Bear River Water Conservancy District
Board Meeting
Wednesday October 26, 2022 6:00 p.m.
Bear River Water Conservancy District Conference Room
102 West Forest Street, Brigham City, Utah

Minutes

Trustees Present: Roger Fridal, Charles Holmgren, Neil Capener, Jay Carter, Joe Summers, Jeff Scott, Mark Larson, David Forsgren, Richard Day, Jay Capener, and Dennis Bott-arrived at 7:30PM

Absent:

Staff: General Manager Carl Mackley, Assistant General Manager Jeff Humphrey, Systems Operations Chance Baxter, Administrative Assistant Jill Jeppsen

Other: Reo Mackley, Kelly Lemmon, Connie Lemmon, Scott Lyons

Chairman Roger Fridal: Welcome
Invocation: Joe Summers
Pledge of Allegiance: Richard Day

Declaration of Conflicts of Interest: None

Adoption of the Agenda

A motion was made by Board Member N. Capener to approve the agenda. The motion was seconded by Board Member Larson. Chairman Fridal, Vice Chairman Forsgren, Financial Chairman Holmgren and Board Members Summers, Day, Carter, J. Capener, and Scott voted in favor of the motion.

Public Comment

Kelly Lemmon was granted 2 minutes to address the Board: "*I was bothered by the statement at the last meeting that I attended when there was a discussion on the status of the non-production well in Collinston and no comments would be taken or questions. I am here to represent the Collinston community, the well and spring owners. The first question I have is, all the board members have read the test plan, you understand what is in the test plan. My concern is with dumping test water, well basically the State has a concern with dumping the test water right adjacent to where the point of diversion of this well is going to be. Obviously, that can be an impact, potentially to what the results will be and what the well will do, it kind of muddies the water, so to speak. Our concern, also, because the State had that concern the District came back with 'let's do a pre-test on this'. This pre-test is scheduled for November, but what that is going to do is going to be dumping another 1.25 million gallons of water into this holding pond, right adjacent, again, to where the point of diversion of this well, the non-production well, is going to be. To us, that artificially impacts the aquifer. It takes the water from 3 miles, or how far south it is, out of an existing system, culinary water that could be used, beneficially, that is going to dump it on the ground to determine what that water, by dumping the water right adjacent to the well, what that is going to do. So, our concern is that basically that is going to artificially impact the aquifer so that when the actual test of 1.25 million gallons takes place, that is going to impact that. Potentially, it's going to artificially impact that aquifer. We don't even know where that water is going to go. It is not an apples-to-apples comparison, the two tests can be run at different seasons, potentially, drought conditions will be different, there is just a whole lot of things that impact*

that. We would prefer that what the State originally proposed that the water would be piped away from the area. There is a canal west of us, and a river west of us, there's another pond to the west of us. We would like to see when you do the test be more of a real comparison of how it is going to impact the adjacent wells and springs. We want that water away from us, so it doesn't impact that. Why would you take 1.25 million gallons of water in a drought year and dump it on the ground. Now I understand that some of that's going to go in the ground, but with the emphasis, this is not pre-production water, this is production ground water, would you really dump that on the ground? That's almost 4 acre-feet, that's 3.8 acre-feet of water to be dumped on the ground, strictly for the purpose of a test. Let's don't do that, let's move that water to the west when you actually do your real test. And don't impact the aquifer, and don't waste the water and don't muddy the hole, so to speak, because again, there's no way it can be an apples-to-apples comparison when you do the test, or when the actual production well is tested.

One more concern I have. When I look at this board, there is a lot of representation on this board. There are a lot of people here that represent different entities, the canal company, communities, Tremonton, Brigham City, various places. We, as Collinston residents feel like we are still not very well represented. We submitted a petition back in March at one of the board meetings here with 111 signatures on it, requesting withdrawal of this application, and we didn't expect it to be done, but to date we have had no formal response, or an informal response to that petition. We have heard nothing back from this board one way or the other on that. We know what your answer is, because of the way things have gone, but we had no response back. We have been informed that Mr. Forsgren is our representative, I would question, and I have talked with several people in our community, and he has not contacted any of us, at all. So, I guess I am raising the question of how well we are being represented. As I looked at the mission statement of the Bear River Water Conservancy District part of their mission statement is to protect and preserve water rights, you guys are the ones that should be representing us, really, and protecting our water rights. Thanks for your time, I appreciate it."

Approval of the Minutes for the Board Meeting held September 28, 2022

The minutes of the Board Meeting held September 28, 2022 were included with the packet that was provided to the Board Members.

Vice Chairman Forsgren made a motion to approve the minutes of the meeting held September 28, 2022. The motion was seconded by Board Member Larson. Chairman Fridal, Financial Chairman Holmgren, and Board Members J. Capener, N. Capener, Day, Carter, Summers, and Scott voted in favor of the motion.

Financial Chairman Charles Holmgren – Financial Business, Approval of Financial Statements

The financial statements for September 2022 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 Carter to approve the September 2022 financial statements as presented. The motion was seconded by Vice Chairman Forsgren. Chairman Fridal, Financial Chairman Holmgren and Board Members N. Capener, J. Capener, Summers, Day, Scott and Larson voted in favor of the motion.

Systems Operations Report – Chance Baxter

South Willard – The well is 100% back on-line as of last Thursday. We are waiting on a permit from the State due to the changes in the chlorination process. We have been filling the tank, it is nearly full. We are wanting to offer a tour of the system to the board of South Willard Water Company, our board members are invited to attend, also. We are looking at an evening towards the end of next week. We will send out information when it has been decided.

Harper Ward – We completed a four-month monitoring program on the Harper Spring pond. Kylee and Jeff worked on this. They put the data together and interestingly, the data matched up almost perfectly with a study that was done in the 1950's.

Bothwell – We have not had any issues this month. Chanshare is nearly out of their water allotment for this year.

Collinston – We have Rupp's excavating the well pad. It should be completed tomorrow, if all goes well. We did have to remove a large section of chain link fence to make room for the construction. The well pad looks good. The pad is 250 ft x 75 ft. This is the first step; the next step will be to install monitoring devices. We have six on order for those that have agreed to let us monitor. This will give us baseline data before the non-production well is drilled next year.

Tremonton Booster – Friday, around 4:30 PM I began receiving calls from the presidents and staff at Riverside North Garland water and UKON water saying their system pressures were up to 180 psi. We thought it was an issue on their end, but reached out to Paul Fulgham at Tremonton, they had a major leak last Thursday. This is their second leak under a canal this season. After the leak was repaired, they turned on all their pumps to fill everything back up and had a PRV station that failed. We sent one of our operators out there, Tremonton was at 190 psi at the top of the hill. 110 psi-117 psi is normal. They were able to find this PRV and bypass it to get the pressure down. There is SCADA capability to monitor pressure at our booster station, but it has not been working. We have someone coming to reinstate the SCADA monitoring so we can get an alert if it ever happens again.

Questions were asked regarding the South Willard well operations. We have tested the water, there is evidence of iron bacteria, so we are running the well like it is a spring. The data we have says the iron bacteria does not show up if there is activity. The new chlorine system has been installed. We are working on a plan for best practices on the system, to keep everything moving and be the most efficient. The well is very happy at 100 gpm, the draw down is very little at this rate.

There was a discussion on the operation of this system going forward.

General Manager's Report – Carl Mackley

First of all, I want to address the false notion of wasting water into a pond, which applies to activities in Collinston and South Willard. A lot of people have heard of aquifer storage and recovery (ASR), which is no longer a correct terminology. Typical ASR projects in the past would be to find a gravel pit, discharge water to it, have it recharge the aquifer then go back and pump water out of the aquifer at a later time, trying to recover the water you recharged into there. Now this practice is very much more nuanced. It is getting more specialized. It was more experimental 10 years ago. Now it is more utilized in different areas. I would say that the activities we are doing in both Collinston and South Willard are what is now called Managed Groundwater Recharge (MGR) activities. It is the same thing, just a different acronym. The water is recharged into the aquifer at a certain location. The nice thing about doing this is that it is the opposite of doing a pump test. You can learn a lot about an aquifer with a pump test, you can also learn a lot about an aquifer with a recharge test. In my opinion this would not be a waste of water, it goes into the ground quickly, it is not evaporating, it is being recharged into the

aquifer, and in the case of Collinston there will be monitoring equipment in place, so we will be able to learn a lot of how that will impact the aquifer.

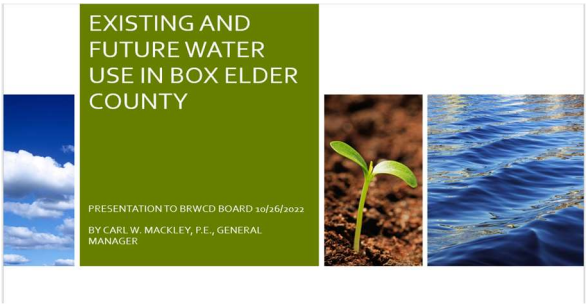
Board Member Carter asked about the purpose of the first test – to empty the tank into the pond before doing the pump testing. Because we are discharging water in close proximity to where we are taking the water from, there is concern that the activity could mask local impacts. If we had our application approved and drew water from the aquifer, it would go into our Collinston system and it would be moved further out into the system and not directly recharged in that close of a proximity to the area. There are a lot of problematic reasons why we do not have an affordable way to discharge that water anywhere else, so an MGR activity is a good idea in this case to do as a pre-test. This process was approved by the State Engineer's Office and specifically with their well drilling group.

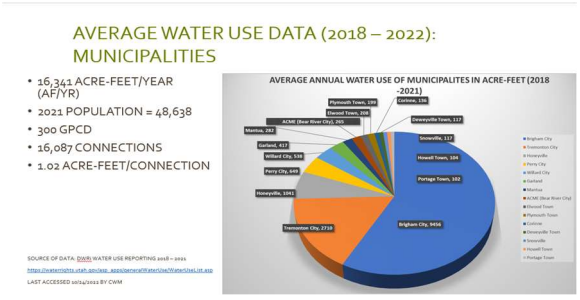
Board Member Carter asked what the percolation time might be when you test the well? In his experience, the water you are pumping out would never have time to percolate back down into the system. The answer was any answer would only be a guess. We are guessing there will be a lag time, some delay, this is what the pre-test will tell us. We intend to discharge the same amount of water for the pre-test that we will repeat in the future for the pump test of the proposed well. We will have the monitoring equipment in place for 2 to 3 weeks to get a baseline reading before we conduct that test. The non-production well will be drilled next year, and we will collect additional data. Assistant General Manager Humphrey explained the monitoring equipment will remain in the wells for five years and we should be able to see what the lag time is for that water.

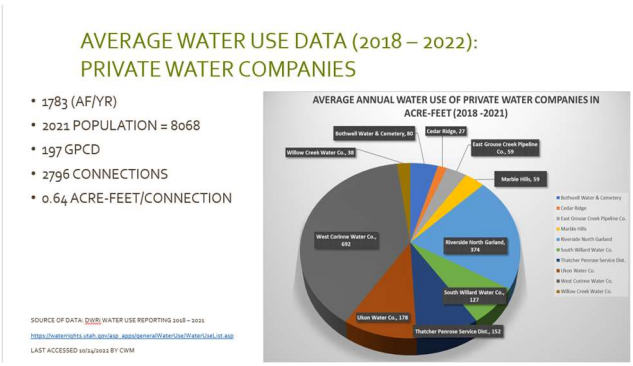
Board Member Items

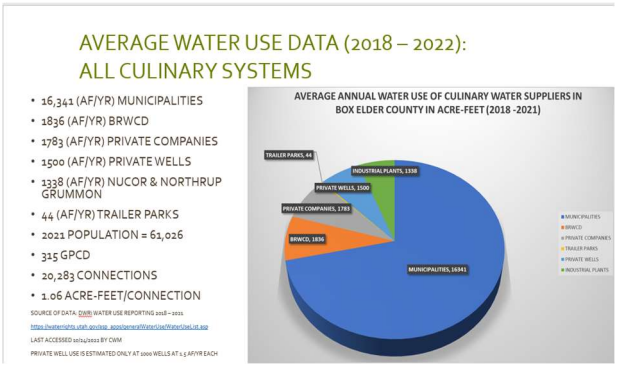
A. Future Water Supply

General Manager Mackley gave a presentation to the Board on the existing water and future water needs in Box Elder County. The data provided in the slides is from 2018 to 2021, it is the public water use data in the county.





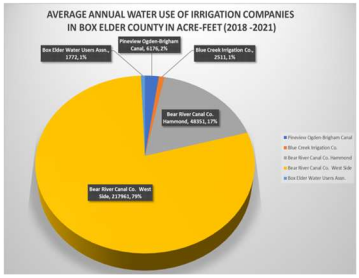




Private well data is estimated

AVERAGE WATER USE DATA (2018 – 2022): IRRIGATION COMPANY WATER

- 1783 (AF/YR)
- 2021 POPULATION = 8068
- 197 GPCD
- 2796 CONNECTIONS
- 0.64 ACRE-FEET/CONNECTION

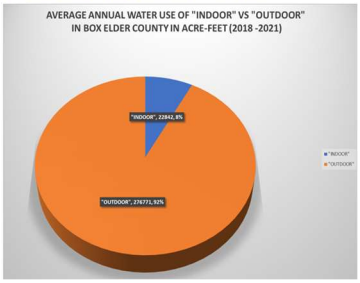


SOURCE OF DATA: DWRi WATER DISTRIBUTION/REGULATION 2018 – 2021
https://www.waterrights.utah.gov/distinfo/distribution_systems.asp
AND WATER USERS CLAIMS ON DWRi WEBSITE
https://www.waterrights.utah.gov/
LAST ACCESSED 10/24/2022 BY CWM

Does not include irrigation companies in the Raft River area
Estimating Pineview water use 30% to BE County and 70% to Weber County
Blue Creek in Howell and Box Elder Creek water users, data is what their water rights allow, there is not usage data. Both companies are limited by their beneficial use.

AVERAGE WATER USE DATA (2018 – 2022): CULINARY WATER VS IRRIGATION COMPANY WATER

- "INDOOR" = MUNICIPALITIES + BRWCD + PRIVATE COMPANIES + TRAILER PARKS + PRIVATE WELLS + 2 INDUSTRIAL PLANTS
- "OUTDOOR" = 4 MAJOR IRRIGATION COMPANIES IN BOX ELDER COUNTY
- INDOOR = 22,842 AF/YR OR 8% OF TOTAL WATER USED
- INDOOR = 276,771 AF/YR OR 92% OF TOTAL WATER USED
- INDOOR USE COMES FROM UNDERGROUND WELLS, TUNNELS AND SPRINGS
- OUTDOOR USE COMES FROM SURFACE WATER FROM THE BEAR RIVER, OGDEN RIVER, BOX ELDER CREEK AND BLUE CREEK



SOURCE OF DATA: DWRi WATER USE REPORTING 2018 – 2021
https://waterrights.utah.gov/asp_apps/generalWaterUse/WaterUseList.asp
LAST ACCESSED 10/31/2022 BY CWM

8% indoor vs 92% outdoor for BE County; this is reflective of the agriculture nature of the county.

FUTURE PROJECTIONS

FUTURE PROJECTIONS

WATER SUPPLIER	GROWTH FACTORS			USE (ACRE-FEET)			ADDITIONAL COST ($M)			POPULATION		
CATEGORY	2041	2061	2121	2041	2061	2121	2041	2061	2121	2041	2061	2121
MUNICIPALITIES	1.5	2.0	2.5	24512	32682	40853	$81.7	$81.7	$81.7	72957	97276	121595
BRWCD	1.6	2.2	3.0	2937	4039	5507	$11.0	$11.0	$14.7	1622	2231	3042
PRIVATE COMPANIES	1.6	2.2	3.0	2853	3923	5350	$10.7	$10.7	$14.3	12909	17750	24204
TRAILER PARKS	1.2	1.4	2.0	53	61	88	$0.1	$0.1	$0.3	367	428	612
PRIVATE WELLS	1.6	2.2	3.0	2400	3300	4500	$9.0	$9.0	$12.0	4800	6600	9000
INDUSTRIAL PLANTS	1.2	1.4	2.0	1605	1873	2676	$2.7	$2.7	$8.0	0	0	0
TOTALS				34360	45878	58973	$115.2	$115.2	$130.9	92655	124285	158453

(22842 AF/YEAR EXISTING AVERAGE) AS A COUNTY, WE WILL NEED TO DEVELOP $5.76 MILLION IN NEW WATER PER YEAR.
THIS IS EQUIVALENT TO 576 ADDITIONAL ACRE-FEET/YEAR, 543 NEW CONNECTIONS/YEAR AND 1630 ADDITIONAL PERSONS/YEAR.

SOURCE OF DATA: REASONABLE LINEAR FUTURE GROWTH FACTORS APPLIED TO AVERAGE 2018 – 2021 DATA SHOWN HEREIN.
COST OF ADDITIONAL WATER DEVELOPED IS ASSUMED TO BE $10,000 PER ACRE-FOOT OR $1,000,000 PER HUNDRED ACRE-FEET BASED ON OTHER CURRENT WATER PROJECT COSTS

The total amount of water includes existing water, not only additional water
$10k per acre-foot is a constant, not adjusted for inflation

CONSIDERATIONS:

1. CONSERVATION EFFORTS
2. COUNTY, MUNICIPAL AND DISTRICT POLICIES
3. MASTER PLANNING EFFORTS
4. COSTS
5. ADDITIONAL WATER SOURCES
   - EXISTING WATER RIGHTS
   - EXISTING IRRIGATION SHARES
   - ADDITIONAL GROUNDWATER DEVELOPMENT
   - BEAR RIVER DEVELOPMENT
6. BASIN PARTNERSHIPS AND WATERSHED COUNCILS

If it costs $10,000 per acre-foot to develop new water, and we can conserve an acre-foot at a fraction of the cost, it seems worth doing. As an example, during our drought response program that we had in place July 2021 – June 2022, there was a total reduction of 567 acre-feet of use from District customers compared to the previous period (July 2020 – June 2021). If we apply the $10,000 per acre-foot to the amount of conserved water, that is approximately equal to the amount of water needed for one additional year of developed water, and which would have an approximate cost of $6 million, if it were developed.

Water use can vary from year to year for a multiplicity of reasons. We can do a better job of conservation. When you compare the cost of developing new water to conservation, it can be powerful. Board Member J. Capener asked; *"what kind of things are effective in conservation?"* General Manager Mackley responded that outdoor use is where you can move the needle the most, if you can convince people to change outdoor use habits from what has been the 'norm' in the past. In counties south of us, where they have more money, they have paid people to remove turf especially from park strips. There is an applied savings to that. They incentivize turf removal by paying people to do it. It is also why when we have hot, dry summers people tend to use more water, yet those are the years it is typically not available. We have some ideas in the works on how we can influence how our customers use water outdoors.

There was a discussion if secondary water systems negatively affect conservation efforts because it is a separate system from the culinary water system and because of the cost associated with the water. The discussion included secondary meters and the cost associated with them. Studies

have shown that in the surrounding areas secondary water will cost more than culinary water within a few years because of the cost of metering. General Manager Mackley added that in general culinary water is too inexpensive and separating the two is a good idea where you can do it. There are some strategies that can be followed in areas that don't have secondary water availability to account for them separately. Conservation efforts cost money but in general it is cheaper than developing new water.

What policy ideas do we have? Do we have policies in place that consider the state we are in? Usually, these types of actions are not taken until there is a need. When population numbers get to a certain level, then we realize there is only so much water, and we need good policies in place on a county level and at a water supplier level; whether that is a municipality, a private water supplier, the District, or even individuals. Best management practices and policies, need to be revisited. Having a Master Plan is not the same as the policies.

General Manager Mackley asked if Scott Lyons, Box Elder County Community Development Director wanted to add anything to the discussion. Mr. Lyons said the county is in the process of revising its subdivision ordinance. This is the ordinance that deals most with water. But the county does not own or operate any water systems, so they don't want to tell water operators how to run their business or their water systems. We can put policies in place regarding what a developer is required to do in order to develop land. The current subdivision ordinance is from 2006, and there has been a lot that has happened in the past 15 years. As we are revising it, we are looking at ways to require more obligations from the developers. One of the issues we are facing now in a lot of the unincorporated areas in the county is they are dealing with one of the 10 private water companies listed in the slide presentation. Often times some of them are happy to sell water and some of them are using water as a way to control growth. What we are seeing now, since the State Division of Water Rights opened up the groundwater appropriations in the Bear River Valley in Box Elder County, developers are developing the water by filing applications for individual well permits in their proposed subdivisions, rather than getting the water from public water suppliers. Instead of having a better plan and organized growth in water development via the water companies, we are seeing holes getting punched in the ground everywhere by the developers. We would rather see a water company work with the developers and the developers fund the water company's new development of water. Some of our policies may try and encourage that process.

General Manager Mackley asked Mr. Lyons about the letter that was sent to the County from the Bear River Canal Company, Pineview Water Systems and the District, with best management practices and suggestions that the County could consider in revising their subdivision ordinance. Is there helpful material in the letter? Mr. Lyons said overall they are good suggestions and are in line with things that were being considered. It is a matter of the best way to implement them. General Manager Mackley added that we need to have a county-wide plan for developers to follow and not have each subdivision be different. It should be a policy that county residents have input on.

Financial Chairman Holmgren added it is important going forward that the District and irrigation companies and all the water suppliers are communicating support or corrections. It would be good to coordinate with the county planning. The discussion continued talking about a lack of incentive for developers to work with the water suppliers if they can get a permit for their own water and not have to contribute to the water suppliers. It also comes down to the planning that each water supplier has for funding future projects, and the timing of those projects. If projects are done ahead of the need, the State Engineer cannot approve an application for a developer if there is water available from a public water supplier.

Mr. Lyons explained the current policy when a developer comes in, they need to get their water from a culinary water supplier. If that supplier provides a letter that they cannot supply water to that development, then their next step is to go to the State to ask for a well permit. Since the County does not own or operate water systems, then it is treated like any other utility. The developer must show that

all utilities can be supplied to the development. If the water supplier cannot provide the water, they can go to the State. If they are approved then they can continue with the development. General Manager Mackley added one of the items included in the letter of recommendation is if there is a development larger than 3 lots, that there be an ordinance that they must connect to a public water supplier, if it is available. This would allow a certain amount of property rights to those that want to subdivide for their family.

The discussion continued with Board Member Scott talking about the specific wording 'if it is available'. The developers are not concerned about where the utilities come from. They just want to sell the lots. There was talk about the District's role in providing water to other suppliers that in turn can provide water to the developments. It is the District's policy that it is better for us to wholesale the water to the other providers and let them collect the impact fees to use to build up their infrastructure. Infrastructure limitations were discussed and policies of individual water suppliers were discussed for a specific situation in Riverside North Garland and a specific situation in South Willard.

General Manager Mackley added that we are talking about shaping groundwater policy, the policy that came out in 2018. What we are talking about now is eliminating that policy and there are already some efforts being made by the State Engineer to amend that policy. If we are saying no one gets to drill anymore private wells, that will have its own set of consequences that may or may not be good. If there is no more ground water to develop the only other source will be to develop Bear River water.

There was a discussion on what do we want the District's roll to be? Board Member Bott stated that he believes a developer should have to come to the District for water before they go to the State. And we would work with the developers and the water suppliers to facilitate a way for them to get water. It is also our policy that we cannot provide water in another water suppliers service area unless the developer has a denial letter from the water supplier. The policy was shaped to support the existing water suppliers by wholesaling them the water so they can retail the water and collect the impact fees. Some of the private water companies are resistant to the idea, but there is a good methodology behind why that works well. Some of the private water companies are catching on to the idea. The District can do certain things a private water company cannot do. Getting funding is one of them.
The question was raised if the State Engineer has a definition of 'reasonable' amount of time? The developers are only wanting to do a project they can do in a year's time, but it takes time for a water supplier to complete projects. General Manager Mackley ended his presentation referring to the last slide and mentioning there are other considerations still. He thanked the Board for their participation in the discussion and the ideas that were brought up.

B. Fraud Risk Assessment

Jill Jeppsen presented the Annual Fraud Risk Assessment from the State Auditor's office. She pointed out that the worksheet for Basic Separation of Duties shows a few areas where we have mitigating controls in place since we have such a small staff. The District scored 375 out of a possible 395, meaning the risk is very low for fraud.

A motion was made by Board Member Scott to approve the Fraud Risk Assessment report as presented. The motion was seconded by Board Member Bott. Chairman Fridal, Vice Chairman Forsgren, Financial Chairman Holmgren and Board Members N. Capener, J. Capener, Summers, Day, Carter, and Larson voted in favor of the motion.

C. Employee Handbook Revisions

The updated Employee Handbook was included with the packet that was provided to the Board Members. It was noted the handbook was created from a template obtained from Employers Council and has had legal review. Major changes included the addition of a Work Environment section, vehicle safety, social media guidelines. Things that did not change included the amount of accrued time off, employee classifications, and employee benefits.

A motion was made by Board Member Larson to approve the Employee Handbook Revisions as revised. The motion was seconded by Board Member Day. Chairman Fridal, Vice Chairman Forsgren, Financial Chairman Holmgren and Board Members N. Capener, J. Capener, Summers, Bott, Carter, and Scott voted in favor of the motion.

D. 2022 Budget Amendments

The proposed 2022 Budget Amendments were presented to the Board. The largest change was the additional revenue from the ARPA grant received from the County and the increase in capital projects.

A motion was made by Vice Chairman Forsgren to accept the Amended 2022 budget as presented. The motion was seconded by Board Member Larson. Chairman Fridal, Financial Chairman Holmgren and Board Members N. Capener, J. Capener, Summers, Day, Bott, Carter, and Scott voted in favor of the motion.

E. Power Supply Agreement

The Power Supply Agreement with Rocky Mountain Power to provide power to the Flat Canyon well was presented to the board.

A motion was made by Board Member Larson to approve the Power Supply Agreement with Rocky Mountain Power with the refund option, and to allow General Manager Mackley to execute the agreement. The motion was seconded by Vice Chairman Forsgren. Chairman Fridal, Financial Chairman Holmgren and Board Members N. Capener, J. Capener, Bott, Summers, Day, Carter, and Scott voted in favor of the motion.

Trustee Reports

David Forsgren – Thanked the general manager and staff for hosting the Lead and Copper Rule Change Revision training with Marie Owens for the public and private water suppliers in the county. He thought it was very informative and helpful. This change is going to be a big deal for some of the cities.

Charles Holmgren – No Report

Jay Capener – No Report

Dennis Bott – No Report

Neil Capener – Added to the previous conversation about water supply, that J. Capener's dad had the foresight to submit for a well permit 20 years ago and all we had to do was drill it. We went to the State Engineer to get permission to drill it and he stopped it. It doesn't seem right that we cannot get a permit, but these developers can go in and get multiple wells approved for a single development. There is a time limit on a well approval of 5 years, initially. The law has been changed in the last 10 years that it can be extended for a public water supplier.

Mark Larson – Also expressed his thanks for the LCRR training. A lot of the small water systems had representation there.

Joe Summers – Our representative that came to the LCRR Training said it was very informative. Thanks to Carl and Chance for their help when the Hospital had its issues. Todd Thornley is on call to haul water to the Logan surgical center and said he is happy to help if this situation happens again.

Richard Day – No Report

Jay Carter – No Report

Jeff Scott – As Scott Lyons mentioned, there are a few policies under review at the County and some different ideas we have been talking about with the planning commission.

Roger Fridal – No Report

A motion was made by Board Member Larson to adjourn the meeting. The motion was seconded by Board Member Bott.

The meeting was adjourned at 8:30 PM.