

**Bear River Water Conservancy District  
Board Meeting  
Wednesday September 23, 2020 7:00 p.m.  
Bear River Water Conservancy District Conference Room  
102 West Forest Street, Brigham City, Utah**

**Minutes**

Present: Trustees: Roger Fridal, Charles Holmgren, Mark Larson, Richard Day, Russ Howe, Neil Capener, Jay Carter, Tyler Vincent, David Forsgren, Jay Capener

Absent: Jeff Scott

Staff: General Manager Carl Mackley, Systems Operator Robert Thayne, Administrative Assistant Jill Jeppsen

Other: Buster Marble, Chanshare Farm

**Welcome:** Chairman Roger Fridal

**Invocation:** Dave Forsgren

**Pledge of Allegiance:** Jill Jeppsen

**Adoption of the Agenda** – Chairman Roger Fridal

A motion was made by Financial Chairman Holmgren to approve the agenda. The motion was seconded by Vice Chairman Forsgren. All Board Members voted in favor of the motion.

**Declaration of Conflicts of Interest:** Financial Chairman Holmgren participates in the weather modification program as a contract worker for North American Weather and receives about \$100.00 per year to start his generator when directed.

General Manager Carl Mackley is purchasing a building lot in Collinston that could benefit from the secondary irrigation system being proposed.

Board Member Mark Larson is a member of Ukon Water Company and has a possible conflict. The Board Members found no conflicts.

**Approval of the Minutes for the Board Meeting held August 26, 2020**

The minutes of the Board Meeting held August 26, 2020 were included with the packet that was provided to the Board Members.

Financial Chairman Holmgren made a motion to approve the minutes of the meeting held August 26, 2020. The motion was seconded by Board Member Vincent. All Board Members voted in favor of the motion. Vice Chairman Forsgren abstained from voting due to not attending the meeting.

**Public Comment:** None

**Financial Business – Charles Holmgren  
Approval of Financial Statements**

The financial statements for August 2020 were prepared and provided to the Board Members. Financial Chairman Holmgren has reviewed the reports and asked for the Board to approve them.

A motion was made by Board Member Larson to approve the financial statements as presented. The motion was seconded by Board Member Vincent. All Board Members voted in favor of the motion.

**Public Comment:** None

**General Manager's Report – Carl Mackley**

**Weather Modification Participation:** The new water year starts in October and we hope 2021 will be a lot better water year than 2020 has been. We received a letter from the Division of Water resources asking for our commitment to participate again. Typically, the State pays 50% of the cost then our District and the Cache Water District pay the other half. We asked the State to invite Rich county to participate this year. We have until Oct 2, 2020 to respond to the invitation. The funds are included in the budget. Participation in the weather modification program is one of the better things we could do for the residents of this County.

Board Member N. Capener made a motion to continue participation in the Weather Modification for the 2020-2021 season. Board Member Larson seconded the motion. All Board Members voted in favor of the motion.

There was a discussion on the location of the generators and the benefits of the Weather Modification program.

**Ukon Water Company**

At last month's Board Meeting, Ukon water company asked about using the north tank on the Collinston system to satisfy the Division of Drinking Water (DDW) to show that they have adequate storage. They already use the tank as a customer. There are only two residential connection that come out of that tank, the rest of the water goes to Ukon. We could write a letter to the State, and explain they are already our customer and they are almost the sole user of the 500,000-gallon tank and that should suffice the requirement. Or we could write an agreement for them to rent space. We do not want to give away our infrastructure, it is not beneficial to break up our system. Financial Chairman Holmgren added there were talks in the past of using this tank to supply the lower end of Beaver Dam in the future as growth demands.

There was further discussion on retaining the infrastructure by the District and how much water we keep in the tank, what a rental agreement with Ukon might consist of if a letter to the DDW does not satisfy the requirement. The question was asked if we need to have a legal opinion on writing a letter. We do currently have a supply agreement in place with Ukon, it does not make any provision for storage. It was suggested that we could possibly amend our current agreement if writing a letter to the DDW does not satisfy the requirements for Ukon. The discussion ended with General Manager Mackley stating that

Michael Newberry of DDW indicated to Brian Schaffer of Ukon that if we were to write a letter, as stated above, it would satisfy the requirements from the DDW.

A motion was made by Financial Chairman Holmgren to enter an agreement with Ukon Water Company to demonstrate that we have adequate storage capacity to meet their demands, and that we have a legal review done on a possible amendment to the present contract, if needed. The motion was seconded by Vice Chairman Forsgren. All votes were in favor of the motion.

**Bothwell Wells:** Buster Marble is here representing Chanshare Farms. We supply a lot of our Bothwell water to Chanshare. We have a serious water situation going on in Bothwell. General Manager Mackley gave a presentation with a graph showing the Newman well static level and the decline we have been seeing over the last 6 weeks. We have two very good culinary grade wells in Bothwell. We are on the north end of the valley which helps with water quality, the further south you go the worse the water quality becomes. We have talked before regarding water quality concerns we have had out in Bothwell. It is a requirement of our water rights to monitor the quality and quantity monthly and to keep records. The TDS levels that were so high last month have dropped. The Newman well was close to 1000 mg/l and is currently at 770 mg/l. We took a sample yesterday (9/22/2020) and the Newman Well was at 398 mg/L, Backup Well was at 374 mg/L and Well #3 was at 418 mg/L. These are the lowest recorded values ever for TDS in the Bothwell Pocket records!

We are concerned about the static levels in the wells that are dropping faster than they have dropped before. We only have a transducer in the backup well, the Newman well does not have one. The transducer in the backup well is about 15 years old and the recommendation for replacing them is about every 10 years. The transducer measures the pressure of the water to tell how high the water level is above it. We know the level which the transducer is set; it is at 350 feet deep, at the top of the pump bowls. The history since 2008 shows an annual decline in the static level of about 8 feet, with an approximately 7.5 foot rebound. There is a downward trend showing an annual decline of ½ foot per year, for the past 12 years. In the past 6 weeks, the static water level has dropped over 40 feet. This is an alarming rate! If it gets down to 0 feet, it will reach the top of the pump bowls. We have typically had 120 feet of water, and now we are down to 60 feet and still dropping. We are pumping water out faster than it is being replenished. We have calculated that the recharge should be sustained at about 1100 gallons per minute (gpm) to maintain the static level. During the month of September, we have pumped an average of 2400 gpm.

We believe that the recharge in the Bothwell Pocket comes from the north. The water quality has improved at the same time the static levels began to drop. There was a discussion of the pressures on the system in relation to the static levels dropping. Questions were raised if there could be an issue with the transducer and if there are other wells in the area that have a transducer that can be looked at. Pressures have increased and flows have decreased in the last month. We do not believe that there is an issue with a faulty or failing pressure transducer.

General Manager Mackley continued his report telling the Board that we upgraded and replaced the SCADA in the past month. The wells ran almost continuously from the 12<sup>th</sup> to the 18<sup>th</sup> of September. One operational change we have made is to have the backup well become the primary well and the

Newman Well is now serving as the backup well. This change was made when the TDS levels were exceptionally high in the Newman Well. The Backup Well produces about 2200 gpm with the Newman Well producing about 3100 gpm. The discussion turned again to the pressure and/or flow changes that would happen with the lower static levels. Robbie Thayne reported that yesterday when both wells were pumping at the same time, they were both about 150 gpm less than they have been. Sometimes the wells fight against each other when they are both pumping at the same time due to differences in pressure.

If the information is accurate, then this problem is a water emergency. We are trying to get through the end of the irrigation season. We want to be able to help Chanshare finish their crop. We are providing a lot of culinary water. Buster Marble let the Board know he has about one more month of irrigating. The farm has cut back to only running two pivots at one time for the past two weeks. There was a discussion on how the system works regarding filling the tank and sending water to the farm. General Manager Mackley continued his presentation by showing a chart representing the water use this month-to-date. The static level has been dropping over one foot per day. The rate of decline has slowed but continues to drop. There was a discussion on having a transducer in both wells. The discussion ended with a request for support to investigate if the transducer is faulty or if the static levels are really dropping this fast. To see if the static levels will come up, we need to cut our wholesale users back by at least 20% and turn the farm off for 2 days and get under 1100 gpm. We have a seasonal problem right now and need to not tax our system so heavily in the future. The Board Members asked Buster Marble if he could shut down for 2 days while we monitor the static levels. If we can figure out definitively that we really have this problem, we will have to make some permanent cuts.

There was some additional discussion about the process of putting transducers in wells. We are hoping we have an engineering drawing of the pump and how it was set in the well. The TDS reports also tell us something has changed in the well, it makes sense that the transducer is working properly, and we really have a problem with the recharge rates. Chanshare has noticed there has been a pressure change in well #3. There will be a small reduction in pressure when we are using the backup well vs. the Newman well. Mr. Marble stated from a farming standpoint they understand that if the data is correct there will be some drastic cutbacks. General Manager Mackley added that our agreement with Chanshare states at the beginning of each year we agree upon an amount of water to deliver to the farm to give them some measure of certainty of the quantity of water that we can deliver to them. Each year can be different, and we do not want to unduly cut anybody back. However, this looks like a potentially ominous problem that we have not seen before.

The Board will support the General Manager in cutting the wholesale customers back and cutting Chanshare off for two days over the weekend. Mr. Marble agreed. We want to get to where the Backup Well only runs 12 hours per day, and the Newman Well does not run at all. The Board Members continued to discuss the amount of water to cut back from the wholesale users.

Board Member Larson made a motion to approve the purchase of two new transducers for the Newman and backup wells. The board discussed having a price quote before the approval was made, due to the cost of not only the transducers, but in the cost of installation if the pumps have to be pulled. Board Member Larson withdrew the motion.

**Rocky Mountain Power** contracts to Cascade Energy to look at energy savings for power usage. Cascade Energy came and evaluated our Bothwell system and how we use the Newman and Backup Wells. It would be more effective and efficient to turn the Newman well to supplying the farm and the backup well to supply the culinary system. The Newman well would also be used when needed for the system. We would not run the water for the farm through the system. It would require a SCADA update and a shut off valve, so the Newman well is not running up to the tank. It would require a Variable Frequency Drive (VFD) to control the pressure and the flow rate. RMP is willing to pay an incentive of \$30k to install a VFD on the Newman well, they did not see a real benefit at this time of putting one on the backup well. There was a discussion regarding the fact that the District had talked about installing VFD's about 15 years ago, but the cost was prohibitive and that the RMP incentive is attractive. The Newman well is 450 horsepower and the backup well is 300 horsepower. The cost for a VFD is roughly \$100.00 per horsepower. It would cost about \$45,000 for the VFD, the District would have to pay for it and RMP would reimburse us. With the incentive, and the estimated power cost savings of \$11,000.00 every year, it should pay for itself within two years. Because the Farm pays their portion of the power bills, most of the savings will go to them, but it is a more efficient way to operate. Board Member Larson suggested making sure the pump bowls are compatible with a VFD. It was noted they were replaced when the new pump was installed in 2015. Additional costs will be to add SCADA to run the VFD properly, additional valves, electronics, and engineering. Mr. Marble added that Chanshare would be willing to help pay the cost to have the changes made. There will be some additional cost to the farm in making changes to the panels on the pivots. There are 5 pivots that run on this waterline. There was a discussion about the operation of the pivots with a VFD.

The Board Members requested General Manager Mackley get a cost for the SCADA and electronics changes and engineering costs involved in making the changes and present them at the October Board Meeting before taking a vote on the matter.

### **Collinston Secondary Water System**

General Manager Mackley gave a presentation showing the well and spring areas and the area that can be served by a secondary water system. The water right for the spring is for 15 gpm. There are two other users that have water rights on the spring, and they are both connected to the spring and whatever they cannot use goes into the pond. One way to construct the system is to use the well and pump directly into a North/South pipeline that would be installed along the property lines and stubbed to each lot. The water right can only support the area that it has irrigated historically, and it is limited to 1.14 acre-feet (AF) per acre. The well water right is limited to 50 gpm and could serve about 24 to 30 lots. It would be a pressurized system delivering water at about 50 psi. Sierra Homes has 19.7 AF that they are selling. Some of the water right was sold with the first few homes. The residents could do their own system, or they could surrender their water right and connect to the District's proposed system. The 19.7 AF for sale equates to about 6.5 million gallons. Having a secondary system here could save the District a lot of water and stretch out the culinary water that we have. A small-scale secondary irrigation system could be a great experiment for the District to examine the feasibility of larger scale projects.

There was a discussion on the engineer's estimated costs for the project. And on using the water from the pond. General Manager Mackley asked the Board Members for their thoughts on this type of

system. The water saved could open new culinary connections on the system and those impact fees could help pay for this system. Impact fees would also be paid to connect to the secondary system. The costs of the infrastructure for individual lots would be up to the property owners.

The Board Members like the idea of a secondary system but also expressed concern for the maintenance of it. Who is responsible? There was a discussion as to whether the property owners need to organize a homeowner's association (H.O.A.) to manage it. There was a discussion if a culinary system can subsidize a secondary system. Tremonton City is currently subsidizing their secondary system with their culinary system. To incentivize residents to use the secondary system, they have imposed fees on property owners that have secondary water and choose not to use it. There was a discussion if we could do the same for this area and if there would be any savings to the residents. There would also be costs associated with power and maintenance for the pump. Conservation is expensive and this project would be considered conservation by way of conserving our culinary water. We talk a lot about conservation, but do not always talk about the cost of conservation.

The discussion continued with the following point expressed: The logistics of water turns would also need to be worked out. Several Board Members expressed the opinion that there needs to be an (H.O.A.) to manage the system. The County needs to make sure the utility easements are part of any new approved subdivision plats. General Manager Mackley asked if there is any interest in renting a pump to see what the well can produce? The Board Members thought it should not be up to us to prove the asset for Sierra Homes, it should be up to them, as the seller, to prove what the well can do.

**Begin an application process for funding the Flat Canyon Well project.**

We know enough about the Flat Canyon well now, even though it is still being developed, that we will make a project out of it. This water will help supply the Collinston system. We need to begin putting funding together for that project since it takes about six months to get the application approved. There will be costs for a pump, a 1.1-mile pipeline, chlorination at the south booster station, power costs, pay the landowner for the land, and to purchase the other easements. Our agreement with Kligers expires in July 2021. There was a discussion on if we should begin the application before the development process is complete. It was agreed we should begin the process now. Rod Munds crew should be finished this week or next with the development then they will test pump. General Manager Mackley reminded the Board they previously made a motion to proceed with the project.

Vice Chairman Forsgren made a motion to proceed with an application for State Revolving Fund (SRF) Loan for the Flat Canyon Well project. Board Member Carter seconded the motion. All Board Members voted in favor of the motion.

**Wholesale Rates:** General Manager Mackley asked the Board Members to think about increasing our wholesale rates. The rates have been the same per acre-foot for over 12 years. Financial Chairman Holmgren commented that at the Bear River Canal Company board meeting last week, they were talking of raising their assessments to their users and in review rates over the past 9 years, canal assessments have gone up nearly 90%, or about a 10% per year increase. There has also been an increased effort from the canal company in improving infrastructure. The District must have data to back up the amount of any increase.

Our Harper Ward system is the least lucrative system we have. We are not collecting impact fees due to lack of development in the area and yet, we are working to develop our own source and incurring that cost. Each of our system run differently, almost like we are 6 different companies. The current Harper Ward bond will be paid off in January 2021.

**Water Right Hearing:** We had a water right hearing that involves the water supplied by Deweyville Town to our Collinston System and to Ukon Water Company for their blending station. In January we renegotiated a contract with Deweyville for a 7-year term. We had two years remaining on the existing 5-year agreement and extended the agreement for an additional 5 years. We increased the volume by 100 acre-feet. Previously we would file a temporary change application every year. Temporary change applications do not get advertised in the newspaper and get a more immediate decision of approval or denial that is good for one year. The temporary change applications were for up to 150 acre-feet from the new Town Well and did not include their sources, which we also use.

There are times when the Town springs are producing a lot of water that goes through their system and is treated then overflows their tanks when it cannot be used. So, we filed a permanent change application to represent the 2020 agreement we made with Deweyville Town to include all their sources. It was protested by some Deweyville residents who are concerned about Dewey Spring. There were also a couple of protestants that thought the application had to do with the Flat Canyon well, which it does not. The application was filed at the beginning of the year. Due to COVID-19 the hearing was not held until last week. It was held at the County Courthouse. General Manager Mackley prepared data to present at the hearing from our monitoring wells and introduced the West Wellsville Ground Water Model he is developing to evaluate applications that the District has on the west side of the Wellsville Mountain Range. The hearing was interesting. You can listen to the recording on the Division of Water Rights website. Dewey Spring gets water in the summer from the Hammond Canal. The level goes up about 3 feet as soon as water is put in the canal and drops that much as soon as the water goes out of the canal. The data there is good. The protestants accused Deweyville Town of affecting their spring based on when the town drilled their second well. They point out that we are using water from the Town's well and they do not like that it is going to Collinston. We made good arguments for all the concerns they raised. We should have a decision within 2 months. The data shows there are not any changes in the monitoring wells when the town well is turned on.

#### **Board Meeting Training – Jill Jeppsen**

Reminded the Board Members of the annual training required. She thanked those that have completed the training and asked them to forward a copy of the email showing completion or bring her a printed copy of the certificate for her files.

#### **System Operations – Robbie Thayne**

**South Willard Well** - The chemical treatment will be starting next week. The pump will be pulled and cleaned, a camera will go down and take pictures then they will put the chemicals in and surge it and work it through the aquifer. Then it will be pumped out, the pump will be replaced. LeRoy Palmer is working with us on this, he has decades of experience and we are confident we will get the best results out of the process.

**Flat Canyon Well** - The development has been successful; they have pulled a lot of drilling mud and rock out of the well. We think we can get more than 80 gpm, it is very promising. Next week, they should be pump testing for 24 to 48 hours, then we will know how much we can sustain.

**Bear Hollow** – We spent some time with Jake Jensen from Bear Hollow. They have 3 wells that they do not currently use. We took some water quality samples and checked out the system. One well did not have power, so we were not able to get a sample from it. Well #1 produces 38 gpm, well # 2 produces 48 gpm. They do have sulfur smells and the water had a salty taste. We should have the test results next week.

**Andrew** is doing training to get a GIS certificate. The classes are taking all his 40 hours to complete. The training will be valuable for us when he has the certificate.

**SCADA Upgrade** - We have the new SCADA system on-line. We have the capacity now to expand when we need to, we have more information and it is more reliable and dependable. SKM is doing the work and they are still working out a few bugs.

The operators have been terribly busy with the issue going on in Bothwell and South Willard and everything else that has been going on. We are on track and working hard to keep everything going.

### **Trustee Reports**

**Jay Carter** – No report

**Russ Howe** – No report

**Richard Day** – No report

**Neil Capener** – No report

**Mark Larson**– No report

**Tyler Vincent** – No report

**Jay Capener** – No report

**Charles Holmgren** – The Great Salt Lake Advisory Committee and some of the Utah Water Task Force meetings have us worried about what the legislature is doing. There could be significant damage if some of the legislation for Split Season Irrigation goes through. This is trying to sell part of your water right to the Bird Refuge, Great Salt Lake Minerals, the Brine Shrimp Industry, etc. and could be devastating to the fresh-water animals in this world. There has been a lot of conversation regarding this issue. Trevor Nielsen, GM of the Canal Company, is a member of the Utah Water Task Force. Two weeks ago, they made a presentation on the Great Salt Lake and the Split Season application, General Manager Carl Mackley and General Manager Trevor Nielsen both spoke against it and Mr. Holmgren wrote a letter to the representing attorney, speaking against it. The Bear River Water Users Association are concerned about it and how it can potentially impact water rights on the Bear River in Idaho as well as in Utah. It could wipe out agriculture irrigation in the state. And it will have impacts on other river basins in the state, not just the Bear River. The proponents are the Great Salt Lake Advisory Council, Audubon, and

Friends of Great Salt Lake, they complain about depletions of water by agriculture, but they offer no solutions to the problems. It is a major concern for irrigation companies in the state, for the District and for the potential for building reservoirs on the Bear River for future growth. There was a discussion regarding how water is under attack in the legislation. Trevor Nielsen mentioned the task force has had some discussion about Utah not being a public trust doctrine state, where the state can come in and decide what is best use for your water rather than having protected water rights by historical priority dates. There have been discussions about creating Water Courts in Utah again. This has been a discussion at the Water Task Force meetings in past years. They have Water Courts in the state of Colorado, it is a way to get around the public trust doctrine and get away from poor judicial pronouncements by the State Supreme Court.

**Dave Forsgren** – No report

**Roger Fridal** – No report

Board Member Larson made a motion to enter a closed meeting to discuss the purchase, exchange, lease, or sale of real property. Board Member Day seconded the motion. Votes by Board Members are:

Dave Forsgren, aye	Charles Holmgren, aye
Jay Capener, aye	Tyler Vincent, aye
Mark Larson, aye	Neil Capener, aye
Richard Day, aye	Russ How, aye
Jay Carter, aye	Roger Fridal, aye

A motion to end the closed meeting was made by Board Member Howe. The motion was seconded by Board Member Carter. All Board Members voted in favor of the motion.

A motion was made by Board Member Howe to adjourn the meeting. The motion was seconded by Board Member N. Capener. All Board Members voted in favor.

The meeting adjourned at 9:50 PM.