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ENGINEER-MANAGER
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MINUTES

BEAR RIVER COMMISSION REGULAR MEETING ONE HUNDRED THIRTY-THIRD COMMISSION MEETING NOVEMBER 20, 2018

I. Call to order – The regular meeting of the Bear River Commission was called to order by Chairwoman Jody Williams at 1:30 p.m. on Tuesday, November 20, 2018, at the Utah Department of Natural Resources building in Salt Lake City, Utah. This was the one hundred thirty-third meeting of the Commission. Williams asked the Commissioners and audience to introduce themselves. An attendance roster is attached to these minutes as Appendix A.

Williams then addressed the agenda for the meeting. The agenda was approved without change. A copy of the agenda is attached to these minutes as Appendix B.

II. Approval of minutes of last Commission meeting – Williams asked if there were any changes to the draft minutes of the previous Commission meeting held on April 17, 2018, in Salt Lake City, Utah. A motion was made to approve the minutes with no changes. The motion was seconded and passed.

III. Reports of Secretary and Treasurer – Eric Millis asked Randy Staker to give the financial report for the Commission. Staker highlighted some of the numbers for FY2018 and noted that total expenses for the year were \$142,119.93, leaving a balance in the account of \$99,260.32. Moving to FY2019, Staker reported that the Commission had collected a little over \$1,200 in interest to date in the account with the State Treasurer's office. He had received \$5,592 from the water quality invoices for the previous fiscal year, but noted that he had just received the first payment for the current fiscal year from Utah, which was not shown. The USGS stream gaging contract was paid in the amount of \$41,940, with total current expenses for the year at \$78,179.55. The available cash balance was \$162,892.31. A motion was made to accept the report of the Secretary and Treasurer which was approved unanimously. (The financial statement and budget sheet are attached to these minutes as Appendix C.)

IV. 2018 Water Supply – Troy Brosten from NRCS Snow Survey reported that 2017/2018 was the worst water year on record. He mentioned that with the current water year just beginning, a lot could happen going forward. There was not much snow pack in the mountains, but October was a good month for precipitation with 100 to 300 percent of normal, depending on location. November had been pretty dry, but significant storms were predicted for the end of the month. Brosten noted that the snow water equivalent (SWE) was very much in the red, with only about an inch of SWE in the Bear River area. It could swing either way, depending on the weather

going forward, but there was a long way to go. Brosten showed some graphs of predictions from NOAA for temperature and precipitation going out one month and three months. They show higher temperatures and above normal precipitation across Utah, moving into a wetter south and a drier north as time goes on. This would be a function of a weak El Niño pattern. Brosten summarized by reporting current approximate percentages, with cumulative precipitation at about 89 percent of normal and SWE at about 45 percent of normal. Reservoir storage was at about 60 percent. Brosten's PowerPoint is included in Appendix D.

V. 20-Year Compact Review – Chairwoman Williams noted that the current Compact Review had been going on for quite a while, but because of the interest shown, the Commission is continuing to look at and delve deeper into the comments that have not yet been resolved. In April of 2018, the Commission decided not to amend the Compact, but it will continue to address those comments. Williams turned the time over to Don Barnett to report further.

Barnett began by reminding the group that there were 67 written comments received which were broken down into the various kind of interest categories and whether or not they said yes, you should amend the Compact, or no, you should not amend the Compact. Fifty-six of the comments said not to amend the Compact. Those who said to amend the Compact fell into three groups. One was from an individual who has property around Bear Lake. Four of them were very similar and were associated with people with Great Salt Lake interests. One comment was from agricultural interests in the Cokeville area and had to do with regulation in the Central Division.

As to the last one, the specific comment received was to change the word “shall” to “may” in the Compact when it came to the determination of a water emergency, and then to strike the sentence that says that water allocated to Idaho in the Central Division could be used in the Lower Division. These two suggestions were discussed by the Commission in the spring meeting. The Commission ultimately made a motion to not amend the Compact, but then decided to keep talking about operations in the Central Division to determine what could be done to make things work better in the Central Division. The TAC was assigned to follow through on this subject. The TAC questioned whether or not the Lower Division Idaho water rights called Idaho water rights in the Central Division, and they determined that the answer was no. There was some discussion about potential additional study that might occur by the states and the TAC members relative to the frequency of water emergencies and the flows in the Rainbow Canal. There was also an assignment to Wyoming and to the Engineer-Manager to look more at the historical Compact negotiations. These items have been completed. The ultimate assignment was for the Engineer-Manager to write an initial draft of the response to that comment. That response has been written and just recently given to the Management Committee, so there hasn't yet been an opportunity for feedback. The Management Committee was to have another meeting and talk through some of the issues associated with this matter, but the effort is moving ahead towards conclusion.

The next item was relative to Bear Lake interests and the individual who had property around Bear Lake. There was an indication that the major purposes of the Compact of resolving current and future controversy had not been met and that the system had failed because the Commission hadn't been able to remove controversy associated with Bear Lake. The three controversial items identified were 1) low water levels in Bear Lake, 2) water quality concerns with Bear Lake, and 3) conservation at Bear Lake. The Commission voted to say that they didn't think these concerns rose to the level of amending the Compact. One specific comment saying that conservation measures ought to be instituted at a higher elevation was a little unclear, so the Commission assigned the Engineer-Manager to meet with the individual and better define his comments. In this meeting Barnett noted that the individual presented a graph with a line drawn from the last time the lake

was full and spilling which showed a general downward trend in the lake since that time. His conclusion was that the management of the lake was really not succeeding. Barnett responded that it depends on where you draw your line. He drew his own line showing how the lake has rebounded in the 20 driest year period on record and suggested that this graph shows that management of the lake has been astounding! The individual's justification for starting the line where he did was that it showed the natural water level in the lake. A specific comment from this individual was that the Compact should be modified so that conservation measures kick in at an elevation of 5919. Barnett said that as they talked, he was a little uncertain as to what the individual desired to see happen. Ultimately he said that he thought that something similar to what the Bear Lake Settlement Agreement says ought to be put in place, but rather than having it kick in at an elevation of 5914.7, it ought to kick in at an elevation almost five feet higher. Barnett reviewed with him the history of the Bear Lake Settlement Agreement and how these parties voluntarily came together and agreed to something that would work in the management of Bear Lake as opposed to something that the Commission would simply mandate with a change in the Compact and probably not have authority to do. He recognized that there are water rights and court decrees and many other things that affect how the Bear Lake is operated and managed. Barnett felt like they had a good overall discussion about his concerns. Some of his other comments would be picked up in another section of the 20-year review document because they were in common with other comments. Coming from this section of the responses, the TAC would talk about the joint applications for 400,000 af, review historical studies that are included in there and talk about fluctuations that are inherent in reservoirs. There were assignments to look at additional things such as the natural lake level, net inflows and outflows, the effect of the Settlement Agreement over the last 20 years and report on what they learn. Barnett commented on the current status of this section. He did have a meeting with the commenter and various members of the TAC are looking at the models and available data leading to a write-up on this section that would complete the matter.

The third area of those who wanted to amend the Compact had to do with Great Salt Lake interests. Their specific concerns were the allocations that were given in the Amended Compact to Idaho and Utah in the Lower Division for additional development which could occur and which could amount to a total of 550,000 af of water. There was a very large concern about what would happen to Great Salt Lake if that development were to occur. Because Great Salt Lake is wholly in Utah, the Utah folks in the TAC agreed to take the lead on having those conversations and discussions and to reach out to the various commenters to better understand their comments. There are some ongoing efforts and historical efforts by the Utah Division of Water Resources that would include those. As the TAC reviewed these comments, they noted first of all that the Great Salt Lake is outside of what's defined in the Compact as the Bear River. The Bear River definition ends right at the mouth as it enters the Great Salt Lake. Also, the Compact allocates water between states. It doesn't divide water to any specific water body. There is no allocation of water made to any of the lakes within the Bear River system in the Bear River Compact. The TAC members are looking into a couple of things that they can study so they can discuss the science and knowledge about what is going on with present lake levels as they meet with the Great Salt Lake interests and then write that section of the report. That part is a bigger assignment which is not yet done, but it is currently in process.

At the meeting of the TAC a list was created of additional recommendations to the Commission that would not include any changes to the Compact. The first was that the lion's share of the comments said don't change the Compact, so there will be a section written up in the report about that. There were several comments relative to creating an environmental committee or a watershed health committee. This was to be discussed later in the meeting. Other items that were brought up in the comments may lead to additional studies. These included impacts of water development on Great

Salt Lake, water banking and transfer policies (maybe across state lines), re-establishing and overall system health and drought policies.

As to the comments relative to the creation of a new committee covering environmental and watershed health, there were several discussions back and forth with the Water Quality Committee. Much of what might be envisioned as environmental or watershed health actually falls within the purview of the existing Water Quality Committee. In the TAC's discussion there were concerns about how a new committee might be created, how it would be constituted and who its membership might include. When the Water Quality Committee was created, it was very clear that there are state water quality leads, but there is not necessarily an equivalent in the three states with regard to who might be part of a general environmental and watershed health committee. There was also a major discussion in the TAC meeting that they don't want to give any kind of false impressions that somehow creating a committee might then make it so that committee could override state water law or Compact provisions. Just because there is a committee that is created and then discusses these matters doesn't mean that they can then supersede going through the normal state engineers' offices and water right processes. After this review and discussion of the TAC, a Management Committee meeting was convened. Ultimately there was a recommendation that the Commission's bylaws ought to be amended to officially recognize the TAC (which isn't presently a standing committee, but rather an ad hoc committee of the Commission) and to give them specific instructions to hear reports and meet with people and understand better environmental and watershed health issues that could affect the administration of the Bear River system and the Compact. Barnett mentioned that the TAC had been assigned to write a 20-year review report and showed the draft version of what had been done to date. He indicated that there would be several appendices, including the comments received, a number of documents that were generated as part of the 20-year review process tabulation, reports of the five different public meetings that were held, and the specific write-ups or responses to the various pieces.

VI. Amendment to Commission Bylaws – Barnett referred to Memorandum BR2018-20 regarding proposed changes to the Commission's bylaws recommended by the Management Committee as discussed in the previous agenda item. He noted that the last time the bylaws were amended was April of 2011. As they were looking at making the changes to more formalize the TAC, it came to their attention that there was an item in the bylaws which stated that notices of all meetings of the Commission were to be sent by ordinary mail. With one exception, all of the Commission's correspondence currently takes place through email. It was felt that an update would be appropriate to keep up with the times and that the bylaws should state that notification could take place by "electronic or ordinary mail".

The other item was to simply recognize the Commission's standing committees and then to amend the bylaws to recognize the Technical Advisory Committee and to provide a paragraph of instructions relative to the Technical Advisory Committee. Barnett noted that since he had sent out a draft version of the bylaws, there was one addition suggested by the Management Committee saying that the TAC should meet at least annually, prior to the April Commission meeting. This means that at least there would be a spring meeting of the TAC, but there could be other meetings as well. Barnett then asked for any discussion from the group on this topic.

Eric Millis brought up something that the Utah caucus had discussed prior to the Commission meeting. He noted that in the second line it designates the Engineer-Manager as the Chair of the Technical Advisory Committee. They wondered if it would be a good idea to have one of the TAC members be the Chair of the TAC that it would instill some ownership and maybe spark the states

to bring forward some of the issues and things that are important to them and meet at least annually, but maybe more than that, and also, consistent with the other committees of the Commission, it would be chaired by a member of the committee itself. Millis suggested wording that could be included with the change, as follows: "It shall be chaired by a member of the TAC, with the Engineer-Manager as an advisor and facilitator."

Pat Tyrrell added that the Wyoming caucus also talked about this change when they heard about it. The Wyoming TAC members felt that this change would be fine. Tyrrell noted that they would probably rotate this position through the states, and he also suggested that this would be more work for those folks, but it does align with the other committees.

Gary Spackman noted that the Idaho caucus heard about this also toward the end of their meeting and talked about it in passing. They didn't really bring up any points, but he felt that Idaho did not object to this proposal.

Millis added that they could leave things as they were and discuss this further with the states and come back later if that would be preferred.

Barnett suggested that if there is any question about the amendment, it could be left undefined with something that says it would be chaired by assignment from the Management Committee.

Spackman felt that the procedures as to selection of a chair were a little unclear and that maybe the TAC itself could be responsible for selecting the chair. However, he said that he was in favor of just moving forward and taking action rather than delaying it to a future Commission meeting. He noted that if it doesn't work, the procedures could be amended again! So, he moved that the amendments to the procedures be adopted as proposed and displayed.

Barnett commented that you needn't specify in the bylaws, but you could just agree among yourselves that the chairmanship would rotate on some basis like the other committee chairmanships, and you could say that whichever state has the Vice Chair also has the TAC chairmanship for a two-year period. For clarification Barnett suggested that the chair of the TAC would be one of the TAC members and not a Commissioner.

Chairwoman Williams went back to the motion that had been made. The motion was then seconded. Williams opened the topic to discussion from the larger group in attendance.

Nathan Bracken noted that on the third line of No. 4 it says that the TAC "shall meet on an as-need-basis, but at least annually prior to the April Commission meeting." He wondered if that should say "as needed." (This change was made without hesitation.) His other question had to do with clarity as Spackman had brought up. He noted that the TAC would meet at least once a year prior to the April meeting, so it's at least one meeting if not more. He wondered if the wording could be a little clearer there.

Tyrrell responded that they had discussed having two meetings a year or more. Certainly this does not preclude that. I think we left it at that, but certainly we need at least one formal meeting at which some of these other presentations can be made every year. Whether we decide through a policy statement or some other way how the chair is selected or how long they serve, I think we can handle that.

Marcelle Shoop from the National Audubon Society noted that they were one of the commenters that asked for a forum for watershed health and environmental issues. She thanked the Commission for their work in considering this comment and request and for taking it forward and finding a place for these issues to be brought to the floor. She wondered if there would be a process for the meetings of the TAC to be noticed publicly.

Barnett commented that this was something which was discussed among the Management Committee. There were two things they planned on doing. One would be to post the meetings on the Commission's website. The other had to do with the list that the Commission has for those who would like to receive notice of TAC meetings. Anyone who is interested could be added to that list to receive meeting notices.

The motion was then offered again with the change from "as-need" to "as needed." Spackman moved that the Commission adopt the proposed amendments to the Commission Bylaws as proposed and displayed with the express change that the language state "on an as-needed basis." This motion was seconded and passed unanimously.

There was a wondering about some of the details involved in these changes for the TAC. It was suggested that the Engineer-Manager could arrange for a meeting of the TAC under his role as facilitator. As to who the first chair of the TAC would be, Millis offered that Utah could take on that responsibility initially and he recommended Todd Adams for the job. This became a motion which was seconded and approved by acclamation. It was agreed that the TAC would report at the Commission meetings, along with the other standing committees.

Just to make sure that everyone had seen the minor changes on page 3 of the Bylaws, it was determined that another motion be made to make sure that all changes were included and voted on. Pat Tyrrell started at the beginning of the Bylaws and pointed out that the words "electronic or" be added to Article IV, item 4, that "the Commission's standing committees" be added to Article IV, item 9, that the "Technical Advisory Committee" be added under Article V, item 1 as a standing committee, and that the language on the screen which says that the TAC "shall be chaired by a member of the TAC with the Engineer-Manager as an advisor and facilitator" be the version that is approved, as well as the "as-needed" typographical error that was fixed earlier, which constitutes the entirety of the changes to the Bylaws. He moved that those changes be made and approved by the Commission. The motion was seconded and approved unanimously.

VII. Improvements to diversion structures – Jim DeRito from Trout Unlimited made a presentation regarding what he called Upper Bear River Stream Restoration and Irrigation Efficiency (see Appendix E). He began by outlining their goals for diversions in the Bear River watershed, including river and fish goals and diversion goals. They work on improving water quality. They try to improve fish passage so they can move back and forth past irrigation diversions and also limit the amount of fish that go down an irrigation diversion. In some cases they try to improve stream flows below irrigation diversions. They work with water users on their individual diversions to improve water delivery as well. They also like to improve their operation and maintenance, if possible, in removing headgates and other structures that are no longer working well. In some places they help reduce conveyance loss as irrigators move from flood irrigation to sprinklers, and sometimes they install pipe in canals where it is needed to avoid seepage. DeRito noted on his graph that where the two circles overlap there may be a potential for a project. He reported that since about 2004, Trout Unlimited has worked on about 49 irrigation diversions across the Bear River watershed. He showed a map of the watershed with numbers at each irrigation diversion. He noted that about 33 of these diversions have had fish screens installed in

them. Up until the past couple of years, the diversions they have worked on have been on tributary streams, but they are now working on the main stem of Bear River. DeRito focused on Cutthroat Trout in the Upper Bear River. He explained that Cutthroat are migratory and will move to the habitat they need, especially for spawning. They migrate to the headwaters, but as some of them head back downriver, they get captured in irrigation diversions. They hope to be able to improve this situation.

DeRito reported that Trout Unlimited received some funding from the Natural Resources Conservation Service to work on these goals on this part of the Bear River. It is called the Regional Conservation Partnership Program. He then ran through a handful of projects that have been completed or are in progress with pictures before and after the work.

VIII. Records & Public Involvement Committee report – Beth Callaway gave the report for the Records & Public Involvement Committee. Cory Angeroth from USGS noted that there would be an increase of 2.4 percent in stream gage costs for FY 2019. There were no changes to the list of stream gages from the previous year. The water quality agencies will continue to pay 20 percent for the Commission's stream gages. The Bear Lake Water Quality platforms have been installed and are collecting data. The Committee reviewed the list of Bear River system stream gaging stations for 2018 and made some adjustments to the last column of the list. The Committee considered the addition of a new USGS Bear Lake water elevation gage at the marina, including the advantages and disadvantages and the costs. A motion was approved to recommend that the TAC review this subject and report at the April Commission meeting. Regarding public events, Don Barnett suggested the possibility of holding a 2019 Lower Division tour and the Committee approved a motion to work on a plan for the tour. Barnett also gave an overview of what would be presented in the Commission about the 20-year Compact Review. The Committee discussed the biennial report. The 2017 chapter was completed and they will be moving ahead on the 2018 chapter. It should be finished by April to be published by the end of June. Publications of interest included a Bear Lake sedimentation study that was published by Utah State University which has been posted on the WIS and Bear Lake Watch websites.

Callaway reported that the Committee recognized the service of Liz Cresto and her departure from the Idaho Department of Water Resources. Her replacement was Matt Anders who was welcomed to the Commission and the TAC.

IX. Operations Committee report – Matt Anders gave the report of the Operations Committee meeting. He noted that Don Barnett discussed the rainfall for 2018 with the group, which was about 30 percent of normal. The Commissioners supported Barnett's request to add information about the low precipitation to the Biennial Report for 2018. The Committee then discussed Upper Division distribution in 2018. Wyoming reported significant storage use and lower reservoir contents at the end of the irrigation season. Barnett stated that Woodruff Narrows Reservoir would be filled in 2019 with Amended Compact water. Regarding water distribution in the Central Division, Barnett displayed a graph showing when the emergency was, what the flow was at the Border gage, diversions versus allocations for Idaho and Wyoming and late season flows. Josh Hanks reported that diversion went well in the Central Division in 2018. For Lower Division distribution Connely Baldwin talked about flood control releases from Bear Lake which ended on March 13th. Irrigation releases totaling 191,000 AF began on May 26th and ended on September 6th. Will Atkin reported that the lack of late season rain resulted in a shorter water supply. Atkin also discussed water distribution to the Wildlife Refuge after October 1st. The TAC was assigned to review diversions to the Refuge.

Scott Archibald of Sunrise Engineering discussed a project which would require moving a POD into Utah from Idaho on an Idaho water right. James Cefalo from IDWR stated that they would need a transfer to do that, and Utah indicated that they will probably follow the exchange protocol for that POD transfer. If all goes well they will start installing pipe in 2019. The Commissioners agreed to assign Utah and Idaho TAC members to help with additional cooperation on this transfer. Idaho and Wyoming addressed the Thomas Fork transfer which would move water from Idaho to Wyoming and they reported that all of the issues have been resolved with this transfer. The Paris Hills project was sold to Itafos which also owns the Conda mine. This project involves trying to mine below the water tables. They plan to dewater the mine at a diversion rate of about 50 cfs. The first option was to inject the water. As they weren't able to make that work, they are now looking at possibly putting it into Bear Lake or some other option.

Wyoming reported that they were collecting data on supplemental use and will be compiling that data. Barnett noted that when complete, it would be good to review the methodology to see if it can be used in the other states. The Committee reviewed a long list of new water use proposals. Barnett stated that he had been contacted about the drought monitor and the need for the Bear River Commission to possibly be involved.

Connely Baldwin then talked about Bear Lake operations (see Appendix F). He noted that they did operate for flood control during the winter, ending on March 16th. The high elevation on July 11th was 5920.44 ft. At the end of the irrigation season, the lake was at 5916.48. This decline from high to low of 4 ft. is typical of a below normal year, but not as bad as a severe drought which could drop as much as 5 ft. Baldwin also reported on the Cutler license renewal for the Federal Energy Regulatory Commission. A pre-application document and a Notice of Intent must be filed by March 29th. After that there will be scoping meetings and an assigned visit. He noted that in other meetings there were discussions on the potential for increasing the maximum water surface elevation, but because they are in the process of renewing their federal license, they plan to keep their same operations and the upper reservoir elevations similar to those in the current license. They still plan to evaluate that, but not as part of the relicensing process.

X. Water Quality Committee report – Jim Harris provided a report on the Water Quality Committee meeting which was held on November 5, 2019. He mentioned an update given by Jim DeRito on the Booth Canal diversion upstream of Evanston which is habitat for Bonneville Cutthroat Trout. A push-up dam removal and diversion upgrade were recently completed there. Restoration is very valuable in the tributaries that are often high sources of sediment. Harris mentioned the ongoing project for the water quality buoy stations on Bear Lake. Although quite expensive and labor intensive to install, he felt that some of the data that has come out of there show a good picture of how water quality changes in the lake over the course of the year. Though Bear Lake is in good condition, it has some really good application for water values that might be impaired. You can look at the extent and the duration of some of these impairments and how they develop over the year. This could be a very valuable project going forward. We also heard from the Cottles on a couple of projects they are working on. Dave Cottle discussed an application he is building for displaying wind and weather information for the public and users of the lake, which could be very beneficial. Claudia Cottle discussed her project to monitor some of the sources of beach sands which are being lost due to encroachment by sediment. There was also a discussion of real-time gaging of lake levels. The Committee was in general support of that, but needed to work out the details going forward. A report on sediment dynamics in Mud Lake will soon be available on the Bear Lake Watch webpage. Harris also mentioned that the Committee heard from the Fish and Wildlife Service reporting on their efforts to manage macrophytes in the lake. They have a goal of 50 percent coverage of macrophytes for water fowl, habitat and food sources.

Harris stated that they received reports from the states on water quality projects in each state. Lynn Van Every from Idaho gave a summary of restoration efforts over the years since 2008. They have put \$2 million in their 319 projects for 17 restoration projects. PacifiCorp has funded over 100 projects for a total of \$5 million, not including matching funds, since 2003. Six wastewater treatment plants in Idaho are all in some phase of implementation of the Bear River TMDL for phosphorus. Mike Allred also reported on some Utah projects in Rich County with the grazing management that is ongoing. In Big Creek they are managing over 130,000 acres of land for grazing rotations. He also reported on Lower Bear improved water winter grazing management and land application of manure projects that are ongoing. They also heard an update on the Logan River restoration project which is ongoing.

Each state then gave an overall report. Barry Burnell gave a selenium update for Georgetown Creek and noted that they are awaiting approval from the EPA for the work there. Erica Gaddis gave a TDL update on the Lower Bear River. Utah will be renewing that and including new data information to make it more timely. She also reported on some of the funding challenges they have been facing as there are a lot of very large projects going on in the State of Utah. Harris noted that harmful algal blooms are a common concern for both Utah and Wyoming. It is challenging to tackle those issues as they need to not only get out there and do the monitoring, but also do the lab analysis and other things. Like Wyoming, Utah also uses satellite imagery to highlight areas that are potential concerns so that they can start to monitor and follow through. He mentioned that Utah received funding from their legislature for the first time, which will help them improve their forecasting and monitoring. It will also help them to better inform the public of the potential hazards.

Action items that came out of the meeting had to do with funding of the lake levels at Bear Lake and the idea of using buoys to help in getting estimates of evaporation rates for the lake. Harris indicated that the Committee is committed to gather this important data, and getting these items funded will most likely be part of the discussions at the next Water Quality Committee meeting. Harris noted that they will have a tri-state meeting in January to discuss the tri-state monitoring efforts for the coming year.

XI. Management Committee report – Eric Millis reported that the Management Committee had met the previous evening and they discussed a number of items ranging from the budget to the 20-year Review and other things that had already been discussed in the Commission meeting. Therefore, he had nothing to add from the Management Committee.

XII. Engineer-Manager's report – Don Barnett gave a quick report of a discussion that occurred in the Management Committee. Commissioner Romrell had notified them of some questions or concerns that came up as to the use of Commission data which was going into the drought monitoring map and then being used by FSA to determine whether or not irrigators were allowed to receive assistance during drought periods. For example, the issue of Bear Lake being at a high stand, even in an extremely dry year, may have been misused in such a way that it precluded irrigators from receiving drought assistance money. The Management Committee determined that they ought to pursue this to help them better understand how the data are being used and to work with those who are using our data. Barnett reported that, as part of this, he has been corresponding with folks who may be involved in this. He indicated that he had just received an email thanking him for contacting them. Apparently, the drought coordinator from Utah had recently resigned and the position had not yet been filled. As some of these data were going into the system, they recognized a deficiency and were reaching out wanting to talk about it. Barnett felt that the

assignment would be to get together with them and maybe have the TAC invite them to a TAC meeting to try and inform them about the data and what the data mean. Perhaps they could come up with a better system for them to use the data to assess whether or not there is truly a drought and hence, a need for federal assistance dollars. He expressed appreciation to Commissioner Romrell for bringing this up and indicated that they would follow through on this situation.

XIII. State Reports – Wyoming – Pat Tyrrell stated that Wyoming would be installing a new governor in January by the name of Mark Gordon. He comes from a ranching background and has served for a few years as Wyoming State Treasurer. He has been involved in such things as Wyoming's Environmental Quality Council and the Federal Reserve Bank in Kansas City. He has a strong financial background, as well as a natural resources background. Tyrrell felt the new governor would do well. He explained that their interstate work in large part has been dominated by the Colorado River. As the water levels at Lake Mead and Lake Powell have become extremely low, there has been an urgency to come up with a drought contingency plan, and this effort has been going on at a furious pace. At the time they were still waiting for Arizona to sign off. As the Colorado River Basin is famous for not going forward unless they have a seven-state consensus, Arizona was really the lynch pin vote and they were down to the last few seconds to get federal legislation authorizing the implementation of those drought plans before it went into the lame duck session. Tyrrell reported that Wyoming has had a couple of water related bills that have surfaced. One had to do with water banking, but he felt that it was premature and that a lot more work needed to be done. It didn't have a well-conceived reason for being. It basically suggested setting up a water banking program, but it wasn't clear as to why and how it would work. He didn't think that the issue would go away, but the current bill probably would. Tyrrell mentioned another bill that would require people in the position of interstate stream commissioner to be confirmed by the Senate upon appointment. For decades this position has always been filled by a governor appointee. As has been seen in other places, there is some legislative reach into executive branch duties at times, and he felt this was in that category. The bill also sought to make division superintendents senate-confirmed with a six-year term. Tyrrell didn't think the bill would get a whole lot of support, but you never really know until the legislative session is over. He noted that in addition to those two bills, their Water Development Program always has an omnibus construction bill and an omnibus planning bill which also would be part of their normal legislative package.

XIII. State Reports – Idaho – Gary Spackman had two matters that he wanted to talk about. He noted that, like Wyoming, Idaho would also be installing a new governor. He mentioned that there had been a lot of discussions during the campaign season about the appropriation of significant amounts of money from the general fund in Idaho for water projects. He anticipated that there would be a legislative and perhaps a joint executive legislative movement to appropriate some tens of millions of dollars out of the general fund for water projects. There was a general feeling that Idaho had not set aside enough money to be agile and opportunistic in participating when federal funds become available for cost share. He thought there was both a legislative and an executive desire to set aside some of those moneys. He thought that there was also a desire to spread some of that money statewide. The money will end up in the coffers of the Idaho Water Resource Board and they want to spend money outside of the Snake River Basin because so much of it is spent there, so there may be some project opportunities in the Bear River Basin.

Spackman also reported on what he knew regarding applications that have been filed by both the State of Idaho and the State of Utah for additional storage in Bear Lake. He noted that he is purposefully excluded from those meetings, but he had some idea what was happening. He had been told by the participants that there are regular meetings scheduled and conducted between the

two states and PacifiCorp and that those discussions are at least fruitful at the present time. It was his understanding that the participants were looking to model at least the operations of the lake and the upper part of the river through a common surface water modeling medium, probably RiverWare, to determine how much storage water might be available on an annual basis in the lake for additional impoundment and dedication for various uses.

X III. State Reports – Utah – Eric Millis added to Spackman’s report regarding the applications from Utah’s perspective. He reported that since the Commission meeting in April, the State of Utah had reached out to perhaps 35-40 groups to talk about their interests and concerns related to those applications, as well as what they think could be done that would produce some good in the entire system. They met with water users and water supplier groups, mineral companies, environmental groups and a lot of interests related to Great Salt Lake. They have also met with PacifiCorp about monthly just talking through possibilities and the idea of a comprehensive model, as mentioned by Spackman, that could be used by all involved to better understand the system and consider what-ifs. PacifiCorp expressed their interest in what they call a “spinning reserve” which would be an important backup for them in the event of a major power outage. Millis characterized all the meetings that have taken place as good and productive.

Millis also reported on Utah’s Bear River Development Project. About a year and a half earlier, the Governor’s office put together the Executive Water Finance Board which has met about monthly since that time to look at ways that the State of Utah can effectively assist and have some control as large water development projects such as the Lake Powell Pipeline in southern Utah or the Bear River Development Project in the northern part of the state are considered and going through the development process. He noted that there would be some recommendations included in the Governor’s budget for the year that have come from that group, many regarding water conservation, as well as metering, acceptable landscapes at public facilities, and other such things. Millis noted that they continue to do a lot of work on municipal and industrial water conservation and secondary water metering where they have all of these systems that are not metered, especially just north of Salt Lake in the Davis and Weber Counties. Historically, people have been able to just run the water as they please to water their lawns without much thought as to how much water they are using. The benefit of metering would be to help people see how much water they are using, and perhaps one day have that use billed based on the data that would come from those meters. This has been discussed quite a bit. Millis noted that a bill was introduced in the legislature the previous year, but it still needed some work and didn’t pass. He thought that the bill would be up again this year with a good chance of passing.

XIV. Other / Public Comment

A. Activities of the Bear River Water Users Association – Brent Rose represented the Bear River Water Users Association in expressing appreciation to Carly Burton for his service as the Executive Director of the Association for a number of years. He explained that the Association Board decided that in order to cut costs, they would try to take on more of the responsibilities themselves with the assistance of himself and Randy Budge. Rose felt that there had been some amazing things accomplished on the Bear River as opposed to the problems you hear about with other multi-state programs around the country. He attributed this to the Settlement Agreement that is in place in the Bear River Basin. Rose referred to the water filings of the States of Idaho and Utah for additional storage rights in Bear Lake and noted that they had filed protests against both of those applications on behalf of the Association with the intent of protecting the water rights and interests that the Association has by contract for supplemental storage out of Bear Lake. Rose also noted that they

are monitoring new applications that are filed in both Idaho and Utah and protesting those that they think are warranted in the interest of their members.

B. Bear Lake Watch – Claudia Cottle thanked the Commission for bringing their recent tour to Bear Lake and felt that it was a benefit to those who attended, especially those people whose lives and livelihoods depend on Bear Lake. They were able to learn more about the operation of the lake and how it affects them. She wanted to encourage the Commission and the TAC to act swiftly on the idea of the Bear Lake elevation gage so the work could go forward. She felt that there were missed opportunities to use that information and move it into the public realm. She expressed appreciation for all that the Commission does and requested that the Commission try to move this project forward.

C. Other – There was no further public comment to be brought before the Commission.

XV. Next Commission meeting – Chairwoman Williams announced that the next Commission meeting was scheduled to be held on Tuesday, April 16, 2019.

A motion to adjourn the Commission meeting was made and approved. The Commission was then adjourned.

ATTENDANCE ROSTER

BEAR RIVER COMMISSION REGULAR MEETING

Utah Department of Natural Resources
Salt Lake City, Utah
November 20, 2018

IDAHO COMMISSIONERS

Gary Spackman
Curtis Stoddard
Kerry Romrell
Mark Ipsen (Alternate)

UTAH COMMISSIONERS

Eric Millis
Charles Holmgren
Blair Francis
Norm Weston (Alternate)

WYOMING COMMISSIONERS

Pat Tyrrell
Tim Teichert
Adrian Hunolt

ENGINEER-MANAGER & STAFF

Don Barnett
Donna Keeler

FEDERAL CHAIR

Jody Williams

OTHERS IN ATTENDANCE

IDAHO

James Cefalo, Department of Water Resources
Matt Anders, Department of Water Resources
Josh Hanks, Water Master

UTAH

Will Atkin, Division of Water Rights
Boyd Clayton, Division of Water Rights
Skyler Buck, Division of Water Rights
James Harris, Division of Water Quality
Todd Adams, Division of Water Resources
Randy Staker, Division of Water Resources
Jake Serago, Division of Water Resources
Feng Pan, Division of Water Resources
Ron Hoffman, Water Commissioner

WYOMING

Beth Callaway, State Engineer's Office
Kevin Payne, State Engineer's Office
Mike Johnson, State Engineer's Office

OTHERS

Troy Brosten, NRCS Snow Survey
Connely Baldwin, PacifiCorp Energy
Cory Angerth, U.S. Geological Survey
Ben Radcliffe, U.S. Bureau of Reclamation

Dwight Slaugh, U.S. Bureau of Reclamation
Voneene Jorgensen, Bear River WCD
Nathan Daus, Cache Water District
Trevor Nielson, Bear River Canal Company
Claudia Cottle, Bear Lake Watch
David Cottle, Bear Lake Watch
Brent Rose, Bear River Water Users
Jim DeRito, Trout Unlimited
Nathan Bracken, Smith Hartvigsen
Devin Bybee, Smith Hartvigsen
Clint Carney, Utah State University
Ann Neville, The Nature Conservancy
Marcelle Shoop, National Audubon Society
Sue Lowry, Avocet Consult

APPROVED AGENDA
REGULAR COMMISSION MEETING

November 20, 2018

Convene Meeting: 1:30 p.m.

Chair: Jody Williams

- | | | |
|------|---|---------------|
| I. | Call to order | Williams |
| | A. Welcome of guests and overview of meeting | |
| | B. Approval of agenda | |
| II. | Approval of minutes of last Commission meeting (April 17, 2018) | Williams |
| III. | Reports of Secretary and Treasurer | Millis/Staker |
| | A. 2018 budget closeout | |
| | B. 2019 expenditures to date | |
| | C. Other | |
| IV. | 2018 Water Supply | Brosten |
| V. | 20-year Compact Review | Barnett |
| VI. | Amendments to Commission Bylaws | Williams |
| VII. | Improvements to diversion structures | DeRito |

BREAK

- | | | |
|-------|---|------------|
| VIII. | Records & Public Involvement Committee report | Teichert |
| IX. | Operations Committee report | |
| | A. Committee meeting | Romrell |
| | B. Operations in 2018 | Baldwin |
| | C. PacifiCorp operations | Baldwin |
| X. | Water Quality Committee report | Jim Harris |
| XI. | Management Committee report | Millis |
| XII. | Engineer-Manager's report | Barnett |
| XIII. | State reports | |
| | A. Wyoming | Tyrrell |
| | B. Idaho | Spackman |
| | C. Utah | Millis |
| XIV. | Other / Public comment | Williams |
| | A. Activities of the Bear River Water Users Association | Rose/Budge |
| | B. Bear Lake Watch | Cottle |
| | C. Other | |
| XV. | Next Commission meeting (Tuesday, April 16, 2019) | Williams |

Anticipated adjournment: 4:30 p.m.

BEAR RIVER COMMISSION
STATEMENT OF INCOME AND EXPENDITURES

FOR THE PERIOD OF July 1, 2017 to June 30, 2018

INCOME	CASH ON HAND	OTHER INCOME	FROM STATES	INCOME
Cash Balance 07-01-17	110,583.25			110,583.25
State of Idaho			40,000.00	40,000.00
State of Utah			40,000.00	40,000.00
State of Wyoming			40,000.00	40,000.00
Water Quality		8,343.00		8,343.00
Interest on Savings		2,454.00		2,454.00
 TOTAL INCOME TO				
30-Jun-18	110,583.25	10,797.00	120,000.00	241,380.25

DEDUCT OPERATING EXPENSES

	APPROVED BUDGET	UNEXPENDED BALANCE	EXPENDITURES TO DATE
Stream Gaging/USGS Contract	41,270.00	-	41,270.00
SUBTOTAL	41,270.00	-	41,270.00
EXPENDED THROUGH COMMISSION			
Personal Services BIWC	65,640.00		65,640.00
Travel (Eng-Mgr)	1,200.00	2.23	1,197.77
Office Expenses	1,600.00	(117.47)	1,717.47
20-Year Compact Review	7,000.00		7,000.00
Printing Biennial Report	1,000.00	1,000.00	-
Treasurer Bond & Audit	1,400.00	1,300.00	100.00
Printing	1,600.00	(4.90)	1,604.90
Realtime Web Hosting	8,400.00	2,984.01	5,415.99
Clerical	8,510.00	(7,168.31)	15,678.31
Tour	2,500.00	4.51	2,495.49
Contingency	2,000.00	2,000.00	
SUBTOTAL	100,850.00	0.07	100,849.93
TOTAL EXPENSES	142,120.00	0.07	142,119.93
CASH BALANCE AS OF 06/30/18			99,260.32

BEAR RIVER COMMISSION
DETAILS OF EXPENDITURES

FOR PERIOD ENDING June 30, 2018

852	VOID	
853	USGS	41,270.00
854	BIWC	10,940.00
855	STONEFLY	1,800.00
856	BOX ELDER NEWS JOURNAL	32.65
857	CARIBOU COUNTY SUN	36.68
858	VOID	
859	THE IDAHO ENTERPRISE	38.03
860	KEMMERER GAZETTE	40.50
861	SVI MEDIA	57.00
862	UINTA COUNTY HERALD	76.00
863	BIWC	7,083.53
864	CACHE VALLEY PUBLISHING	182.49
865	UTAH MEDIA GROUP	60.44
866	STANDARD EXAMINER	90.25
867	BIWC	16,620.67
868	BIWC	8,147.78
869	STONEFLY	1,800.00
870	VOID	
871	BIWC	9,504.55
872	BIWC	5,798.83
873	C N A Surety	100.00
874	VOID	
875	BIWC	5,513.45
876	STONEFLY	1,815.99
	Bank Service Fee	24.00
877	BIWC	5,587.28
878	BIWC	14,857.53
880	BIWC	3,642.28
TOTAL EXPENDITURES		135,119.93

BANK RECONCILIATION

Cash in Bank per Statement 06/30/18	(2,466.07)
Plus: Intransit Deposits	
Less: Outstanding Checks	
Total Cash in Bank	(2,466.07)
Plus: Savings Account-Utah State Treasurer	101,726.39
CASH BALANCE AS OF 06/30/18	99,260.32

BEAR RIVER COMMISSION
STATEMENT OF INCOME AND EXPENDITURES

FOR THE PERIOD OF July 1, 2018 to November 16, 2018

INCOME	CASH ON HAND	OTHER INCOME	FROM STATES	INCOME
Cash Balance 07-01-18	99,260.32			99,260.32
State of Idaho			45,000.00	45,000.00
State of Utah			45,000.00	45,000.00
State of Wyoming			45,000.00	45,000.00
Water Quality		5,592.00		5,592.00
Interest on Savings		1,219.54		1,219.54
 TOTAL INCOME TO				
16-Nov-18	99,260.32	6,811.54	135,000.00	241,071.86

DEDUCT OPERATING EXPENSES

	APPROVED BUDGET	UNEXPENDED BALANCE	EXPENDITURES TO DATE
Stream Gaging/USGS Contract	41,940.00		41,940.00
 SUBTOTAL	41,940.00	-	41,940.00
 EXPENDED THROUGH COMMISSION			
Personal Services BIWC	67,281.00	39,247.25	28,033.75
Travel (Eng-Mgr)	1,200.00	1,168.45	31.55
Office Expenses	1,600.00	1,458.90	141.10
Printing Biennial Report	1,000.00	1,000.00	-
Treasurer Bond & Audit	1,400.00	1,400.00	-
Printing	1,600.00	1,495.50	104.50
Realtime Web Hosting	8,400.00	4,800.00	3,600.00
Clerical	8,723.00	6,890.95	1,832.05
Tour	2,500.00	3.40	2,496.60
Contingency	2,000.00	2,000.00	-
 SUBTOTAL	95,704.00	59,464.45	36,239.55
 TOTAL EXPENSES	137,644.00	59,464.45	78,179.55
 CASH BALANCE AS OF 11/16/18			162,892.31

BEAR RIVER COMMISSION

DETAILS OF EXPENDITURES

FOR PERIOD ENDING November 16, 2018

879	StoneFly Tech	1,800.00
881	BIWC	24,596.54
882	StoneFly Tech	1,800.00
883	BIWC	8,043.01
884	USGS	41,940.00

TOTAL EXPENDITURES	78,179.55
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BANK RECONCILIATION

Cash in Bank per Statement 11/16/18	(30,053.62)
Plus: Intransit Deposits	
Less: Outstanding Checks	
Total Cash in Bank	(30,053.62)
Plus: Savings Account-Utah State Treasurer	192,945.93
CASH BALANCE AS OF 11/16/18	162,892.31



United States Department of Agriculture

Bear River Commission Water Supply Outlook

November 20, 2018

Upper Emigration Canyon, UT
October 26, 2018



Natural
Resources
Conservation
Service

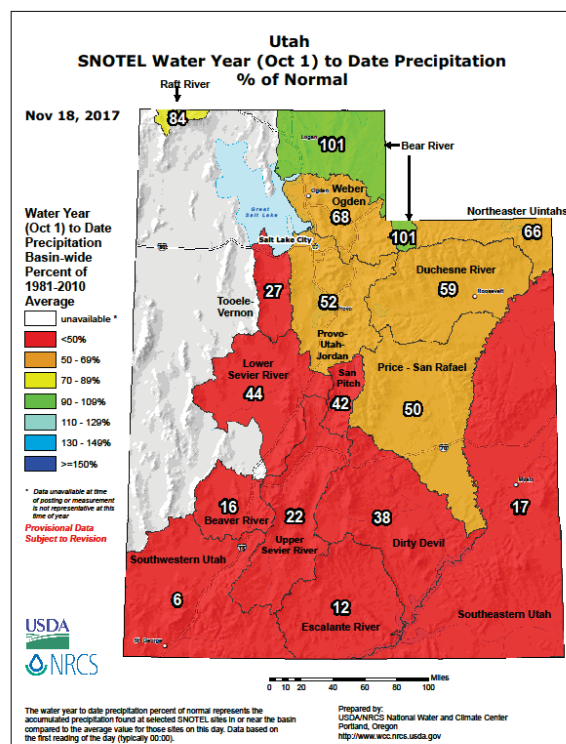
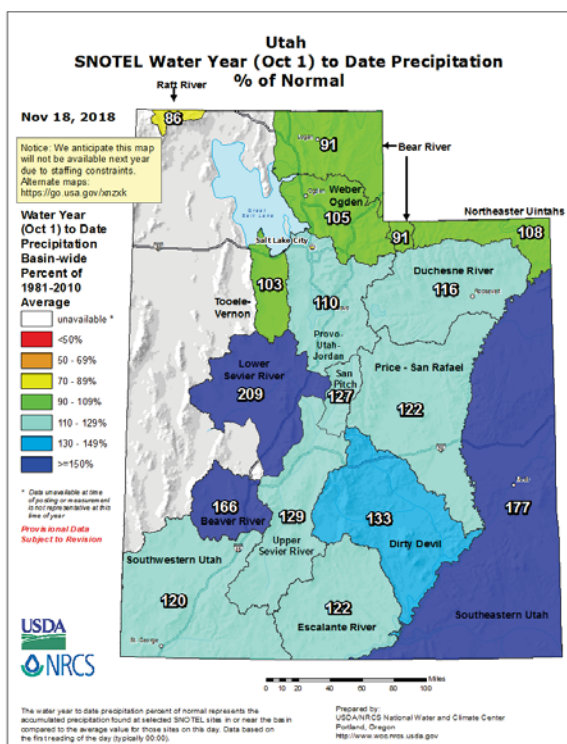
www.ut.nrcs.usda.gov/snow

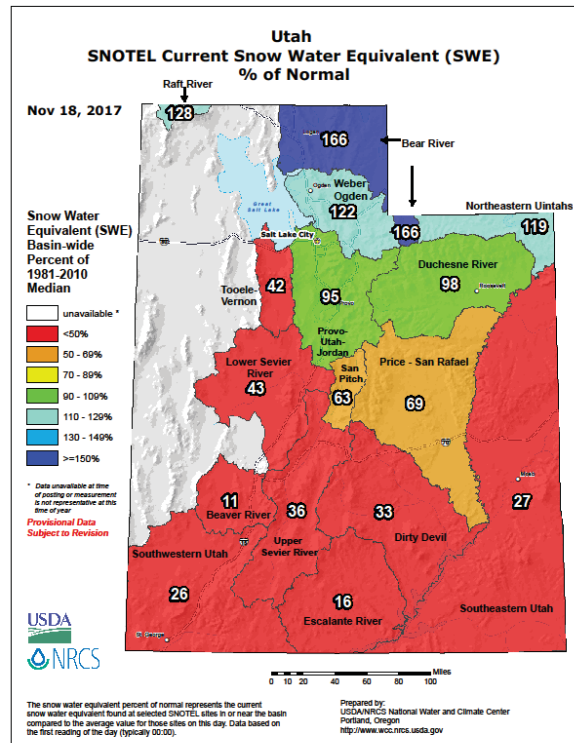
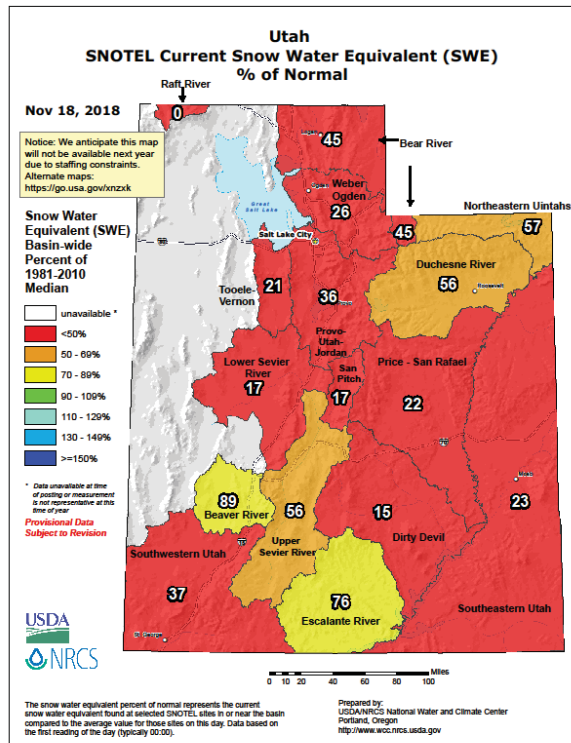
Troy Brosten
NRCS Snow Survey

Phone: 385-285-3114
Email: troy.Brosten@ut.usda.gov

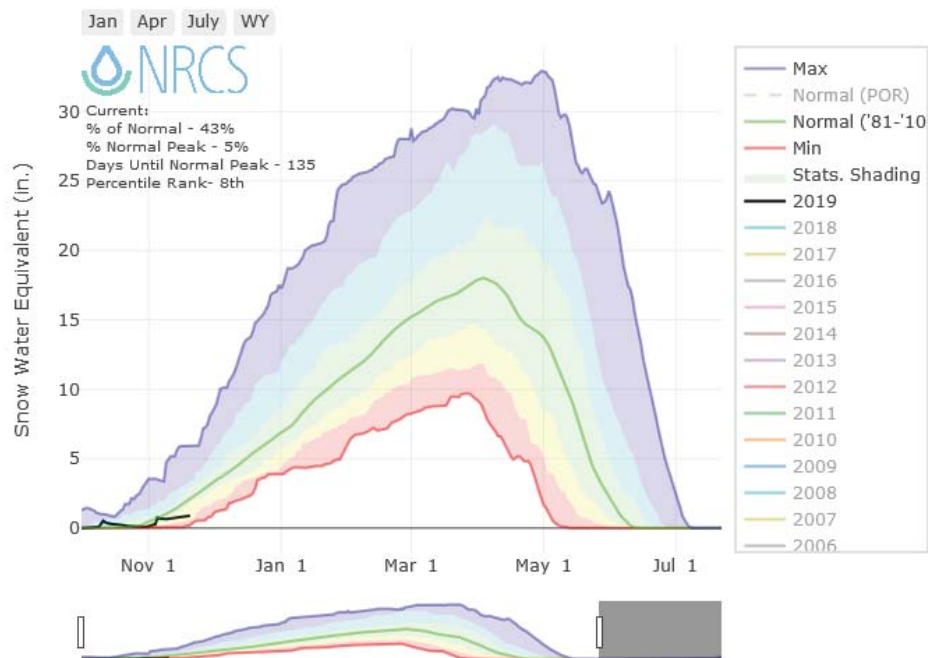


United States Department of Agriculture



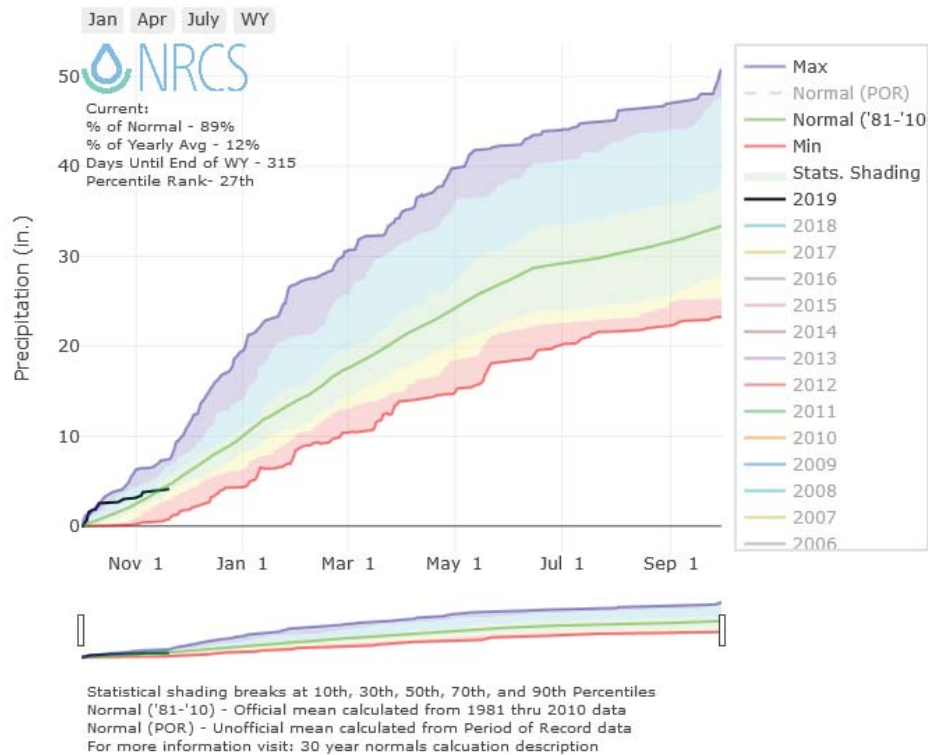


Snow Water Equivalent in Bear River

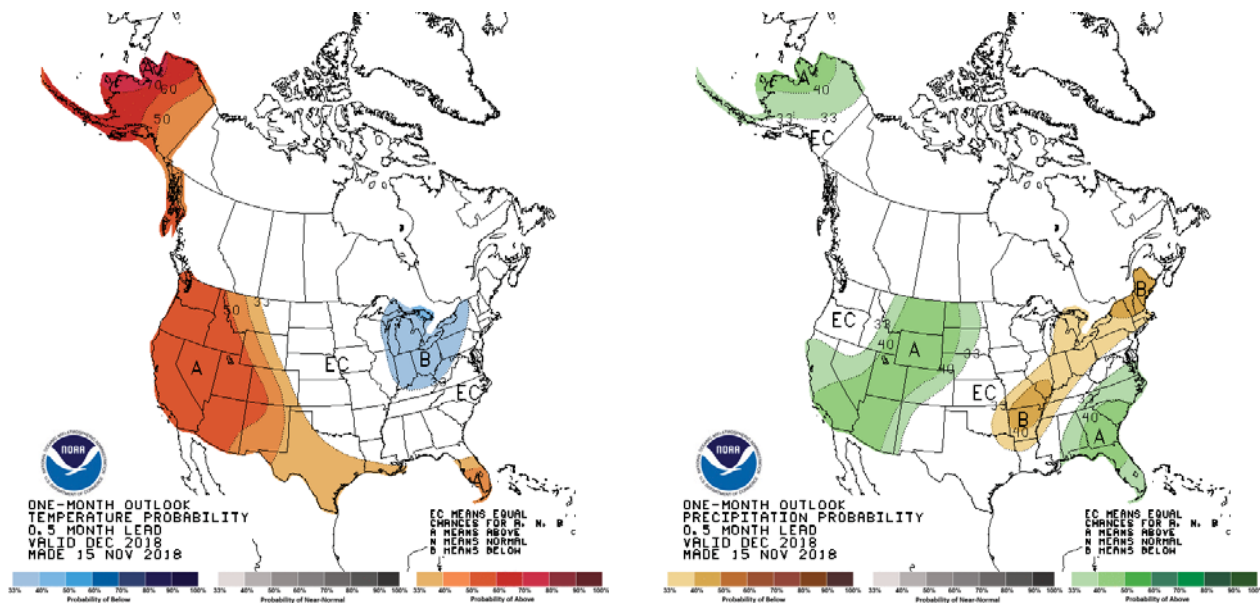


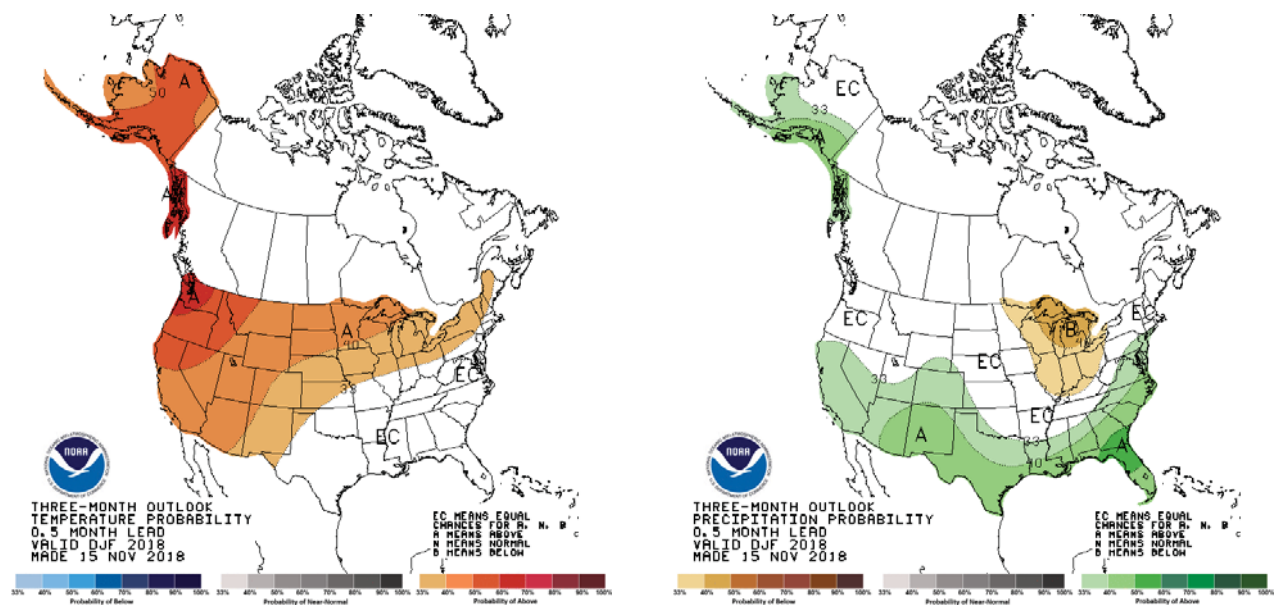
Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th Percentiles
Normal ('81-'10) - Official median calculated from 1981 thru 2010 data
Normal (POR) - Unofficial mean calculated from Period of Record data
For more information visit: 30 year normals calculation description

Precipitation in Bear River



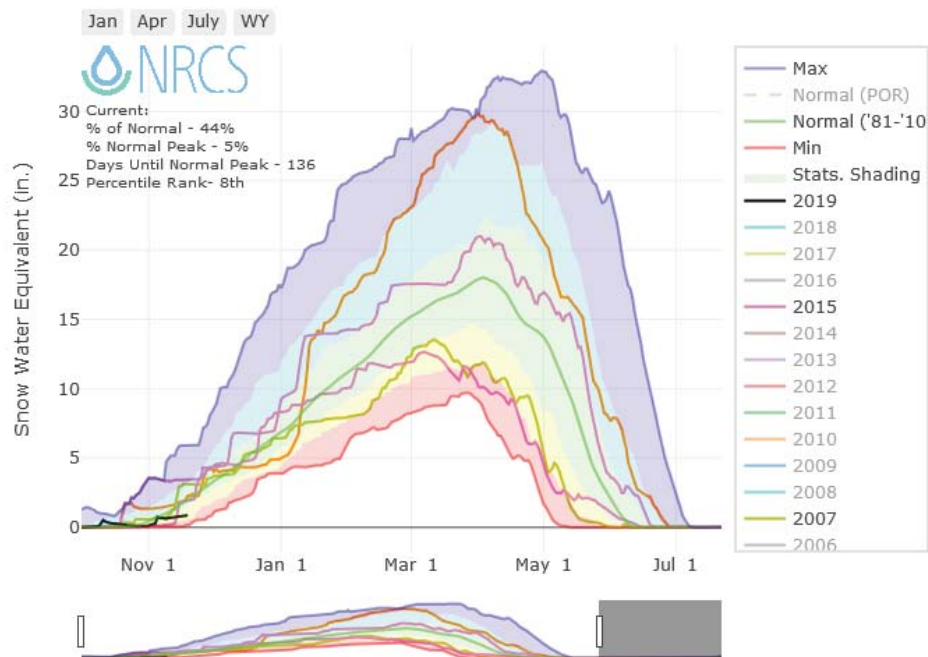
Natural
Resources
Conservation
Service





Weak El Nino water years: 2015, 2007, 2005, 1980

Snow Water Equivalent in Bear River



Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th Percentiles
Normal ('81-'10) - Official median calculated from 1981 thru 2010 data
Normal (POR) - Unofficial mean calculated from Period of Record data
For more information visit: 30 year normals calculation description



Bear River Basin Summary

1. Cumulative precipitation at 91% of normal.
2. Snow Water Equivalent at 45% of normal.
3. Reservoir storage is at 60% compared to 83% last year.
4. Weak El Nino pattern in place – wetter south and dryer north.
5. Only about 1.5 months into the new water year – so anything can happen.

Upper Bear River Stream Restoration and Irrigation Efficiency

Jim DeRito
 Bear River Project Manager
 Trout Unlimited



Bear River Commission Regular Meeting
 Salt Lake City, UT
 November 20, 2018



Bear River Watershed – goals for diversions

River and Fish Goals

- Improve water quality
- Improve fish passage
- Reduce fish loss
- Improve instream flows



Diversion Goals

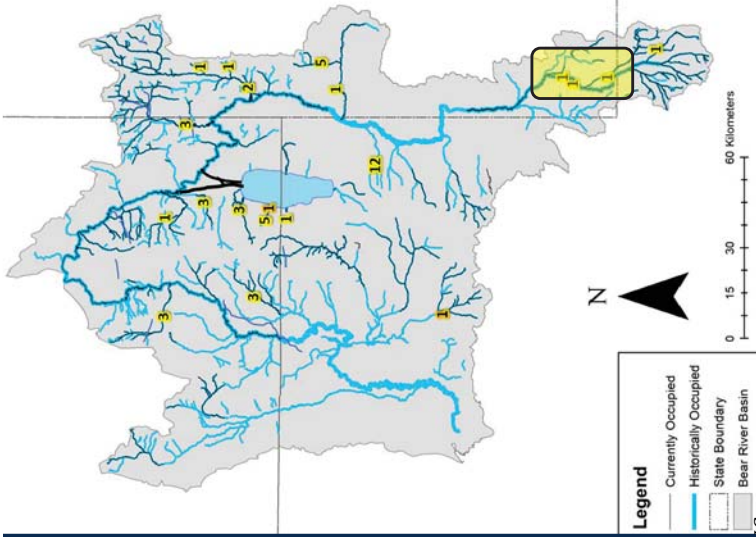
- Improve water delivery
- Improve O&M
- Reduce conveyance loss



Bear River Watershed

TU work at 49 irrigation diversions:

- 21 Idaho
- 15 Utah
- 13 Wyoming

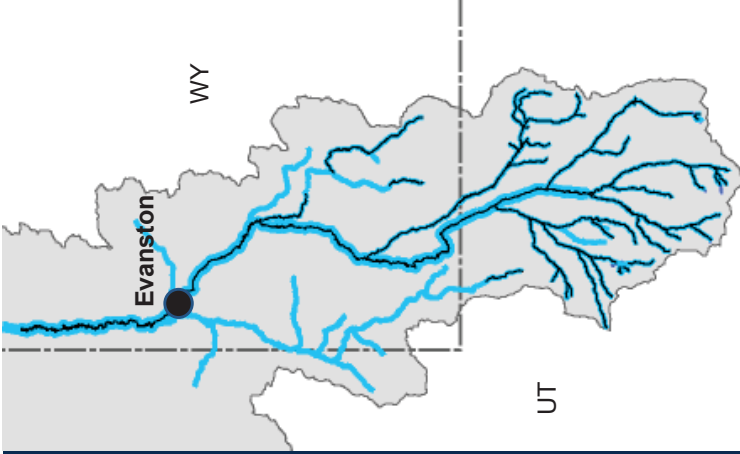


Upper Bear River

Cutthroat Trout distributed from headwaters to Woodruff Narrows Reservoir



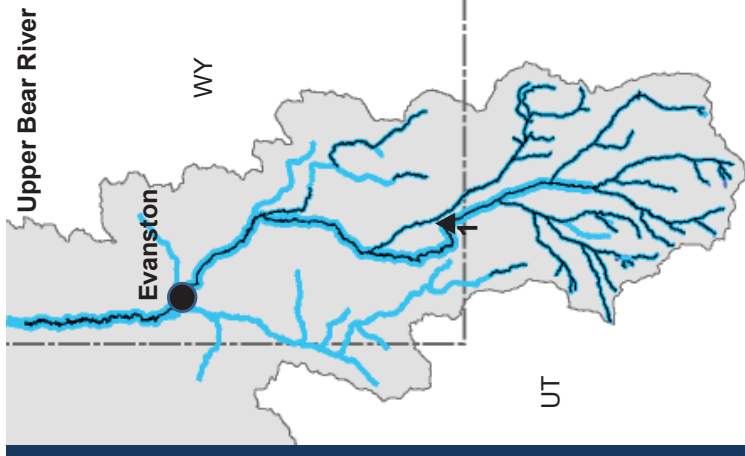
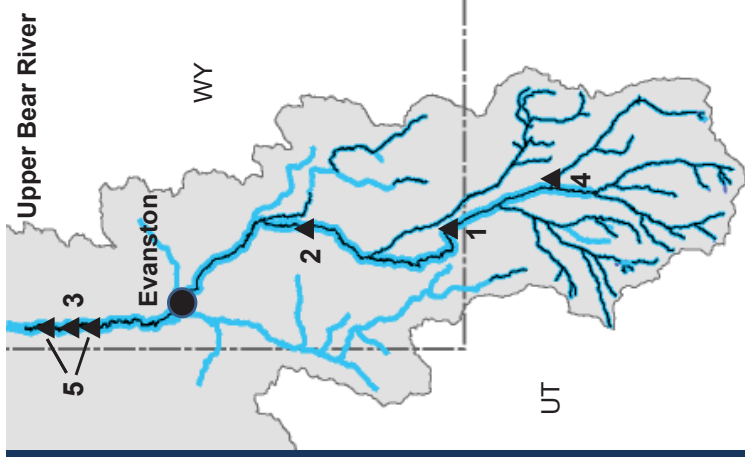
Cutthroat Trout Telemetry - 2011 to 2014
 1) Cutthroat trout migrated to headwater areas.
 2) Those that migrated were entrained.



Upper Bear River Projects - current

Chronologically:

1. Danielson Canal
2. Booth Diversion
3. Sims Diversion
4. East Fork Hilliard Canal
5. Upper and Lower Almy

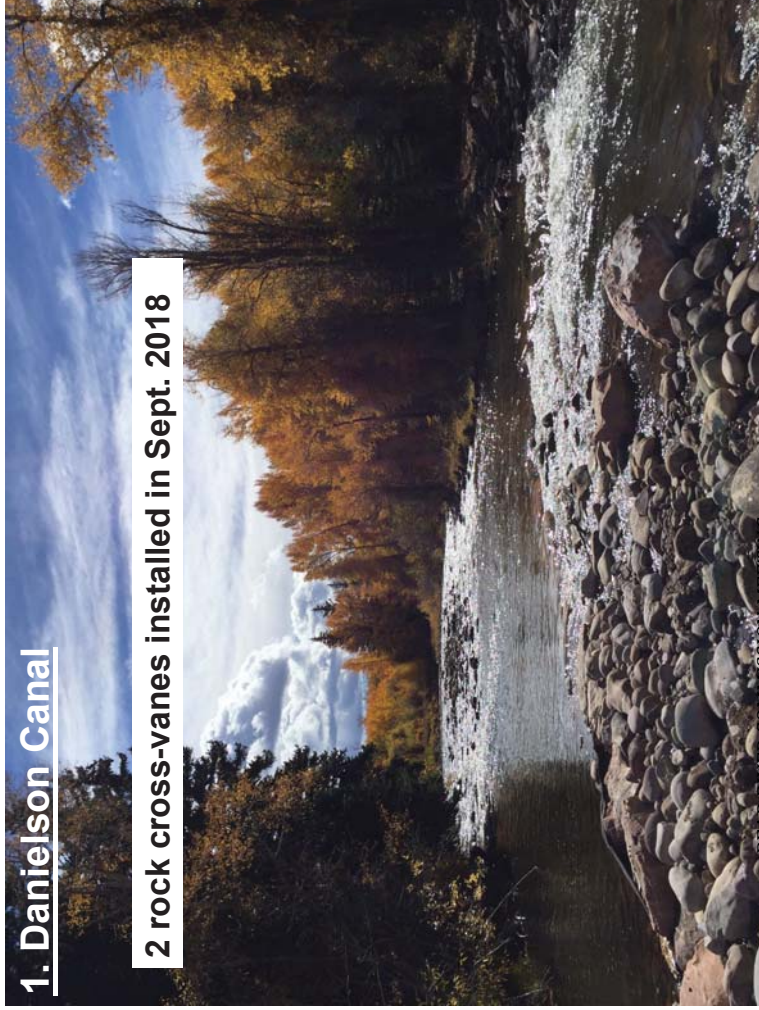


1. Danielson Canal



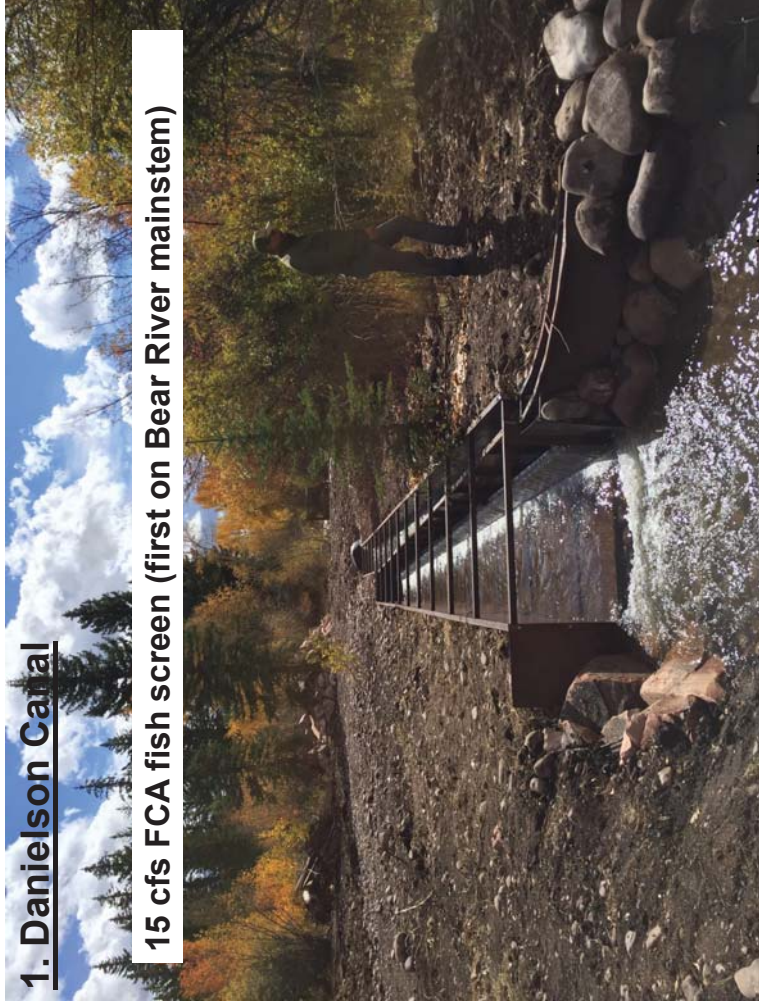
1. Danielson Canal

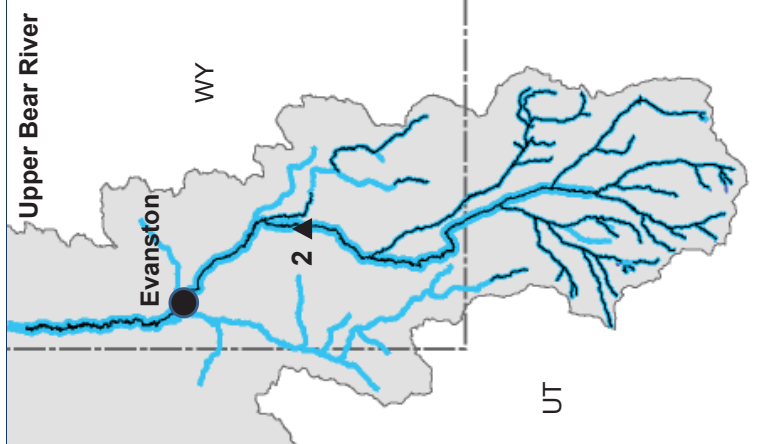
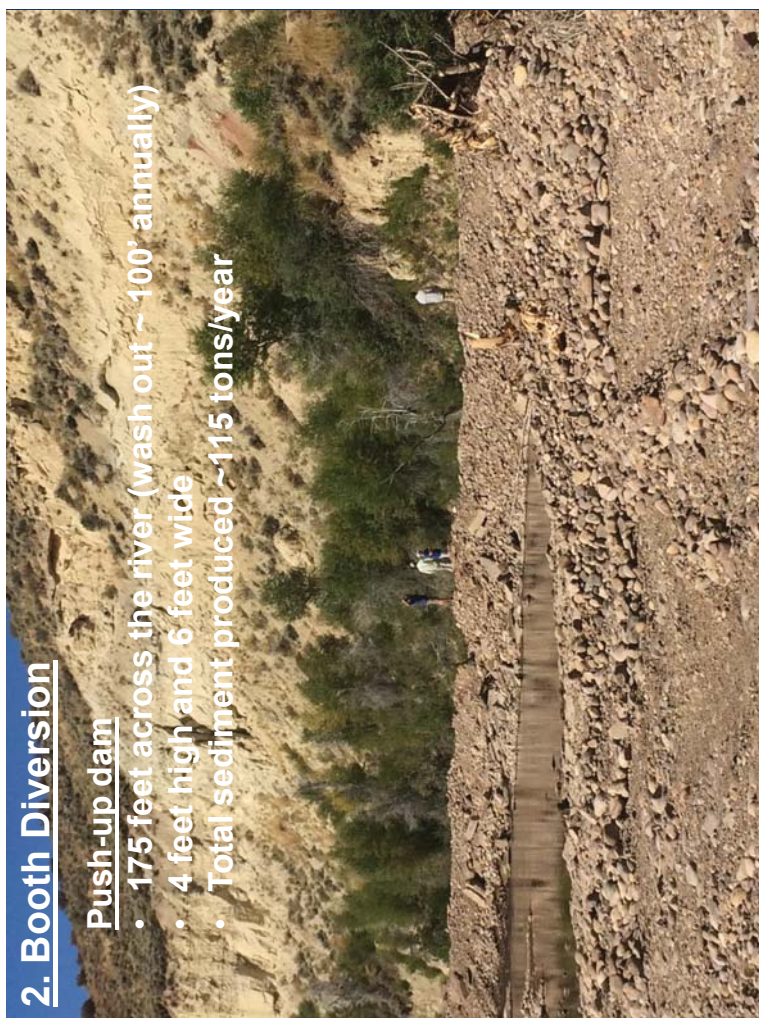
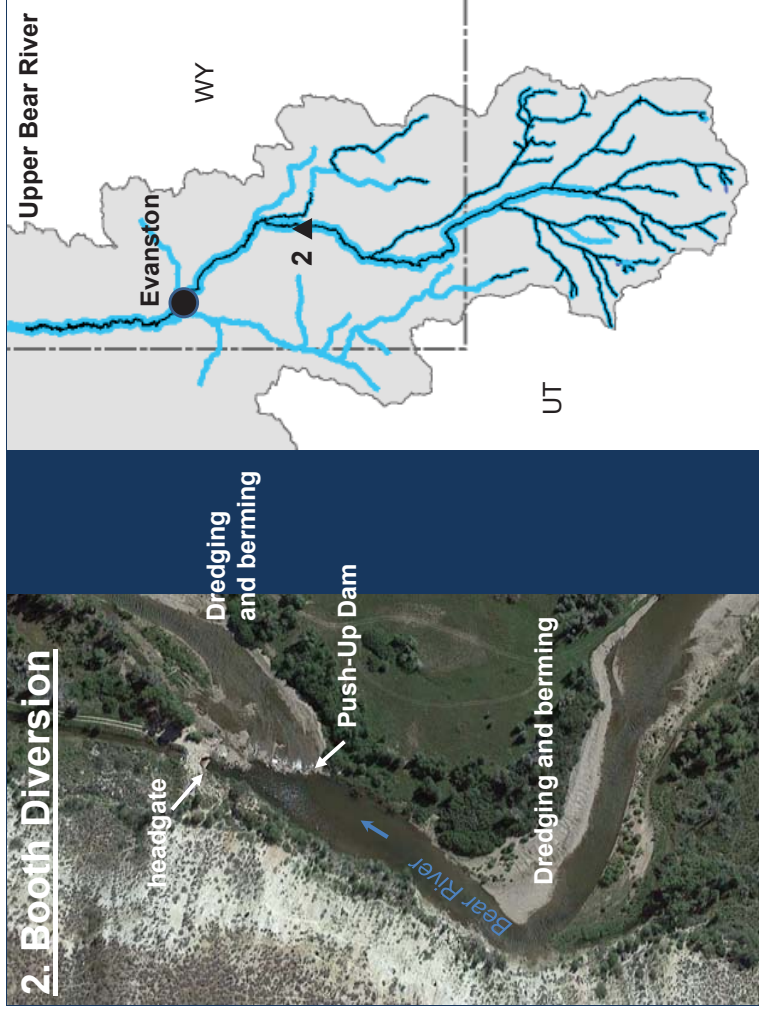
2 rock cross-vanes installed in Sept. 2018



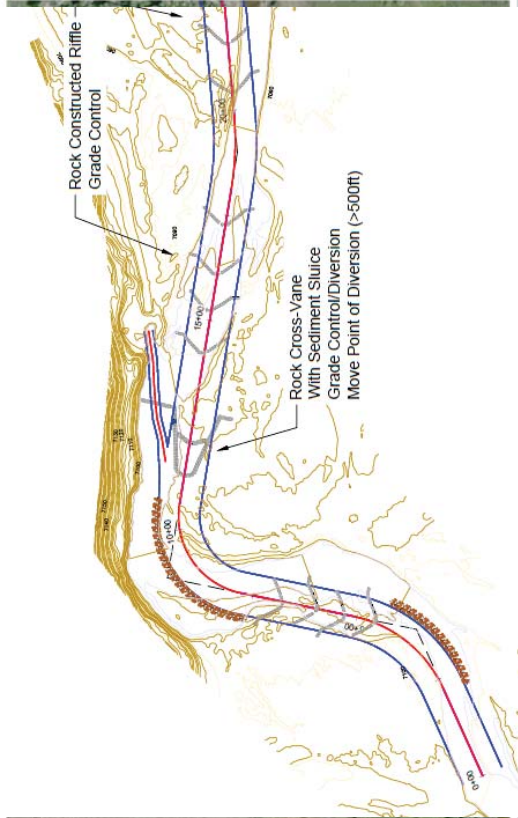
1. Danielson Canal

15 cfs FCA fish screen (first on Bear River mainstem)





2. Booth Diversion



- Removal of push-up dam
- Realignment of river
- Construction of diversion structure
- Construction of cross vanes
- Bank shaping and toe-wood

2. Booth Diversion



2. Booth Diversion



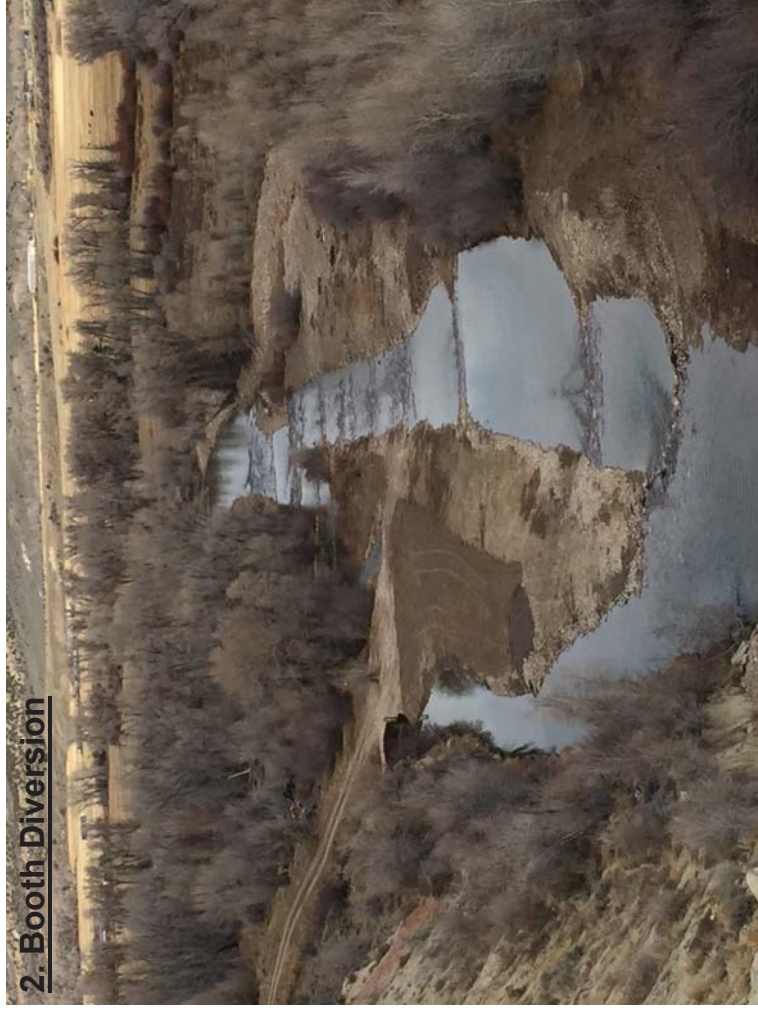
2. Booth Diversion



2. Booth Diversion

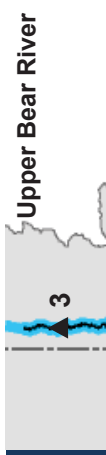


2. Booth Diversion



3. Sims Diversion

November 2018 start

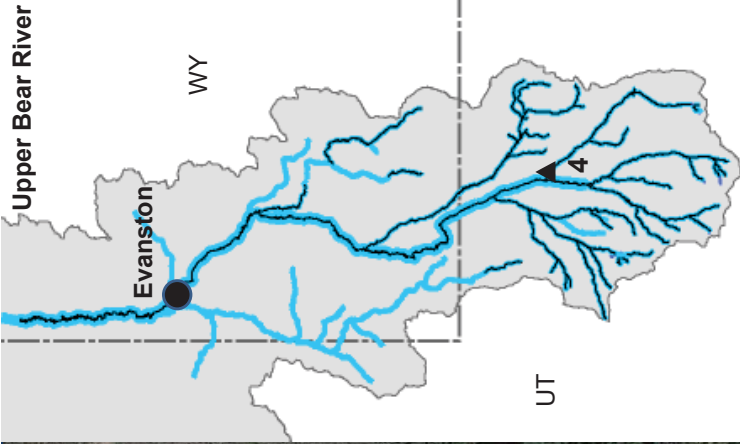


3. Sims Diversion

4,000 feet of river restoration



4. East Fork Hilliard Canal

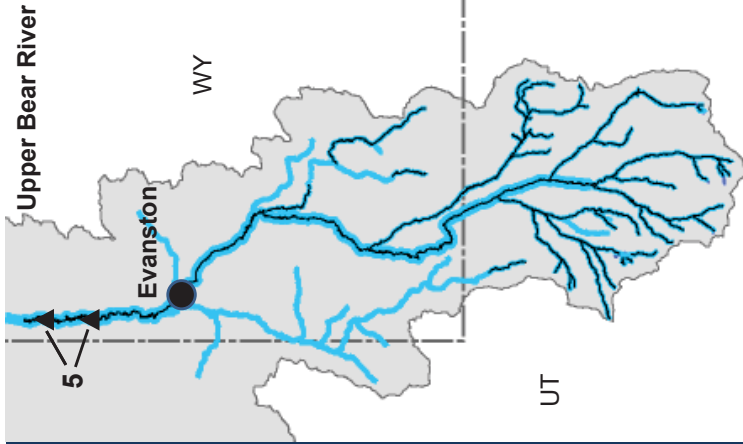


4. East Fork Hilliard Canal



5. Upper and Lower Almy

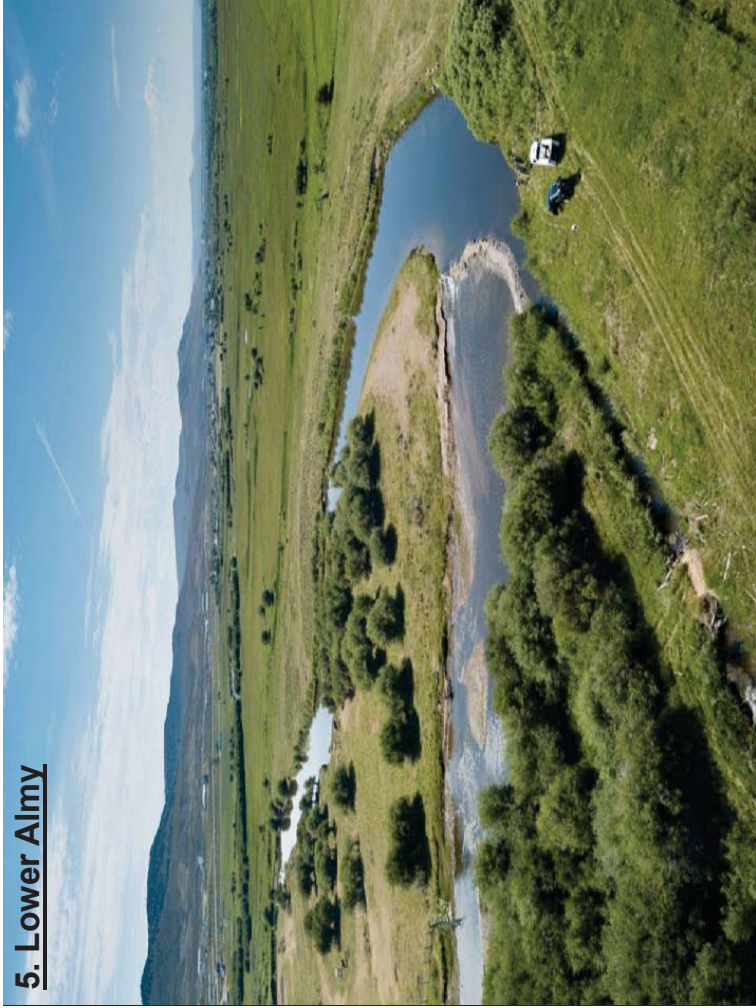
Design in 2019 and
construct 2020



5. Upper Almy



5. Lower Almy



Project Partners



Uinta County Conservation District



SUMMARY OF WATER YEAR 2018 BEAR LAKE OPERATIONS

Date	Hydrologic Information/Event	Contents (% of Full) Discharge (% of Normal)
10-01-17	Bear Lake Beginning Elevation - 5,920.98 ft.	1,233,523 af (87%)
03-16-18	Bear Lake Low Elevation - 5,919.12 ft. (see note 1)	1,103,620 af (78%)
	Rainbow Inlet Canal Discharge	200,397 af (76%)
	Bear River Discharge Below Stewart Dam	1,757 af
	Bear Lake Net Runoff (Computed Total Inflow less Lake Evaporation)	177,000 af (55%)
06-11-18	Bear Lake High Elevation - 5,920.44 ft.	1,195,730 af (84%)
	Outlet Canal Releases: 5/26-9/26 (124 days)	487,650 af
06-19-18	Outlet Canal Maximum Release - 1,519 cfs	
	Bear Lake Storage Release (see note 2)	191,000 af
09-30-18	Bear Lake Ending Elevation - 5,916.48 ft.	921,348 af (65%)
	Bear Lake Settlement Agreement "System Loss" Volume	18,800 af

Notes:

1 Low contents prior to start of storage.

2 Net irrigation storage release from Bear Lake, subtracting Rainbow inflow and the decreed adjustment for the natural yield of Bear Lake and Mud Lake area. Includes system loss volume.

3 Due to uncontrolled flow from (welcome) rain events. Whenever water flows below Cutler during the irrigation season any storage water in the system at Cutler is the first water out. Natural flow goes to irrigators.

Current Status

Bear Lake elevation as of November 19, 2018 was 5916.40 feet. The Bear Lake Outlet Canal is closed. There is 135 cfs in the Rainbow Inlet Canal.

Summary of Water Year 2018

The Bear Lake Irrigation Storage Allocation for 2018 was 245,000 acre-feet. Runoff was lower than normal, with Bear Lake net runoff at 177,000 acre-feet (55% of normal). The Bear Lake Outlet Canal was opened for irrigation releases on May 26.

Water Year 2018 Operations

Flood control releases were made consistent with the *Operations Agreement for PacifiCorp's Bear River System*.

Operational Notes

- *Bear River Black Canyon Recreational Water Releases* occurred in 2018. The full available inflow or 900 cfs, whichever is greater, is passed through Black Canyon during each event.