is completely inaccurate and misleading. The environmental need for water at that time of year is in the tributaries. As a result of agricultural diversion,(some of it in excess of legal water rights),these tributaries become completely dry and thus cannot support fish or other species. . Automation of canals would, in fact, have a direct, beneficial environmental effect on the tributaries during low flow periods. Automated canals would prevent excess diversion of water out of the tributaries, during the times when they are critically de-watered.</p>	<p>Clarification is added to state that these descriptions apply at the South Leigh and St. Anthony gaging stations, when automated canals were applied in the Teton Irrigated region. The main reason for reduced flows after July 16<sup>th</sup> is due to reduced return flows from canal seepage when earlier season diversions are reduced. It is noted in the Discussion section that automated canals also offer the benefit for flow measurement, data transmission and fish screening as additional benefits.</p>
42	58	24-27	<p>The decision should incorporate the cost of installing fish screens at all re-built and automated canals.</p>	<p>This comment will be forwarded to the appraisal-level study of canal automation.</p>
43	65	6-11	<p>The study framework represented to the working group over the past 3 years is as follows: (1) development of water supply; (2) improvement of water management; and (3) sustaining environmental quality. The goals and objectives listed in this portion of the Interim Report, and specifically goal 3, are not in harmony with previous representations.</p> <p>Further, goal 3 as set forth in the Interim report (“Protect existing water rights and work within the existing Snake River system legal and contractual requirements.”), is actually in direct opposition to the requirements of the Bureau’s WaterSMART guidance document entitled Basin Study Framework: WaterSMART Program (December 2009). That document specifies that in the development of options to meeting future water supply needs that non-structural changes, including legal and institutional changes, should be examined. Goal 3, as set forth in the Interim Report, seems to indicate that no legal or institutional changes will be examined, and review of the alternatives analysis set forth in the Interim Report confirms that to be true.</p>	<p>From Basin Study Framework (February 2012) p.13, The study will identify and prioritize the structural and non-structural options considered. This analysis will include an evaluation of the environmental, economic/financial, and social impacts of the options considered. The study will also identify potential institutional, legal and regulatory constraints affecting the options considered.</p>
44	17	1	<p>Table-1, Alt. #15: Lane Lake should have Fall River as a potential source</p>	<p>Teton River and Fall River have been added</p>

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45	25	1	Table-7, Lane Lake, State Species of Special Concern: Water Right Holders on Fall River, Conant Creek, and Squirrel Creek could have water rights transferred to more desirable storage water in Lane Lake. Future diversions for Lane Lake from any of these streams could be managed for minimum flows. Existing diversions for irrigation from Fall River, Conant Creek, and Squirrel Creek could be abandoned to increase flow in these streams during the late summer irrigation season and, thereby, improving habitat for Yellowstone Cutthroat Trout in Fall River and vastly improving it in Conant Creek and Squirrel Creek. Lane Lake would vastly improve Yellowstone Cutthroat Trout habitat in surrounding streams. Minimum flows could also be maintained on Bitch Creek so that impacts to that stream would also be minimal.	Comment noted.
46	25	1	Table-7, Lane Lake, Federally Listed Species: Nearly all of the area surrounding Lane Lake is tilled dry land farming. Most is or was in the Conservation Reserve Program because tilling of the soil there subjects the land to increased soil erosion. Lane Lake would enhance the area for development into low density residential real estate. Prior to agricultural development in the late 19 <sup>th</sup> century, the native habitat of the area was largely Aspen groves in upland prairie. Development into low density residential real estate will reduce soil tillage, reduce soil erosion, and increase the native habitat of Aspens and upland prairie. In general, there would be a net improvement to native wildlife habitat with Lane Lake.	Comment noted. A reservoir which empties each year may not be a desirable location or residential development.
47	36	21	The Bureau of Land Management was not included in the list of participants for the "Selection Process for Appraisal Study." Please include the BLM in the list of participants.	Done

**General Comments**

No.	Comment	Response
1	<p>Since the inception of this study, American Rivers and other workgroup participants have expressed a concern that the water supply projects under consideration do not always align with the actual needs within the Henry’s Fork Basin, both in terms of the size of the projects (i.e., storage capacity) and the location of the projects within the basin.</p> <p>For example, Table 8 on page 32 of the Needs Assessment shows the current unmet water supply needs for agriculture in the four major irrigated regions within the basin, which total 83,331 acre--- feet in average water years and 131,814 acre---feet in drought years. This table shows that the two irrigated areas with the greatest unmet water supply needs are the Fremont and Teton regions. In average water years, these two regions account for 119 percent of the basin’s unmet water needs.</p> <p>In drought years, they account for 80 percent of the basin’s unmet water needs. The Egin Bench region has a water surplus in both average and drought years, and the Lower Watershed has minor unmet water needs in average water years and moderate unmet water needs in drought years.</p> <p>Yet, several of the projects that were advanced to the appraisal phase of the study would not meet water needs in the two irrigated regions where the need is greatest. In order to give the reader a clearer understanding as to whether the proposed projects are intended to meet in---basin needs or out---of---basin (ESPA CAMP) needs, we suggest that the project summaries be presented in a way that clearly conveys which region each project will benefit.</p>	<p>Alternatives advanced to the appraisal study were vetted through a collaborative process as documented in Section 3.1 Selection Process for Appraisal Study.</p> <p>Comment is correct regarding the requirement to evaluate alternatives with respect to the documented needs. This is documented in Section 4.0 Next Step Appraisal Level Studies which specifically states “All of the alternatives carried forward to the appraisal level will be analyzed based on their impacts to the water budget and will be evaluated with respect to the Needs Assessment.” Section 4.0 also provides detail on the required analysis to address alternative complexity and predict temporal and spatial changes to river systems.</p> <p>Comment is correct regarding the lack of alternatives to address some of the documented needs, for example the Teton irrigated region, among others. Both Reclamation and the Idaho Water Resource Board are aware of this, as well as the fact that given the total magnitude of needs it will be unlikely that all needs can be met in a feasible manner. This does not mean that substantial progress is not possible.</p>
2	<p>We are also concerned that some of the stated water supply needs may be inflated due to faulty assumptions. For example, Table 14 on page 47 of the Needs Assessment shows that the unmet water supply need for domestic use over the next 40 years is projected to be 18,361 acre---feet. This number is based on two questionable assumptions: first, that the region’s population will continue to grow at the same rate it did from 1980---2006; and second, that domestic water demand will increase proportionate to population growth. This ignores the role that aggressive water conservation measures can play in reducing domestic demand (see comment 13).</p>	<p>The assumption of a continued growth rate of 2 percent annually, as well as water demand increasing proportional to population growth is considered reasonable. The Needs Assessment clearly states the fact that these assumptions were used.</p> <p>The Needs Assessment states that water use was based on an estimated 80 to 100 gallon per day per person, a national average. Technical Series Report PN-HFS-007 Municipal Water Conservation Measures and New Non-potable Water Supply Options, published subsequent to the Needs Assessment, documents that per capita water use in the Henrys Fork Basin is considerably higher than 100 gallons per day per capita. Because of this, for the estimated need to be met, conservation measures will need to be implemented.</p>

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3	<p>About a year ago American Rivers asked the BOR to calculate the probability that each proposed surface storage project would fill to capacity in both average water years and drought years. At the time, the BOR acknowledged this information would be valuable and said it would include it in the draft report. Upon reviewing the draft report, we could not find this information anywhere. We therefore request again that this information be included in the final report. It makes little sense to build an expensive surface storage project if it has a low probability of filling in drought years when water is needed most.</p>	<p>This is an essential technical analysis which Reclamation is currently performing. On February 22, 2013, I presented an “Illustrative Example” showing some preliminary analysis (a copy is attached). Reclamation’s Pacific Northwest Regional Office’s River and Reservoir Operations staff is currently performing more detailed modeling of alternatives using RiverWare. <a href="http://cadswes.colorado.edu/riverware/overview.html">http://cadswes.colorado.edu/riverware/overview.html</a>.</p> <p>This modeling will allow Reclamation to analyze changes in river hydrology (the most important environmental consideration), calculate reservoir fill probability, and include the impacts of climate change. Also, it is Reclamation’s intent to transfer model input files to the Idaho Department of Water Resources for future use.</p>
4	<p>While we commend the BOR for creating a workgroup comprised of members of the local public to serve as a sounding board during the study, the fact remains that most citizens of southeast Idaho have not have their voices heard throughout this process. That is one of major reasons why American Rivers commissioned Moore Information to conduct a public opinion poll in December 2010 – to find out how residents of southeast Idaho think the region should address its future water supply needs. We feel this poll contains valuable information that should be incorporated into the draft report. It would make sense to include a summary of the most relevant poll results in Chapter 1.7 (Regional Setting).</p>	<p>Reclamation has public open houses scheduled for May 13th and May 14th in Ashton, Island Park, and Driggs to support our ongoing communication effort. In addition, many newspaper articles have been published in local and state wide newspapers related to the Henrys Fork Basin Study. Reclamation developed and maintains a Henrys Fork Basin Study website which is accessible by the public and where the public can give their input and feedback. Reclamation circulated a press release to inform media of the availability of the Draft Interim Report.</p> <p>Reclamation does not consider it appropriate to include a public opinion poll commissioned by a third party to be incorporated into a technical study. Reclamation has stated that we are looking for informed input and feedback related to the technical aspects of the Study. Reclamation attended the Henrys Fork Watershed Council meeting when American River’s presented the results of the public opinion poll and considered that venue appropriate.</p>
5	<p>DEQ advocates water quality impacts should be a factor which weighs in on the viability of evaluated alternatives.</p>	<p>Comment will be forwarded to the appraisal-level study for consideration.</p>
6	<p>Idaho Water Quality Standards (WQS) contain provisions requiring analysis of actions within proposed permits or licenses to determine compliance with Idaho WQS antidegradation provisions. These provisions require that beneficial uses be maintained with more specific requirements depending on whether the water in question is in the Tier 1, 2 or 3 category. DEQ suggest further analysis by BOR address these provisions and include information about expected impacts to downstream waters. If degradation is identified as a concern then any permit or license application would need to address alternatives to the potential degradation and potentially a social and economic justification weigh the values of the project components. Details of potential impacts and mitigation, remediation, or restoration costs should be included in more detailed future analyses.</p>	<p>Comment will be forwarded to the appraisal-level study for consideration.</p>



Comments Received and Responses on the Henrys Fork Special Study Interim Report

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7	<p>Potential surface storage sites should be examined for potential leaching of contaminants that could be possible from the newly developed substrate and how redox reactions and solubility of metals, can be impacted by reservoir operations. Implications and impacts on downstream waters and beneficial uses should be included in the future analyses. DEQ recommends BOR consult DEQ's Managed Recharge section of the DEQ website: <a href="http://www.deq.idaho.gov/water-quality/ground-water/monitoring/managed-recharge.aspx">http://www.deq.idaho.gov/water-quality/ground-water/monitoring/managed-recharge.aspx</a> to guide future analysis.</p>	<p>Comment will be forwarded to the appraisal-level study for consideration.</p>