

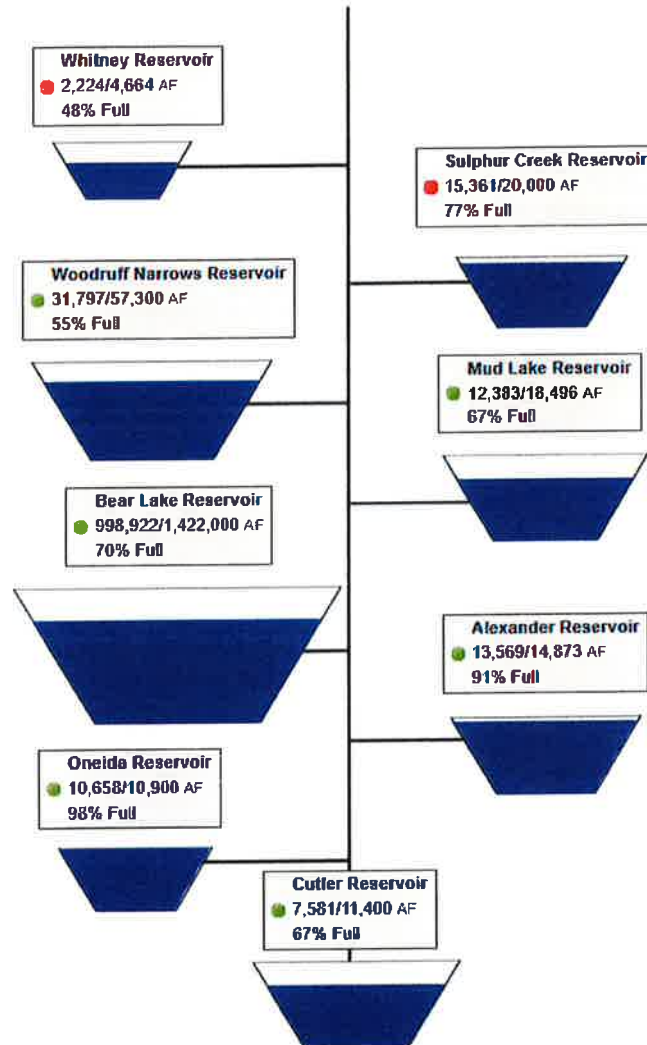
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DEPT. OF WATER RESOURCES
SOUTHERN REGION

2024 Annual Watermaster Report

Idaho Water District 11- Bear River



Teacup Diagram of Reservoir Levels
Bear River Basin Website. February 2, 2025

February 4, 2025
Report by Josh Hanks
Bear River Watermaster

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Section 1 – Season Summary & Comments

Data within this report has been provided by the Idaho Department of Water Resources, PacifiCorp and Bear River Watermaster records.

Bear Lake Water Supply - Season Summary

10-1-23	Bear Lake Beginning Elevation: 5,916.11 ft (63% full)
9-28-23	Bear Lake Low Elevation: 5,916.10 ft (63% full)
6-23-24	Bear Lake High Elevation: 5,920.26 ft (83% full)
6-12-24	Outlet Canal Opened for Irrigation
7-28-24	Outlet Canal Maximum Release: 1,360 cfs Total Bear Lake Storage Release 58,900 acre-feet
9-30-24	Bear Lake Ending Elevation: 5,917.63 ft (70% full)

PacifiCorp Summary of Water Year 2024 - Provided by Connely Baldwin

The Bear Lake Irrigation Storage Allocation for 2024 was 245,000 acre-feet. Runoff was near normal, with Bear Lake net runoff at 286,000 acre-feet. High runoff operations were not necessary at Bear Lake during the spring, but pre-releases were made as noted above. Bear Lake storage water released for irrigation was 58,900 acre-feet. The estimated 2025 irrigation season allocation will be 245,000 acre-feet.

Water Delivery Cost

114,037.43 (24 Hour CFS) delivered for irrigation (*central and lower divisions*)
(includes natural flow and storage flow)

603,193 (24 Hour CFS) delivered for power generation. Oct. 1 - Sept. 31

Total delivered for the 2024 season 717,230.43 (24 Hour CFS) with
\$113,500 total expenses.

Cost per 24 Hour CFS = \$0.16

(*Cost of Bear River irrigation usage and power flows combined*)

Water District 11 Treasurer - Austin Moses Retirement

On behalf of the Water District 11 water users, we extend our deepest gratitude to Austin Moses for his years of dedicated service as treasurer. We thank you for your contributions and tireless efforts to keep our records organized and accurate. We wish you an enjoyable retirement.

Watermaster Comments for the 2024 Season

This season went very well. There were no serious regulations of water use required. As usual the Central division did fall into the usual interstate regulation due to low flows in the river. However, this season the State of Idaho agreed to an informal termination of the normal river regulations. This was announced by Mathew Weaver (Director of the Idaho Dept. of Water Resources) in the middle of August. Since Pacificorp was releasing water from Bear Lake for flood management purposes the Lower division was not concerned about loss of irrigation water. I still continued to report flow numbers in the Central division to Don Barnett, Engineer Manager of the Bear River Commission, and Wyoming turned in their numbers as well. This was done to continue the use of the flow model in case there was a need to go back into regulation. Thank you to all those that help to collect the necessary flow data each season.

2025 Irrigation Season Potential

As of February 2nd 2025 the overall Bear River Basin SWE (snow water equivalent) is showing 90% of median. The Precipitation is at 87% of the median. The soil moisture average for the basin is 47%. This data comes from the USDA NRCS website. The Snotel website is reporting median Snow Depths of 90-100%. Last year at this time the median snow depth was 97%. The concerning number is the soil moisture. We will hope for a larger total precipitation to help with runoff for the coming season.

Adjudication Update (from IDWR News Release July 24, 2024)

IDWR staff provided an update on the Bear River Basin Adjudication (BRBA), which commenced July 2021. The BRBA includes both surface and groundwater rights in the portions of Bannock, Bear Lake, Caribou, Cassia, Franklin, Oneida, and Power Counties within the Bear River Basin. This includes IDWR Administrative Basins 11, 13, 15, and 17. The purpose of the water rights adjudication is to determine the nature, extent and priority of surface and groundwater rights to allow for effective management of the resource in IDWR's Basins 11 and 13.

There are an estimated 3,745 active water rights in the area; about 2,865 claims have been filed through the adjudication so far. Claims evaluations in Basins 11 and 13 are expected to be complete in 2031.

Meters, Telemetry System and Bear River Basin Website

I plan to add telemetry at the Cutler reservoir pump station that belongs to West Cache Irrigation. It will be very helpful to get the data from their pump station added to the Bear River Basin website. This has been an ongoing project, but due to flow meter issues and other technical challenges it has not happened yet. There are a few sites needing repairs or updates, those are mentioned in the individual diversions section that follows.

Section 2 - Individual Diversions Report

Note: The site numbers below are the Idaho Department of Water Site ID numbers.

#10043105 Miller Ditch

This sensor has continued to struggle. It will work for a few weeks and then stop giving depth data which throws off the reading. I have recommended to the user that we install a flume down stream, or possibly a non-contact velocity sensor.

#10043110 Rigby Pump

The meter may need replacement. This coming season we will check for correct operation.

#10043120 Nuffer Canal

#10043140 Sorenson Ditch

#10043150 Ure North Hills Diversions

The flume was installed in the early summer of 2021. It is a metal ramp flume. However, it was submerged and not reading the few times I visited the site.

#10043180 Smith/Lloyd Ditch

The flume at this location does not read correctly due to sediment and vegetation in the ditch downstream. The flume needs to be raised. I will work with the user to get the flume installed correctly.

#10043160 Hughes (Jensen Ditch)

The meter was washed out along with the culvert that had the head gate attached to it, the user has done some civil works to ensure the culvert has been re-installed and I will re-install the sensor this spring.

#10044010 Hughes Pump 1

Not used this season.

#10044020 Hughes Pump 2

Did not get used this season

#10044060 Dingle Canal

The AVFM sensor did well this season until the last couple of weeks. It was then giving zero flow data even though there was flow. It seems that the

slime and growth on the sensor stops it from reading. I cleaned the sensor a couple times this season and it would work again for a few days. I am considering moving the sensor to the side wall to see if that helps with the issue. (same issue for 2024)

#10044070 Ream/Crockett Canal

I need to make a more permanent stilling well for this coming season. The new pressure sensor works very well.

#10044200 Black Otter

#10044450 Preston/Montpelier Canal

#10044450 Todd Lloyd Pump (Preston/Montpelier use)

#10044700 Keetch (Larocco-Kent) Pump

Worked well this season.

#10044714 Fern Keetch Pump

#10044800 Pugmire Pump

#10045800 West Fork Canal

Still using a water level sensor to calculate flow based on an old flow rating formula. Would be good to get a better reading at this location. Needs a sensor to measure velocity.

#10050400 Indian Creek (pumps direct from Bear Lake)

#10067831 Woolstenhume (Pacifcorp #3)

Has not been used for many seasons.

#10047305 Wayne Kunz Pump

#10067705 Hardcastle Pump

#10067725 - L Stevens (Rockin G Ranch)

#10067870 & 10067874 Woolstenhume #1, #2 (Pacifcorp)

#10067834 Steven Kunz Pump

The meter is still broken and needs replacement.

**#10067855 Dean Kunz
Storage contract - Rhett Phelps Pump**

#10068205 Chris Christensen or Alleman Pump

#10072550 Eight Mile (Harris Pump 1)

The sensor at this location is not working. I will work with the user to replace or add a flume.

#10072550 Eight Mile 2 (Harris Pump2)

Meter did not work this season. It seems that the vibration of the pipeline may have damaged the internal components of the meter. I will try to repair the meter this spring.

#10074805 Bear Meadows

#11-00449/11-00531C Soda Golf Transfer

The parshall flume is in need of maintenance and cleaning.

#10078905 Soda Golf Pump

Was able to add a battery pack part way through the season. The meter seemed to work fine after that.

#10079600 Last Chance Canal

#10079800 Bench B Canal

Flume needs to be cleaned out.

#10080105 Gentile Valley Canal

#10080355 Wheeler Pump

#10080385 Matthews Pump (Wanlass Pump)

#10081650 & 10082550 Skabelund Pumps

Flow meter was replaced. I purchased an output cable for the meter and will get the data back on the website this coming season.

#10083505 Mussler (Fox) Pump

The entire station and mast were ripped from the ground this season. The

mast and datalogger/telemetry need to be re-installed and tested.

#10086950 Smith/Bosen Ditch

#10089820 Boyack Pump

#10089880 Upper Riverdale

No usage, cannot find a water right to go with this diversion.

#1089881 Read Lane Subdivision

The users were very helpful this season and reported their use every week by texting me the meter total.

#10089850 Nelson Ditch

Sensor is starting to fail. The display unit that reads the sensor is also in poor condition. I will recommend to the users that they replace the sensor.

#10089950 Riverdale Irrigation Canal

#10089955 Higley Pump

Needs a new battery or power supply of some type.

#10089960 Riverdale/Preston Pump

#10089970 Lucia Pump

#10090250 West Cache Canal

#10091120 Hodges Pump

#10091110 Johnson Pump (Bosen)

New meter was installed for this season and worked well.

#10091495 Holliday-Fuqua (was Griffin)

#10091455 Floyd Jensen Pump

#10091497 Christensen Pump

#10091499 Green Acres Pump

#10091460 Bear Grove LLC (S. Bobka Pump)

Need to replace battery and verify meter is still working

#10091503 Ingleet Lamont

Meter was not working for a portion of the season showing a zero flow even when the pump was on. I asked the water user to install the meter this season as shown in the manual.

#10091563 M Curry

The meter screen is hard to read. User says that he will try to get that fixed.

#10092755 Carol Whitney Pump

#10092650 Cub River Pumps

#10092900 West Cache Pumps

Replaced the antenna at the cub river base station and now this site reports in regularly. The issue is that the sensor is not reading once it gets covered in silt. Need a new sensor and to move it further up into the pipeline.

#10109375 West Cache 4 (Cutler)

This season the meters all had trouble. They should all be working for the coming season and we can get the flow onto the bear river website.

Section 3 - Individual Diversions Flow Data

The data below is gathered from the Idaho Dept. of Water website. This data is collected throughout the water season by way of meters, flumes, dataloggers, and manual flow measurements by the Watermaster.

<u>Water District 11 Points of Diversion</u>	<u>Total 24 Hour CFS</u>
10043105 - MILLER CANAL	1,091
10043110 - RIGBY	18
10043120 - NUFFER CANAL	2,720
10043140 - TRANSTRUM (SORENSEN)	395
10043150 - URE NORTH HILLS	382
10043160 - WILLIAMSON (JENSEN)	1,038
10043180 - J SMITH (URE)	117.1
10044010 - HUGHES PUMP 1	0.00
10044020 - HUGHES PUMP 2	0.00
10044060 - DINGLE IRRIGATION CANAL	3,882
10044070 - REAM-CROCKETT CANAL	2,369
10044200 - BLACK OTTER CANAL	3,715
10044450 - PRESTON-MONTPELIER CANAL	5,016
10044700 - KEETCH (LAROCCO-KENT)	59
10044714 - FERN KEETCH	261.2
10044800 - J KEETCH (PUGMIRE)	34

10045800 - WESTFORK CANAL	7,697	
10047305 - STEWART	0.00	
10050400 - INDIAN CREEK LLC	0.00	
10067705 - HARDCASTLE	3.63	
10067725 - ROCKIN G RANCH	63.3	
10067831 - CHARLES KUNZ	0.00	
10067834 - S R KUNZ	5.60	
10067855 - PACIFICORP 3 (D. Kunz)	0.00	
10067870 - PACIFICORP 2 (P. Kunz)	17.4	> 44.6
10067874 - PACIFICORP 1 (P. Kunz 2)	27.2	
10068205 - ALLEMAN	0.00	
10068210 - ALAN PHELPS	25.1	
10072550 - EIGHT MILE RANCH (HARRIS)	479.2	
10072554 - EIGHT MILE 2 (HARRIS)	108.5	
10074805 - BEAR R MEADOWS LLC	28.5	
10076000 - SODA CREEK TRANSFER FLOW	153	
10078905 - SODA GOLF	53.6	
10079600 - LAST CHANCE CANAL	25,137	> 44,920
10079800 - BENCH 'B' CANAL	19,783	
10080105 - GENTILE VALLEY CANAL	5,115	
10080355 - WHEELER	73.4	
10080385 - MATHEWS, B	264	
10081650 - SKABELUND 1	27.1	
10082550 - DAVID SKABELUND	0.00	
10083505 - MUSSLER (FOX)	16.5	
10086950 - SMITH-BOSEN CANAL	43.4	
10086975 - TWIN LAKES PUMPS	0.00	
10089820 - BOYACK	53.4	
10089850 - NELSON CANAL	394.2	

10089880 - UPPER RIVERDALE	0.00
10089881 - READ LANE SUBDIVISION	57.2
10089950 - RIVERDALE CANAL	900
10089955 - HIGLEY	0.00
10089960 - RIVERDALE-PRESTON PUMP	367.3
10089970 - T LUCHIA	9.5
10090250 - WEST CACHE CANAL	21,568
10091110 - B JOHNSON PUMP	130.3
10091120 - L BRYCE	0.00
10091455 - FLOYD JENSEN	74.8
10091460 - BEAR GROVE LLC	13.4
10091495 - HOLLIDAY-FUQUA(griffin)	28.8
10091497 - CHRISTENSEN	10.5
10091499 - GREEN ACRES	9
10091503 - B LAMONT	94.8
10091563 - M CURRY	78.7
10092650 - CUB RIVER PUMPS	8,475
10092755 - C WHITNEY	0.00
10092900 - WEST CACHE NO.2 (UTAH)	990
10109375 - WEST CACHE NO.4 (UTAH)	563.8
Total Irrigation Delivery 24 Hour CFS =	114,037.43

Reported data for each of these sites is publicly available on the Idaho Department of Water Resources website. Login as a guest to view data.

<https://research.idwr.idaho.gov/apps/watermanagement/diversion>