

# BEAR RIVER COMMISSION

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> CHAIR Jody Williams

#### IDAHO COMMISSIONERS

Gary Spackman Kerry Romrell Curtis Stoddard

#### UTAH COMMISSIONERS

Todd Adams Blair Francis Charles W. Holmgren

#### WYOMING COMMISSIONERS

Greg Lanning Adrian Hunolt Tim Teichert

ENGINEER-MANAGER
Don A. Barnett

#### **MINUTES**

# BEAR RIVER COMMISSION ANNUAL MEETING ONE HUNDRED THIRTY-SIXTH COMMISSION MEETING APRIL 21, 2020

**L. 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 21, 2020. This was the one hundred thirty-sixth meeting of the Commission. Williams explained that due to the COVID-19 situation, the meeting was being held by video in an expedited format. Williams noted that the Records and Public Involvement Committee and the Operations Committee had been postponed. An abbreviated meeting of the Water Quality Committee was held the prior day. Chairwoman Williams welcomed two new commissioners to the meeting, Greg Lanning from Wyoming and Todd Adams from Utah. Don Barnett then detailed those who were attending the meeting. An attendance roster is attached to these minutes as Appendix A.

Williams then addressed the agenda for the meeting. She noted two minor changes. Commissioner Adams would be presenting a Resolution of Appreciation for Commissioner Eric Millis who had retired. Also, the new commissioner from Wyoming, Greg Lanning, would be giving the Wyoming state report. The agenda was approved by the Commission with those changes. A copy of the agenda is attached to these minutes as Appendix B.

Commissioner Todd Adams then shared the Resolution of Appreciation for Eric Millis with the group. The Resolution was approved unanimously by the Commission.

**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 19, 2019, in Salt Lake City, Utah. A motion was made to approve the minutes with no changes. The motion was seconded and unanimously approved by the Commission.

<u>III. Election of Officers</u> – Chairwoman Williams noted that, with the retirement of Eric Millis, there was a vacancy in the position of Commission Secretary. Commissioner Spackman nominated Todd Adams to fill this position. This nomination was unanimously approved by the Commission.

Williams then addressed the organization of the Technical Advisory Committee (TAC), which had been chaired by Todd Adams. Kevin Payne was appointed by the Commission to be the new Chairman of the TAC.

**IV. Reports of Secretary and Treasurer** – Todd Adams asked Randy Staker to give the financial report for the Commission. Staker reported that current

expenditures at that time totaled \$117,073.46. The remaining balance of the budgeted amount was \$23,500.54. Staker reported that all the water quality payments had been received from the three states for that year. He also noted that interest in the Commission's account with the State Treasurer's office had reached almost \$2,200.00 at that time. The cash balance remaining between the Commission's bank account and the savings account was \$153,294.39. A motion was made to accept the 2020 budget as reported, which was unanimously approved. (The financial statements are attached to these minutes as Appendix C.)

Commissioner Adams then addressed the budget for the Commission. He showed the current approved budget and the proposed budget for FY2021. He noted that the stream gage costs would increase by about 2 percent and the personal services and clerical contract would increase by about a 3 percent cost of living amount. The assessment to each state shows no change. Commissioner Spackman commented that the finances appear to be in good shape, and he would not expect any change to the state assessments for at least two to three years. A motion was made to adopt the proposed budget for FY2021 as proposed. The motion was approved.

V. Acceptance of 20-Year Compact Review Report – Chairwoman Williams addressed the 20-Year Compact Review Report and noted that the Commission was very happy to be bringing this important document and Compact requirement to finalization. The 20-Year Compact Review Report commenced in 2017 with public meetings and the acceptance of written comments. At the April 2018 meeting, the Commissioners continued their review of the stakeholders' comments, with particular emphasis on the comments that recommended the Compact be amended. After discussion and an opportunity for stakeholders to participate, the Commission concluded not to amend the Compact. However, the Commission did amend the bylaws in response to some of the recommendations. The changes in the bylaws included making the TAC a formal committee of the Commission and enlarging its duties. As part of its duties, the TAC was given the responsibility to review various environmental and watershed concerns that were expressed. The TAC was assigned to write the report summarizing the 20-year review effort. Williams called for a motion to accept the document as the Commission's 20-Year Compact Review Report. A motion was made to that effect and the report was approved and adopted by unanimous vote of the Commissioners.

<u>VI. 2020 Bear River operations</u> – Don Barnett reviewed the Water Supply Outlook Report. He was happy to report on an anticipated water supply slightly above normal. He noted that the April 1<sup>st</sup> report showed snowpack in the Bear River Basin at about 110 percent of normal. It appeared that all the reservoirs above Bear Lake would fill and spill this year. The forecast for streamflow in the Bear River system averaged close to the normal range. He anticipated that water operations of the Bear River system in the Upper and Central Divisions would be similar to recent years and he looked forward to working with water masters and river commissioners on the water supply as it is distributed to the water users. The outlook was good.

Connely Baldwin reported on Bear Lake and Lower Division operations (see Appendix D). He highlighted a few items from the table that would be of interest. Bear Lake peaked the previous year at 5920.28 and released 112,000 acre-feet of storage throughout the irrigation season. He noted that the USGS water level gage at the Bear Lake marina was now operational. This was prompted by suggestions from Bear Lake Watch. The Bear River Commission adopted that gage with help from PacifiCorp. Baldwin noted that as of April 20th, Bear Lake was at 5918.56 and coming up quickly. He felt that 2019 would be a good year. Baldwin also noted that they had to curtail the Bear River Black Canyon recreational releases after the first one due to COVID-19. Also, they were in the middle of FERC relicensing for the Cutler project.

Baldwin mentioned that there had been some interest in Bear Lake operations, especially flood control operations (see Appendix E). He had a short presentation to highlight a few of the issues and facts that go into those decisions. He noted that the main public principles are outlined in the 1999 and 2000 agreements between PacifiCorp and the three states. The first slide highlights the forecast by NRCS on the right and the forecast from the Colorado Basin River Forecast Center (CBRFC) on the left. These forecasts used to be combined, but more recently they have separated. The one on the left is derived from a conceptual model which models day-to-day at a daily timestep the basin and the future conditions, based on historical weather forecasts. The one on the right is a statistical forecast which has been considered the official forecast. Baldwin pointed out a few differences. The main difference is that NRCS is targeting an observed runoff, whereas the CBRFC is a naturalized flow without any irrigation diversions taken out. Also, the CBRFC forecast does end up producing a daily hydrograph for each of the last 35 years of weather to kind of get an estimation of the uncertainty of the forecast. Baldwin pointed out some considerations which are highlighted on the next few slides. The next slides showed the recent history of the target elevations at Bear Lake and the estimates for 2020, with a table giving numeric detail on some of those values.

VII. Management Committee report - Gary Spackman reported that in recent meetings of the Management Committee, they had discussed extensively the 20-Year Review and the report that was prepared by the Technical Advisory Committee. The Management Committee wanted to thank the TAC for their hard work. He also expressed appreciation to Don Barnett for his help in facilitating those discussions. The Management Committee felt that these discussions and efforts resulted in a very good product which will become part of the records of the Bear River Commission. The report can be referred to in the future and will give people a true understanding of what the issues were at the time and some of the discussions that ensued in the background. Spackman personally wanted to thank Todd Adams for his work on the TAC as he was intimately involved in the discussions and preparation. He also commended Kevin Payne, the new head of the TAC, and noted that his technical skills and expertise and the way in which he interacts with people would serve him well as the TAC Chair. Spackman commented that if the members of the Management Committee could put their voices together, there would be a loud hallelujah that the 20-Year Review was complete. Now the TAC can move on and they are not without projects to work on. Spackman noted that the Management Committee feels it important for the TAC to focus on depletion estimates and work on the 2020 Basinwide updates, as well as focus on the development of a uniform method for determination of supplemental depletions. He understood that the latter had been difficult in the past, but he was aware that meetings were being conducted and progress made in these areas. He asked for a short report on what the TAC had been doing in this regard.

Todd Adams responded that they have started on these assignments and put names together. The GIS folks have had one or two meetings talking about and getting their line work and their land use information together. He knew that Kevin Payne and his Wyoming folks have been working on some additional methods, as well as the Idaho folks. They are moving on this and expect it to be a busy summer.

Commissioner Spackman had one last item that the Management Committee had discussed prior to the Commission meeting. This had to do with the development of a surface water model for Bear Lake and the Bear River and modeling efforts that had been initiated and then at least partially completed by the three states and PacifiCorp. The Management Committee talked about the possibility of the TAC being involved in that modeling effort, but then felt that it would be duplicative because many of the TAC members are also part of the modeling group. They

understood that the model had been developed, there had been some calibration, and much of the background work had been completed. Though there are other interested entities out there which may not have been needed for the actual model development, the Management Committee encouraged the states and PacifiCorp to engage those entities so there would be a full modeling capability out there. Various hypothetical, factual situations could be analyzed, both "conservative" and "liberal," allowing for the full possible suite of activities that could be analyzed by the model itself. The Commission encouraged public involvement to the extent that the states and PacifiCorp can allow that participation.

<u>VIII. Engineer-Manager's report</u> – Don Barnett reported that the Water Quality Committee met the previous day and they continue to work forward on a number of efforts, including an effort to try to do some intensive water quality monitoring in the Bear Lake area. He reported that committees are moving ahead despite the difficulties of meeting.

IX. State Reports - Idaho - Commissioner Spackman reported on an item he had discussed at the last Commission meeting. During Idaho's latest 2020 legislative session, the Legislature authorized the commencement of the Bear River Adjudication in the State of Idaho. The Idaho Department of Water Resources is authorized to petition the adjudication judge for the District Court in Twin Falls to commence an adjudication and request that the judge issue an order to adjudicate the water rights. This has been a long struggle. There were still opponents to the Bear River Adjudication who have long been opposed and who were persuasive voices in front of the water users. Spackman credited many of the other water user organizations in the Bear River Basin. He also commended legislators Mark Gibbs and Mark Harris. Both of them were solidly supportive and promoted the adjudication. They are authorized to begin. Unfortunately, due to the COVID concerns, the Legislature adjourned rather quickly without considering an appropriations bill to support the adjudication. They are now considering how to commence without money, but he believes that there are commitments by the legislators to backfill into their budget. Spackman commented that this is good news and they will be able to quantify the water rights in the Bear River Basin in Idaho. He also believes this will lead to better regulation and the implementation and following of the prior appropriations doctrine.

<u>IX.</u> <u>State Reports – Utah</u> – Commissioner Adams began with the Bear Lake water right modeling group. He noted that they have been working like crazy modeling back and forth between the three states and PacifiCorp. They have reached out to a number of groups and provided some input and received some feedback. They have also tried to simplify the rules. Adams thanked Jake Serago from their staff and others for the hard work they have been doing. He was told that they were planning to have a report that month.

Adams reported that the Utah Legislature passed water banking legislation based on some pilot projects. They were planning a pilot project in Cache Valley on water banking. They are running into a little bit of a problem as they look at budgets and deal with COVID, but they are working through that. Adams also reported that they had received a final feasibility report on their Bear River Development Component. They are proceeding on some rights-of-way through the Willard area. They will continue to work on Bear River Development and the need for water into the future. Adams also noted that they will have a draft statewide water plan that should be released for public review in May.

**IX. State Reports – Wyoming** – Commissioner Lanning, the new State Engineer in Wyoming, commented that he was happy to be back in Wyoming and expressed his appreciation to Kevin Payne and the staff for holding things together as changes were being made. He was looking

forward to a good water year in Wyoming, but also noted that the effects of COVID and the economy would decrease revenues even more in the state. They were already struggling with coal, but oil and gas revenues were also dropping. Lanning said that they would be focusing on budget issues and working on ways to reduce expenses. He mentioned that when the effects of COVID have eased a little and they can get back together, they will continue some efforts on drought contingency planning in the Colorado River Basin, as well as demand management.

Lanning commented on the aging infrastructure in some areas. He reported that the previous summer they had a tunnel collapse on a major irrigation canal which has them focused on where the next catastrophe might happen. They will be addressing those types of efforts in the summer.

**X. Other** – There were no other items to discuss.

**XI. Next Commission meeting** – Chairwoman Williams reported that the next Commission meeting was scheduled for November 17, 2020. She said they were expecting to meet at the Utah Department of Natural Resources building in Salt Lake City.

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

#### ATTENDANCE ROSTER

# BEAR RIVER COMMISSION ANNUAL MEETING

Electronic Meeting April 21, 2020

#### **IDAHO COMMISSIONERS**

Gary Spackman Kerry Romrell Curtis Stoddard Mark Ipsen (alternate)

#### WYOMING COMMISSIONERS

Greg Lanning Adrian Hunolt Tim Teichert

#### **FEDERAL CHAIR**

Jody Williams

#### **UTAH COMMISSIONERS**

Todd Adams Charles Holmgren Blair Francis Ryan Merrill (alternate)

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

Don Barnett Donna Keeler

#### **OTHERS IN ATTENDANCE**

#### **IDAHO**

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

#### UTAH

Teresa Wilhelmsen, Division of Water Rights Will Atkin, Division of Water Rights Jared Manning, Division of Water Rights Scott McGettigan, Division of Water Resources Randy Staker, Division of Water Resources Jake Serago, Division of Water Resources Candice Hasenyager, Division of Water Resources James Harris, Division of Water Quality

#### **WYOMING**

Kevin Payne, State Engineer's Office Travis McInnis, State Engineer's Office Steve Wolff, State Engineer's Office Sam Swartz, State Engineer's Office

#### **OTHERS**

Connely Baldwin, PacifiCorp Energy Buffi Morris, PacifiCorp Energy John Mabey, PacifiCorp Water Counsel Dwight Slaugh, U.S. Bureau of Reclamation Erin Holmes, Bear River Migratory Bird Refuge, FWS
Ben Wishnek, Bear Lake Wildlife Refuge, FWS
Carl Mackley, Bear River WCD
Trevor Nielson, Bear River Canal Company
Claudia Cottle, Bear Lake Watch
Randy Budge, Bear River Water Users
Jim DeRito, Trout Unlimited
Ann Neville, The Nature Conservancy
Marcelle Shoop, National Audubon Society

# PROPOSED AGENDA ANNUAL COMMISSION MEETING

#### **April 21, 2020**

**Convene Meeting:** 1:30 p.m. **Chairman:** Jody Williams

| I.                                 | Call to order  A. Welcome of guests and overview of meeting  B. Approval of agenda  | Williams                      |  |  |  |  |  |
|------------------------------------|---|-------------------------------|--|--|--|--|--|
|                                    | C. Resolution of Appreciation   | Adams                         |  |  |  |  |  |
| II.                                | Approval of minutes of last Commission meeting (November 19, 2019)  | Williams                      |  |  |  |  |  |
| III.                               | Election of Officers A. Secretary B. TAC Organization   | Williams                      |  |  |  |  |  |
| IV.                                | Reports of Secretary and Treasurer  A. 2020 Expenditures to date  B. Adoption of 2021 budget  C. Other                              | Adams/Staker                  |  |  |  |  |  |
| V.                                 | Acceptance of 20-Year Compact Review Report   | Williams                      |  |  |  |  |  |
| VI.                                | <ul><li>2020 Bear River operations</li><li>A. Water supply and anticipated operations</li><li>B. Bear Lake/Lower Division</li></ul> | Barnett<br>Barnett<br>Baldwin |  |  |  |  |  |
| VII.                               | Management Committee report   | Spackman                      |  |  |  |  |  |
| VIII.                              | Engineer-Manager's report   | Barnett                       |  |  |  |  |  |
| IX.                                | State reports A. Idaho B. Utah C. Wyoming   | Spackman<br>Adams<br>Lanning  |  |  |  |  |  |
| X.                                 | Other   | Williams                      |  |  |  |  |  |
| XI.                                | Next Commission meeting (Tuesday, November 17, 2020, at Utah DNR)   | Williams                      |  |  |  |  |  |
| Anticipated adjournment: 3:00 p.m. |   |                               |  |  |  |  |  |

#### BEAR RIVER COMMISSION

#### STATEMENT OF INCOME AND EXPENDITURES

FOR THE PERIOD OF July 1, 2019 to April 8, 2020

| INCOME               |          | CASH<br>ON HAND | OTHER<br>INCOME | FROM<br>STATES | INCOME     |
|----------------------|----------|-----------------|-----------------|----------------|------------|
| Cash Balance 07-01-1 | .9       | 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        |          |                 | 11,391.00       |                | 11,391.00  |
| Interest on Savings  |          |                 | 2,185.92        |                | 2,185.92   |
| TOTAL INCOME TO      |          |                 |                 |                |            |
|                      | 8-Apr-20 | 121,790.93      | 13,576.92       | 135,000.00     | 270,367.85 |

#### DEDUCT OPERATING EXPENSES

|  |                   | APPROVED<br>BUDGET  | UNEXPENDED<br>BALANCE  | EXPENDITURES<br>TO DATE  |
|--|-------------------|---|--|--|
| Stream Gaging/Bear Lake Ga<br>Bear Lake Gage/USGS  | age/USGS Contract | 42,970.00   | -  | 42,970.00  |
|  | SUBTOTAL          | 42,970.00   | -  | 42,970.00  |
| EXPENDED THROUGH COMMISSION  | ON                |   |  |  |
| Personal Services Travel (Eng-Mgr) Office Expenses Printing Biennial Report Treasurer Bond & Audit Printing Realtime Web Hosting Clerical Tour | вімс              | 68,963.00<br>1,200.00<br>1,600.00<br>1,000.00<br>1,400.00<br>1,600.00<br>8,400.00<br>8,941.00<br>2,500.00 | 11,493.80<br>(4.93)<br>1,271.46<br>1,000.00<br>1,300.00<br>634.80<br>1,179.01<br>4,570.58<br>55.82 | 57,469.20<br>1,204.93<br>328.54<br>-<br>100.00<br>965.20<br>7,220.99<br>4,370.42<br>2,444.18 |
| Contingency  | SUBTOTAL          | 2,000.00<br>97,604.00   | 2,000.00<br>23,500.54  | 74,103.46  |
| TOTAL EXPENSES   |                   | 140,574.00  | 23,500.54  | 117,073.46   |
| CASH BALANCE AS OF 04/08/2   | 20                |   |  | 153,294.39   |

#### BEAR RIVER COMMISSION

#### DETAILS OF EXPENDITURES

#### FOR PERIOD ENDING April 8, 2020

| 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  |
| 898 | StoneFly     | 1,800.00  |
| 899 | VOID         |           |
| 900 | VOID         |           |
| 901 | BIWC         | 21,445.49 |
| 902 | C N A SURETY | 100.00    |
| 903 | StoneFly     | 1,820.99  |
| 904 | BIWC         | 6,383.88  |
| 905 | BIWC         | 5,766.90  |

| TOTAL EXPENDITURES | 117,073.46 |
|--------------------|------------|
|--------------------|------------|

#### BANK RECONCILIATION

| Cash in Bank per Statement 04/08/20<br>Plus: Intransit Deposits<br>Less: Outstanding Checks | 374.14     |
|---|------------|
| Total Cash in Bank  | 374.14     |
| Plus: Savings Account-Utah State Treasurer  | 152,920.25 |
| CASH BALANCE AS OF 04/08/20   | 153,294.39 |

BEAR RIVER COMMISSION

APPROVED BUDGET FY2020, PPROPOSED BUDGET FY2021 & FY2022

| FY2022<br>PROPOSED BUDGET | LNCOME  | 124,029.85        | 45,000.00 | 45,000.00 | 45,000.00 | 8,254.00      | 2,000.00            | 269,283.85   | -EXPENDITURES- | 47,902.00                                      | 74,224.00                  | 1,200.00 | 1,600.00        | 1,000.00        | 1,400.00                 | 1,600.00 | 8,400.00             | 9,485.00 | 2,500.00 | 2,000.00    | 151,311.00         |
|---------------------------|---------|-------------------|-----------|-----------|-----------|---------------|---------------------|--------------|----------------|--|----------------------------|----------|-----------------|-----------------|--------------------------|----------|----------------------|----------|----------|-------------|--------------------|
| FY2021<br>PROPOSED BUDGET | LINCOME | 125,656.85        | 45,000.00 | 45,000.00 | 45,000.00 | 8,254.00      | 2,000.00            | 270,910.85   | -EXPENDITURES- | 45,910.00                                      | 72,062.00                  | 1,200.00 | 1,600.00        | 1,000.00        | 1,400.00                 | 1,600.00 | 8,400.00             | 9,209.00 | 2,500.00 | 2,000.00    | 146,881.00         |
| FY2020<br>AOORIVED BUDGET | LINCOME | 121,790.93        | 45,000.00 | 45,000.00 | 45,000.00 | 8,254.00      | 2,185.92            | 267,230.85   | -EXPENDITURES- | 42,970.00                                      | 69,963.00                  | 1,200.00 | 1,600.00        | 1,000.00        | 1,400.00                 | 1,600.00 | 8,400.00             | 8,941.00 | 2,500.00 | 2,000.00    | 141,574.00         |
|                           |         | BEGINNING BALANCE | IDAHO     | итан      | WYOMING   | WATER QUALITY | INTEREST ON SAVINGS | TOTAL INCOME |                | STREAM GAGING-U.S.G.S.<br>BEAR LAKE GAUGE/USGS | PERSONAL SERVICES CONTRACT | TRAVEL   | OFFICE EXPENSES | BIENNIAL REPORT | TREASURER'S BOND & AUDIT | PRINTING | REALTIME WEB HOSTING | CLERICAL | TOUR     | CONTINGENCY | TOTAL EXPENDITURES |

124,029.85

## SUMMARY OF WATER YEAR 2019 AND OUTLOOK FOR WATER YEAR 2020 BEAR LAKE OPERATIONS

| Date     | Hydrologic Information/Event  | Contents (% of Full)<br>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   | 255,400 af (97%)                                |
|          | 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 April 9, 2020 was 5,918.31 feet. There is 600 cfs in the Rainbow Inlet Canal. The Bear Lake Outlet Canal is closed. The new United States Geological Survey water surface elevation gage at Bear Lake is now being used as the official elevation (daily average value).

#### **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 To-Date

High-runoff operations resulted in inflows being passed downstream much of the winter period to meet the March 31, 2020 PacifiCorp Target Elevation (PTE) of 5,918.0 feet, consistent with the *Operations Agreement for PacifiCorp's Bear River System*. The PTE was adjusted as needed in February and March and one pump was used to meet the PTE. The March 31<sup>st</sup> elevation of Bear Lake was 5,918.12 feet, close to the final PTE of 5,918.1 feet.

#### Allocation and Outlook for Water Year 2020

The Bear Lake Irrigation Storage Allocation for 2020 is 245,000 acre-feet. Bear Lake is expected to peak around 5920.7 feet in mid-June. Snowpack and runoff forecasts are near normal. Unless extremely dry conditions greatly decrease Bear Lake elevations, winter releases are likely to be necessary in the fall and winter.

#### **Operational Notes**

- Bear River Black Canyon recreational water releases occurred as scheduled in 2019. The first event in March 2020 occurred with a peak flow of 1,200 cfs. One recent event was cancelled due to the statewide stay-at-home order due to COVID-19 with the remaining events cancelled until further notice.
- Cutler Reservoir was drawn down for relicensing studies in November 2019. Studies included a LiDAR flyover to collect bathymetry and nearby topography.



# Bear Lake Operations and Allocation





















#### 2020/04/01:

Official 10: 300 Official 30: 240 Official 50: 190 Official 70: 180 Official 90: 165

| Natural Resources Conservation Service |   |  |  |  |  |  |  |  |  |  |  |
|--|---|--|--|--|--|--|--|--|--|--|--|
| Forecast<br>Exceedance Level           | Bear River at<br>Stewart Dam Apr-<br>Jul Volume (NRCS<br>Apr 1) |  |  |  |  |  |  |  |  |  |  |
| 10%                                    | 270   |  |  |  |  |  |  |  |  |  |  |
| 30%                                    | 205   |  |  |  |  |  |  |  |  |  |  |
| "Expected" 50%                         | 165   |  |  |  |  |  |  |  |  |  |  |
| 70%                                    | 123   |  |  |  |  |  |  |  |  |  |  |
| 90%                                    | 60  |  |  |  |  |  |  |  |  |  |  |

POWERING YOUR GREATNESS

## Bear Lake Watershed Runoff Considerations



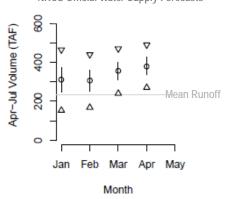
| Forecast<br>Exceedance<br>Level | Bear River at<br>Stewart Dam<br>Apr-Jul Volume<br>(NRCS Apr 1) | Bear Lake Direct<br>Runoff Apr-Jul<br>Volume<br>(Historical<br>Percentiles,<br>TAF) | Total Apr-Jul<br>Volume (TAF) |
|---------------------------------|--|---|-------------------------------|
| 10%                             | 270  | 107   | 377                           |
| 30%                             | 205  | 64  | 269                           |
| "Expected" 50%                  | 165  | 34  | 199                           |
| 70%                             | 123  | 5   | 128                           |
| 90%                             | 60   | -33   | 27                            |

3

### **Forecast Uncertainty Considerations**

 In addition to Bear Lake watershed runoff, the prospect for the forecast to the change dramatically is always present, given conditions like 1983 and 2011.

2011 NRCS Official Water Supply Forecasts

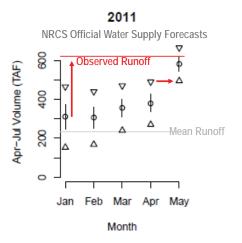


POWERING YOUR GREATNESS

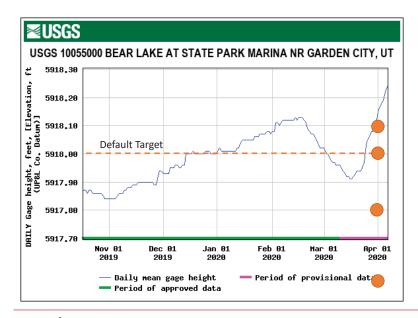
## **Forecast Uncertainty Considerations**



- In addition to Bear Lake watershed
- The May 2011 water supply forecast "gapped up", meaning that the 10% chance of exceedance forecast in April became the 90% chance of exceedance forecast in May.
- The observed April-July 2011 observed volume was over 200% of the "expected" (50% chance of exceedance) forecast made in January.



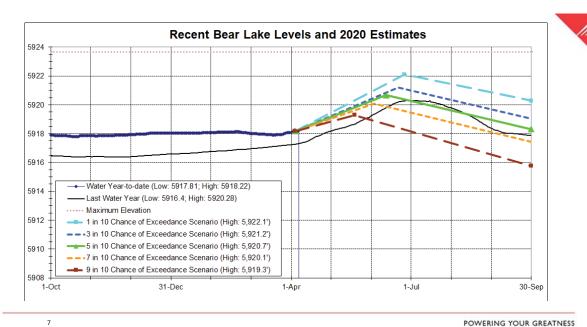
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Recent Bear Lake Elevations and Bear Lake March 31st Target Elevations (PTE)

| Date      | PTE     |
|-----------|---------|
| 1-Aug-19  | 5,918.0 |
| 18-Feb-20 | 5,917.4 |
| 3-Mar-20  | 5,917.8 |
| 17-Mar-20 | 5,918.0 |
| 23-Mar-20 | 5,918.1 |

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| Probability of | NRCS Official<br>April 1, 2020 April-<br>July Forecast<br>(Thousands of AF)<br>Bear River at<br>Stewart Dam | Spring  | Estimated<br>Date of<br>Spring<br>Maximum<br>Bear Lake<br>Elevation | Estimated<br>Irrigation<br>Storage<br>Demand<br>(TAF) | Following<br>Fall Low<br>Elevation | Estimated<br>Summer<br>Decrease (Spring<br>Max to Fall Low)<br>in feet |
|----------------|---|---------|---|---|------------------------------------|--|
| 10%            | 270   | 5922.1' | June 26   | 54  | 5920.3'                            | 1.8  |
| 30%            | 205   | 5921.4' | June 21   | 76  | 5919.0'                            | 2.2  |
| 50%            | 165   | 5920.7' | June 12   | 85  | 5918.3'                            | 2.4  |
| 70%            | 123   | 5920.1' | June 3  | 103   | 5917.4'                            | 2.7  |
| 90%            | 60  | 5919.3' | May 19  | 153   | 5915.8'                            | 3.5  |

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## 2020 Bear Lake Irrigation Storage Allocation

Bear Lake maximum spring elevation is estimated at 5,920.7 feet

• 245,000 acre-feet

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