

**Bear River Water Conservancy District
Board Meeting
Wednesday April 28, 2021 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, Russ Howe, Neil Capener, Jay Carter, David Forsgren, Jay Capener, Richard Day, Jeff Scott

Absent: Tyler Vincent

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

Lance Nielsen, Hansen Allen & Luce Engineers
Brian Shaffer, Ukon Water Company

Welcome: Chairman Roger Fridal

Invocation: Russ Howe

Pledge of Allegiance: Rob Thayne

Declaration of Conflicts of Interest: None

Adoption of the Agenda –Chairman Roger Fridal

A motion was made by Board Member Larson to approve the agenda with one change; to move the closed meeting after the GM report instead of before. The motion was seconded by Board Member Day. All Board Members voted in favor of the motion.

Approval of the Minutes for the Board Meeting held March 24, 2021

The minutes of the Board Meeting held March 24, 2021 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 March 24, 2021. The motion was seconded by Board Member Howe. All Board Members voted in favor of the motion.

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

The financial statements for March 2021 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 Financial Chairman Holmgren to approve the financial statements as presented. The motion was seconded by Board Member Larson. All Board Members voted in favor of the motion.

Flat Canyon Well Development Lance Nielsen, Hansen Allen & Luce Engineers

Mr. Nielsen gave a presentation to the board members regarding further development of the Flat Canyon Well. He reviewed some of the history of the well and the prior development efforts. He talked about the production of the well during the test pumping and the drawdown of the water level during pumping. He also talked about the drawdown of a nearby well that we monitor. The presentation showed slides that address the well hydraulics and concluded with the proposed additional development which includes chemical treatment and swabbing to improve the well production along with pumping and surging the well to loosen the fines around the well.

The bid documents are being prepared with specific criteria as to how the plan needs to be completed. The engineer projections show a possibility of getting around 200 gpm when the development is completed, the well can currently produce 125 gpm. We also need to get at least 190 gpm to get our whole water right of 250 gpm approved for this well.

The money for this project comes from amending the payment plan to the property owner, as was discussed in a closed session at last month's board meeting. There was a discussion on spending more money to further develop the well. Mr. Nielsen pointed out that even if we do not increase the flow rate (which he believes it will) and just decreased the drawdown the cost per gallon of water is significantly less because of the power cost to lift it. This question is also addressed in the General Manager's written report. General Manager Mackley added the ROI (return on investment) comes if we can get 30 gpm more production from this well. This well is already a viable project and for the money we have already spent, there is no reason not to put it into production. But if we can spend this additional money and increase the gallons per minute, it will be well worth it.

The development plan is based on what the well needs. The improvement comes by targeting the development in a specific way. The engineers have investigated multiple development options and found this method will get the best results.

General Manager Mackley is asking the board to support the implementation of this development plan. It is hard to put an exact dollar amount on this plan because when you develop the well, you want to develop the well until it is finished developing. We have made estimates on what it will take to complete it, but sometimes it takes longer because you are seeing improvement. The estimates have time built in to complete the development. As they are developing the sand production is monitored. The more sand you remove the more efficient the well becomes.

The bid documents are ready to be sent out.

A motion was made by Board Member Larson to authorize the General Manager the funds to implement the development plan for the Flat Canyon well as presented. The motion was seconded by Board Member Day. All Board Members voted in favor of the motion.

There was a discussion on the bids coming back over budget. It was noted that the bid package states the District has the option to not award the bid at all if that is the case.

System Operations – Robbie Thayne

The new waterline extension in Collinston is almost complete. It should be complete by the end of this week. This is the line going south from the Sierra Homes line and is about 1900 feet long.

The South Willard Water Company connection with the District has never been authorized by the State, this has been corrected and the connection is approved.

South Willard well – General Manager Mackley and Rob Thayne met with Ron Warren from Peterson Brothers Drilling. They were the ones that deepened and developed the well. Mr. Warren gave us some good ideas for getting the rest of the pump out or sealing over the top of the pump and pumping water from a submersible pump above it. We are going to run a camera down this week and see if this is a viable solution. There is a possibility he can get more of the pump out; he has had a lot of experience doing this. If this is not possible, we will be looking at drilling a new well. There was a short discussion regarding the size of the well and where the pump is situated. Mr. Warren thinks he may be able to break the casing on the pump where the oil tube and the shaft are and be able to pull them out. Any pump column left can be cut off and taken out. The camera will let us know if this can be accomplished. We are hoping we could still get 200 gpm out of the well. General Manager Mackley added that it is unlikely the pump is stuck on gravel, as was previously thought, the annular spacing is too large and with the force they have used to try and lift the pump the gravel would have been crushed. It could be the casing has shifted, or a bolt or a flange. Before these problems we were pumping 250 – 300 gpm. During the original test pump, they were pumping about 500 gpm. This was one indication of the iron bacteria problem because the performance of the well decreased.

We got the new truck licensed and are ready to put it to use.

As we need to replace PRVs we will replace them with stainless steel; the copper and brass are just not holding up to the water.

The backup well is running primarily in Bothwell, we are not running the Newman well right now.

We have a part-time summer helper starting next week. He and Richard will be working on replacing meters, putting stairs in some of the vaults, working on PRV's, and lots of weed control.

Trustee Reports

Jay Capener – The water is in the canal. It has been nice to get some rain, we are happy.

Jay Carter – Not much rain, no water in the creek, we are not as happy as Jay Capener.

Russ Howe – We have been working with the State the last couple of days trying to figure out where all the water is leaking (after the Water Use Data Reports were submitted).

Mark Larson – As per the request of the General Manager, he tried to contact all the independent water systems. Some of them have returned calls. He specifically asked about water needs.

--Marble Hills biggest concern is a backup source. They are looking at drilling another well. They questioned if they would need to apply for a new water right for a backup well. General Manager Mackley explained they would have to submit a change application under their current water right. This does not enlarge the water right they have, just allows for a second point of diversion.

--Willow Creek was wondering if there is money available through the CARES Act. General Manager Mackley answered that they might be able to get money from the Infrastructure Act. It is designed for small systems that need help. There are a lot of engineering firms that would be able to help them navigate through the process.

There was a discussion on an area north of Garland, near Plymouth where a trailer park is located. A couple of years ago, the State asked the District to see if there was any help the District could give them to get good quality water. Brian Shaffer added that Todd Lish has purchased 24 connections and is going to extend the line. This will bring the line about one half of the way to the trailer park. The trailer park does not qualify for State money because they are not a public entity, they are a private, for profit company. Chairman Fridal added they did not qualify for money from the Drinking Water Board. There was some talk of a public water supplier stepping in and taking over their water rights, but so far nothing has been done towards that. The current ownership of the trailer park is unknown.

Neil Capener – The problems in Riverside North Garland (RNG) just seem to compound. There is another 50-home subdivision approaching for water. The growth rate is out of sight. RNG and Ukon Water Company (Ukon) have hired Hansen Allen & Luce to do a study on purchasing other wells and purchasing more water from the District and how that will affect both entities. General Manager Mackley has been sharing a lot of the information for the study from our Master Plan with the engineers. RNG and Ukon are awaiting the results of that study to make a better decision to select future water supply sources. Mr. Shaffer added it makes sense now to share and work with RNG because there are a lot of things they can do together that neither one can do alone. The two entities are sharing a water operator and it has been a terrific partnership. It makes sense to combine resource to find a new source of water and this will benefit both company's best interest. The companies are not trying to combine but see the benefits of sharing resources.

Richard Day – There is another 4 to 6 inches of snow up behind Pineview.

Charles Holmgren – To follow up on what Jay Capener and Jay Carter both said, he measured .82 inch of rain at the farm from the two-day storm this week. Looking at the records for the last 3 years, we are twice as well off as we were one year ago, they measured .42 for the month of April, and 2 years ago they had 3.82 inches, that was too much of a good thing. His sister that lives in Denver reported this year they have had the most snow they have had there in 85 years.

There was a Bear River Commission meeting last week and they had some interesting information from Pacific Corp. and NRCS. They are reporting the stream flows state-wide are 80% below normal and most are in the 10th percentile, and that includes this basin. Part of it was due to the colder weather slowing down the snow melt.

The canal was opened Monday and there is concern from Pacificorp that they are going to have to turn the pumps on at Bear Lake. Pacificorp and the irrigators below Bear Lake are already having conference calls twice per week. In comparison, last year it was only once a week, and they did not start until June. This is concerning for Bear River Canal Company to have to start pulling water out of storage this early it will be hard to make it to the end of the irrigation season. Charles has been working with Trevor Nielsen, the GM of the canal company to provide him with information of how some of the other dry years were managed through a critical situation to make it to the end of September for irrigation. At the Bear River Commission Meeting, Pacificorp (Utah Power and Light) kept records back to 1904 and Conley Baldwin, the hydrologist for Pacificorp was saying in the last five years, Bear Lake has not completely frozen over. This is the first time they have gone 5 years in a row without the lake freezing over.

Bear River Commission is going to have a tour this summer, primarily in Franklin County Idaho. The Commission is relocating their office from Bountiful to Farmington.

Next month's Board of Water Resources meeting has been canceled due to lack of business. Generally, the Board of Water Resources tries to be very supportive of municipalities, they were surprised to see the interest rate that Tremonton City got on a private loan. The Board could not have matched that rate.

Jeff Scott – We need some rain.

Dave Forsgren – No report

Roger Fridal – Not a lot going on in Tremonton.

General Manager's Report – Carl Mackley

General Manager Mackley began by asking if Tremonton City has had any discussions about interest in purchasing water from the District. Chairman Fridal replied that yes, they want to have further discussions with the District for future needs. With the secondary water system that has been put online they are alright for now. Tremonton is growing significantly, since January 2021 there have been 304 building permits issued for single family units, plus some apartments. It is a lot of growth, but Mr. Fridal's opinion is it is better to have people building in the cities and help preserve the farm ground. Tremonton is planning for the future and will need additional culinary water within five to 10 years. Tremonton would like to set up a meeting between the two entities and work out an agreement.

Availability of Bothwell Water Supply

General Manager Mackley stated that we need to know what the culinary water demand will be so the water going to the sod farm can be adjusted and/or written into a new agreement with the farm. We could probably sell all the water under our water right; this is why we are contacting the other water suppliers in the Bothwell area to know what their needs are. This also allows us to give the farm information on the water availability for the next 3 to 5 years and this may include a new agreement with them. We need to have a conversation with Tremonton City regarding possibly wheeling more water to Riverside North Garland and Ukon Water Company. We are currently operating under an understanding, but it is limited to 100-acre feet per year. The District would like to increase that amount

and to have a written agreement. There was a short discussion on the needs of Tremonton and Riverside North Garland for future supply and the delivery of the water.

Board Member Howe added that he has spoken with Bothwell Water Company to see if they wanted to keep their current contracted amount or to increase it. They reported they want to keep the current amount. They are willing to address a new 20-year agreement when the current contract term expires.

Thatcher Penrose would like to increase their minimum amount by 5 acre-feet in 5 years and 5 more acre-feet in 10 years. There was a discussion of developers applying for well permits to supply water to lots in the county and farm ground being developed where water is not available, and the price of water.

General Manager Mackley reported he attended a water right application hearing for Todd Lish's application north of Fielding. The District did not protest the application, but we did write a letter of concern due to the water quality in the area. The Bear River Canal Company did protest the application and raised the question of the policy of the valley and are asking for changes from the State Engineer. The concern from the Canal Company is when applications are filed in the valley, the Bear River Club Company files a protest. The Bear River Club Company accesses canal shares (as mitigation) to satisfy the protest. General Manager Mackley added it was about 10 years ago that the State Engineer set the interim policy that the valley would be a single-family domestic use only, all other applications would be held. At the end of 2017 and the beginning of 2018, they came out with the policy that said there was 10,000 acre-feet of additional ground water available for appropriation in the valley.

Part of the problem is the best water sources in the valley are all on the perimeter. The groundwater quality and aesthetics of the interior of the valley floor is generally not as good as on the perimeter. It would be beneficial to have some dialog between the District, the Bear River Canal Company, and the Bear River Club Company to have a better idea of what each entity is thinking regarding new applications in the valley. There are many different ideas. One potential idea is to use shallow irrigation wells in the valley for use as secondary irrigation systems with water that is recharged from the canal return flows and to save our culinary water for indoor use only.

There was a discussion on water storage using Bear River Canal Company winter livestock water, storing it and saving it for later use. There cannot be real planning in the county without conjunctive planning by the canal company, the District, and the public water suppliers. There were some thoughts exchanged regarding shallow irrigation wells, and how viable they would be if the ag land is no longer irrigating to recharge the wells. Board Member J. Capener asked the question at what point does it make more sense to develop in the Bothwell pocket where the water originates instead of building several miles of pipeline to send the water out of the pocket to Tremonton, RNG and other water suppliers. It would also devalue our property if there were no irrigation water.

South Willard

On April 27th Robbie Thayne, General Manager Mackley and Richard Williams all met with Ron Warren with Petersen Brothers Drilling. It was hard to know what all to tell him had happened in the months that Rod Mund had spent working on the well. So, when the meeting was over, Robbie and General Manager Mackley called Rod and asked him to meet them up at the well next Monday morning at 9 AM so that we can go over what he has done with the well and what his plan would be for trying to

rescue it. This is a follow up to the request from the Board at last month's meeting to get numbers on drilling a new well or trying to rescue the existing well. We are still waiting on estimates for each option from our engineer.

Meanwhile, Ron Warren is going to have a camera run down the well for \$750+ dollars (half a day) to see what he can see down the hole. The pump bowls are 9.25-in. diameter inside a 10-in. outside diameter casing. Ron believes that space is plenty big enough for gravel to pass through. He also noted that they know that the pump is literally on one side of the casing at depth because a chemical feed tube was installed there. Ron looked around at all of the pieces of column and shaft and oil tube that were lying around (mostly 6-in. column) and said "*what a mess*" and that "*it was obvious that Rod and his crew had tried a lot of things to get the pump unstuck.*" Ron's worry was that as you start to get into something like that, if things get worse and it gets more stuck, then your likelihood for a good outcome gets slimmer. He has seen the stuck pump issue several times before and noted that usually big things; tools, welds that have come apart, pieces of pump, etc. are what gets them stuck in there. He absolutely doesn't think that the gravel is the culprit. He also doesn't think it is getting through the slots and neither does Robbie.

Ron said that he would likely charge \$225/hour to work on the well. Rod Mund quoted a price of \$200/hour. Ron seems a little more knowledgeable than Rod does. At minimum, Ron is better at communication than Rod is. Ron's plan of action is to first run a camera down the well and look for anything that looks abnormal and might give an indication as to whether or not there is something very large jammed in where it shouldn't be that would be contributing to the blockage. If nothing looks concerning to him, Ron's plan is to grab onto the oil tube and shaft from the top and attempt to break that free of the pump at the bottom where it goes into cast iron. He thinks it is most likely to break there and if it does, we can likely drill the rest of the pump down and perforate inside the column and put a 300 gpm submersible pump in the well. If the pump itself is full of gravel, that is going to be a bad sign. Ron was super open and honest with us and gave us more direction than we could get out of Rod Mund. Robbie and General Manager Mackley are now more equipped to ask Rod key questions when we meet with him next week.

General Manager Mackley asked the Board Members for direction on how to proceed. He likes the idea of running a camera down the well first. We are also meeting with Rod Mund next week. It is hard to wait until the next board meeting to decide how to proceed. We would like to spend a little money to run a camera down the well. This should help us to have confidence that we can either get more of the pump pieces out of the well casing then drill the rest down and use the well again, or confidence to know if we need to drill a new well.

Vice Chairman Forsgren suggested after we have run a camera run down the well and have an idea of what can be done, that we call another board meeting to give direction to the General Manager on how to proceed.

Beaver Dam Service Connection Policy

We have reviewed our Impact Fee Study that was done in 2012 and it has been very helpful to remind us what our Beaver Dam Connection Policy is. When we took over the Beaver Dam system, we got 37

acre-feet of water. Our Impact Fee Study determined we could do 52 connections, of which 22 were existing. The problem with the study is it needs to be updated to reflect what the new uses are going to be. Five additional retail connections have been sold since the original 22 in years past and we have sold five additional connections so far this year. The study uses an equivalent residential connection (ERC), which is .72 acre-feet per household per year. Our current usage is about .45 AF per connection, which is low because most of the existing customers have their own wells, the new connections will not have wells, so we need to account for that in the number of connections we are selling. There will be buildout on this system at some point. We can collect additional water rights, which the study addresses as well. We would like to make an addendum to the Impact Fee Study and have the Board adopt it at next month's board meeting. The current developer has purchased 400 acres in Beaver Dam. He has requested connections and has gone back and forth on the number of connections wanted with four connections as the initial request.

Closed Meeting

Purchase, exchange, lease or sale of real property

Board Member Scott made a motion to enter a closed meeting. The motion was seconded by Board Member Day. There was a roll call vote: Jay Capener, aye, Jay Carter, aye, Jeff Scott, aye, Jay Carter, aye, Russ Howe, aye, Mark Larson, aye, Neil Capener, aye, Richard Day, aye, Charles Holmgren, aye, David Forsgren, aye, Roger Fridal, aye.

Board Member Scott made a motion to end the closed meeting and return to the open meeting. Vice Chairman Forsgren seconded the motion. There was a roll call vote: Jay Capener, aye, Jay Carter, aye, Jeff Scott, aye, Jay Carter, aye, Russ Howe, aye, Mark Larson, aye, Neil Capener, aye, Richard Day, aye, Charles Holmgren, aye, David Forsgren, aye, Roger Fridal, aye.

A motion was made by Board Member Scott to authorize the payments to the landowner of the Flat Canyon Well as discussed. The motion was seconded by Board Member Day. All Board Members voted in favor.

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

The meeting adjourned at 9:30 PM.