



## **WATER RIGHTS COMMITTEE BOARD REPORT**

**Pat Sorenson, Committee Chairman**

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**Written & submitted by: Pat Sorenson January 13, 2023**

**BOD meeting time requested – 5 minutes**

**Charter:** To protect our Water Rights, operate our exchanges, and remain in compliance with the State Department of Water Resources

**Members:** Roy McCutchen, Paul Flanagan, Victoria Darling, Selina Davis, Karl Davis, Bill Tolle, Ray Merry

**Support Team:** Applegate Group – Jared Dains, HROD – John Dingess & Teri Petitt

**Water Commissioner:** Jean Lever, Division 1, District 4, Colorado Department of Natural Resources

### **2022 WATER RIGHTS & OPERATIONS YEAR IN REVIEW**

#### **Lakes**

- **Sunset Lake (6.7' Full)**
  - Filled from empty in 2021 with 2022 spring runoff and maintained throughout year at 6.7'
- **Rainbow Lake (8.6' Full)**
  - Maintained full from beginning of year then dropped for planned lake transfer in last 2 weeks in October to 7.15' with pass-through Willow and Mirror to recover Meadow depth change required for downstream users return flows. Depth as of January 9 has fully recovered to 8.6' and is anticipated to continue to 8.6' over winter subject to minor fluctuations for domestic demands.
- **Willow Lake (10.3' Full)**
  - Maintained full at 10.3' with slight variable changes in October for pass through flow from Rainbow per above.
- **Mirror Lake (11.0' Full)**
  - Maintained full from beginning of year at 11' with slight variations for evaporation recovered by precipitation and runoff. Not necessary to be used through nearly most of entire year including December for domestic water supply. Intake line to water treatment plant (WTP) repaired August, 2022. Depth as of January 9 has fully recovered to 11.0' Operators anticipate some use during winter 2022-2023. Lake level will be closely monitored during times of draw to WTP.
- **Meadow Lake (13.95' Full)**
  - Maintained full from beginning of year then dropped to 12.8' June 28, then to 12.4' July 22, then a more noticeable drop to 10.5' starting October 6 & 7 all for purposes of downstream users return flows. While an incident report has been filed, upon further closer review of the 15 minute interval readouts, it now is believed vandalism may not have been involved. Regardless, as an additional precautionary measure, all locks have been replaced. The 10.5' depth remained through November 1. Depth as of January 9 has nearly fully recovered to 1' below crest and is anticipated to recover to 13.95' over winter.

#### **Notes:**

- 1) BEM can store up to about 110 acre-ft (AF) of water which is equal to about 36 million gallons (MG)
- 2) Due to our fill of Sunset Lake of nearly 9 AF and our required replacement of depletions to downstream users with senior water rights, we needed to end our water year with storage at 82 AF or about 27 MG, hence the late year low level in Meadow, however, as indicated above, such is nearly recovered. As of January 9, we are storing 103 acre-ft (AF), or about 6% below maximum allowed.
- 3) All lake level changes were closely coordinated with Lake Health and Fishing Committee

## **2022 WATER RIGHTS & OPERATIONS YEAR IN REVIEW (CONT.)**

### **Due Diligence Filing**

During this past summer and fall, the Big Elk Meadows APPLICATION TO MAKE CONDITIONAL WATER RIGHT ABSOLUTE, FOR A FINDING OF REASONABLE DILIGENCE, AND TO CONTINUE CONDITIONAL WATER RIGHT has been prepared by our water attorney, has been thoroughly reviewed by the committee and was filed by November 21, 2022. This diligence filing is the first of two in two years. This filing is to show diligence in using our Ish exchange for augmentation water from November 2016 to November 2022. The filing also shows the tremendous amount of money spent to rebuild our water system.

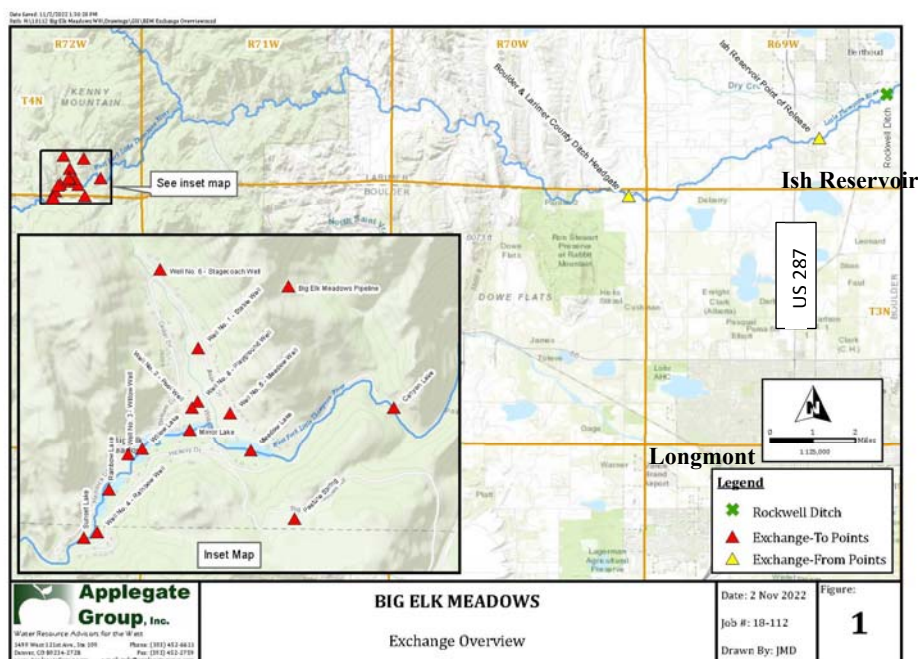
Noteworthy activities identified in this filing that are beyond typical operational, meeting, coordination and administering the plan that were spent to put the subject conditional water right to beneficial use included:

- Replacing dams and spillways of Rainbow, Willow, Meadow and Sunset Lakes along with the bridge at Rainbow at a total cost of about \$4.9 million.
- Repairing and establishing the riparian zones surrounding the lakes at a total cost of about \$0.6 million.
- Replacing the lower flume and adding metering devices to the flume and Meadow Lake outlet works.
- Replacing and upgrading the equipment for the Big Elk Meadows Pipeline alternate point of diversion.
- Working with the Colorado Rural Water Association developing and implementing a Source Water Protection Plan to help prevent the pollution of water supplies that serve as sources of drinking water.
- Removing brush and noxious weeds from the Rainbow, Willow, Mirror, and Meadow Lake Dams.

Note: The lower flume repair now underway is not part of the filing as much of this will occur after the first deadline, however such along with other on-going work matters will likely be addressed in the next filing.

### **2023 WATER RIGHTS YEAR AHEAD**

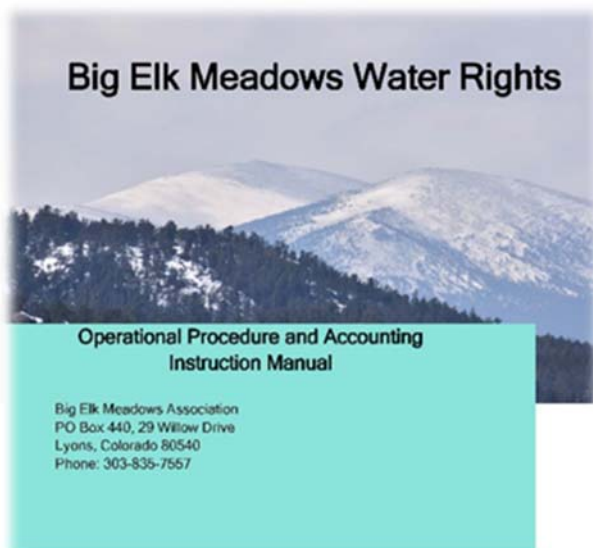
We are on the Little Thompson west fork tributary that extends within our water rights “portfolio” just slightly beyond the Ish Reservoir in Larimer County, such reservoir located around 3 and ½ miles north of Longmont. The following image depicts the primary extent of our system. Our communications in the water community with our water engineer and water attorney will always be of utmost importance and will include meetings with ditch companies, our water commissioner and probably first and foremost, our nearest neighbors, Pinewood Springs, who we really need, from a water rights perspective to have as a best neighbor throughout every water year.



## **2023 WATER RIGHTS YEAR AHEAD (CONT.)**

Closer to home, BEMA already has an excellent 64 page manual that is relied upon by the Water Rights committee extensively. This document, the cover for which is depicted below, now resides on the Google Drive at the following link:

[https://drive.google.com/drive/folders/1N\\_fmQft9q0y55BF0tNnMNUcBtzFUop?usp=share\\_link](https://drive.google.com/drive/folders/1N_fmQft9q0y55BF0tNnMNUcBtzFUop?usp=share_link)



Between our 2022 and 2023 water year, Karl, Pat and Roy and all others on the water rights committee will be working on updating this manual for the betterment of BEM and the water community.

Our intended areas of emphasis will be geared toward:

1. Procedures to provide for timely, open, professional, and friendly dialogue, the latter definitely a given per BOD philosophy implemented June 18, 2022.
2. Streamlined reporting, as close to real time as practical and provided to all key parties involved with day to day matters including the plan administrator.
3. Post 2022 water season, staff gages should be improved for readability, uniformity in measuring and set at correct levels to match actual dam weir overflows.
4. Opening of gates should be manually figured out in the sense of one turn or even half turns open “x” gate approximately so far thereby resulting in an approximate “y” flow.
5. Consideration of a better system to secure the gates needs to be updated frequently.

There are likely other needs and hence, the water committee needs to fine-tune systems, procedures, protocol, etc. toward developing a condensed version “guideline manual” that should be in place and well understood by all before the startup of water season in 2023. Additionally, mapping needs to be made for each lake’s levels in 1’ increments to clearly depict shoreline impacts. Last, noting there may be other procedural and operations matters that will come up any time in the future, the sign-off of every committee member closely involved, including the chair(s) to the manual and tables, including any revisions thereto at any time, needs to go into effect as a standard procedure.