



BEAR RIVER COMMISSION

106 West 500 South
Suite 101
Bountiful, Utah 84010-6203
801-292-4662
801-524-6320 fax

CHAIR

Jody Williams

IDAHO COMMISSIONERS

Gary Spackman
Kerry Romrell
Curtis Stoddard

UTAH COMMISSIONERS

Eric Millis
Blair Francis
Charles W. Holmgren

WYOMING COMMISSIONERS

Pat Tyrrell
Adrian Hunolt
Tim Teichert

ENGINEER-MANAGER

Don A. Barnett

MINUTES

BEAR RIVER COMMISSION REGULAR MEETING ONE HUNDRED THIRTY-FIFTH COMMISSION MEETING NOVEMBER 19, 2019

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 19, 2019, at the Utah Department of Natural Resources building in Salt Lake City, Utah. This was the one hundred thirty-fifth meeting of the Commission. Williams noted that Kevin Payne was participating as an alternate and Steve Wolff was sitting in for Tim Teichert for Wyoming. Alternate Mark Ipsen was sitting in for Curtis Stoddard who was out with some health issues. 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 16, 2019, 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 showed income and expenditures for FY2019, with total expenses of \$127,868.33 and a cash balance at the end of the year of \$121,790.93. Moving to FY2020, Staker reported that the annual dues from all three states had been collected and, as of November 2019, the Commission had collected almost \$1,000 in interest in their account with the State Treasurer's office. Expenses to date totaled \$79,756.20. Water quality invoices had been sent out earlier in November, and he expected that those payments would begin coming in. (The financial statement and budget sheet are attached to these minutes as Appendix C.)

IV. Cutler relicensing – Eve Davies of PacifiCorp gave a presentation about the FERC relicensing of the Cutler Hydroelectric Project (see Appendix D). She explained that it is the lowest and the newest of the various hydroelectric developments throughout the Bear River system. The Federal Power Act requires a license to operate projects which generate hydroelectric power. The relicensing is done every 30-50 years. This project includes roughly 5,000 acres of adjacent wetlands and uplands and about 5,000 acres of open water.

Davies explained that the FERC relicensing is similar to an Environmental Impact Statement. She showed a detailed timeline of the relicensing process. The entire process should take about 5-6 years.

Davies gave some information about the Cutler Project which was built in 1927. Prior to that there was the old Wheelon Dam which was built in the late 1800s about a mile upstream from Cutler. She noted that the oldest and largest water rights in the Bear River system actually started at the Wheelon Dam location, but now divert at Cutler. The Wheelon Dam still exists and can be seen when they do a major drawdown at Cutler. Davies showed some historic photos of these structures. She noted that at the same time the Wheelon Dam was built, the Collinston Gage was also built which provides water records back to that time. It was one of the first gaging stations in the nation. Davies showed some photos of the current project components at Cutler, along with detailed measurements and operating information.

Davies explained details of the Cutler project operation. She showed the Cutler FERC project boundary overlaid on the Bear River watershed map. Water for the system is stored in Bear Lake and when it is called for by operations for irrigation, it is put into the Bear River. During the winter, the water is just natural flow from the Bear River system. Her map shows the different hydroelectric plants on the way down to the Cutler project. She then gave more information about the project operation which is shown in her PowerPoint.

Regarding the license proposal, Davies explained that they don't actually have a new proposal. What they would like to do is study the full operational range, which is fairly small at about 11 feet. According to recent publications by PacifiCorp/Rocky Mountain Power, they are making some fairly rapid and dynamic shifts in how power is generated. Some of that generation change is to include more variable sources of energy. That is what their customers and stakeholders want; so they, along with everyone else in the business, are driving hard at those goals. One of the reasons that Cutler and their other hydroelectric projects are so valuable is that hydroelectric generation is one of the most valuable resources to put behind wind and solar. They are looking to see if there is any additional operational flexibility if they expand their operations through a wider range. They already know that 90 percent of the volume of the water in the reservoir is in the top three feet, so they are looking to see what depth of water within those three feet would be best.

Davies noted the several points in the relicensing timeline where public comment can be made. The dates that are shown have shifted, so comments on the study plan are due early in December. She continued by explaining that over the next two years, they will need to look at potential effects and information needs for a variety of resources. She showed a list of issues that may need to be addressed in the relicensing process and also a list of proposed relicensing studies to consider. She finished up with a list of current and next relicensing process steps. She also showed a website and email for those who want to know more.

V. Utah Water Banking Discussions – Boyd Clayton presented some information about water banking in Utah. He was not necessarily an advocate of water banking, but he reported that there was a group driving this process which was going throughout the state and doing a sales job for water banking. He passed out the handout they were using (see Appendix E). Clayton explained that there are different types of water banks and that water banking can mean a lot of different things in different areas and situations. Utah has looked at many of those different banks. He noted that Idaho had been way too successful in their water bank program, so Utah decided not to try to copy them. Clayton noted that from the State Engineer's perspective, water banking is probably one of those things that Utah has tried to avoid. He explained that Utah has worked very hard to

make their records transparent and provide opportunities for willing buyers and sellers to get together and make those types of transactions outside of water banks. However, they are considering water banking and have been involved with stakeholders to come up with a plan that Utah can move forward with. Utah has decided that they will have two flavors of water banks, a Statutory Bank and a Contract Bank. The fundamental difference is the Statutory Bank is more like a private organization, and so the process is designed to make their activities more transparent. Under the Contract Bank model, the presumption is that since they are already a state entity, they already have requirements to be open and have public meetings and access to records. Clayton showed the features that people who organize a bank are entitled to under the act that is currently proposed. He also showed the steps of how to create a bank and how it would work. Clayton then showed a slide that highlighted what the next steps would be in the water banking process. (See Clayton's presentation in Appendix F).

VI. 2019 Water Supply – Troy Brosten gave a report on the water supply for 2019 (see Appendix G). He noted that 2019 was a great snowpack year. Across the state there were about 22 inches of snowpack compared to the average of 15-16 inches. The snowpack also held on and had a normal runoff period. Brosten showed a visual of the statewide snow water equivalent as of April 1st. The whole state was significantly above average, with as much as 200 percent in the south. Bear River was actually the lowest basin in the State, but still above average at 118 percent. This snowpack really helped replenish all the reservoirs which were in dire condition the previous year. There was a significant improvement across the board with many reservoirs reaching full capacity. Brosten then reviewed the numbers for the various basins and the reservoirs for 2019.

Looking ahead, Brosten talked about the 2020 water year, noting that the year was just beginning. The soil moistures were near normal, which is a good sign, and the reservoirs were in pretty good shape.

VII. Water Quality Committee report – Jim Harris gave a report from the Water Quality Committee meeting held the previous day. Don Barnett gave an update on the Compact, as well as several other items associated with the Bear River gaging stations. They heard from Ryan Rowland regarding Bear Lake monitoring and the near real-time lake level project that was installed and their efforts to track that data, along with historic data. They also reported on a study to monitor the outflow from Mud Lake into Bear Lake where they are assessing several different parameters and looking at water quality data to draw correlations between those and the inflows into Bear Lake. He talked about the two water quality platforms in Bear Lake that are being utilized in a five-year water quality study.

Harris reported on other items that were discussed and delegated to their Water Quality Task Force. They felt that the Watershed Information System (WIS) website was a valuable tool and that it would be important to keep it updated and maintained as they consider the priorities for the site. Mitch Poulsen reported on two meetings of the Bear River Water Quality Task Force. They mostly focused on presentations on channel restoration projects in the Wyoming reaches of the Bear River and Salt Creek. Bear Lake Watch reported on some observations of some invasive species in the lake that had been discovered. They are looking at possible treatments and options to get these in control.

Harris noted that Matt Coombs reported on Utah's Comprehensive Management Plan (CMP) for Bear Lake. It was noted that Idaho did not have a CMP for Bear Lake, but that Bear Lake Watch is working towards initiating a plan with them.

Regarding monitoring and TMDLs, Harris noted that the general theme is that they have done a lot of implementation, TMDL work and monitoring. A lot of states are in the same position in terms of implementation. EPA has readjusted how to prioritize water bodies for TMDLs and is allowing the states to go forward with watershed planning versus a full-blown TMDL process. This allows the states to focus on where the money can be spent and planning efforts can be focused.

There were reports from each of the states. Harris noted that Mary Ann Nelson had taken the place of Barry Burnell for Idaho DEQ and had agreed to serve as Chair going forward. She gave an update on their adoption of selenium criteria to support aquatic life which was approved provisionally by EPA with some exceptions. Wyoming reported that they are on track for the 2020 IR. Utah will have their public comment period in February 2020. Harris reported that Utah is still trying to get a final approval of their headwater nutrient criteria from EPA. They are also working on a water reuse strategy for Utah using wastewaters for agriculture, watering golf courses, etc. and looking at what other states are doing in that area.

VIII. Records & Public Involvement Committee report – Charles Holmgren reported that the Records and Public Involvement Committee heard presentations on USGS gaging. They talked about the new lake elevation gage which was installed in October and is on the USGS data web page. The project will be funded over a period of three years at \$9,000 per year. Funding will come from water quality entities in each state, PacifiCorp, Bear Lake Watch and the Commission. Holmgren noted that there are 33-34 gages on the river system. Wyoming reported that there is a new gage on Yellow Creek. Josh Hanks and Commissioner Romrell indicated that there is a new weather station that can be accessed through the Commission's website at Pegasus providing a great deal of information to folks in the area. It will be beneficial to the drought monitoring program there.

Holmgren mentioned that Barnett gave a report on the "Bend in the Bear River" tour which took place in August. The committee discussed a possible tour for 2020 which would go from Oneida Dam down to the state line or Cutler Reservoir.

The committee heard a report on the progress of the 20-year Compact Review. They will plan to complete the effort by spring and take a look at the final product during the Commission's meeting in April. They discussed the 20th Biennial Report for 2017-2018 and found some excellent photos to use on the cover of the report. The Engineer-Manager was looking for information and data for the next biennial report covering, hoping to get information for 2019 before the 2020 distribution begins.

Holmgren mentioned that the committee discussed some issues having to do with the Commission's website. The links that had not been working had been repaired and updated. There had been a request to add non-Commission Bear River meetings to the meeting notices on the website, which could be accomplished by sending the link to the Commission office. The committee also discussed the WIS website and a desire to make it more dynamic.

Scott Clark then shared some publications of interest, including Mapping Wetlands and Cache Valley ASR Studies from the Utah Geological Survey.

IX. Operations Committee report – Commissioner Hunolt asked Sam Swartz to give a report on the meeting of the Operations Committee. Swartz reported that the committee talked about the 2019 year-end operations and status. They heard from Upper Division folks indicating that it had been a pretty good year and the reservoirs were looking good. Don Barnett noted that because of the level of Bear Lake there were no Compact restrictions, so Amended Compact storage in the

Upper Division was allowed to stay. The Central Division did go into regulation in late July and lasted until about the third week of September. There was no regulation in the Lower Division. There was an update on Bear Lake showing a current elevation of 5917.9 ft. and PacifiCorp began passing the inflow to the Bear River system just the day before.

The committee discussed the proposed transfer on the West Cache Canal. This is a transfer of an Idaho water right to a point of diversion in Utah, a proposed exchange application in Utah with no change in beneficial use, just a change in diversion. This transfer was protested, so there will be a hearing on the subject.

There was an update by Kevin Payne on supplemental acres. They have been gathering data on supplemental acres and are waiting for a direction to move forward.

There was a brief review of some of the Compact. Barnett discussed an issue that came up during the Water Quality Task Force concerning Wyoming water law and how stock reservoirs fit into Compact allocations. The committee reviewed Article VI.E. of the Compact which says that stock reservoirs under 20 acre-feet are not counted towards Compact allocation.

The committee also discussed some new water uses that were of interest. Utah and Wyoming did not have any new water uses to note.

Connely Baldwin from PacifiCorp then talked about operations. He reviewed his summary of the 2019 water year (see Appendix H), noting that Bear Lake was about 1.5 feet higher at the end of the season than at the beginning. There were several other items of interest on his summary sheet, along with graphs showing high runoff management scenarios regarding Bear Lake elevations and Outlet Canal flows.

X. Technical Advisory Committee Report – Todd Adams reported that the Technical Advisory Committee (TAC) had met twice since the last Commission meeting. They have gone over four or five items, some of which had been touched on in this Commission meeting. He mentioned a drought issue they had earlier and talking about showing all the storage in Bear Lake. The drought report was not showing as much drought as it should have because of a lack of understanding about where Bear Lake storage could be used. They have been working with NRCS and the State Climatologist in trying to get additional information so the drought report or the water supply report will be more accurate when those times come.

The TAC spent most of their meeting time talking about the 20-year Compact Review. Don provided members of the Management Committee a draft version of that review with the caveat that the TAC was still not quite done. Adams reported that Don and he (mostly Don) were going to take the assignment to work on the final parts. It will go back to the TAC for one last review and then it intends to bring the final version to the April Commission meeting for acceptance.

Adams reported that it had been ten years since the TAC had done a depletion update. The last effort began in 2009 and was finished in 2014. As it is time to put together another update, the TAC is looking for direction from the Commission on going forward. They are still aware of the need to finish the supplemental depletion assignment and try to come to a common methodology if possible.

Lastly, the TAC was asked the previous year to invite different groups to give presentations to the TAC. They followed through on that assignment and had presentations from the Audubon, Nature

Conservancy, Trout Unlimited, Fish & Wildlife Service and Bear Lake Watch. The TAC considered the information given them as part of the Compact Review.

XI. Management Committee report – Eric Millis reported on a couple of items that the Management Committee had discussed in their meeting which had not already been covered. They talked about whether the next tour would be in the FY2020 or the FY2021 budget. If it takes place in the FY2020 time frame, they would just have to make an amendment to the budget at the April meeting. Regarding the depletions update, the Management Committee recommended that the TAC be assigned to get the ball rolling on that, with a focus on the supplemental depletions.

XII. Engineer-Manager's report – Don Barnett reported on two items which had been discussed in the Water Quality Committee meeting. He was intrigued by the sovereign lands in the states. He explained that all three states at the time of statehood were given sovereign lands, meaning the lands underneath any navigable water body at the time of statehood. Even though they have common laws or common creations, each state has looked at it differently. He noted that there were some fairly detailed reports going back a couple of years ago that the State of Utah determined that the Bear River in the Lower Division from the Idaho/Utah state line down to Great Salt Lake was navigable at the time of statehood and, therefore, is sovereign land, so the State of Utah created a Comprehensive Management Plan. Part of this plan requires that people who go on, above or under the Bear River, whether it be a bridge or a pump or a power line, would need a permit from the State of Utah under the Sovereign Lands Program. However, as soon as you hit the Idaho boundary, where it is no longer determined to be navigable, the state lands are not administrated. Regarding Bear Lake, both Idaho and Utah recognize that Bear Lake was navigable at the time of statehood and, therefore, the land under the lake or under the high water mark is sovereign land, yet there is a dramatic difference in the way they are treated or administered. Barnett noted that the State of Utah is updating their Comprehensive Management Plan for the sovereign lands around or under Bear Lake. This is a big deal as it will define how people access the lake. This is one of those “stay tuned” items.

Barnett also highlighted some information about the discovery of the Eurasian Milfoil Weed. This invasive species could be a big problem. He noted that the Cottles have been heavily involved in addressing this problem. This weed could be found downstream fairly quickly. It goes down and plants itself in the soils under water and can go fairly deep. Then it comes all the way up into the water column and spreads out. Pieces of the weed are chopped off and can make their way downstream. This is an immediate issue in Bear Lake as well as other locations. Utah State Lands, Idaho State Lands, Bear Lake Watch and others are talking and trying to come up with solutions. This is also a “stay tuned” item.

Barnett just wanted to make sure Commissioners were aware of these important issues that the Water Quality Committee is addressing.

XIII. State Reports – Wyoming – Kevin Payne reminded the group that Pat Tyrrell had retired as the Wyoming State Engineer earlier in the year, with the intent to continue as a Bear River Commissioner. Since that time, he has determined to step down from the Commission. There was an acting State Engineer following Tyrrell, but more recently Greg Lanning has been appointed to be the new State Engineer. Payne mentioned that Lanning was looking forward to being a part of the Bear River Commission and they were hoping to have him appointed in time for the spring meeting of the Commission.

Payne reported that Wyoming, along with several other Colorado River Upper Basin states, is continuing to work on the exploration of a demand management program. Steve Wolff has been heavily involved in this effort. What this would do is allow for water saved on a temporary, voluntary and compensated basis to be stored in Reclamation reservoirs to be used in the event of a curtailment rather than strict priority regulation. There are many unanswered questions and time will tell if there is enough interest to pursue such a program.

Payne noted that Wyoming operates on a biennial budget and they are coming up on a budget session next year. Again, revenue projections are not looking very promising, but the Governor just released his budget recommendations which were looking pretty flat, so they will just have to wait and see. The one good thing about a budget session is it tends to limit the amount of legislative bills that get introduced. He mentioned a couple of water items that the legislature is addressing.

XIII. State Reports – Idaho – Gary Spackman reported on two items. One was that the legislators, two of the three from the Bear River area, had committed to sponsor legislation to initiate an adjudication of the Bear River Basin. They announced this to the Idaho Water Users Association and appear to be adamant about going forward with the adjudication. He thought that the authorization would probably be seen within the next six months.

Spackman also reported that the State of Idaho has required a large swath of water users to install and operate measuring devices, primarily across the eastern Snake Plain, but also in other areas of the state. During a three-year period ending in 2018 in the eastern Snake Plain aquifer, there were approximately 5,000 measuring devices that were installed and inspected by the Idaho Department of Water Resources staff to make sure they were properly installed and accurate. There were a lot of resources dedicated to the effort. Spackman noted that the State of Idaho is committed to the proper measurement and administration of water rights, and he anticipated that the measuring requirement will expand into other basins. He mentioned that they had an order at that time requiring measuring devices in the Malad River Basin, which is part of the Bear River Basin. There was some turmoil ongoing in the Malad Basin over not only the measuring device requirement, but also the funding of a framework for oversight, or somebody locally that can do the work to ensure that the measurements are being taken and recorded. He expected that the expansion of those measuring requirements would extend into other portions of the Bear River and other parts of the State of Idaho in the next few years.

XIII. State Reports – Utah – Eric Millis reported that about a year and a half earlier the states of Idaho and Utah kind of rocked the Bear River world just a little bit by filing applications with the State Engineer's offices in both states for storage on Bear Lake. Shortly thereafter, they met with many stakeholder groups to talk with them about this and get their thoughts and ideas. They told the stakeholders that they would be working on a comprehensive Bear River model along with Idaho, Wyoming and PacifiCorp which would create "what-if" scenarios. Millis reported that they are again holding meetings with the stakeholders to show them this model and what it does and get their reactions and thoughts.

Millis reported on the big news that was just happening. He announced the release of their Bear River Development Feasibility Study. He explained that this project was still 30 years into the future, but they felt it was wise and prudent to keep investigating and looking at the options and working with the stakeholders and local entities in that effort. Millis reported that this is a process that has taken quite a few years. They have had a number of different configurations for this project, but the feasibility study has pared down the options to a handful or so and deals with reservoir sites and pipeline alignments. They have included climate change in the modeling and the

work, looking at costs, etc. He announced that the document is available on their website (water.utah.gov) and can be accessed by following the project button on the site down to Bear River. This has been something that has been much anticipated.

Chairwoman Williams asked if she could add a little to the Utah state report. She noted that Kent Jones retired from his position as Utah State Engineer after being with the Division for 39 years, and interviews were currently being conducted for his replacement. Williams also noted that Commissioner Eric Millis, Director of Water Resources for Utah, would be retiring before the end of the year after spending 32 years with the Division. She took a moment to thank Millis for his service to the Commission, to water users, to the State of Utah and those beyond the state who care about water resources. The group gave him a round of applause and Millis expressed his appreciation to the group.

XIV. Other / Public Comment

A. Activities of the Bear River Water Users Association – Randy Budge mentioned that the Bear River Water Users Association pays attention to Bear River and Bear Lake water rights. He touched on two significant matters that could affect water rights. The first was adjudication of all the water rights in the Bear River Basin which was brought up by Commissioner Spackman. This adjudication effort would cover about 10,000 to 15,000 water rights and span 10 years at a total cost of about \$6 million. Budge felt it would be important to the Bear River Water Users Association because having a detailed list of all the water rights will make administration more thorough and more accurate. The water users rely largely on the natural flow of the river, supplemented by storage at Bear Lake. They believe that the natural flow has been diminished and adversely affected by some uses in the tributaries that do not have water rights at all and others that perhaps have water rights that have been expanded. They believe that the adjudication will get a handle on some water in the tributaries that they think should be available in the main stem and also could diminish their reliance on Bear Lake storage.

Budge explained that they were very interested in the joint application for a permit filed by Utah and Idaho which has the potential of creating additional storage in Bear Lake, as explained by Commissioner Millis. He felt that it was important to the water users because it could enhance and fortify their existing water rights, which become really important in periods of drought. He was appreciative that the water users have been allowed to have direct involvement with PacifiCorp and the states on this effort. He believes that the development of the model will be important and needs to be open and transparent. There are many details that will need to be worked out.

B. Bear Lake Watch – Dave Cottle noted that Bear Lake Watch is very appreciative of all the efforts Idaho and Utah are focusing on at Bear Lake for water quality data. It will be very important going into the future. Cottle did not want to spend a lot of time on the Eurasian Milfoil Weed, but he said it was alarming. He said it swims so Wyoming is not off the hook! He noted that they were hopeful that Utah and Idaho will work together to formulate a plan to fight this invasive species in Bear Lake. Bear Lake Watch remains very hopeful about the discussions between the states and Rocky Mountain Power, and he encouraged them to proceed with that because they still think there are benefits for all the parties.

C. Other – Lynn de Freitas from Friends of Great Salt Lake announced that their next biennial Great Salt Lake Issues Forum would be held May 6-8, 2020, at the University of Utah. She invited all who are interested to attend the forum.

XV. Next Commission meeting – Chairwoman Williams expressed appreciation to the Bear River Commission staff and others for all they do for the program. She noted that the next Commission meeting was scheduled for Tuesday, April 21, 2020, with the Water Quality meeting the day before. Commissioner Spackman, representing the Management Committee, mentioned that it might be a good idea to hold the next meetings of the Commission at the Bear River Migratory Bird Refuge in Brigham City.

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

ATTENDANCE ROSTER

BEAR RIVER COMMISSION ANNUAL MEETING

Utah Department of Natural Resources
Salt Lake City, Utah
November 19, 2019

IDAHO COMMISSIONERS

Gary Spackman
Kerry Romrell
Mark Ipsen (Alternate)

WYOMING COMMISSIONERS

Adrian Hunolt
Kevin Payne (Alternate)

FEDERAL CHAIR

Jody Williams

UTAH COMMISSIONERS

Eric Millis
Charles Holmgren
Blair Francis

ENGINEER-MANAGER & STAFF

Don Barnett
Donna Keeler
Scott Clark

OTHERS IN ATTENDANCE

IDAHO

Mat Weaver, Department of Water Resources
Josh Hanks, Water Master

UTAH

Will Atkin, Division of Water Rights
Boyd Clayton, Division of Water Rights
Jared Manning, Division of Water Rights
Skyler Buck, Division of Water Rights
Bea Anderson, Division of Water Rights
Scott McGettigan, Division of Water Resources
Todd Adams, Division of Water Resources
Feng Pan, Division of Water Resources
Jake Serago, Division of Water Resources
Marisa Egbert, Division of Water Resources
James Harris, Division of Water Quality
Ron Hoffman, Water Commissioner

WYOMING

Mike Johnson, State Engineer's Office
Travis McInnis, State Engineer's Office
Steve Wolff, State Engineer's Office
Sam Swartz, State Engineer's Office
Ethan Overton, State Engineer's Office

OTHERS

Troy Brosten, NRCS Snow Survey

Connely Baldwin, PacifiCorp Energy
Buffi Morris, PacifiCorp Energy
John Mabey, PacifiCorp Water Counsel
Dwight Slaugh, U.S. Bureau of Reclamation
Carl Mackley, Bear River WCD
Nathan Daus, Cache Water District
Trevor Nielson, Bear River Canal Company
Claudia Cottle, Bear Lake Watch
David Cottle, Bear Lake Watch
Randy Budge, Bear River Water Users
Jim DeRito, Trout Unlimited
Ann Neville, The Nature Conservancy
Marcelle Shoop, National Audubon Society
Lynn de Freitas, Friends of Great Salt Lake
David Ure

PROPOSED AGENDA
REGULAR COMMISSION MEETING

November 19, 2019

Convene Meeting: 1:30 p.m.

Chair: Jody Williams

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|--------------|---|---------------|
| 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. 2019 budget closeout | |
| | B. 2020 expenditures to date | |
| | C. Other | |
| IV. | Cutler relicensing | Davies |
| V. | Utah Water Banking discussions | Clayton |
| VI. | 2019 Water Supply | Brosten |
| BREAK | | |
| VII. | Water Quality Committee report | Harris |
| VIII. | Records & Public Involvement Committee report | Holmgren |
| IX. | Operations Committee report | |
| | A. Committee meeting | Hunolt |
| | B. Operations in 2019 | Baldwin |
| | C. PacifiCorp operations | Baldwin |
| X. | Technical Advisory Committee Report | Adams |
| XI. | Management Committee report | Millis |
| XII. | Engineer-Manager's report | Barnett |
| XIII. | State reports | |
| | A. Wyoming | Payne |
| | 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 21, 2020) | Williams |

Anticipated adjournment: 4:30 p.m.

BEAR RIVER COMMISSION

STATEMENT OF INCOME AND EXPENDITURES

FOR THE PERIOD OF July 1, 2018 to June 30, 2019

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		11,391.00		11,391.00
Interest on Savings		4,007.94		4,007.94
TOTAL INCOME TO				
30-Jun-19	99,260.32	15,398.94	135,000.00	249,659.26

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		67,281.00
Travel (Eng-Mgr)	1,200.00	517.75	682.25
Office Expenses	1,600.00	1,097.28	502.72
Printing Biennial Report	1,000.00	1,000.00	
Treasurer Bond & Audit	1,400.00	1,300.00	100.00
Printing	1,600.00	1,223.89	376.11
Realtime Web Hosting	8,400.00	1,184.01	7,215.99
Clerical	8,723.00	1,449.34	7,273.66
Tour	2,500.00	3.40	2,496.60
Contingency	2,000.00	2,000.00	
SUBTOTAL	95,704.00	9,775.67	85,928.33
TOTAL EXPENSES	137,644.00	9,775.67	127,868.33
CASH BALANCE AS OF 06/30/19			121,790.93

BEAR RIVER COMMISSION

DETAILS OF EXPENDITURES

FOR PERIOD ENDING June 30, 2019

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
885	StoneFly Tech	1,800.00
886	BIWC	13,909.97
887	StoneFly Tech	1,015.99
888	C N A Surety	100.00
889	BIWC	17,272.41
890	VOID	-
893	BIWC	14,790.41

TOTAL EXPENDITURES	127,868.33
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BANK RECONCILIATION

Cash in Bank per Statement 06/30/19	1,056.60
Plus: Intransit Deposits	
Less: Outstanding Checks	
Total Cash in Bank	1,056.60
Plus: Savings Account-Utah State Treasurer	120,734.33
CASH BALANCE AS OF 06/30/19	121,790.93

BEAR RIVER COMMISSION

STATEMENT OF INCOME AND EXPENDITURES

FOR THE PERIOD OF July 1, 2019 to November 18, 2019

INCOME	CASH ON HAND	OTHER INCOME	FROM STATES	INCOME
Cash Balance 07-01-19	121,790.93			121,790.93
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		0		0
Interest on Savings		990.65		990.65
TOTAL INCOME TO				
18-Nov-19	121,790.93	990.65	135,000.00	257,781.58

DEDUCT OPERATING EXPENSES

	APPROVED BUDGET	UNEXPENDED BALANCE	EXPENDITURES TO DATE
Stream Gaging/Bear Lake Gage/USGS Contract	45,910.00	2,940.00	42,970.00
Bear Lake Gage/USGS			
SUBTOTAL	45,910.00	2,940.00	42,970.00
EXPENDED THROUGH COMMISSION			
Personal Services BIWC	68,963.00	40,228.40	28,734.60
Travel (Eng-Mgr)	1,200.00	414.76	785.24
Office Expenses	1,600.00	1,413.93	186.07
Printing Biennial Report	1,000.00	1,000.00	-
Treasurer Bond & Audit	1,400.00	1,400.00	-
Printing	1,600.00	809.80	790.20
Realtime Web Hosting	8,400.00	4,800.00	3,600.00
Clerical	8,941.00	8,695.09	245.91
Tour	2,500.00	55.82	2,444.18
Contingency	2,000.00	2,000.00	-
SUBTOTAL	97,604.00	60,817.80	36,786.20
TOTAL EXPENSES	143,514.00	63,757.80	79,756.20
CASH BALANCE AS OF 11/18/19			178,025.38

BEAR RIVER COMMISSION

DETAILS OF EXPENDITURES

FOR PERIOD ENDING November 18, 2019

891	StoneFly	1,800.00
892	BIWC	5,746.92
894	BIWC	21,649.42
895	USGS	42,970.00
896	StoneFly	1,800.00
897	BIWC	5,789.86

TOTAL EXPENDITURES	79,756.20
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BANK RECONCILIATION

Cash in Bank per Statement 11/18/19	11,300.40
Plus: Intransit Deposits	
Less: Outstanding Checks	
Total Cash in Bank	11,300.40
Plus: Savings Account-Utah State Treasurer	166,724.98
CASH BALANCE AS OF 11/18/19	178,025.38

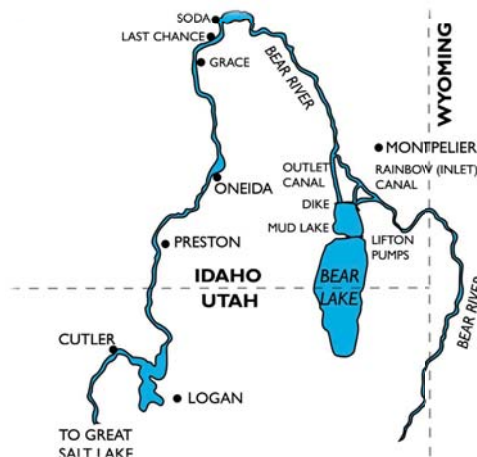
Cutler Hydroelectric Project FERC Relicensing Overview

Project Overview

November 19, 2019 – Bear River Commission Meeting, SLC, UT

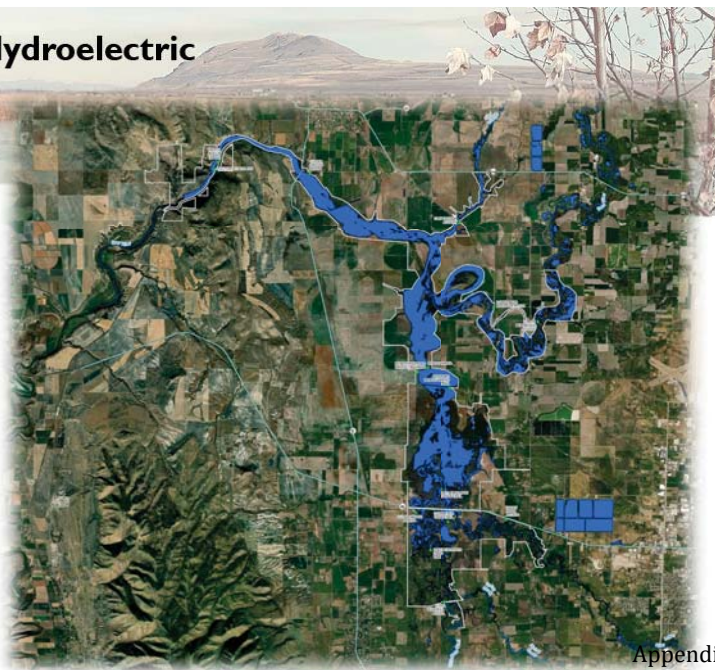


Cutler Relicensing *Bear River Development*



Cutler Relicensing *Project Area and Location*

- Approximately 5,000 acres each of water and PacifiCorp lands in the FERC Project Boundary.





Cutler Hydroelectric Project

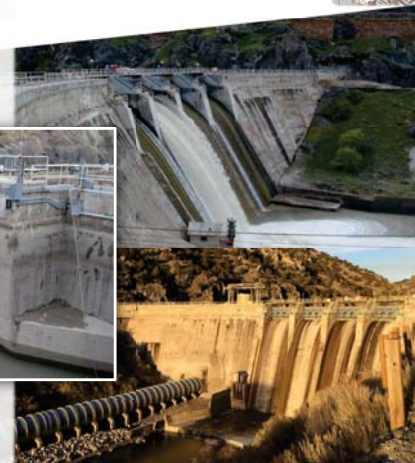
Cutler Relicensing Project Components



Cutler Hydroelectric Project

Cutler Relicensing Project Dam and Spillway Gates

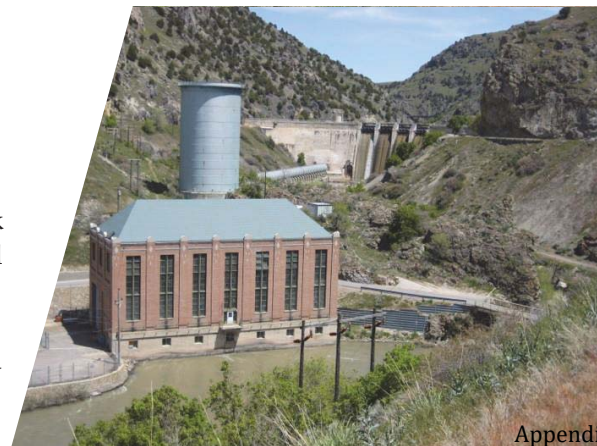
- Concrete gravity arch dam 545 feet by 109 feet, completed in 1927
- A gated-overflow spillway with four 30-foot-wide by 14-foot-high radial gates
- Spillway crest elevation at 4,394.5 feet above mean sea level*
- Top of gates at 4,408.5 feet



Cutler Hydroelectric Project

Cutler Relicensing Powerhouse and Flowline/Penstocks

- 1,160-foot-long by 18-foot-diameter steel flowline
- 81-foot-high by 45-foot-diameter surge tank
- Two 118-foot-long by 14-foot-diameter steel penstocks
- Powerhouse: 3-story steel frame and brick curtain wall, 130 feet long by 74 feet wide
- Maximum discharge flow of approximately 3,600 cfs

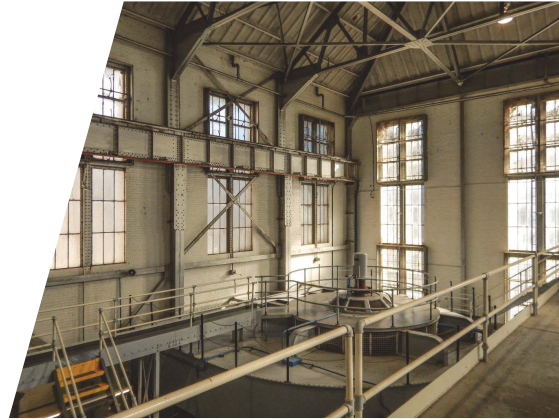




Cutler Hydroelectric Project

Cutler Relicensing Project Powerhouse

- In operation since 1927
- Nameplate rating of 30 megawatts (MW)
- Two 15MW, 150 revolutions per minute (rpm) vertical Francis turbines: Unit 1 with 23,602 horsepower (hp) and Unit 2 with 21,180 hp
- Two General Electric generating units with a total installed capacity of 30 MW
- Average annual power generated by the Cutler Project is 71,424 megawatt-hours (MWh)



Cutler Hydroelectric Project

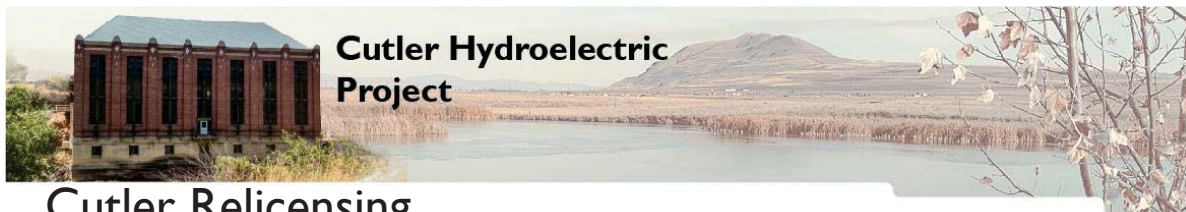
Cutler Relicensing Project Operation



Cutler Hydroelectric Project

Cutler Relicensing Project Operation

- System operated to meet largest in-priority water rights on the river, diverted at Cutler Dam (900 cfs)
- Governed by Bear River Compact, water rights, and supplemental water contracts
- PacifiCorp holds multiple water rights including storage in Bear Lake
- Required to operate the Bear River to meet needs of 1) flood control, 2) irrigation, 3) hydropower generation
- Typically run-of-river, by schedule that meets current license requirements – allows 1 foot total of elevation variation (4407.5-4406.5) March-Dec and 1.5 feet (4407.5-4406.0) in winter
- Reservoir surface area of ~5,460 acres at maximum normal elevation (4407.5 feet), with storage of approximately 13,200 acre-feet (reservoir averages less than 4 feet deep; less than 2 feet deep in the southern half)



Cutler Hydroelectric Project

Cutler Relicensing Current License

- Current license issued 1994; expires 2024
- Current license requirements (in part):
 - Reservoir operating elevation limits (typically 4406.5-4407.5)

Period	Reservoir Elevation (Ft)	Tolerance (Ft)	% of Time Goal Met
March 1 – Dec 1	4,407.5 – 4,406.5	± 0.25	95%
Dec 2 – Feb 28	4,407.5 – 4,406.0	± 0.25 to 0.5	90%
 - Water Quality Monitoring Program (quarterly at 5-year intervals)
 - Fish Habitat Enhancement Program (placed structures, discontinued monitoring per agreement with UDWR)
 - Cutler Resource Management Plan



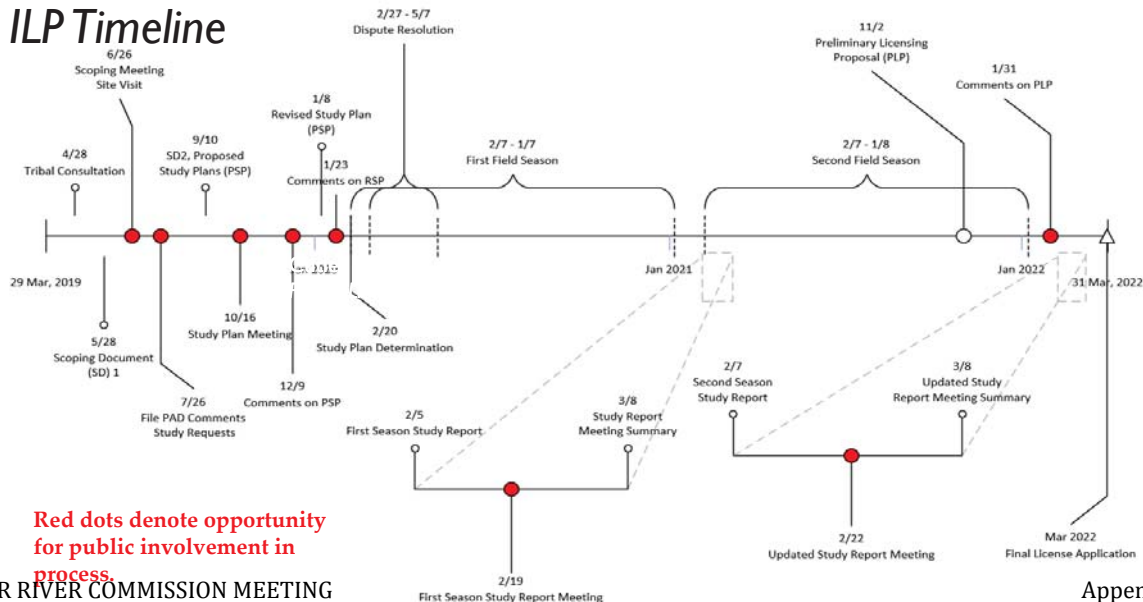
Cutler Hydroelectric Project

Cutler Relicensing Future License Proposal

- To meet new generation scenarios that include more variable sources of energy, such as wind and solar generation, need additional operational flexibility beyond the current 1-1.5 foot elevation change limits.
- *NOT* proposing a change to the upper reservoir limits (perhaps additional flexibility in tolerance range limits)
- Will study a full range of reservoir lower elevation limits, down to the spill gate lower sill elevation (mechanical limit of lower elevations possible), equal to approximately 11 feet
- *No new inundation*; consider removal of Wheelon Dam
- Relicensing is *not* the on-going conversation about Bear River water use



Cutler Relicensing ILP Timeline





Cutler Hydroelectric Project

Cutler Relicensing *Future License Proposal*

- Because we are proposing a change from relatively 'flat' operation, over the next two years, will need to look at potential effects to and information needs for a variety of resources
- Oct/Nov 2019 Drawdown



Cutler Hydroelectric Project

Cutler Relicensing *Relicensing Issues*

- Water Quality/Hydrology/Water Rights
- Sedimentation/Dredging
- Fishery – No native sport fishery; few natives in the lower Bear
- Terrestrial Wildlife Habitat/Threatened and Endangered Species (e.g., Ute ladies'-tresses orchid)
- Native freshwater mollusk community
- Invasive species (*Phragmites*, Quagga mussels, other)
- Cultural and Tribal resources– prehistoric and historic
- Recreation opportunities
- Agricultural opportunities
- Protection, Mitigation, and Enhancement (PME) measures → future discussion



Cutler Hydroelectric Project

Cutler Relicensing *Proposed Relicensing Studies*

- **Water Quality** – During October 2019 drawdown and synthesis of ongoing water quality studies
- **Hydraulic Modeling** – Light Detection and Ranging (LiDAR), October 2019 and Bathymetry
- **Sedimentation** – LiDAR, Bathymetry, and core sampling
- **Fish and Aquatic** (including benthic macroinvertebrates and mussels) – population assessments and fish mobility
- **Shoreline Habitat Characterization** – Map and characterize the distribution of shoreline aquatic habitat within the Cutler Project Boundary to identify the area that could be affected by a proposed wider operating range; quantify the amount of available littoral habitat, characterize existing emergent and aquatic vegetation, and map invasive species
- **Threatened and Endangered Species** – Conduct a Ute Ladies' Tresses Orchid (*Spiranthes diluvialis*) survey
- **Cultural Resources** – Conduct a cultural resource inventory (archaeological, architectural, ethnographic resources)
- **Recreation** – Analyze LiDAR data to determine reservoir pool level thresholds for access at respective recreation sites



Cutler Hydroelectric Project

Cutler Relicensing

Current and Next Relicensing Process Steps

- February 2019 – PacifiCorp Stakeholder Engagement Meeting
- March 2019 – PacifiCorp files Cutler Pre-Application Document (PAD)
- June 2019 – FERC/PacifiCorp Site Visit and Public Scoping Meetings
- July 2019 – Public Scoping comments due
- Aug/Sept 2019 – Scoping Document 1 and 2 released by FERC
- September 2019 – PacifiCorp files Preliminary Study Plan
- October 2019 – PacifiCorp/FERC Public Study Plan meetings (follow-up mtgs w stakeholders Oct/Nov 2019 and drawdown preliminary studies)
- December 2019 – Public comments on Preliminary Study Plan due

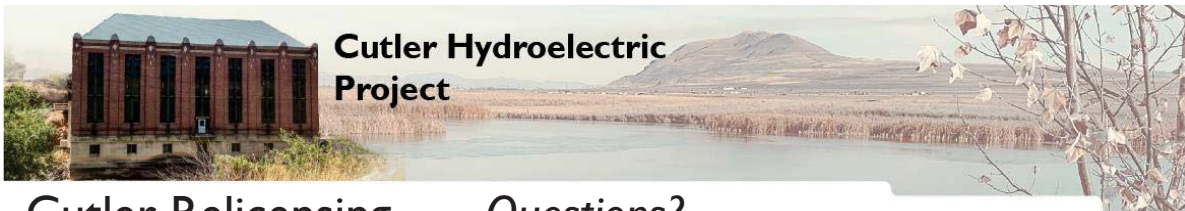


Cutler Hydroelectric Project

Cutler Relicensing

Current and Next Relicensing Process Steps

- January 2020 – PacifiCorp will file Final Study Plan and Final Public comments due 2 weeks later
- February 2020 – FERC rules on any disputes and issues Study Plan; studies underway
- 2020 and 2021 – First and second (where necessary) season study plan studies conducted and Technical Reports filed
- 2020 and 2021 – Public Technical Report meetings for various disciplines
- Late 2021 – PacifiCorp will file Draft License Application
- Early 2022 – Public Comments on DLA due
- March 2022 – PacifiCorp will file Final License Application; Public Comments on FLA due within 90 days
- 2022 to 2024 – FERC Environmental Analysis, Additional Information Requests, and Draft License Articles Issued



Cutler Hydroelectric Project

Cutler Relicensing Questions?

Cutler Website: <https://www.pacificorp.com/energy/hydro/cutler.html>

Cutler Relicense email: CutlerLicense@gmail.com

Eve Davies, PacifiCorp Renewable Resources

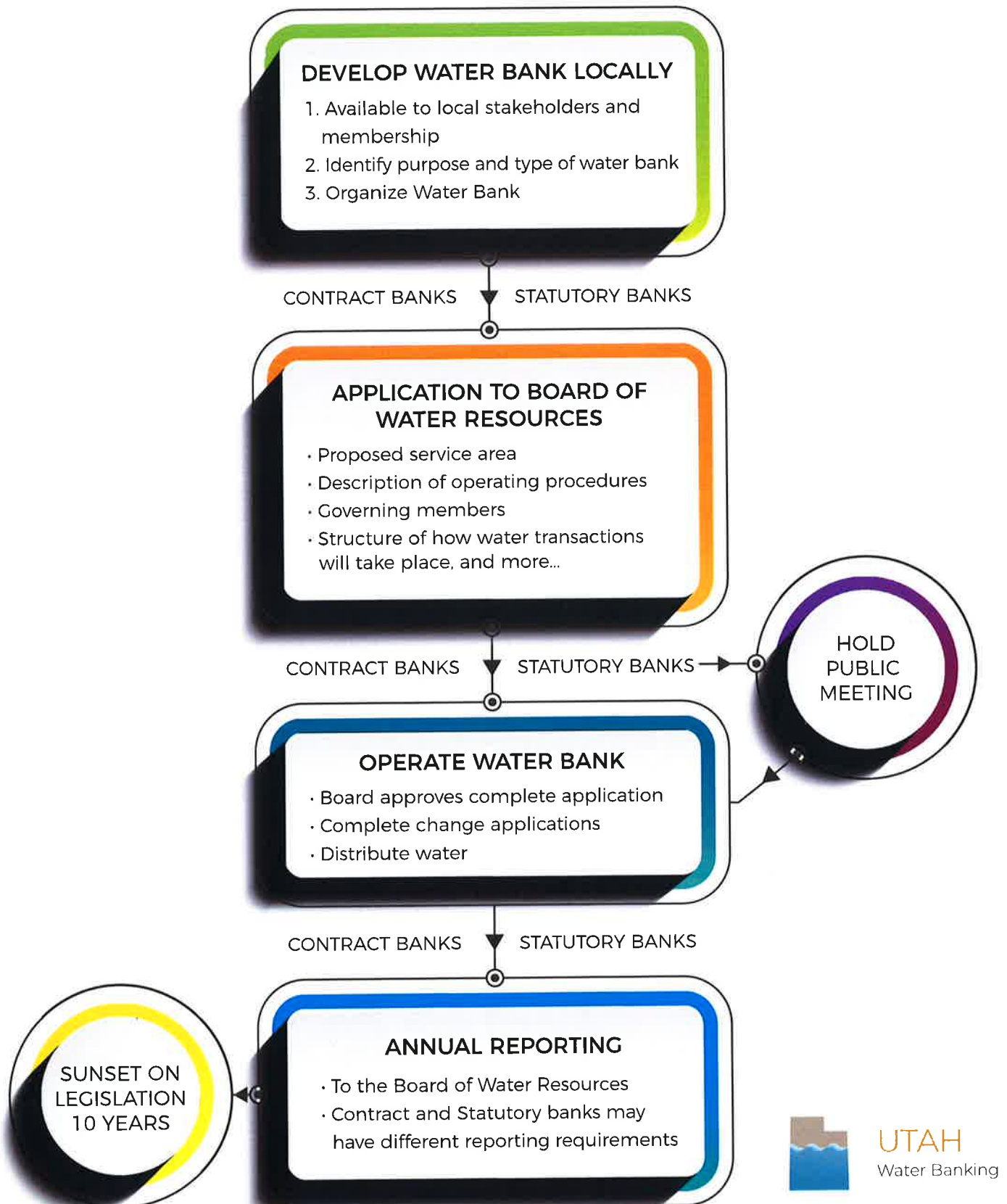
Principal Scientist/Cutler Licensing Manager

801-220-2245

Eve.Davies@pacificorp.com



LOCAL WATER BANK PROCESS





Water Banking, Utah Style

Bear River Commission

Boyd Clayton

November 19, 2019

Utah Water Banking

- What is it?
- Why would you want one?
- How do you set one up?
- How will it work?



Utah Water Banks

- Statutory Bank
 - Organization that operates a rental pool of water rights added to the pool through change application.
- Contract Bank
 - Existing state created public entity which operates a pool of water rights according to contracted terms.

Why a Bank?

- Water rights in bank are exempt from use requirements.
- Rented water may be used for any purpose.
- Rapid turnaround in pooled water rentals.
- Temporary transfers.
- Open market transactions (statutory bank)

Creating A Bank

- Application to Water Resources describing how your bank will work.
- Public Notice
- Public Hearing (Statutory Bank)
- Annual Reporting
- Pilot timeframe of 10 years

What is Next?

- Enabling legislation 2020 session.
- Legislative appropriation and Watersmart grant will fund manager to operate pilots and help others get started.
- Watersmart Grant marketing report in 3-4 years.
- Annual legislative reporting and 10 year sunset report.

How will it Work?

- File a change application to put a water right in an approved water bank.
- State engineer processes change application under existing statutes for use in the water bank.
 - Sets conditions of hereafter use within the bank
- Bank rents right in rental pool according to their procedures.
- Bank works with river commissioner to fulfill rental pool deliveries.
- Owner removes right from rental pool by filing change withdrawal notice with state engineer.

Pick your Outcome





United States Department of Agriculture

Bear River Commission Water Supply Outlook

November 19, 2019

Upper Emigration Canyon, UT

Troy Brosten
NRCS Snow Survey

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



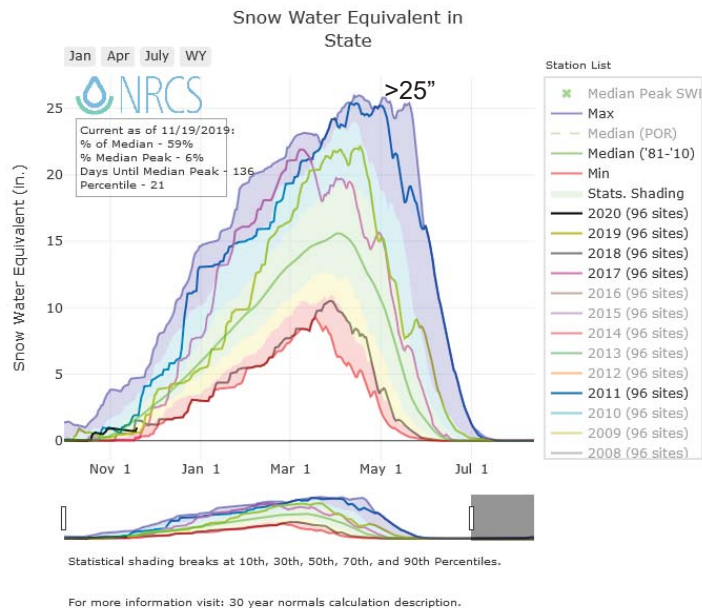
Natural
Resources
Conservation
Service

www.ut.nrcs.usda.gov/snow

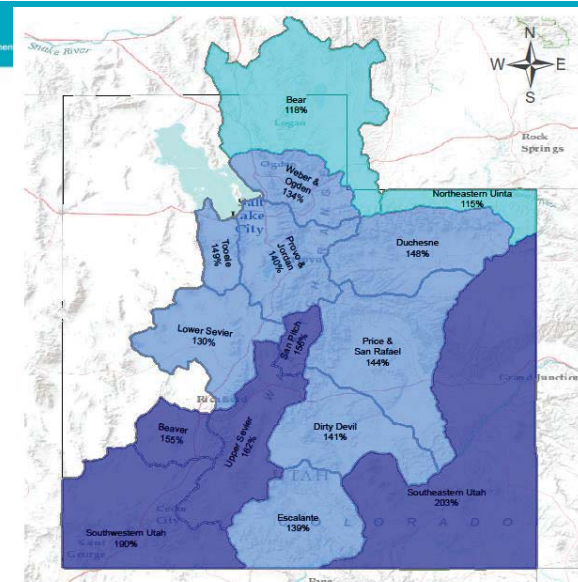
Water Year 2019



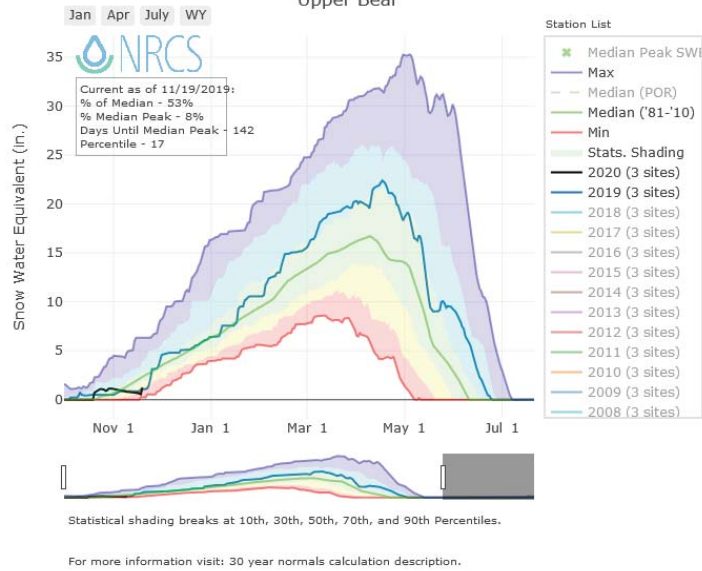
United States Department of Agriculture



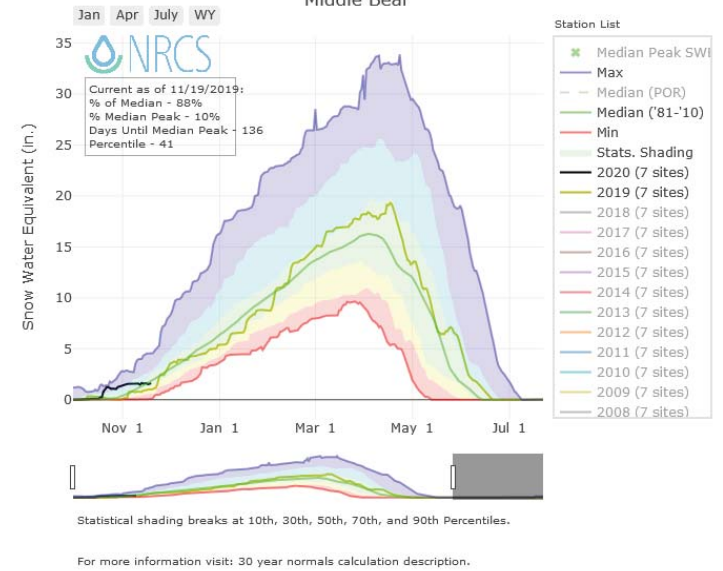
United States Department of Agriculture



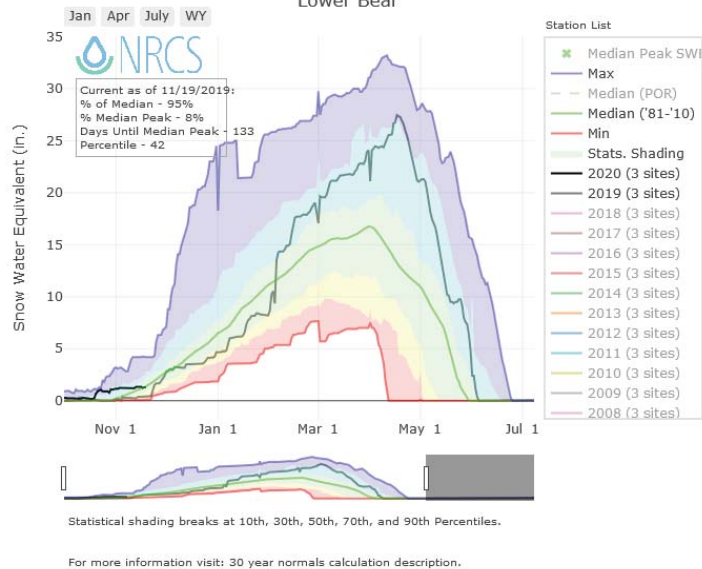
Snow Water Equivalent in Upper Bear April 1: 129%



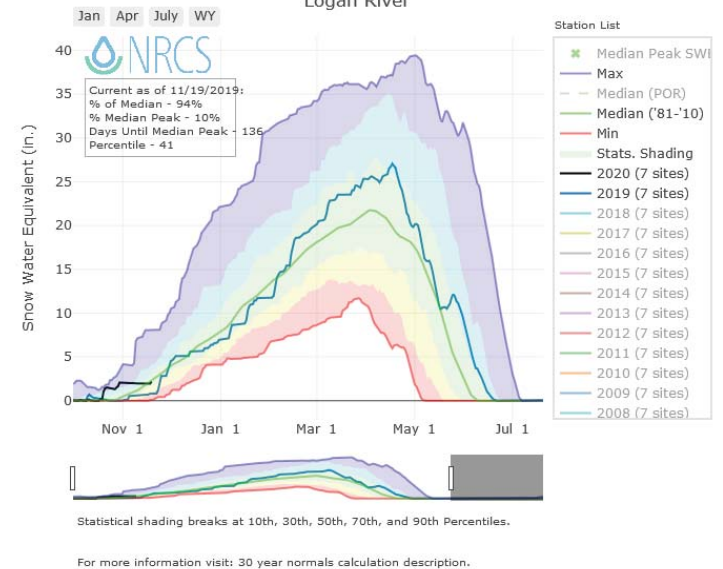
Snow Water Equivalent in Middle Bear April 1: 112%

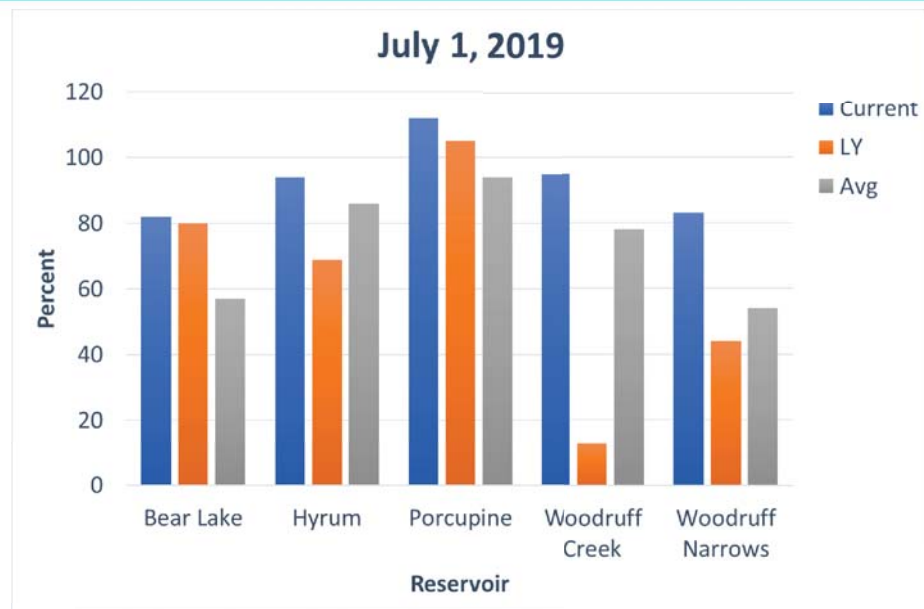


Snow Water Equivalent in Lower Bear April 1: 126%



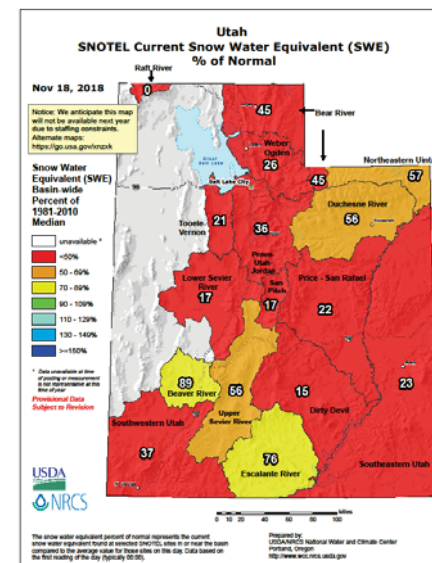
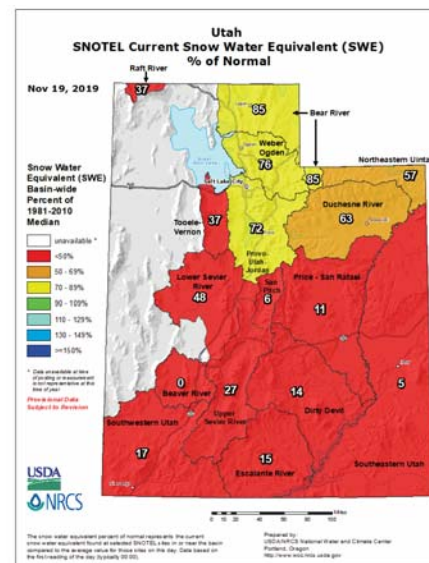
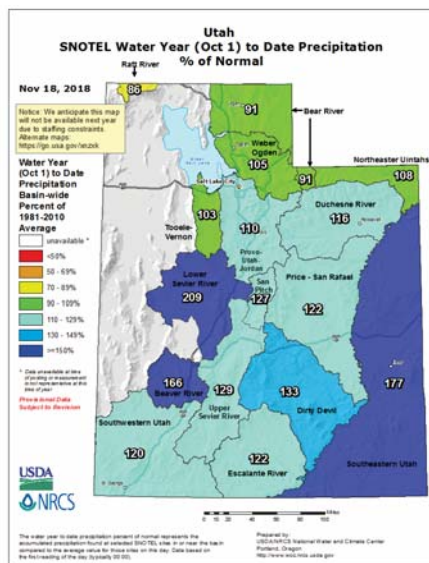
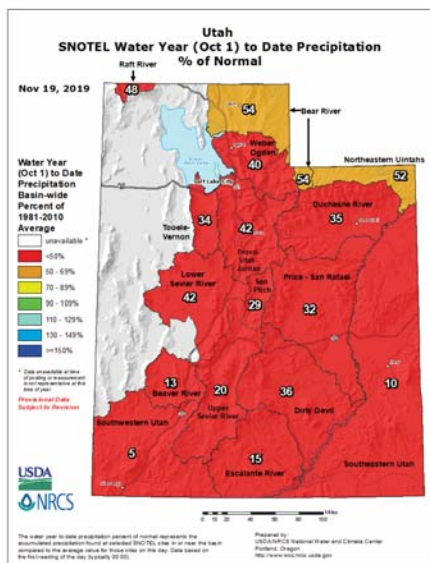
Snow Water Equivalent in Logan River April 1: 116%

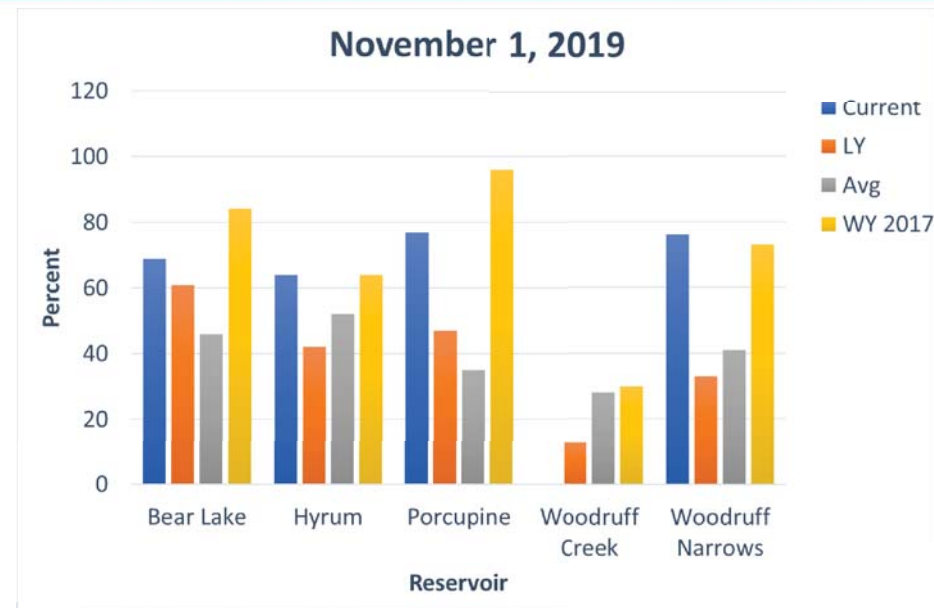
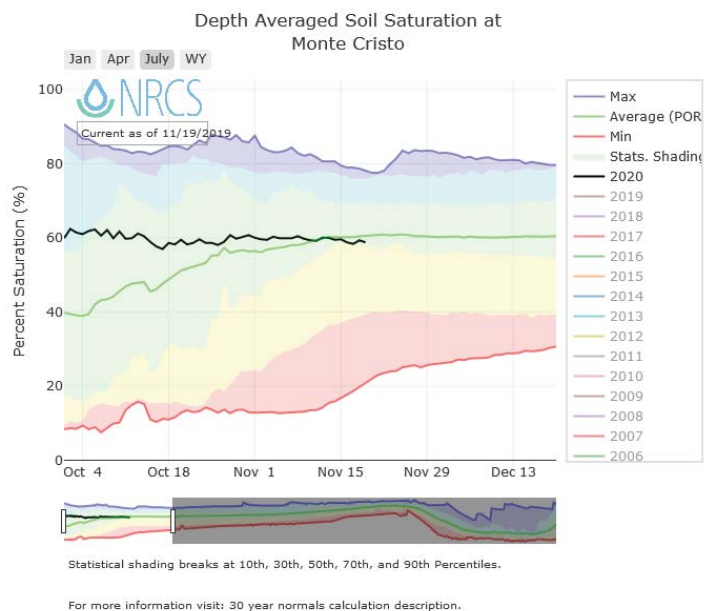




Water Year 2020

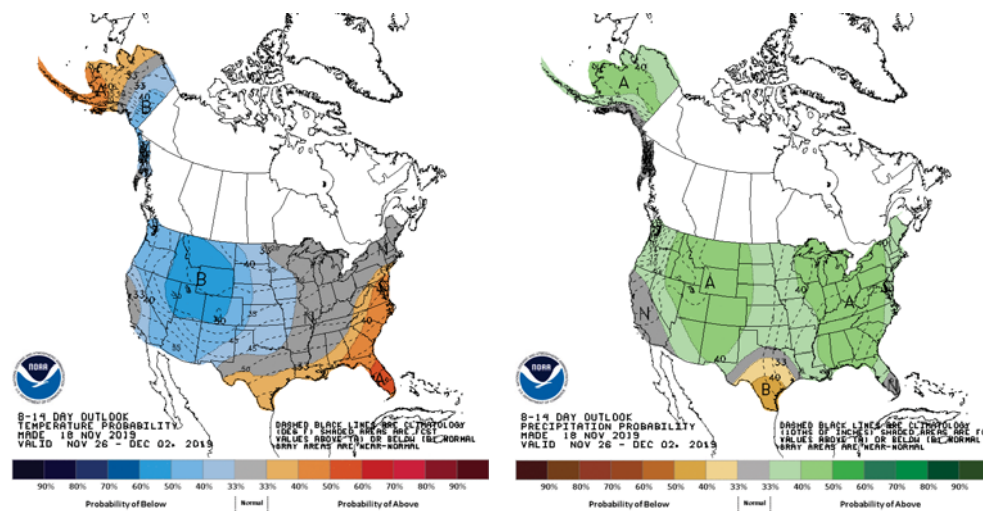
Current Conditions





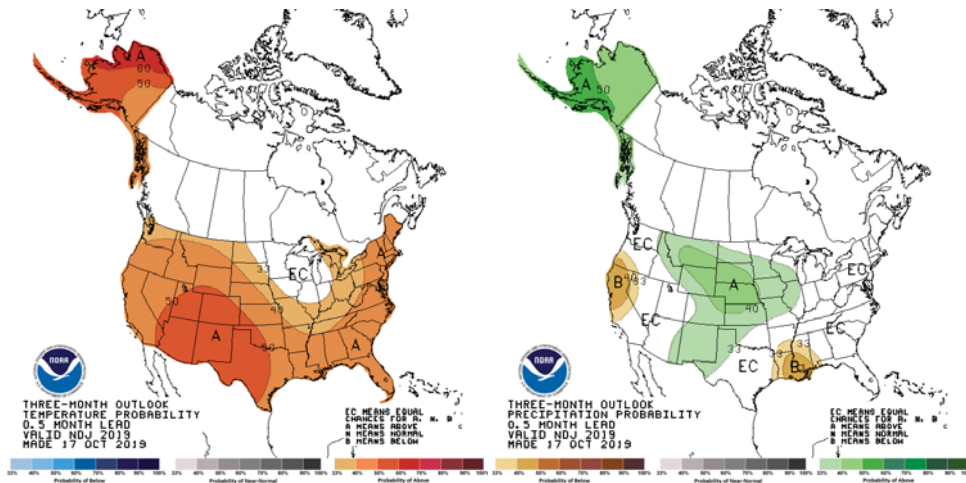
Water Year 2020

Future Conditions

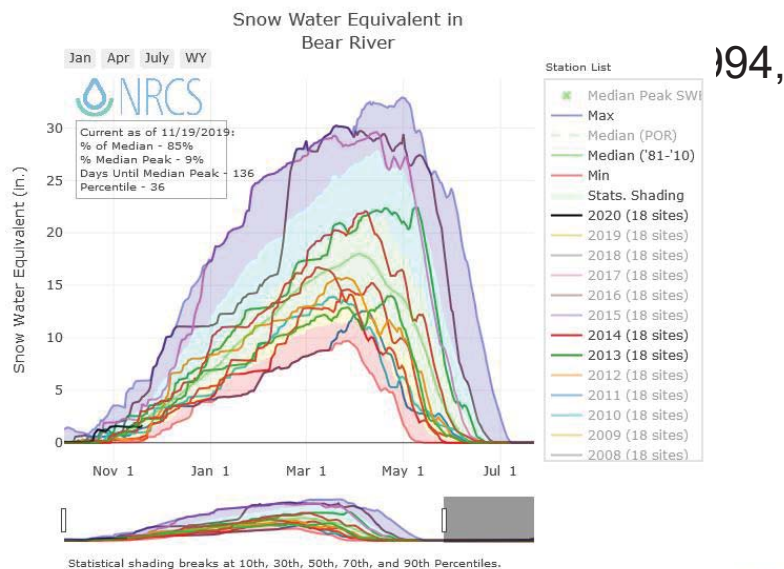


Current Oceanic Nino Index (ONI):

Neutral conditions – expected to persist throughout 2019-20 winter



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YOU REALLY HAVE NO IDEA WHAT YOU'RE DOING DO YOU?

Bear River Basin Summary

1. Cumulative precipitation at 54% of normal.
2. Snow Water Equivalent at 85% of normal.
3. Reservoir storage is at 69% compared to 60% last year.
4. Near average soil moisture.
5. Nino neutral Conditions.
6. Only about 1.5 months into the new water year – so anything can happen.



SUMMARY OF WATER YEAR 2019 BEAR LAKE OPERATIONS

Date	Hydrologic Information/Event	Contents (% of Full) Discharge (% of Normal)
10-01-18	Bear Lake Beginning Elevation - 5,916.47 ft.	920,664 af (65%)
11-30-18	Bear Lake Low Elevation - 5,916.40 ft. (see note 1)	915,885 af (64%)
	Rainbow Inlet Canal Discharge	257,000 af (98%)
	Bear River Discharge Below Stewart Dam	2,600 af
	Bear Lake Net Runoff (Computed Total Inflow less Lake Evaporation)	277,000 af (86%)
07-06-19	Bear Lake High Elevation - 5,920.28 ft.	1,184,544 af (83%)
	Outlet Canal Releases: 6/20 - 10/5 (86 days irrigation releases)	175,000 af
07-11-19	Outlet Canal Maximum Release - 1,216 cfs	
	Bear Lake Storage Release (see note 2, irrigation release 78,100 acre-feet)	112,000 af
09-30-19	Bear Lake Ending Elevation - 5,917.90 ft.	1,018,948 af (72%)
	Bear Lake Settlement Agreement "System Loss" Volume	33,258 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 18, 2018 was 5917.90 feet. There is 200 cfs in the Rainbow Inlet Canal. The Bear Lake Outlet Canal is open, passing inflow to meet the March 31, 2020 PacifiCorp Target Elevation (PTE) of 5918.0 feet.

Summary of Water Year 2019

The Bear Lake Irrigation Storage Allocation for 2019 was 245,000 acre-feet. Runoff was close to normal, with Bear Lake net runoff at 277,000 acre-feet (86% of normal). The Bear Lake Outlet Canal was opened for irrigation releases on June 20 and shut on October 5.

Water Year 2019 Operations

High runoff management releases were minimal in water year 2019, a little extra was maintained in the outlet in August as projections showed fall/winter high runoff releases were likely necessary.

Water Year 2020 Operations

Currently, inflows are being passed downstream to meet the March 31, 2020 PacifiCorp Target Elevation (PTE) of 5918.0 feet, consistent with the *Operations Agreement for PacifiCorp's Bear River System*. See Figures 1 and 2 for depictions of recent and anticipated future Bear Lake water levels and outflows for anticipated normal and very-low runoff scenarios.

Operational Notes

- *Bear River Black Canyon Recreational Water Releases* occurred in 2019. The full available inflow or 900 cfs, whichever is greater, is passed through Black Canyon during each event.
- Cutler Reservoir was drawn down for relicensing studies in November 2019. Studies included a LiDAR flyover to collect bathymetry and nearby topography.

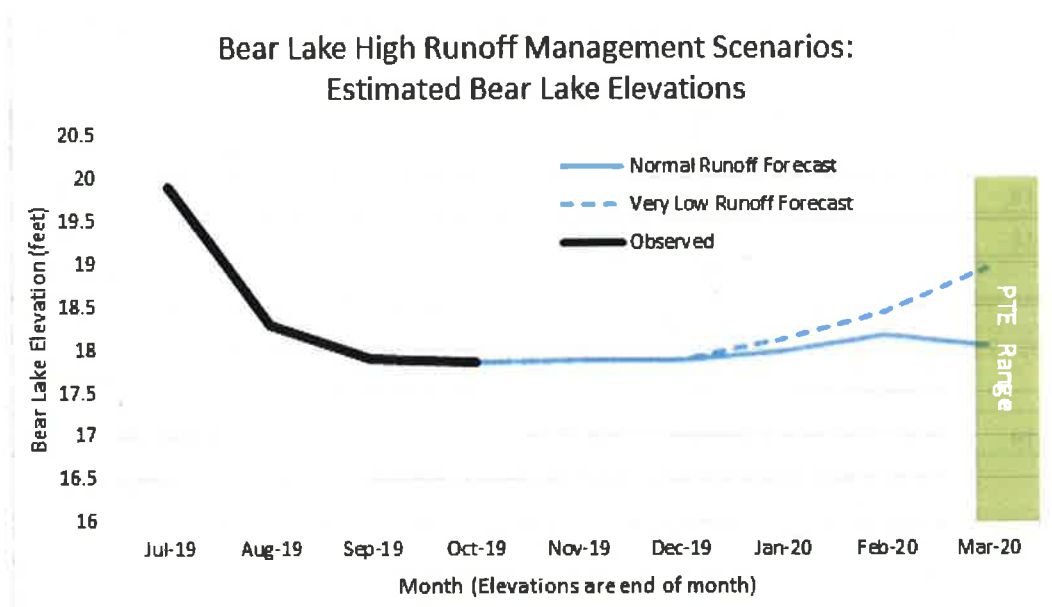


Figure 1. Summary of estimated *end-of-month* Bear Lake water surface elevations under normal and very-low anticipated runoff scenarios.

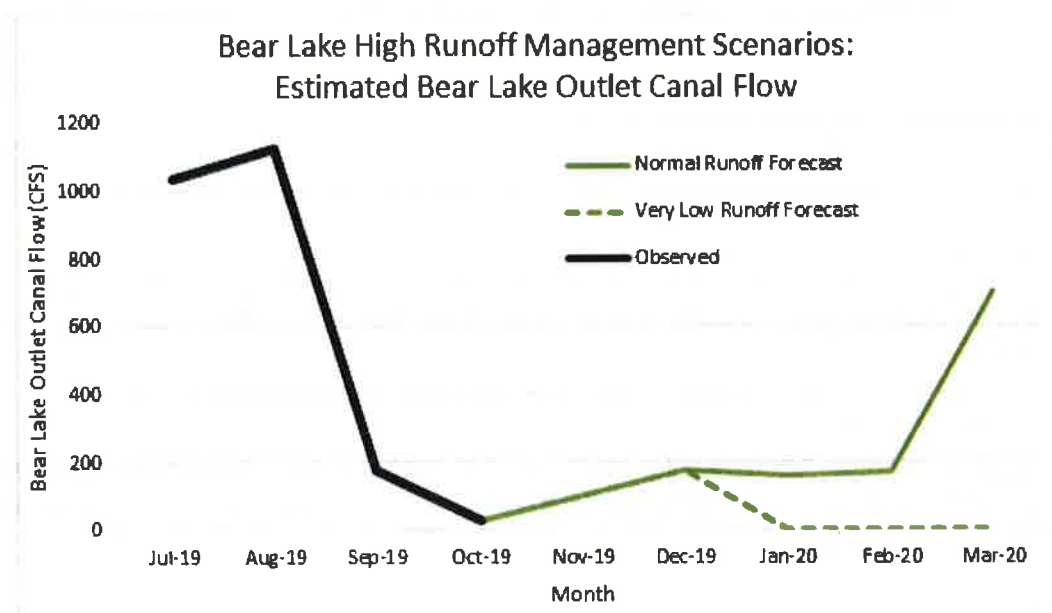


Figure 2. Summary of estimated *monthly average* Bear Lake Outlet Canal flows under normal and very-low anticipated runoff scenarios.