



## BEAR RIVER COMMISSION

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### 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 ANNUAL MEETING ONE HUNDRED THIRTY-FOURTH COMMISSION MEETING APRIL 16, 2019

**I. Call to order** – The annual meeting of the Bear River Commission was called to order by Chairwoman Jody Williams at 1:30 p.m. on Tuesday, April 16, 2019, at the Utah Department of Natural Resources building in Salt Lake City, Utah. This was the one hundred thirty-fourth meeting of the Commission. Williams noted that Kevin Payne was sitting in for Pat Tyrrell from Wyoming and Mark Ipson for Curtis Stoddard from Idaho. As Stoddard was very ill, Williams asked those in attendance to keep him in their thoughts and in their hearts as he moves forward in his recovery. She also noted the passing of a former commissioner from Wyoming, John Teichert, who had contributed a great deal over many years and was a mentor to many and a colleague to all. She pointed out that his son, Tim Teichert, was currently serving as a Wyoming Commissioner, following in the footsteps of his father. Williams then 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 November 20, 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 gave the financial report for the Commission. He pointed out the income and expenditures listed on the handout, with expenditures to date of \$113,077.92. The cash balance in the account was \$132,816.08. Millis then addressed the budget sheet showing the approved budget for the current year and the proposed budget for the following two years. The changes for the FY2020 budget include a 2.4 percent increase in stream gaging costs, along with an expense for the new Bear Lake gage. Personal services and clerical expenses will increase by 2.5 percent. The budget will also include \$2,500 for a summer tour. Millis also pointed out an expense of \$7,800 for the Bear Lake gage in the FY2021 budget. Millis then made a motion that the Commission adopt the FY2020 budget as shown, which was approved unanimously. (The financial statement and budget sheet are attached to these minutes as Appendix C.)

**IV. Election of Officers** – Chairwoman Williams opened up elections for the Commission. Gary Spackman nominated Curtis Stoddard to serve as the Vice

Chair for the upcoming term. He was approved unanimously for that position. A nomination was made that Eric Millis continue to serve in the position of Secretary for the Commission. This nomination was also approved unanimously. There was a nomination made for Randy Staker to continue to serve in the position of Treasurer. The Commission voted unanimously to approve that nomination.

**V. 2019 Water Supply Outlook** – Jordan Clayton from NRCS Snow Survey reported on the current conditions in Utah as of mid-April. He noted that the Bear River Basin had been just a little behind the rest of the state, but still above 100 percent for several months. It caught up recently and was between 130 and 134 percent, above normal for current snowpack. He shared several graphs showing current water year conditions compared to normal. He noted that projections going forward indicate that snowpack will continue to be above normal. Clayton explained that they also monitor precipitation. He reported that the current precipitation for the Bear River watershed as a whole was well above normal. He showed graphs of the sub-watersheds in terms of snow water equivalent, which was also above normal. Clayton reported that in the valley locations they are well above normal in soil moisture. This means that once the snowpack starts to melt, the water will rapidly be delivered to the streams and reservoirs. He explained that more recently they have begun to measure the percent of saturation at the SNOTEL sites under the snowpack. He also noted that the density of the snow is greater than normal, which means that the snow will melt rapidly and quickly enter the streams and reservoirs. Clayton commented that the reservoirs were generally just below where they were the previous year, but it was expected that they would catch up quite well as the snowpack melts. He noted that the one-month outlook from NOAA indicated above normal precipitation and temperatures. Clayton's PowerPoint is attached as Appendix D.

**VI. Friends of Great Salt Lake** – Lynn de Freitas, Executive Director of the Friends of Great Salt Lake, was invited to make a presentation at this meeting regarding the Great Salt Lake and its issues. Her PowerPoint is attached as Appendix E. De Freitas shared with the Commission some examples of what it is about Great Salt Lake as a saline system that makes it a public trust resource for the people of Utah and how important it is to wildlife and millions of migratory birds as well. She noted some of the major threats to Great Salt Lake, with water quantity being at the top of the list. The system relies on precipitation and inflows from rivers that are located to the east of it. The lion's share of inflows come from the Bear River, and then the Weber, Ogden and Jordan Rivers. The salinity of the system ranges depending upon the elevation and what part of the lake you are talking about, but it is a dynamic ecosystem and it fluctuates in its elevation, which is very challenging. Another challenge will be a growing population which is expected to double by the year 2060.

De Freitas explained that five to seven million migratory birds come to the Great Salt Lake annually, and it provides the world's largest staging concentrations for many birds. Also, the lake hosts 30 percent of the Pacific and Central flyways for waterfowl. The nature of the habitat includes beaches, saline wet meadows, uplands and islands. There are 25 different duck clubs that use the system for their traditional waterfowling. There are nine wildlife management areas managed by the Division of Wildlife Resources. There are six mineral extraction industries around the lake. There is also a national fish and wildlife refuge and Antelope Island State Park. These things add to the challenge of how to manage the system resources and take care of the community and all of the needs that surround it.

De Freitas commented on the railroad causeway that has been in place since 1903. It has changed its use over the years, but it essentially bisects the north arm and the south arm of the lake which each have different resource needs. There are mineral extraction operations, along with the brine

shrimp industry that contribute to the livelihood of the state. Certain areas of the lake are a great source of food for all of the migratory birds because of the very high protein source. Recreation and tourism are also major contributors.

De Freitas explained that Governor Herbert appointed a Great Salt Lake Advisory Council which produced a report in 2012 showing the economic value of the Great Salt Lake ecosystem, which is very significant to Utah's gross domestic product. She also shared a sheet showing the Great Salt Lake Level Matrix from 2013, a tool that was developed through the last Great Salt Lake Comprehensive Management Plan process by the Division of Forestry, Fire and State Lands. She noted that the lake is in a state of decline and that upstream diversion has basically reduced instream flows to the lake by about 38 percent, which in turn has added exposure of the lake bed by about 43 percent. Governor Herbert also appointed a Water Strategy Team in 2013 to address how Utah will maintain their quality of life and address water needs and water uses in the state, which she believes has given traction to many water bills that have been brought before the legislature. De Freitas announced that the Friends of Great Salt Lake will be hosting another Biennial Great Salt Lake Issues Forum in 2020 entitled, "Great Salt Lake, the Gift that Keeps on Giving, Just Add Water." She noted that her message to the Commission is that there is an opportunity to work strategically and collectively and collaboratively in trying to overcome some of the challenges that this system is facing.

**VII. 20-Year Review of Compact** – Chairwoman Williams mentioned that the Commission commenced its 20-Year Review of the Compact in April 2017. A great deal had been accomplished since then. The Commission decided not to amend the Compact, but many issues were raised during the meetings and many comments were received. She turned the time over to Don Barnett to give an update on the Review. Barnett noted that there were 67 written comments received which were put into different categories. At first, the focus was on whether or not the comments recommended any change to the Compact. These were all presented to the Commission in April 2018, and the Commission gave an assignment to look seriously at those specific comments. There was one relative to Bear Lake interests and four relative to Great Salt Lake interests that said yes, change the Compact. There was one comment categorized as conservation/environmental that said maybe or within certain parameters. This comment was aimed at amending the Compact by changing the Central Division's water emergency administration. Barnett noted that a draft response had been written on this subject, but it was in the early review stages. Other comments had to do with instituting conservation measures of Bear Lake at a higher elevation, something similar to the Bear Lake Settlement Agreement that has it kicking in at 5919 ft. instead of 5914 ft. Again, a draft had been written and additional research requested by the Commission had been done, and it was in the review stages. The third was to reduce the Lower Division Amended Compact depletion allocations. This was still in review and some additional research was occurring in that area.

Barnett noted that additional comments were received on other subjects. The majority of the comments said to not change the Compact. He reported that he would be working with Wyoming on writing up that portion. There was a comment suggesting that a committee be formed to hear and review environmental watershed health issues. In the fall meeting, adjustments were made in the assignments to the Technical Advisory Committee (TAC) relative to this comment. That response was in process. The State of Utah was working on additional Bear Lake water quantity and water quality comments. Barnett reported that at a recent meeting of the TAC there was a long discussion about water banking and the best way to write a response. It was agreed that the three states would talk about water banking in their states and opportunities and issues and then bring those together into a common writeup. The last subject was to reestablish flows in the Bear River

below Stewart Dam. The State of Idaho was working on that writeup. The final assignment was for the TAC members to go through all 67 comments and make sure that nothing was missed or left out of one of the categories, and then they would move forward.

Barnett reported that a general draft or outline of the document had been prepared. The executive summary had been written. The table of contents will show how the document is organized and will cover all the efforts made since the beginning of the review.

Barnett explained that the TAC agreed on a schedule to have all written pieces done by June 7<sup>th</sup> and then have a work meeting in late July or early August to review and give input on the various pieces and determine if anything needs to be changed or added. The TAC would work with the Management Committee for their review and input, with the goal of delivering a draft report to the Commission by the first of September. Barnett's PowerPoint is included as Appendix F.

The Commission then took a short break.

**VIII. Water Quality Committee report** – Jim Harris gave a report on the meeting of the Water Quality Committee held the previous day. He noted that Barry Burnell, who has chaired the committee for 15 years, had announced his retirement. He had contributed a great deal to the effort over the years and would be missed.

Harris commented that they had several reports from the Bear River Water Quality Task Force regarding a number of projects within the watershed. They talked quite a bit about monitoring activities. They were proposing a change from the historic tri-state monitoring to focus a little more on the inflows to Bear Lake, looking at temperature, water quality and nutrients going into the lake. There were also discussions about replacing the staff gage for the water levels in Bear Lake and perhaps co-funding with USGS. Harris noted that Bear Lake Watch was starting a project with USGS to better measure sediment loads into the lake.

The committee discussed planning a tour for the Water Quality Committee to help introduce the new member from Idaho to the watershed and the ongoing projects. The committee was also planning a plaque and a bench in honor of Jack Barnett and his contribution to the Water Quality Committee. They will work with Don Barnett on an appropriate location, saying and plaque.

They heard reports from each of the states. Idaho got approval from the EPA on human health criteria for consumption. They have also submitted their fish tissue criteria for selenium to the EPA and are expecting approval on most of the statewide and site-specific criteria. The Idaho Legislature has made resolutions to encourage the state to work with neighboring states on Bear Lake issues such as recreation, economic development, water quality and water quantity. There was an update on the Paris Hills project to mine phosphorus. The project has been abandoned indefinitely.

The State of Utah is at the public comment stage on their headwater nutrient criteria submitted to EPA. They are also dealing with a number of variance requests for their tech-based phosphorus affluent limit to make sure that all are in compliance by 2025. The Legislature is looking at the Great Salt Lake declining water levels, water banking and other items. They also got additional appropriations for the Harmful Algal Bloom program.

Wyoming also reported on their HAB program. They are trying to be more efficient in addressing those habitats by using satellite, screening and other efforts.

**IX. Records & Public Involvement Committee report** – Mike Johnson gave a brief summary of the Records & Public Involvement Committee meeting. Cory Angeroth reported that there would be no increase in gage costs for the upcoming year. He also noted that the water quality platforms had been deployed on Bear Lake and the data is available on the USGS website. Don Barnett reported that the Water Quality Committee expressed interest in a real time elevation gage at Bear Lake and agreed to help with partial funding for the gage. The Management Committee asked Barnett to revisit with PacifiCorp and other parties to assist in funding the installation and operation of the gage. A motion was approved to recommend support of the Bear Lake elevation gage. No new gages had been proposed in the Upper Division or the Central Division in Wyoming or in the Utah section. Josh Hanks reported that one new gage may be added in the Idaho section of the Central Division.

Barnett reported on the 2018 chapter of the Biennial Report and asked for input on the cover page and photos. Charles Holmgren suggested using a photo of Pine Creek. A motion was approved to add to the report graphs for regulation allocation flows from Wyoming's portion of the Central Division. Barnett also asked the committee if it would be a good idea to include weather data to the report showing precipitation and snow graphs. The committee thought this would be of value and requested that data to be added.

Barnett reported on the Commission tour the previous summer and discussed a possible tour for the coming summer from Soda Springs down to Oneida Narrows. The committee discussed several items related to the possible tour and a motion was passed by the group to support the 2019 tour. Barnett also reviewed the progress being made on the 20-year Review, hoping to have a final draft to present at the fall Commission meeting. Holmgren suggested posting meetings of interest to the Commission's website, perhaps under a different tab. These would be separate from Commission meetings. It was reported that the WIS website is still being maintained by Utah State University and is still being funded by the water quality agencies.

Lastly, Charles Holmgren was elected as the new Chairman for the Records Committee.

**X. Operations Committee report** – Matt Anders made the report for the Operations Committee. He reported that the committee discussed operations for 2019. Wyoming led the discussion saying that no irrigation diversions had occurred yet. Woodruff was 36% full, Whitney was 33% full and Sulphur Creek was 97% full. Barnett announced that Bear Lake was above 5911 feet so there were no restrictions on storage and they were anticipating a full storage supply. Water supply in the Central Division looked good. Director Spackman directed the Engineer-Manager to begin the call-ins and the measuring and recording so that water emergencies could be declared when the specified thresholds were met. Barnett provided an example of how the process for call-ins and the data are used. PacifiCorp led a discussion on the Lower Division. They reported that full allocations of 245,000 af were declared for the year. It was anticipated that Bear Lake would reach a level of 5920 ft. It was currently at 5917.5 ft, but was not expected to fill this year. Normal operations were anticipated at Bear Lake.

Regarding the West Cache Canal, Utah led the discussion and reported that they had had contact with the applicants and were waiting to receive the exchange application which they would process and advertise. Idaho was planning to do a transfer on their side. There would be limitations put in place based on diversions at the head and at the bottom so there would be no expansion of those waterways. It was noted that the water accounting model done by Utah and Idaho may need to be updated for transit loss. There were no issues for carryover in terms of depletion. Wyoming stated

that they had updated their analysis with 2018 data and discussed it with the TAC. The TAC identified the need to do a new depletions update. The Paris Hills project was discussed. They have decided not to move ahead on the project. Utah led the discussion on new water use proposals. They had three 3 supplemental wells in the Woodruff area. They had a hearing and were waiting for a ruling from the hearing officer.

Anders reported that Adrian Hunolt was elected as the new Chairman of the Operations Committee.

Connely Baldwin reported on PacifiCorp operations at Bear Lake. He shared a handout that summarized water year 2018 (see Appendix G). He noted that Bear Lake fell 4 feet from the high elevation of 5,920.44 ft. to an ending elevation of 5,916.48 ft. On the back side of the handout was a graph showing recent Bear Lake levels and estimates through the end of September. Baldwin noted that the FERC license was due to expire in five years, so they have started the licensing process.

**XI. Technical Advisory Committee report** – Chairwoman Williams reminded the group that, coming from comments on the 20-year Review, the Commission amended its bylaws to more formalize the role of the Technical Advisory Committee (TAC). The TAC was made a standing committee and, in addition to the other important work the TAC had been doing, it was tasked with reporting on environmental and watershed health issues. Todd Adams was asked to make a report on the newly formatted committee. Adams reported that the TAC had done a lot of work on the 20-year Review. Each state gave an update on water banking and ongoing efforts in their state. They discussed Bear Lake storage contracts and the settlement agreements and how they would be impacted by water banking in Bear Lake. They will continue working on that. They reviewed many assignments that had been given regarding the 20-year Review. They gave themselves a deadline of June 7 to prepare the draft reports and then plan to work over the summer on that.

Regarding the biennial report, the TAC discussed the real time regulation in the Central Division. It was determined that they would add more information to this report and that Barnett would prepare that information for the TAC to review. There was continuing discussion on late season water being diverted into the Lower Division. It was determined that these data should also be included in the biennial report. The committee was in favor of including precipitation data in the biennial report to give a more complete picture of the water year. The TAC made a deadline two weeks out to get information for the biennial report to Barnett.

Wyoming gave an update on their ongoing evaluation regarding the depletions update. The three states discussed further how that was done and where they were going to go with it. As required by the depletion estimates procedures, this should be updated every ten years. It was last done in 2009-2010. It does indicate that in the Central Division an update should be made every five years. Part of the difficulty in updating the depletion estimate procedures has to do with technology advances and changes. Doing updates more frequently would help in keeping up with those advances.

Adams noted that the TAC discussed the real time gage on Bear Lake to be operated potentially by the USGS. They talked about pros and cons of the USGS versus the Commission doing it. PacifiCorp commented that they can no longer fund that gage in their current budget.

The TAC then turned to watershed health and environment and had a few presentations by different organizations. The Audubon and Nature Conservancy expressed interest in pursuing a resiliency study on the Bear River to address climate change settlement issues and overall

watershed health. They talked about potential funding partners and an example of what was done in the Colorado River Basin.

Trout Unlimited reviewed several of the projects they have been completing on the Bear River and its tributaries. They explained what was being done in each state for instream flows and discussed potential for water leasing. There was a discussion on reestablishment of those below Stewart Dam for a connectivity of fish migration into that portion of the river system.

Another presentation was given by the U.S. Fish and Wildlife Service Bear River Wildlife Refuge. They presented concerns on sediment into the Refuge and also evasive species. They are working on percentage amounts of open water in emergent wetlands and are also addressing phragmites. They also discussed the four endemic fish in and around the Bear Lake system. Region 6 Fish and Wildlife Service gave a presentation on concerns about depletions and their effect on the Great Salt Lake. A map of conservation easement areas was presented and discussed along with the potential benefits of these easements.

Bear Lake Watch then gave a presentation on the need for sediment reduction looking at resiliency and water quality in Bear Lake. They discussed sediment loads in Bear Lake and phragmites along the shores which are problematic. There was a discussion about drought monitoring around Bear Lake. At the Commission meeting in November questions were posed as to why Bear Lake levels are used in the declaration of drought by NRCS and what that means for the water users. Adams noted that he had discussed this with his staff and they had met a couple of times with the State Climatologist. They are currently in discussions with those individuals about how that could be made more accurate.

There was some discussion about links on the Commission's web page that have stopped working. Barnett said he would look at that and get them fixed. They also discussed a few other items of interest.

**XII. Management Committee report** – Commissioner Spackman noted that many of the items that the Management Committee discussed in their meeting had already been covered. They talked about the installation of the Bear Lake gage and the appropriation for paying for it. The option that the Management Committee chose was to request that the USGS install the gage. They talked about the tour and also the 20-year Review. Regarding the review, Spackman pointed out that the Management Committee felt it was time to finish up the effort and he was happy to see the deadlines set by the TAC to move that along. They hoped to finish it up at the next Commission meeting.

Spackman also reported that the Management Committee had discussed the analysis of depletions. They made an assignment to the TAC to work on depletions, with a special focus on prioritizing the determination of supplemental depletions in the Central Division. They felt that perhaps it would be appropriate to even separate the Central Division from the other divisions, and particularly the Lower Division, in determining protocols for calculating the supplemental depletions. The reason for this is because of the limitations on the consumptive use or the depletions in the Central Division, there is a need for accurately computing those depletions as opposed to the Lower Division where a lot of additional depletions could be developed. Therefore, the Management Committee felt that the TAC ought to concentrate on the Central Division in trying to determine an acceptable uniform method of computing those supplemental depletions. Then the question of depletion analysis as a whole would take a place as secondary priority in the efforts of the TAC.

**XIII. Engineer-Manager's report** – Don Barnett commented that he had no additional items to discuss.

#### **XIV. State Reports**

**Idaho** – Commissioner Spackman explained that sister resolutions were presented to the Utah and Idaho legislatures. These resolutions were approved. Spackman read the resolution that Idaho approved to the group. Basically, the resolutions encourage the states of Idaho and Utah to work together in seeking solutions to address challenges regarding Bear Lake. This covered all aspects of the lake. They encouraged the two states to continue in cooperation to develop joint expectations for the continued health, beauty and enjoyment of Bear Lake. They also encouraged the states to participate with stakeholders to develop recommendations to protect and enhance existing beneficial uses to maintain a healthy and sustainable lake and protect the lake for future generations.

Spackman noted that their legislature includes a lot of agricultural folks and there are many people who are very concerned about water in the State of Idaho. This concern is being demonstrated by their statements that they want to establish some kind of a legacy funding for water projects in the state and also set up a framework so that they can move forward with water development and water projects. Spackman mentioned that the Speaker of the House has told him that he may be the last Speaker from agriculture in Idaho and this is one of his goals. He said that this year the legislature appropriated \$10-11 million out of the general fund dedicated to water projects in the State of Idaho, and he suspects they will continue to do that in future years. These funds can be dedicated to storage projects as well as to sustaining some other water supplies. He knew that folks in Utah have those same kinds of concerns. He was encouraged by those kinds of conversations and he hoped that a legacy fund would be put together that sustains and optimizes water use in the State of Idaho.

**Utah** – Commissioner Millis followed up on Spackman's report regarding the resolution on Bear Lake. He noted that Utah's resolution was very similar to the one in Idaho, but he emphasized that the resolution begins by urging solutions to address challenges to Bear Lake, including recreation and economic development interest, water quality, invasive species, lakebed management and preservation and enhancement of irrigation water storage and water supply functions. Millis reported that there was also a resolution on Great Salt Lake that was passed by the legislature. This was really aimed at ensuring adequate water flows into Great Salt Lake and the wetlands to maintain a healthy and sustainable lake system. It talks about the need for an overall policy that supports effective administration of water flow to Great Salt Lake to maintain or increase lake levels while appropriately balancing economic, social and environmental needs, including the need to sustain working agricultural land. It encourages the Departments of Natural Resources and Environmental Quality to expeditiously, jointly and collaboratively engage with a wide range of stakeholders to develop recommendations for policy and other solutions to ensure adequate water flows to Great Salt Lake and its wetlands. Millis noted that those two resolutions were passed in the recent session of the legislature.

Millis reported that from time to time people ask about the applications to the State Engineer that the State of Utah filed for storage in Bear Lake. He explained that they have not done anything with those and have not asked the State Engineer to take any action on those. They continue to have discussions about a basinwide model from top to bottom that would help inform decisions that could be made. After they filed those applications a year earlier, they met with about 40 stakeholder groups to get input from them, but they have not pursued the processing of that water



right. He reported that their Board of Water Resources appropriated some money to acquire rights-of-way on their Bear River Development Project that is still many years into the future. They feel that there is some wisdom in keeping the doors open on that project for when it might be needed. He also reported that the legislature appropriated \$90,000 for ongoing funding for monitoring on the Logan River, which will be done through Utah State University.

**Wyoming** – Kevin Payne made the report for the State of Wyoming. One of the biggest items he had to report was the retirement of Pat Tyrrell as the State Engineer. He was Wyoming's longest serving State Engineer with over 18 years in that position. He also served for many of those years as a Bear River Commissioner. Also, Harry LaBonde retired as Water Development Director.

Payne reported that there were five bills introduced during the legislative session involving water to which their agency responded. He gave a brief overview of these bills, their pros and cons and the outcome of the bills. One of the bills sought to add Senate confirmation as a requirement for the appointment of water compact commissioners. Payne noted that this would affect the Bear River Commissioners from Wyoming. The bill failed in the House Ag Committee. Another bill would require that any action other than a judicial decision that amends or otherwise adds any requirement or stipulation to a negotiated interstate water compact is not binding or obligatory upon the state unless the action is approved or ratified by the legislature of the State of Wyoming. Payne noted that the state legislature must already vote to amend any interstate compact. The State Engineer opposed this bill since the interpretation could cripple the Executive Branch's ability and authority to negotiate interstate agreements. This bill also failed in the Senate. Another bill was considered that would have required Senate confirmation of water division superintendent appointments and placed a six-year term on the appointments. State Engineer Tyrrell testified multiple times against the need for this bill. This bill passed the Senate and then failed in the House Ag Committee.

Lastly, Payne reported that Wyoming continues to face revenue shortages and their agency lost two positions during the current year.

**XV. Other / Public comment** – Brent Rose reported on the activities of the Bear River Water Users Association. He noted that they were pleased that there would be a full allocation of irrigation water for members of the Association during the current year. He reported that the Board of the Directors of the Bear River Water Users Association had recently had their annual meeting. This was preceded by the meeting of the Bear Lake Preservation and Advisory Committee. They address the interests around Bear Lake which include recreation, beautification and preservation. These things are merged with the interests of those who are irrigators so that everyone is accommodated. Rose noted that the Bear River Water Users Association was formed for the express purpose of protecting the water rights of its members, which covers 150,000 irrigated acres in the Bear River Basin in Idaho and Utah. The Association considers Bear Lake as a high value asset and a very valuable resource.

Claudia Cottle from Bear Lake Watch addressed the Commission. She passed out some copies of the resolutions that were approved by the Utah and Idaho legislatures which were mentioned earlier in the meeting. She mentioned that having a good plan and a balanced approach is a good thing. These components were incorporated into the resolution and there were a number of partners who gave their input. She mentioned that having that plan was important as they looked at the preservation of Bear Lake and having both Idaho and Utah supporting these efforts together was important. They also wanted to make sure that all the irrigation and current uses are secure as they work to use Bear Lake and preserve Bear Lake. Also important is preserving the comity

between the states as they work together. Cottle noted that the efforts that have been discussed in the meetings are just a part of the effort. They have been pleased to see the water quality improvements that are taking place, including the platforms that are out and measuring water quality parameters on Bear Lake and the improved gage that will help greatly in qualifying all the data at the lake. She reported that Bear Lake Watch would be spending \$16,000 over the next two years to help USGS and DEQ pay for a water quality project to measure the inflow of sediment and nutrients that come into the lake. These are all great steps for Bear Lake.

**XVI. Next Commission Meeting** – Chairwoman Williams reported that the next Commission meeting would be held on Tuesday, November 19, 2019, at the same location. 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  
April 16, 2019

### **IDAHO COMMISSIONERS**

Gary Spackman  
Kerry Romrell  
Mark Ipsen (Alternate)

### **WYOMING COMMISSIONERS**

Tim Teichert  
Adrian Hunolt  
Kevin Payne (Alternate)

### **FEDERAL CHAIR**

Jody Williams

### **OTHERS IN ATTENDANCE**

#### **IDAHO**

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

#### **UTAH**

Kent Jones, Division of Water Rights  
Will Atkin, Division of Water Rights  
Boyd Clayton, Division of Water Rights  
Ben Anderson, Division of Water Rights  
Skyler Buck, Division of Water Rights  
Todd Adams, Division of Water Resources  
Feng Pan, Division of Water Resources  
Ron Hoffman, Water Commissioner

#### **WYOMING**

Mike Johnson, State Engineer's Office  
Travis McInnis, State Engineer's Office  
Steve Wolff, State Engineer's Office

#### **OTHERS**

Jordan Clayton, NRCS Snow Survey  
Connely Baldwin, PacifiCorp Energy  
Buffi Morris, PacifiCorp Energy  
John Mabey, PacifiCorp Water Counsel  
Cory Angeroth, U.S. Geological Survey

### **UTAH COMMISSIONERS**

Eric Millis  
Charles Holmgren  
Blair Francis  
Norm Weston (Alternate)

### **ENGINEER-MANAGER & STAFF**

Don Barnett  
Donna Keeler

Ben Radcliffe, U.S. Bureau of Reclamation  
Carl Mackley, Bear River WCD  
Nathan Daus, Cache Water District  
Trevor Nielson, Bear River Canal Company  
Curtis Marble, Bear River Canal Company  
Claudia Cottle, Bear Lake Watch  
David Cottle, Bear Lake Watch  
Brent Rose, 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  
Claudia Conder, Salt Lake City

**REVISED AGENDA  
ANNUAL COMMISSION MEETING**

**April 16, 2019**

**Convene Meeting:** 1:30 p.m.

**Chairman:** Jody Williams

- |      |  |                 |
|------|--|-----------------|
| I.   | Call to order  | Williams        |
|      | A. Welcome of guests and overview of meeting                       |                 |
|      | B. Approval of revised agenda                                      |                 |
| II.  | Approval of minutes of last Commission meeting (November 20, 2018) | Williams        |
| III. | Reports of Secretary and Treasurer                                 | Millis/Staker   |
|      | A. 2019 Expenditures to date                                       |                 |
|      | B. Adoption of 2020 budget   |                 |
|      | C. Other   |                 |
| IV.  | Election of Officers   | Williams        |
|      | A. Vice Chair  |                 |
|      | B. Secretary   |                 |
|      | C. Treasurer   |                 |
| V.   | 2019 Water Supply Outlook  | Jordan Clayton  |
| VI.  | Friends of Great Salt Lake   | Lynn de Freitas |
| VII. | 20-Year Review of Compact  | TAC             |

**BREAK**

- |       |   |            |
|-------|---|------------|
| VIII. | Water Quality Committee report                                    | Gaddis     |
| IX.   | Records & Public Involvement Committee report                     | Teichert   |
| X.    | Operations Committee report                                       |            |
|       | A. Committee meeting  | Romrell    |
|       | B. Anticipated Operations and Regulation in 2019                  |            |
|       | C. PacifiCorp operations  | Baldwin    |
| XI.   | Technical Advisory Committee report                               | Adams      |
| XII.  | Management Committee report                                       | Spackman   |
| XIII. | Engineer-Manager's report   | Barnett    |
| XIV.  | State reports   |            |
|       | A. Idaho  | Spackman   |
|       | B. Utah   | Millis     |
|       | C. Wyoming  | Payne      |
| XV.   | Other / Public comment  | Williams   |
|       | A. Activities of the Bear River Water Users Association           | Rose/Budge |
|       | B. Bear Lake Watch  | Cottle     |
|       | C. Other  |            |
| XVI.  | Next Commission meeting (Tuesday, November 19, 2019, at Utah DNR) | Williams   |

**Anticipated adjournment:** 4:00 p.m.

BEAR RIVER COMMISSION

STATEMENT OF INCOME AND EXPENDITURES

FOR THE PERIOD OF July 1, 2018 to April 15, 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		8,526.00		8,526.00
Interest on Savings		3,107.68		3,107.68
TOTAL INCOME TO				
15-Apr-19	99,260.32	11,633.68	135,000.00	245,894.00

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	11,213.50	56,067.50
Travel (Eng-Mgr)		1,200.00	846.01	353.99
Office Expenses		1,600.00	1,349.99	250.01
Printing Biennial Report		1,000.00	1,000.00	-
Treasurer Bond & Audit		1,400.00	1,300.00	100.00
Printing		1,600.00	1,319.10	280.90
Realtime Web Hosting		8,400.00	1,184.01	7,215.99
Clerical		8,723.00	4,350.07	4,372.93
Tour		2,500.00	3.40	2,496.60
Contingency		2,000.00	2,000.00	-
SUBTOTAL		95,704.00	24,566.08	71,137.92
TOTAL EXPENSES		137,644.00	24,566.08	113,077.92
CASH BALANCE AS OF 04/15/19				132,816.08

BEAR RIVER COMMISSION

DETAILS OF EXPENDITURES

FOR PERIOD ENDING April 15, 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	1,815.99
888	C N A Surety	100.00
889	BIWC	17,272.41

TOTAL EXPENDITURES	113,077.92
--------------------	------------

BANK RECONCILIATION

Cash in Bank per Statement 04/15/19	12,982.01
Plus: Intransit Deposits	
Less: Outstanding Checks	
Total Cash in Bank	12,982.01
Plus: Savings Account-Utah State Treasurer	119,834.07
CASH BALANCE AS OF 04/15/19	132,816.08

BEAR RIVER COMMISSION

APPROVED BUDGET FY2019, PROPOSED BUDGET FY2020, PROPOSED BUDGET FY2021

	FY2019 APPROVED BUDGET	FY2020 PROPOSED BUDGET	FY2021 PROPOSED BUDGET
	-INCOME -	-INCOME -	-INCOME -
BEGINNING BALANCE	99,260.32	106,870.32	109,600.32
IDAHO	45,000.00	45,000.00	45,000.00
UTAH	45,000.00	45,000.00	45,000.00
WYOMING	45,000.00	45,000.00	45,000.00
WATER QUALITY	8,254.00	8,254.00	8,254.00
INTEREST ON SAVINGS	2,000.00	2,000.00	2,000.00
TOTAL INCOME	244,514.32	252,124.32	254,854.32
	-EXPENDITURES-	-EXPENDITURES-	-EXPENDITURES-
STREAM GAGING-U.S.G.S.	41,940.00	42,970.00	44,001.00
BEAR LAKE GAGE		1,950.00	7,800.00
PERSONAL SERVICES	67,281.00	68,963.00	70,687.00
TRAVEL	1,200.00	1,200.00	1,200.00
OFFICE EXPENSES	1,600.00	1,600.00	1,600.00
BIENNIAL REPORT	1,000.00	1,000.00	1,000.00
TREASURER'S BOND & AUDIT	1,400.00	1,400.00	1,400.00
PRINTING	1,600.00	1,600.00	1,600.00
REALTIME WEB HOSTING	8,400.00	8,400.00	8,400.00
CLERICAL	8,723.00	8,941.00	9,164.00
TOUR	2,500.00	2,500.00	0.00
CONTINGENCY	2,000.00	2,000.00	2,000.00
TOTAL EXPENDITURES	137,644.00	142,524.00	148,852.00
PROJECTED CARRY-OVER	106,870.32	109,600.32	106,002.32



## Bear River Basin Water Supply Outlook

April 16, 2019

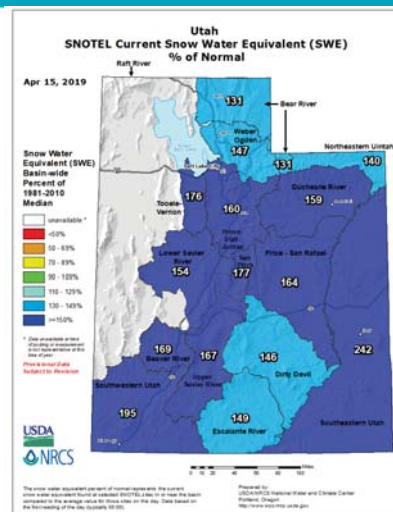


Natural  
Resources  
Conservation  
Service

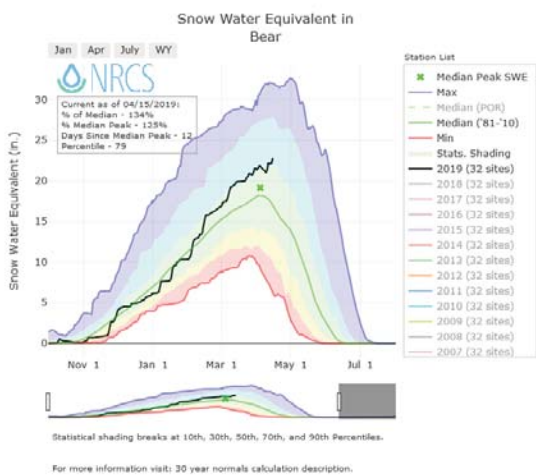
[www.ut.nrcs.usda.gov/snow](http://www.ut.nrcs.usda.gov/snow)

Jordan Clayton  
NRCS Snow Survey

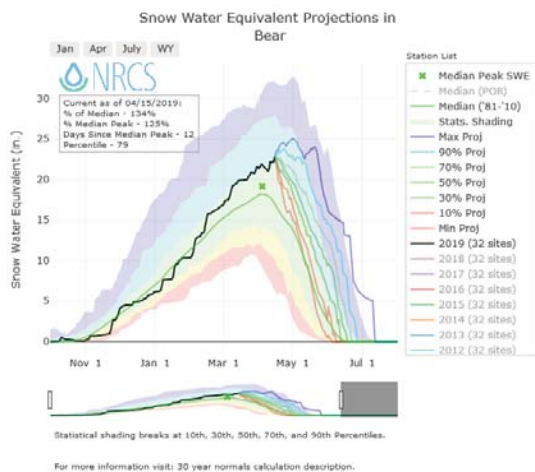
Phone: 385-285-3118  
Email: [Jordan.clayton@ut.usda.gov](mailto:Jordan.clayton@ut.usda.gov)



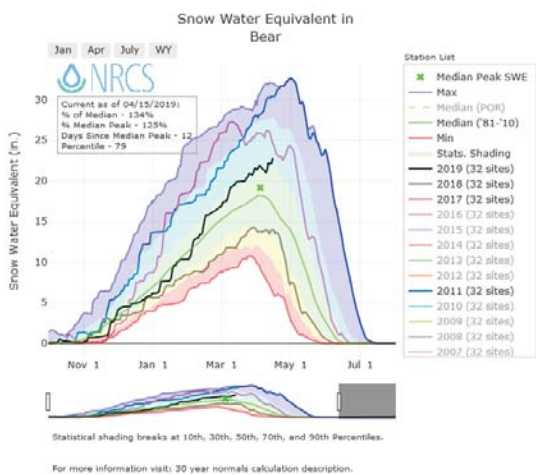
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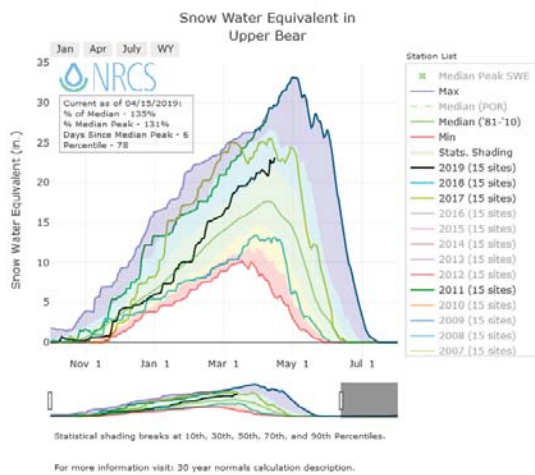
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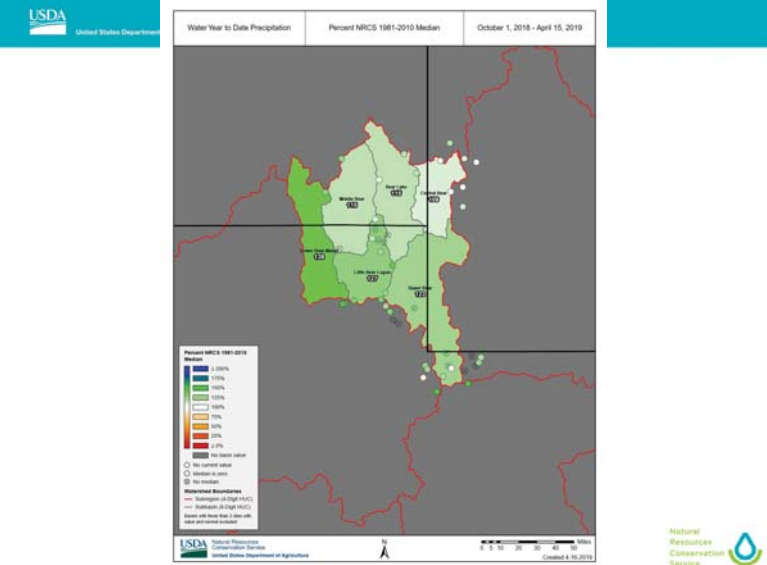
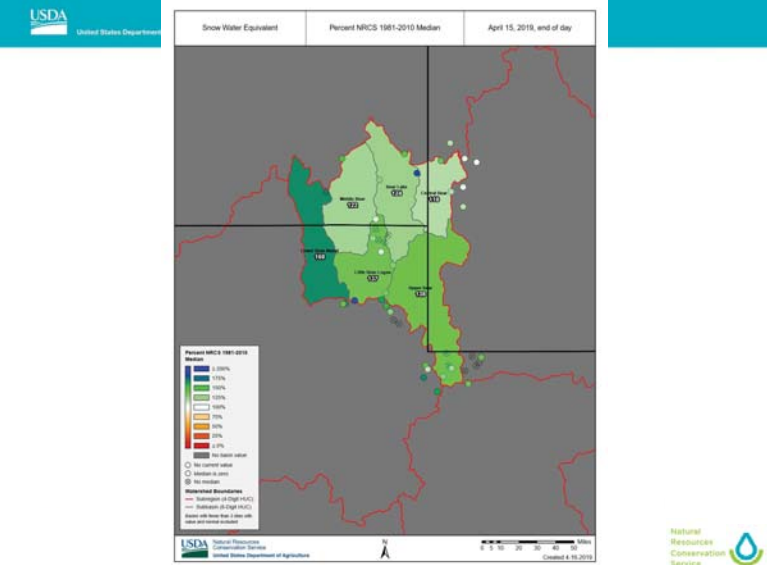
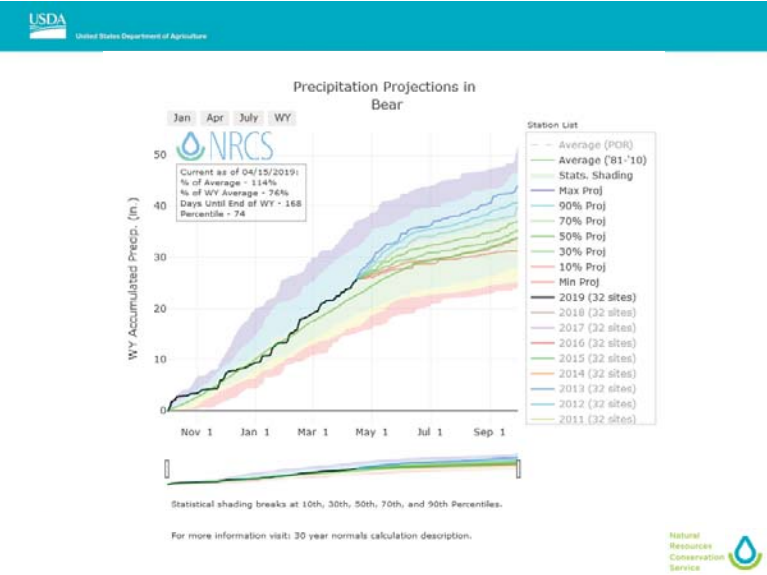
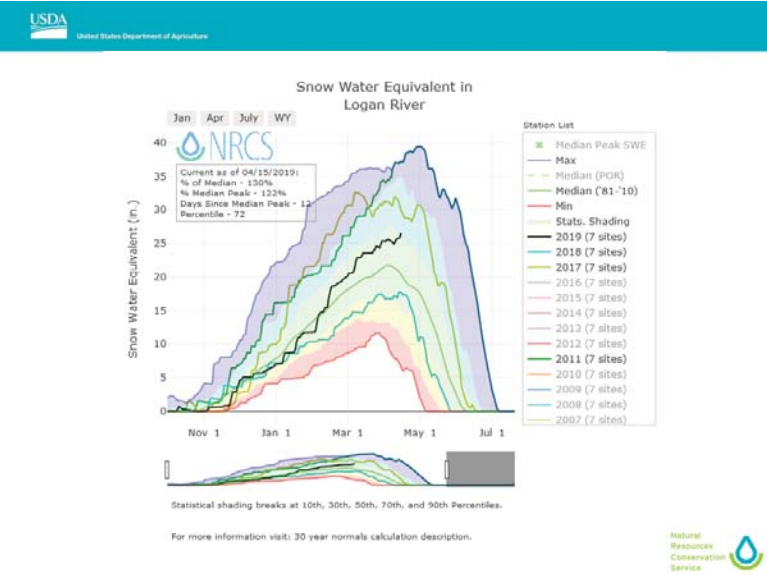
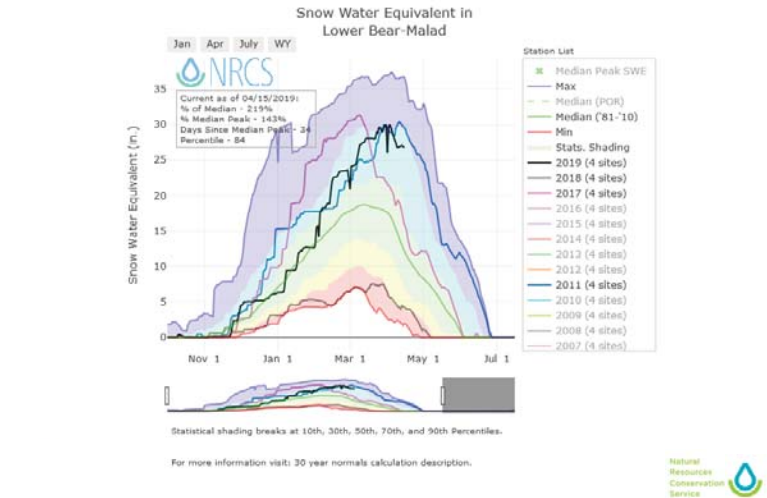
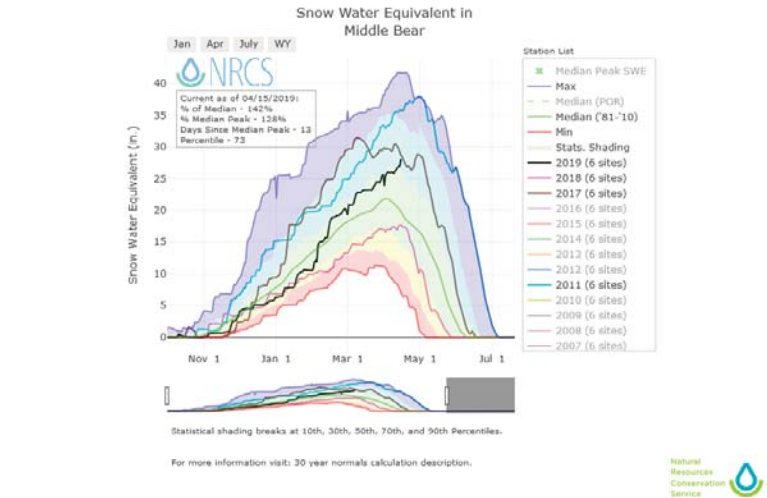
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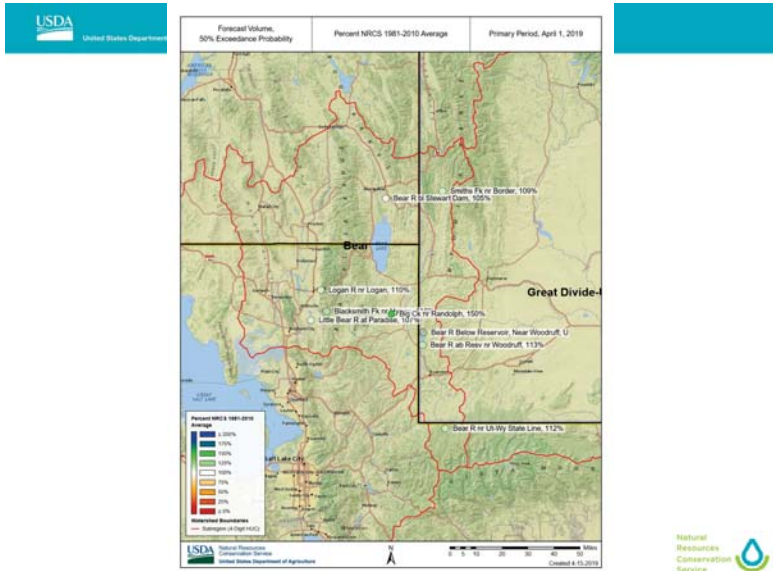
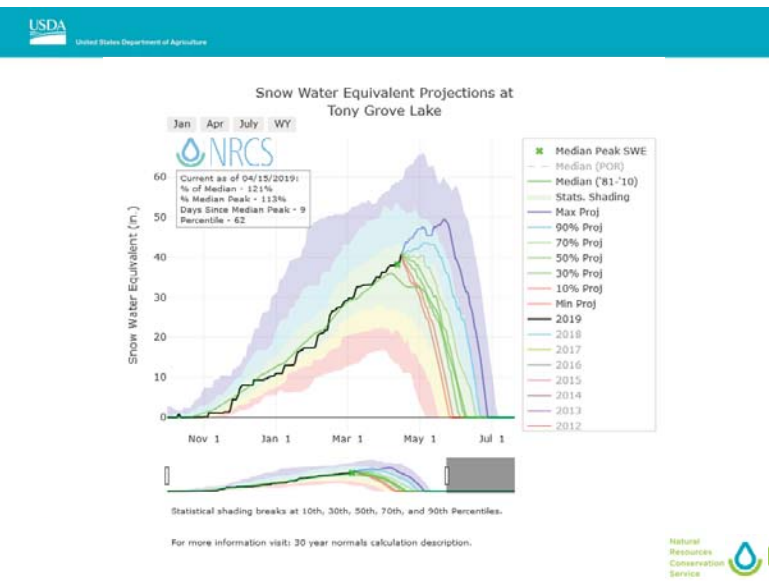
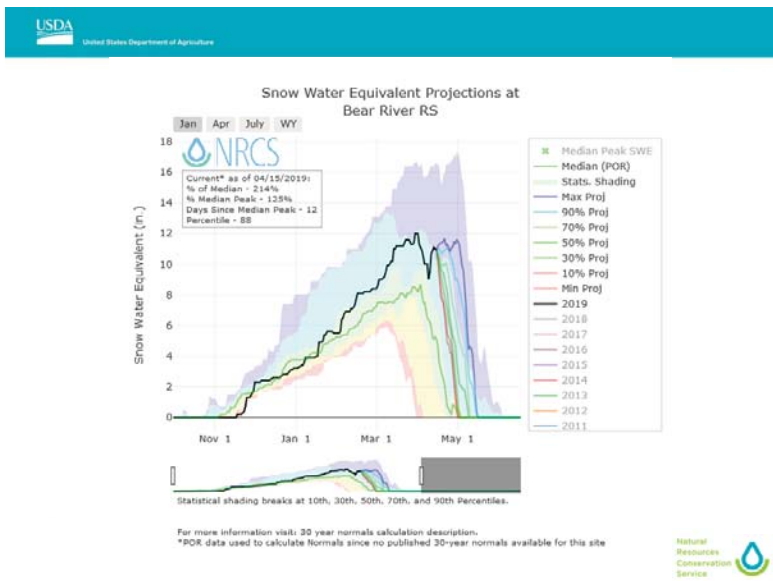
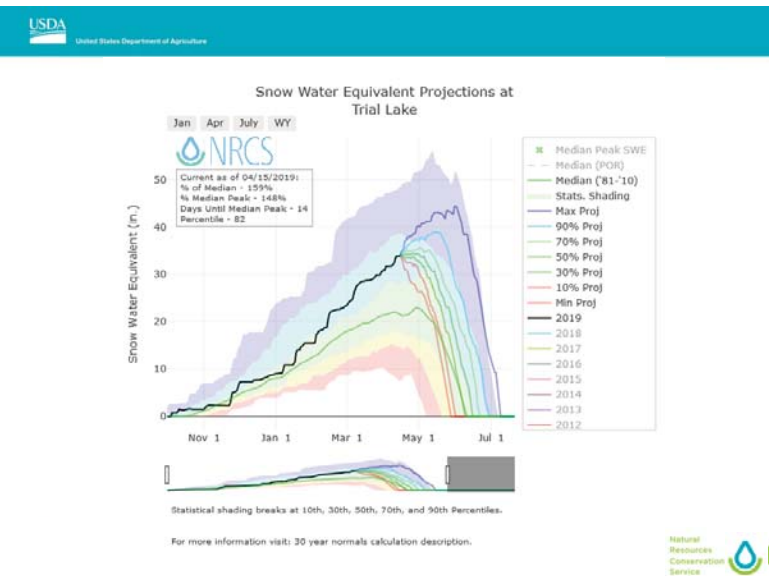
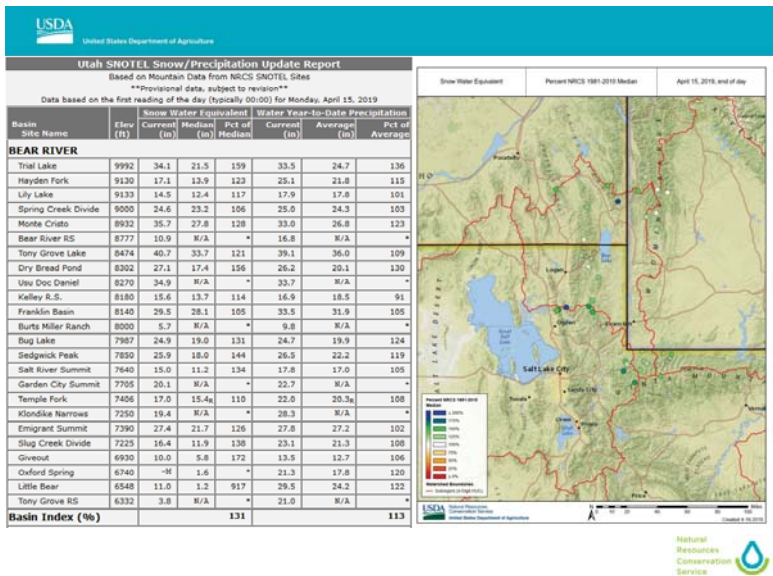
Natural  
Resources  
Conservation  
Service



Natural  
Resources  
Conservation  
Service







United States Department of Agriculture

Data Current as of: 4/3/2019 3:29:31 PM


### Bear River Streamflow Forecasts - April 1, 2019

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast							
Bear River		Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Bear R nr UT-WY State Line		APR-JUL	93	112	125	112%	138	157	112
		APR-SEP	104	125	140	114%	155	176	123
Bear R ab Resv nr Woodruff		APR-JUL	62	107	137	113%	167	210	121
		APR-SEP	66	114	147	115%	180	230	128
Big Ck nr Randolph									
Smiths Fk nr Border		APR-JUL	72	87	97	109%	107	122	89
		APR-SEP	86	103	114	110%	125	142	104
Bear R bi Stewart Dam		APR-JUL	87	150	192	105%	235	295	183
		APR-SEP	97	167	215	105%	265	335	205
Little Bear at Paradise									
Logan R nr Logan		APR-JUL	30	41	48	107%	55	66	45
		APR-SEP	30	41	48	107%	55	66	45
Blacksmith Fk nr Hyrum		APR-JUL	95	111	122	110%	133	149	111
		APR-SEP	95	111	122	110%	133	149	111
		APR-JUL	29	41	50	116%	59	71	43
		APR-SEP	29	41	50	116%	59	71	43

1) 90% and 10% exceedance probabilities are actually 95% and 5%

2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

3) Median value used in place of average

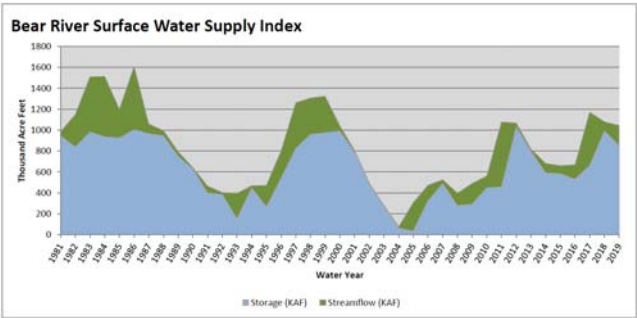
Natural  
Resources  
Conservation  
Service
 

April 1, 2019

Surface Water Supply Index

Basin or Region	Mar EOM <sup>*</sup> Storage	APR-JUL Forecast	Storage + Forecast	Percentile	SWSI <sup>*</sup>	Years with similar SWSI
	KAF	KAF	KAF	%		
Bear River	853.68	192.00	1045.68	65	1.25	88, 06, 87, 12

EOM, end of month; <sup>\*</sup>SWSI, Surface Water Supply Index; KAF, thousand acre-feet.

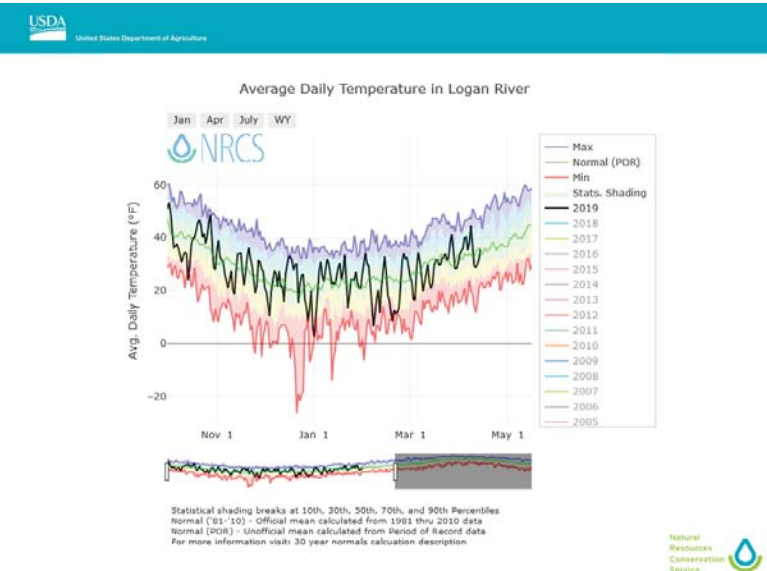
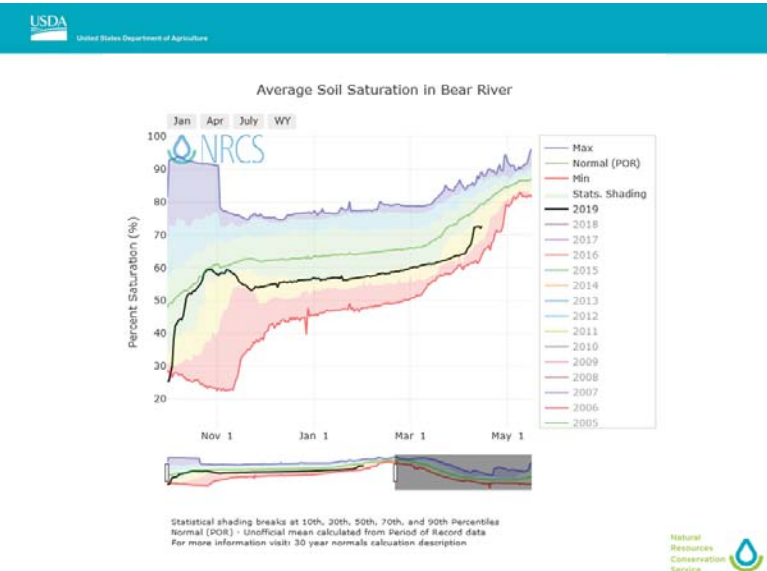
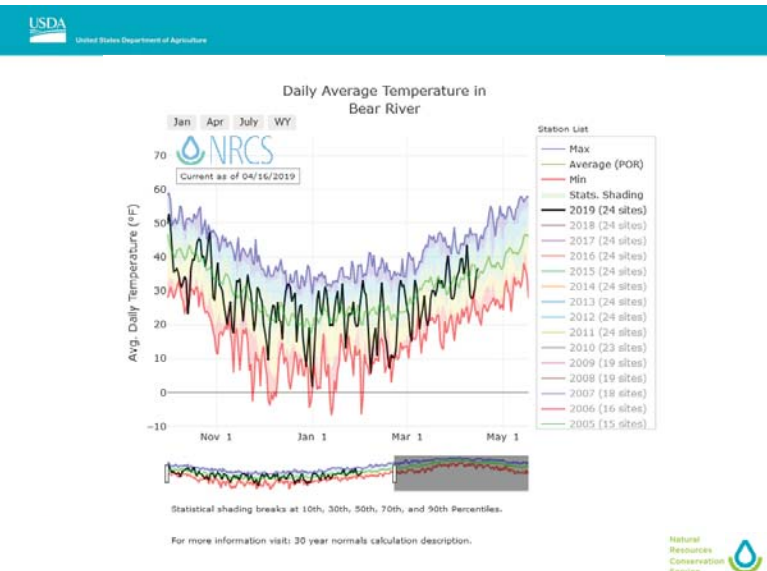
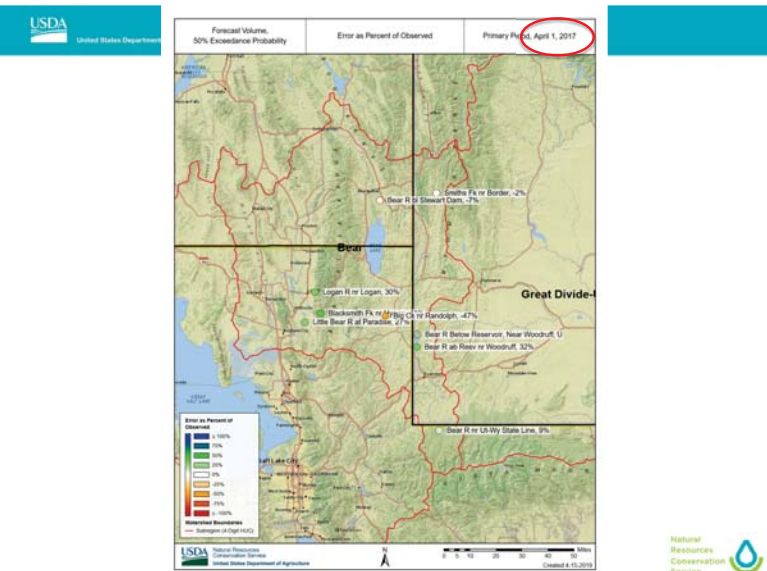
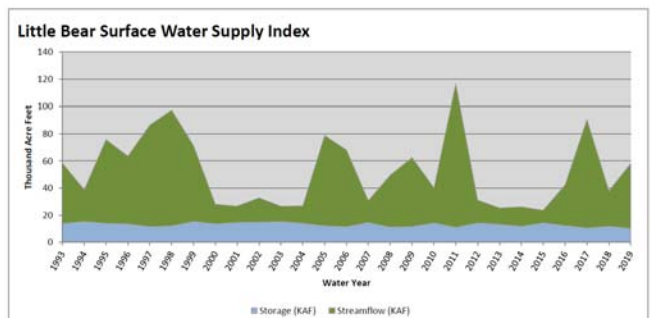


April 1, 2019

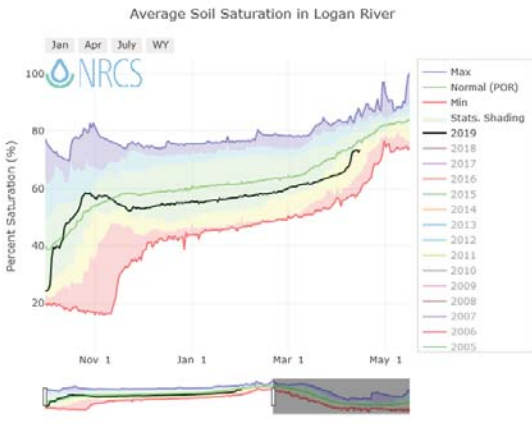
Surface Water Supply Index

Basin or Region	Mar EOM <sup>*</sup> Storage	APR-JUL Forecast	Storage + Forecast	Percentile	SWSI <sup>*</sup>	Years with similar SWSI
	KAF	KAF	KAF	%		
Little Bear	10.23	48.00	58.23	57	0.6	16, 08, 93, 09

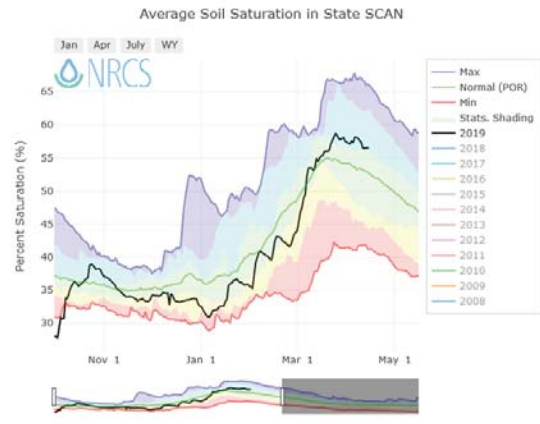
EOM, end of month; <sup>\*</sup>SWSI, Surface Water Supply Index; KAF, thousand acre-feet.



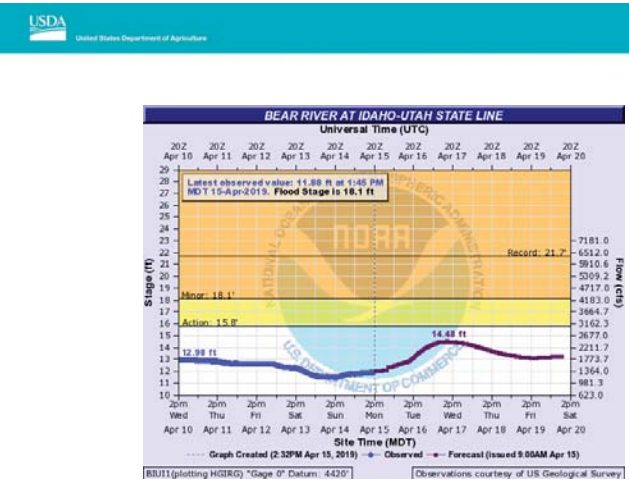
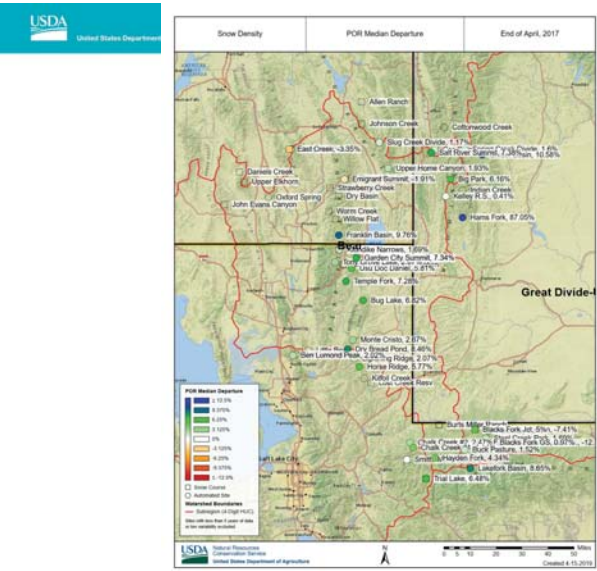
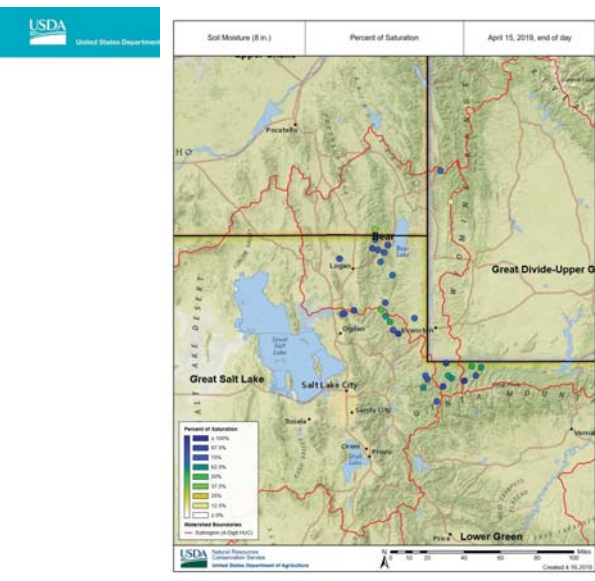
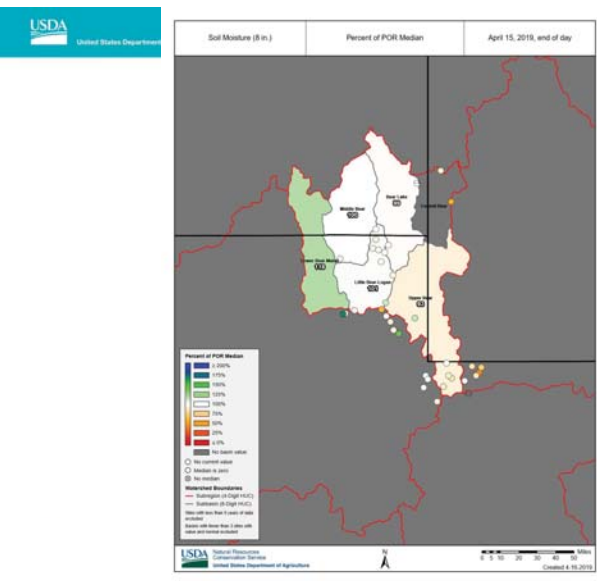


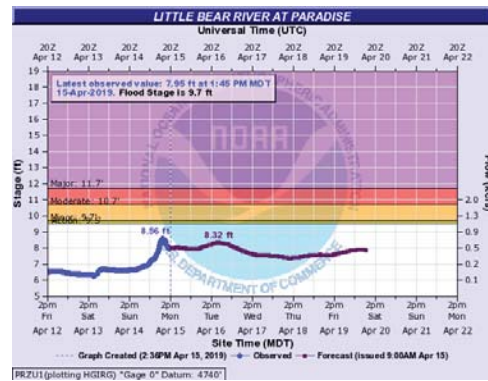
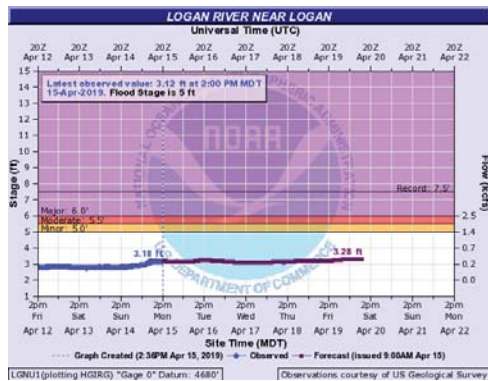


Statistical shading breaks at 10th, 20th, 50th, 70th, and 90th Percentiles  
Normal (POR) - Unofficial mean calculated from period of Record data  
For more information visit: 30 year normals calculation description

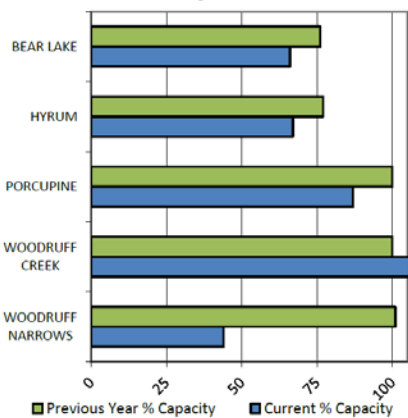


Statistical shading breaks at 10th, 20th, 50th, 70th, and 90th Percentiles  
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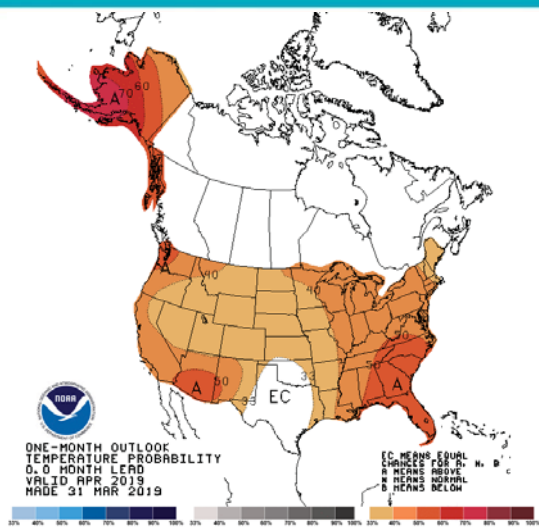
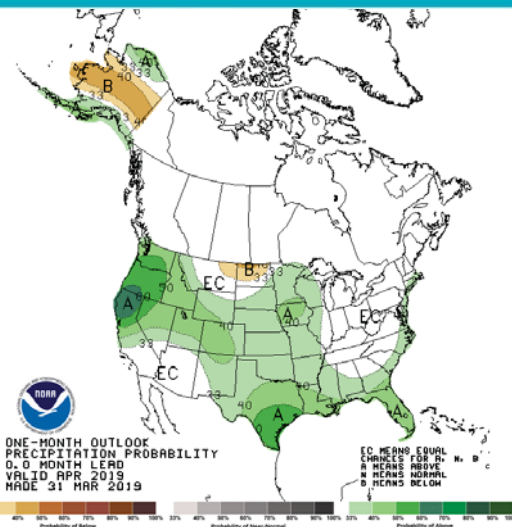




### Reservoir Storage



As of April 1, 2019



BEAR RIVER COMMISSION MEETING  
April 16, 2019



Appendix D  
Page 6 of 6





Black Rock by Michael Slade

## Great Salt Lake

Hemispherically Important • Economically Significant • Challenges  
Notwithstanding

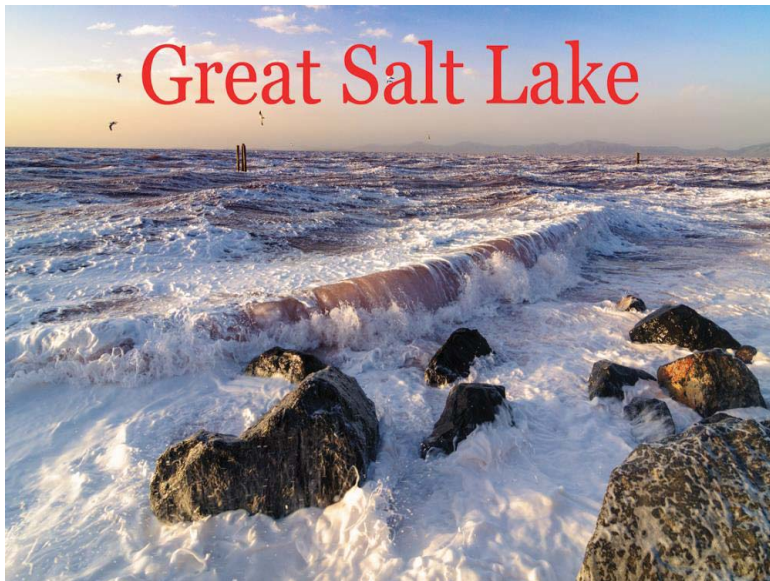


FRIENDS of Great Salt Lake

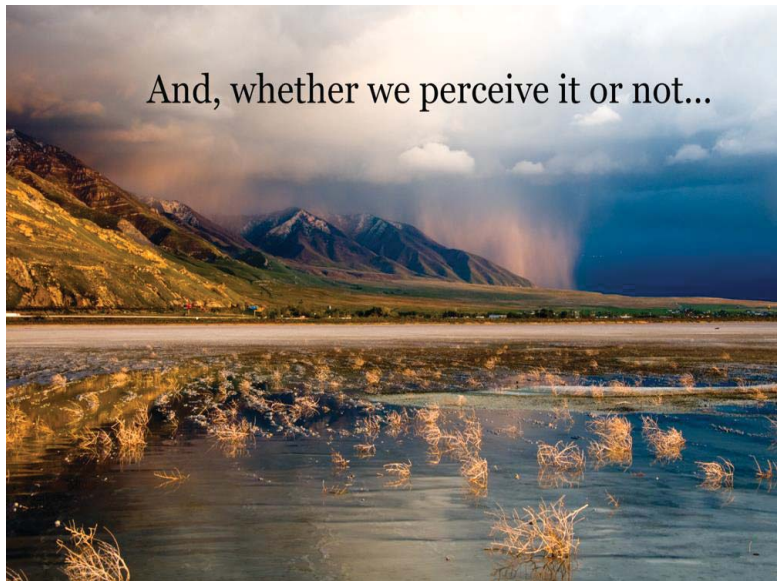
We live along the shores of something Great.



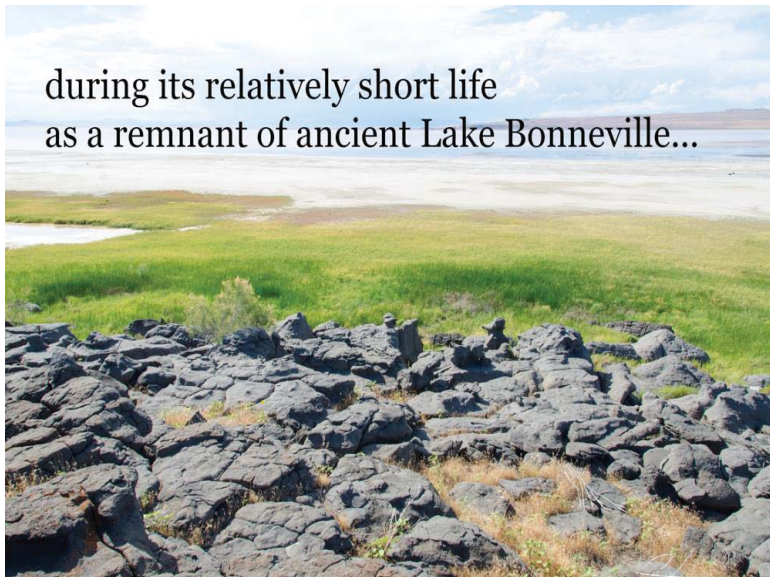
## Great Salt Lake



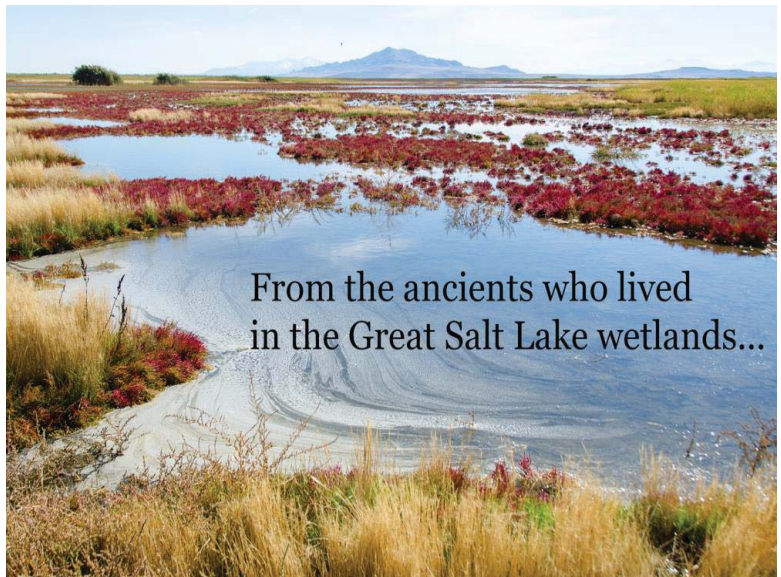
And, whether we perceive it or not...



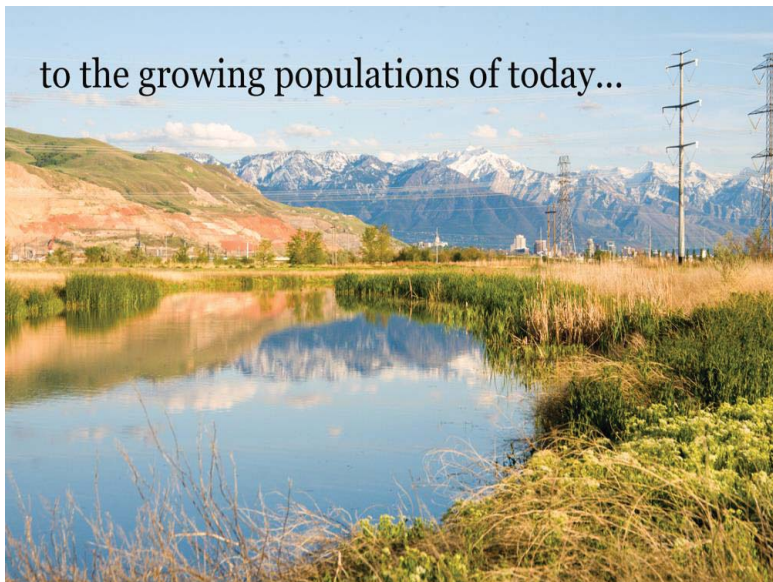
during its relatively short life  
as a remnant of ancient Lake Bonneville...



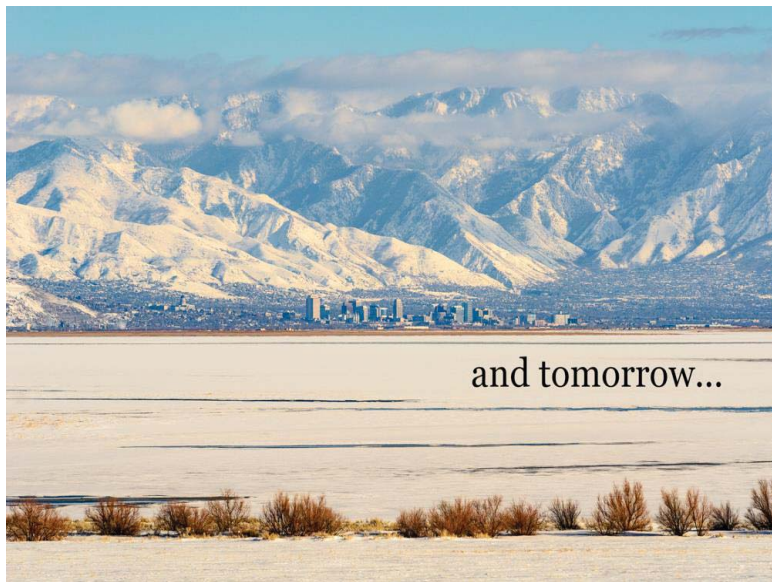
From the ancients who lived  
in the Great Salt Lake wetlands...







to the growing populations of today...



and tomorrow...



it has affected all of us.



the Lake affect continues to modify,  
influence, and impress our lives...



and their lives...

and the lives of millions of



migratory birds that rely on it.



## Major Threats to Great Salt Lake

Water Quantity  
 Ignorance  
 Climate Change  
 Growing population  
 Development on and around the lake  
 Water Quality







Industrial – Mineral Extraction  
 salt • magnesium • potassium sulfate



## Recreation and Tourism







If through scientific and economic analysis we can show the benefits that the natural environment offers, and show that the economic value is not zero, this gives policy makers a vehicle for addressing our fragile ecosystems.

Edward B. Barbier, Professor of Economics, University of Wyoming

## Key Conclusions: Value of Ecosystem Services\*

- Industrial, Aquaculture, and Recreational uses of the Great Salt Lake Ecosystem are responsible for:
  - \$1.3 billion total economic output to Utah's annual GDP
  - \$375 million total labor income
  - 7,700 total employment
- Net economic value \$46.2 to \$94.8 million annually beyond the GDP contributions
- Passive use values which could be in the range of \$100 million annually
  - Adjacent Ecosystem Services – military, county, grazing, utility ROW

\*Economic Significance of the Great Salt Lake to the State of Utah, GSL Advisory Council. 2012

## Lake Level Fluctuations (1985 to 2009)



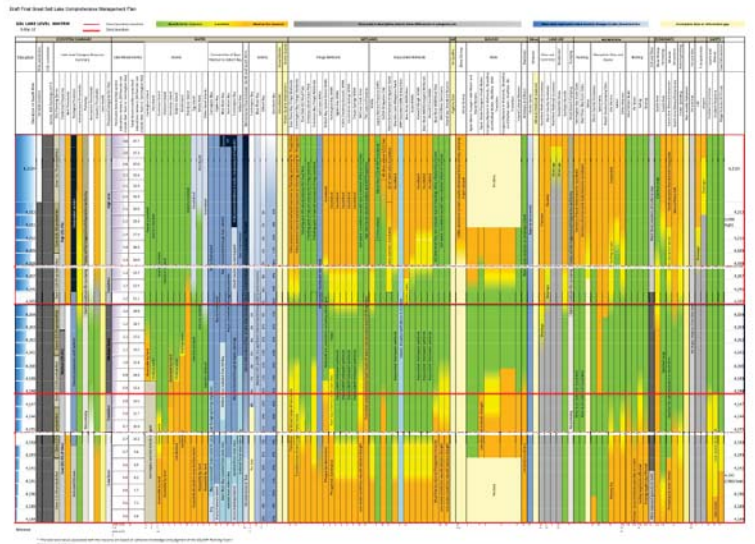
HCR 10 – Concurrent Resolution to Address Declining Water Levels of GSL



## Owens Lake, California







### WHAT IS GOING TO HAPPEN TO GREAT SALT LAKE?

Is Great Salt Lake drying up? How might forecasted population and economic growth in Northern Utah change water levels in the lake? How might an extended drought affect the lake? What does that mean for Great Salt Lake's natural resources, the economic and ecological benefits that are derived from them, and the people who live near its shores? These are all questions the State of Utah has been grappling with that this project hopes to help begin to answer.

**THE NEED**  
A recurring challenge for State regulatory and resource agencies is defining and understanding how variable precipitation and water management in Great Salt Lake's watershed can influence the lake's water levels and salinity and subsequently the resources the lake supports. State agencies have not had an effective tool at their disposal that integrates available information to better understand these issues and support sustainable management of Great Salt Lake resources – until now.

**THE PURPOSE**  
The purpose of the Great Salt Lake (GSL) model project is to provide State agencies and stakeholders with a tool that:  
1. Describes how changes in water management and availability in Great Salt Lake and its watershed could impact the lake's water levels and salinity.  
2. Could be used to evaluate potential impacts to and changes in the lake's resources.  
3. Will serve as a foundation for addressing future management challenges.

**THE APPROACH**  
The first phase of the project will develop a model scoping document that defines model objectives and architecture and will conclude in August 2013. The second phase of the project will be to develop the model itself for use by State agencies and stakeholders. This phase is expected to conclude in August 2016. The end result will be a tool to assist the State in supporting sustainable growth and management of Great Salt Lake. Central to achieving the project's objective is to keep stakeholders informed so that the model is relevant, accurate, and will form an accepted foundation for future evaluations. The public is encouraged to stay connected via the project website: <http://GSL.gslm.com>

Photo COURTESY OF COLORADO STATE UNIVERSITY, COLORADO STATE UNIVERSITY, COLORADO STATE UNIVERSITY

### Great Salt Lake Integrated Water Resource Management Model

Differences in Great Salt Lake elevation and area between years 1999 and 2009.

41 Resolute Members, Four Years, 93 Recommendations –  
One State Water Strategy Report  
July 19, 2017



## 2019 Utah Legislative Session



BEAR RIVER COMMISSION MEETING  
April 16, 2019







“The Lake is as essential to who we are and what we are as anything. When Great Salt Lake is in peril the state is in peril.”  
-Warren Peterson, State Water Strategy co-chair



# Status 20-Year Compact Review

Don Barnett, Engineer-Manager  
Bear River Commission

April 16, 2019



## Summary of Written Comments

20-Year Compact Review Tabulation of Comments "Should the Bear River Compact Be Amended?"				
Commenter Group	Yes	No	Maybe	Didn't Specify
Irrigators/Water Users	6	6		
Public Water Suppliers	2			
Bear Lake Interests	5			2
Great Salt Lake Interests	4			1
Conservation/Environmental	3		1	2
<b>Total</b>	<b>5</b>	<b>56</b>	<b>1</b>	<b>5</b>



## 3 Comments to Amend Compact

- 1) Change Central Division Water Emergency administration [EM - draft written]
- 2) Institute conservation measures in Bear Lake at higher elevations [EM - draft written]
- 3) Reduce Lower Division Amended Compact depletion allocations [UT - additional research including discussions with commenters]



## Additional Comments

- 1) Do not change the Compact [EM/WY]
- 2) Form a committee to hear and review environmental and watershed health issues [EM]
- 3) Additional Bear Lake water quantity and water quality comments [UT]
- 4) Water banking [3 States/EM]



## Additional Comments (cont.)

- 5) Re-establish flows below Stewart [ID]
- 6) Review for additional comments [all]



20-Year Compact Review  
Bear River Commission



Adopted November ??, 2019





#### EXECUTIVE SUMMARY

Article IV of the Amended Bear River Compact provides that the Commission shall review the Compact at intervals not exceeding 20 years and determine whether or not there is a need to amend the Compact. The last 20-year review process was completed in November of 1997. At its April 18, 2017 meeting, after review and discussion, the Commission determined to again begin a 20-year review process and to determine whether or not the Compact could meet the stated purposes or whether or not there would be a need to amend the Compact.

As part of the Commission's initial efforts, it added a section to its website which provided a number of details concerning the Compact, the Commission and its operations, as well as links to a number of key documents. The Commission also determined to hold five public meetings around the basin and provided public notice of such, as well as notified media outlets.

At the public meetings, participants were allowed to ask questions as well as provide oral comments. At the public meetings the Commission solicited written comments which were received, reviewed and tabulated. In total, 67 written comments were received. Of the written comments \_\_\_\_\_, said no, do not change the Compact. Three specific recommendations for changing the Compact were received from five different entities, and \_\_\_\_\_ commenters provided comment to the Commission, but did not specify whether or not the Compact should be amended. The three comments which did recommend changing the Compact were:

- Change the Compact relative to the declaration of a water emergency in the Central Division and the distribution of waters therein.
- Have mandatory conservation measures kick in at higher elevations in Bear Lake.
- Reduce Lower Division depletion allocations to Idaho and Utah (comments were specific to impact to Great Salt Lake).

At its April 17, 2018 meeting the Commission reviewed and discussed these comments, after which it determined that the comments and the issues identified do not rise to the level of changing the Compact at this time. In so doing, however, it noted that the Compact can be amended at any time and need not wait 20 years. The Commission then instructed its Technical Advisory Committee to prepare this response document and include a discussion on all comments received during the 20-year review process.



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#### LIST OF APPENDICES

- A. Website Materials
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- D. Summaries of Public Meetings
- E. Public Comments
  - 1. Irrigators/Water Users
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  - 3. Bear Lake Interests
  - 4. Great Salt Lake Interests
  - 5. Conservation/Environmental



## Anticipated Schedule

- June 7 – draft write-ups
- July/August – TAC Meeting to review/edit
- September? – TAC Meeting
- ? – Review by Management Committee
- Nov 1 – draft to Commission



## Conservation/Environmental

LCD board members reviewed Article IV, Section 2, Central Division, paragraph (a) concerning the declaration of a water emergency. In the middle of the first sentence it should read when the flow of the Bear River at the Border Gauging Station is less than 350 second feet a water emergency may (instead of shall) be deemed to exist in the Central Division etc.

The last sentence at the end of this paragraph it states that if any portion of such allocation is not used therein it shall be available for use in Idaho in the Lower Division. This sentence should be stricken from the paragraph in its entirety. There should be no water allowed to go into the Lower Division from the Central Division if a water emergency exist in the Central Division.



# Response

- Discussion of Commission
  - Motion to not amend Compact, but continue to talk
- Discussion of TAC
  - Call of Lower Division Idaho to Central Division? No
- Additional Research?
  - Change in frequency of emergencies ?
  - Change in flows into Rainbow Canal ?
  - Historic Compact negotiations: Wyoming ☒ Engineer-Manager ☒
- Assignment(s)
  - Engineer-Manager to write a draft response ☒



# Bear Lake Interests

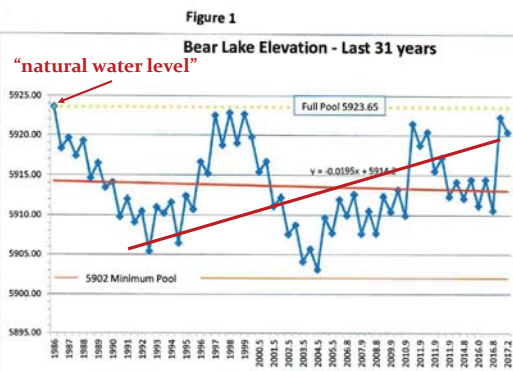
The current management of water resources by the Bear River Commission (Commission) is not meeting its purpose (as stated below) and needs to be changed.

"The Major purposes of this Compact are to remove the causes of present and future controversy over the distribution and use of the waters of the Bear River; to provide for efficient use of water for multiple purposes; to permit additional development of the water resources of Bear River; to promote interstate comity; and to accomplish an equitable apportionment of the waters of the Bear River among the compacting States."

The Bear River Commission has failed in removing causes of present and future controversy related to the distribution and use of the waters of the Bear River. Current and future elements on controversy that will be discussed in this comment letter are 1) Water Levels in Bear Lake, 2) Water Quality in Bear Lake, 3) Water Conservation. I expect the controversy to intensify in the future as the public becomes more educated on the adverse effects on Bear Lake from the current management practices.



# Bear Lake Interests



**EXHIBIT "A"**  
(To Amended and Restated Bear Lake Settlement Agreement)  
**BEAR LAKE IRRIGATION WATER ALLOCATION AND LAKE RECOVERY TABLE**  
(Quantities Expressed in Acre-feet)

(A) Estimated Lake Elevation (in Feet) (Footnote 1)	(B) Calculated Storage Content (Footnote 2)	(C) Estimated Lake Evaporation (Footnote 3)	(D) Estimated Net Storage Water Available (Footnote 4)	(E) Estimated Annual Allocation to Irrigators (Footnote 5)	(F) Deerfoot Transit Losses (Averaged) (Footnote 6)	(G) Estimated Head Gate Delivery to Irrigators (Footnote 7)	(H) Estimated System Losses (Averaged) (Footnote 8)	(I) Estimated Balance for Lake Recovery (Footnote 9)
5923.65 (Full)	1,421,000							
5914.7	801,000	125,000	676,000	230,000 (100%)	8,200	221,800	17,000	429,000
5914	734,000	125,000	629,000	225,000 (98%)	8,100	216,900	17,000	387,000
5913	688,000	125,000	563,000	220,000 (96%)	8,000	212,000	17,000	326,000
5912	622,000	125,000	496,000	215,000 (93%)	7,800	207,200	17,000	264,000
5911	557,000	125,000	432,000	210,000 (91%)	7,600	202,400	17,000	205,000
5910	492,000	125,000	372,000	205,000 (89%)	7,400	197,600	17,000	150,000
5909	428,000	125,000	303,000	181,000 (79%)	6,700	174,300	17,000	105,000
5908	363,000	125,000	240,000	168,000 (73%)	6,000	162,000	17,000	55,000
5907	303,000	125,000	177,000	141,000 (61%)	5,000	136,000	17,000	19,000
5906	241,000	125,000	115,000	104,000 (45%)	3,700	100,300	17,000	-6,000
5905	180,000	125,000	55,000	35,000 (24%)	2,000	53,000	17,000	-13,000
5904	119,000	125,000	0	0 (0%)	0 (0%)	0 (0%)	17,000	0
5903	59,000	125,000	0	0 (0%)	0 (0%)	0 (0%)	17,000	0
5902	0	125,000	0	0 (0%)	0 (0%)	0 (0%)	17,000	0

THE ACTUAL QUANTITY OF WATER TO BE RELEASED FROM BEAR LAKE EACH YEAR IS MEASURED AT THE OUTLET CANAL GAGE AND CALCULATED BY ADDING THE QUANTITY IN COLUMN E TO THE QUANTITY IN COLUMN H.



# Response

- Discussion of Commission
  - Nothing presently says change
  - Get clarification and report back
- Discussion of TAC
  - Create a Bear Lake details section in response
    - Joint Applications (400,000 af)
    - Review studies
    - Fluctuations are part of reservoirs
- Additional Research?
  - Natural lake level?
  - What it would be w/o Bear River, net inflows v. out, Settlement savings
- Assignment(s)
  - Engineer-Manager to meet with commenter ☒
  - TAC to assign modeling efforts



# Great Salt Lake Interests

## ARTICLE V

A. Water rights in the Lower Division acquired under the laws of Idaho and Utah covering water applied to beneficial use prior to January 1, 1976, are hereby recognized and shall be administered in accordance with State law based on priority of rights as provided in Article IV, paragraph A3. Rights to water first applied to beneficial use on or after January 1, 1976, shall be satisfied from the respective allocations made to Idaho and Utah in this paragraph and the water allocated to each State shall be administered in accordance with State law. Subject to the foregoing provisions, the remaining water in the Lower Division, including ground water tributary to the Bear River, is hereby apportioned for use in Idaho and Utah as follows:

- (1) Idaho shall have the first right to the use of such remaining water resulting in an annual depletion of not more than 125,000 acre-feet.
- (2) Utah shall have the second right to the use of such remaining water resulting in an annual depletion of not more than 275,000 acre-feet.
- (3) Idaho and Utah shall each have an additional right to deplete annually on an equal basis, 75,000 acre-feet of the remaining water after the rights provided by subparagraphs (1) and (2) above have been satisfied. = 550,00 af
- (4) Any remaining water in the Lower Division after the allocations provided for in subparagraphs (1), (2), and (3) above have been satisfied shall be divided; thirty (30) percent to Idaho and seventy (70) percent to Utah.





## Response

- Discussion of Commission
  - Utah schedule meetings with GSL interests
  - Study/model lake scenarios
- Discussion of TAC
  - Outside of Compact boundaries
  - No allocations to water bodies
- Additional Research?
  - What are the causes of present lake levels, what are the relative impacts of present and future uses? Review of cited studies.
- Assignment(s)
  - Meet w/ GSL interests
  - Model scenarios



## Additional Recommendations

- Don't change the Compact
- Create an Environmental Committee
- New vision/advisory roles
- Bear Lake studies
- Understand impacts to GSL
- Water banking and transfer policies
- Re-establish river below Stewart Dam
- Overall system health/drought policies



## Environmental/Watershed Health Committee

- Discussed with Water Quality Committee
- Discussion of TAC
  - Concerns over having a new committee
  - Questions on committee make-up
  - Don't create false impressions
- Discussions of Management Committee
  - Recommendation: amend by-laws and assign to the TAC to invite discussions



# SUMMARY OF WATER YEAR 2018 BEAR LAKE OPERATIONS AND 2019 BEAR LAKE IRRIGATION STORAGE ALLOCATION

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 April 15, 2019 was 5917.55 feet. The Bear Lake Outlet Canal is closed. There is 750 cfs in the Rainbow Inlet Canal.

## Allocation for Water Year 2019

The Bear Lake Irrigation Storage Allocation for 2019 is 245,000 acre-feet. Bear Lake is anticipated to reach 5920.0 based on the April 1, 2019 NRCS water supply forecast. See reverse side of this sheet for elevations expected according to each of the probability levels of the NRCS forecast (10% exceedance, etc.).

## Water Year 2019 Operations to date

Winter refill of Bear Lake resulted in an increase of Bear Lake elevations from last fall's low of 5916.4 up to the present elevation of 5917.55. No flood control operations were made.

## Operational Notes

- *Bear River Black Canyon Recreational Water Releases* continue in 2019. The full available inflow or 900 cfs, whichever is greater, is passed through Black Canyon during each event.

# Recent Bear Lake Levels and 2019 Estimates

