



## **CONSERVATION PLAN 2021 UPDATE**

**BEAR RIVER WATER CONSERVANCY DISTRICT**  
**CONSERVATION PLAN**  
**2021 UPDATE**

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# CHAPTER 1 - INTRODUCTION

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## WATER CONSERVATION PLAN REGULATIONS

In response to the rapid growth occurring throughout the State of Utah and a sincere concern for the future availability and cost of the water supply, the Utah State Legislature passed and amended the “Water Conservation Plan Act” (73-10-32 Utah Code Annotated). This law requires water conservancy districts and retail drinking water providers to prepare a water conservation plan, submit the plan to the Utah Division of Water Resources and to update the plan at least every five years. The Board of Trustees of the Bear River Water Conservancy District (“the District”) shares those same concerns. The District will comply with the regulations of the Water Conservation Plan Act to prepare, adopt and update a Water Conservation Plan outlining conservation goals and objectives for retail customers and to support and encourage wholesale customers to be wise stewards of water by implementing best management practices for homes and their community.

### BACKGROUND

The Bear River Water Conservancy District was created September 8, 1988 by court decree, under the guidelines of the Utah Water Conservancy Act. The District’s mission statement states, the District will endeavor to conserve and protect water and water rights; develop and provide water for municipal, industrial, and agricultural use; and use these resources to best serve the residents of Box Elder County. The District is governed by an eleven member Board of Trustees appointed by the Box Elder County Commission. Eight geographical areas within Box Elder County have been delineated with one Trustee appointed from each area. In addition, a member of the Box Elder County Commission, the Bear River Canal Company and a person representing independent water companies serve on the Board.

The District’s service area includes the boundaries of Box Elder County. Box Elder County covers an area of about 6,594 square miles including approximately 1,000 square miles occupied by a portion of the waters of the Great Salt Lake. Box Elder is the fourth largest county in Utah with an estimated population in 2020 of 58,326, a 6.25% increase since 2010. The majority of this population resides in the Lower Bear River Valley.

The District currently has five public drinking water systems: the Harper Ward system, the Bothwell M&I system, the South Willard system, the Beaver Dam system, and the Collinston system. An estimated population of 735 is served by these systems. This was calculated by multiplying the number of active retail connections (226) by 3.25 average number of persons per connection. Usage numbers reported here are from 2016 -2020 plus January through November 2021. The number of active retail connections reported for each system are as of November 30, 2021.

## **CHAPTER 2 - BRWCD WATER SYSTEMS**

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### **BEAVER DAM CULINARY WATER SYSTEM**

A culinary water system was completed in 2012 in the Beaver Dam area consisting of three flowing springs, an arsenic removal treatment plant, a 200,000 gallon water storage tank, and several miles of 8-inch diameter water mainlines. A small booster station lifts water from two of the springs which are located lower in elevation than the treatment plant. The Beaver Dam community is situated on Highway 30 just east of the Bear River and just west of the Cache County boundary to the east. The system has a total of 42.25 connections sold (fraction is due to large meters) and serves 30 active residential connections and 1 institutional connection.

### **BOTHWELL M & I SYSTEM**

The District's wholesale system completed in 1996 is part of an overall master plan to provide additional culinary water supplies to augment existing public drinking water systems in the general vicinity of Tremonton City. The system consists of two separate water delivery systems. The west side system is located in the Bothwell Pocket and consists of two groundwater wells, a well house, a 500,000 gallon storage reservoir and transmission pipelines. This system wholesales water to Tremonton City, Thatcher/Penrose Service District, Bothwell Water Company, and the West Corinne Water Company to augment their existing supplies. There are 51 active retail residential connections connected to this system and 2 industrial connection and 2 commercial connections. The District wheels water from the west side system in the Bothwell pocket through Tremonton City's water distribution lines to a booster station located in East Garland to the east side system. The eastside system serves wholesale water to Ukon Water Company, Riverside/North Garland Water Company, and S & K Water Company.

### **COLLINSTON CULINARY WATER SYSTEM**

A culinary water system was completed in 2015 in the Collinston area consisting of two booster stations, two 500,000 gallon tanks, and a main distribution pipeline that will serve residents of the Collinston area as well as providing wholesale water to Ukon Water Company, Cedar Ridge and Tremonton City. A new meter station to provide service to Garland Town is planned for the future. The water for this system is provided by the town of Deweyville through a surplus water sales agreement. The system serves 55 active residential connections, 3 industrial connections, 3 commercial connections, and includes 45 dry taps (these connections do not enter into the calculations of water usage or GPCD). Collinston is located in unincorporated Box Elder County near Highway SR-38. The water system begins at Deweyville City limits and extends to Highway 30 on the north.

### **HARPER WARD CULINARY WATER SYSTEM**

The Bear River Water Conservancy District currently serves 89 active retail residential connections and 2 commercial connections in the unincorporated area of Harper Ward located between Brigham City and Honeyville City on Highway 38. The District has contracted with Brigham City for 100 acre feet of culinary water to serve these connections. The Harper Ward project was completed in 1995. Meter stations have been constructed on this system to serve ~~Corinne City, West Corinne Water Company and Honeyville City on an emergency case basis.~~

The District has purchased property for a well site and storage reservoir in the Harper Ward area. A test well was drilled in 2021 on this property to provide a new source for the Harper Ward system that will be owned and operated by the District.

### **SOUTH WILLARD CULINARY WATER SYSTEM**

A new culinary water system was completed in 2011 the South Willard area consisting of a groundwater well, pump station, 1,000,000 gallon reservoir and a main distribution pipeline that will serve the unincorporated area of South Willard from approximately 8100 South Hwy 89 to the Box Elder County south boundary line. This system serves 1 active retail connection, 1 institutional connection and 1 commercial connection. It also provides wholesale water to South Willard Water Company, and Hot Springs Mobile Home Park. There is a connection to provide emergency water to the Coleman Mobile Home Court. Pineview Water Systems will provide secondary water to this area. This effort is a result of goal #3 of the 2010 Water Conservation Plan. There are 2 planned developments in the Districts service area that will increase the number of retail connections when they are completed.

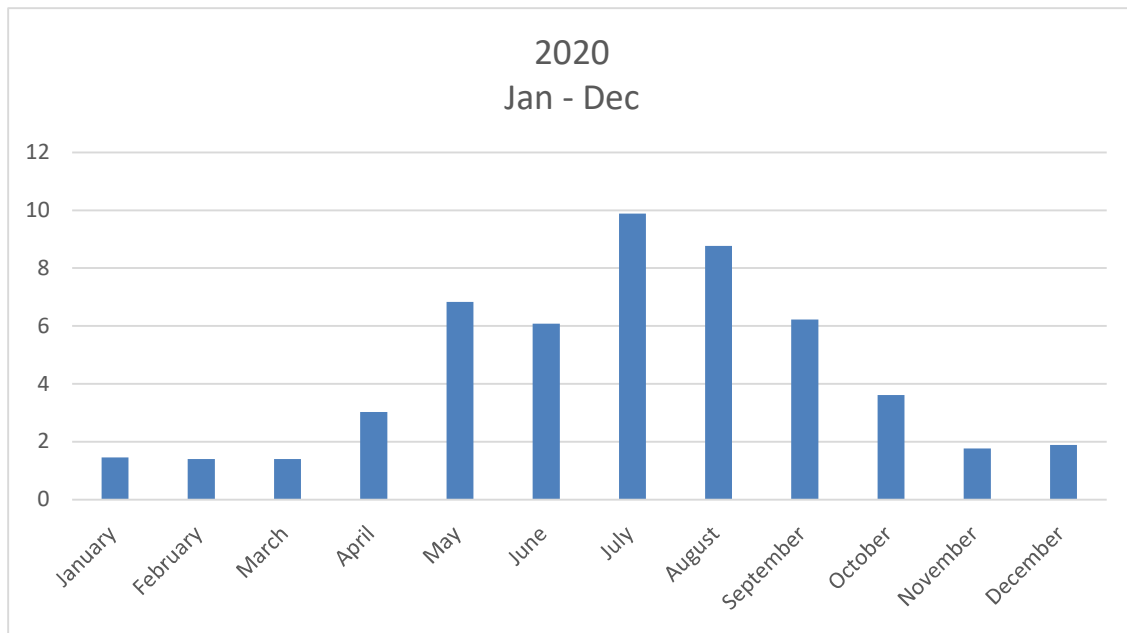
### **TOTAL WATER DELIVERIES**

Detailed monthly usage totals broken down by system and type of connection is included Appendix A to this report. This data was used to compute general system totals and look for trends in the data to determine if conservation measures are making an impact on the users of these water systems. The type and number of connections including the usage numbers from 2016-2020 plus January through November 2021 for all District service areas are presented in Table 1.

**Table 1**  
**Total Connections and Usage (All District Service Areas)**

<b>Year</b>	<b>Type of Connection</b>	<b>Active Connections</b>	<b>Total Usage K-Gall</b>	<b>Per Capita Usage (gpcd)</b>
2016	Retail	167	40,346	204
	Institutional	1	204	
	Industrial	3	991	
	Commercial	7	1,457	
2017	Retail	175	44,563	215
	Institutional	1	18	
	Industrial	3	1,220	
	Commercial	8	3,131	
2018	Retail	186	50,703	230
	Institutional	1	426	
	Industrial	4	1,212	
	Commercial	8	2,385	
2019	Retail	183	41,957	193
	Institutional	2	196	
	Industrial	4	1,192	
	Commercial	8	839	
2020	Retail	204	52,348	216
	Institutional	2	96	
	Industrial	4	923	
	Commercial	8	2,029	
2021	Retail	226	42,160	157
	Institutional	2	45	
	Industrial	5	968	
	Commercial	8	4,041	

Figure 1 below indicates the 2020 total monthly water usage in million gallons for residential connections for the combined systems.



**Figure 1: Monthly Average Residential Water Use (2020-All Systems)**

**BRWCD Residential Retail Systems GPCD Calculation (2020)**

52,348,000 gallons / 663 population

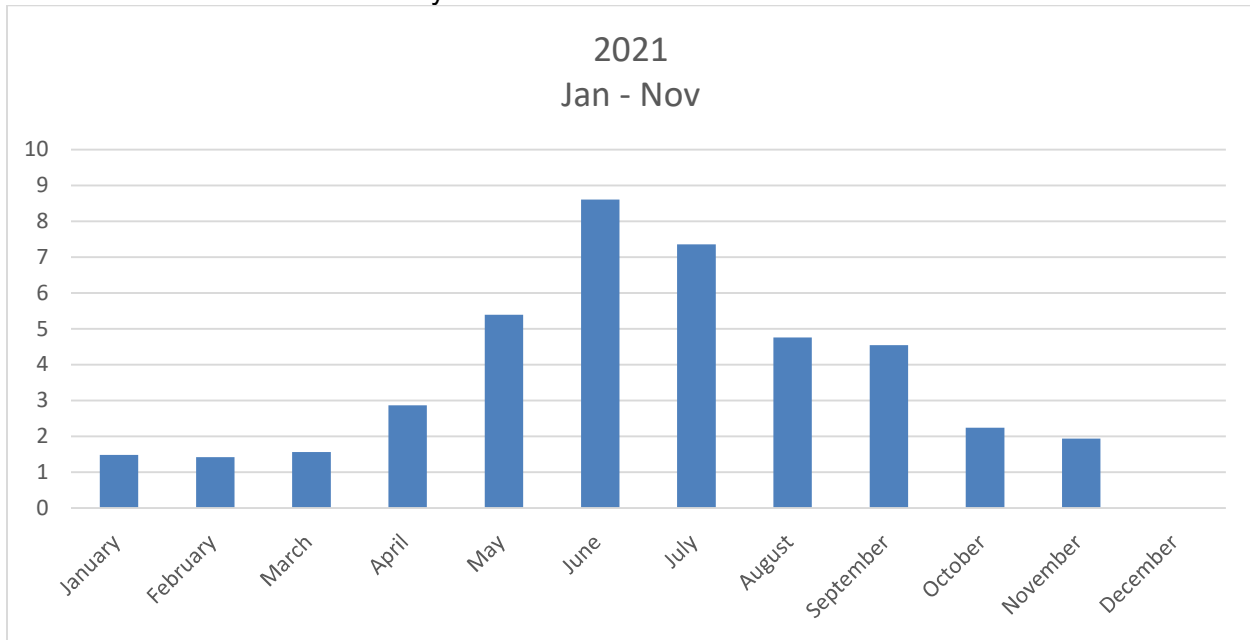
= 78,956 gallons per capita per year

78,956 / 365 days = 216 gallons per capita per day

(Approximate Population based on 3.25 people per connection)



Figure 1a. below indicates the 2021 total monthly water usage in million gallons for residential connections for the combined systems.



### **BRWCD Residential Retail Systems GPCD Calculation (2020)**

42,160,000 gallons / 663 population

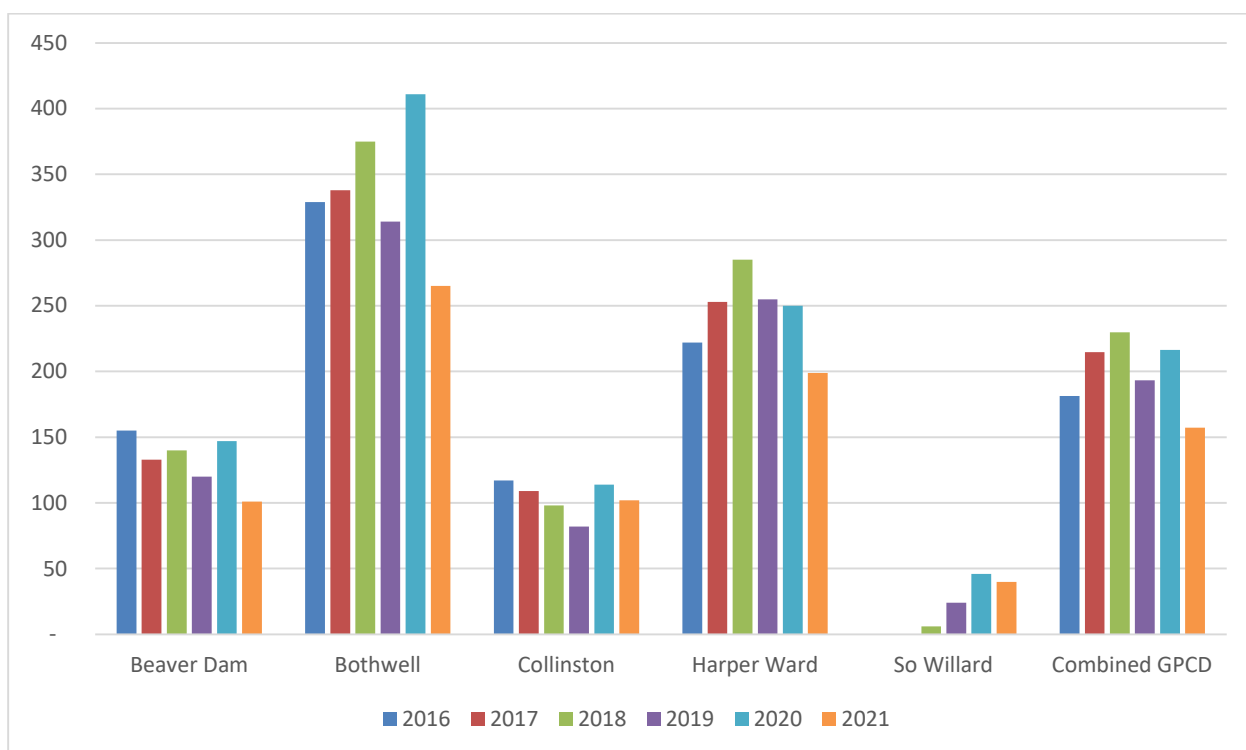
= 57,361 gallons per capita per year

57361 / 365 days = 157 gallons per capita per day

(Approximate Population based on 3.25 people per connection)

2021 numbers reflect efforts to reduce water usage during the drought. GPCD was reduced from 216 per capita per day to 157 per capita per day. (See more regarding the Drought Response Plan implementation on page 15.)

The estimated gallons per capita per day was also computed in the same manner for each individual system from 2016 to November 2021 to determine if any trends exist in the data. The results of that analysis are presented in Figure 2.



**Figure 2: Estimated Per Capita Usage BRWCD Systems (2016-Nov 2021)**

There is some fluctuation between the years which likely is a function of how wet or dry the conditions were in general.

The State has set a regional goal for the Bear River region to reduce the gpcd by 18% from 304 gpcd in 2015 to 249 gpcd in 2030. Total culinary water usage compared with the number of people served by BRWCD's retail systems is shown in the calculation above. The average BRWCD customer used 216 gallons of water per capita per day (gpcd) (all systems included) in 2020 and this number was reduced to 157 gpcd for the first 11 months of 2021. This is well below the projected goal of 249 gpcd.

BRWCD does not provide secondary water to any of these retail customers. Secondary water from private irrigation companies is available in the Harper Ward and South Willard areas. In the Beaver Dam and Collinston areas, some residents have individual private wells they use for irrigation and outdoor watering. In the Bothwell system area, there is one residential development where secondary water was provided by the developer from shares in the Bear River Canal Company that is being managed by an HOA. Therefore, the culinary water from these two systems being used for outdoor watering can only be estimated by comparing usage in the irrigation season.

## INVENTORY OF CURRENT WATER SUPPLY SOURCES

The current water supply for each BRWCD source is presented in Table 2.

Table 2							
Current Water Supply for Culinary Use							
Does not include wholesale sales							
System	Source	Annual Amount	Water Right				
Beaver Dam	Sleepy Hollow Spring/Lower East Spring/Lower West Spring	37.22 acre feet	29-693 (a37735)				Jan - Nov
	<b>Retail Sales</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
	Residential	4,093,000	3,508,000	3,845,000	3,306,000	4,044,000	3,206,000
	Institutional	204,000	18,000	426,000	143,000	53,000	18,000
	Total Gallons	<b>4,297,000</b>	<b>3,526,000</b>	<b>4,271,000</b>	<b>3,449,000</b>	<b>4,097,000</b>	<b>3,224,000</b>
	Acre Feet	<b>13.19</b>	<b>10.82</b>	<b>13.11</b>	<b>10.58</b>	<b>12.57</b>	<b>9.89</b>
Bothwell M&I	<b>Source</b>	<b>Annual Amount</b>	<b>Water Right</b>				
	Newman Well/Back-up Well	1,669.5 acre feet	29-1474 (a24585)				Jan - Nov
	<b>Retail Sales</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
	Residential	14,955,000	16,057,000	17,813,000	15,259,000	19,966,000	14,274,000
	Industrial			154,000	158,000	106,000	144,000
	Commercial	834,000	1,773,000	106,000	33,000	22,000	742,000
	Total Gallons	<b>834,000</b>	<b>1,773,000</b>	<b>106,000</b>	<b>33,000</b>	<b>22,000</b>	<b>742,000</b>
	Acre Feet	<b>2.56</b>	<b>5.44</b>	<b>0.33</b>	<b>0.10</b>	<b>0.07</b>	<b>2.28</b>
Collinston	<b>Source</b>	<b>Annual Amount</b>	<b>Water Right</b>				
	Surplus Culinary Water Purchased from Deweyville	250 acre feet	29-4020 29-4741 (a46389) pending approval				Jan - Nov
	<b>Retail Sales</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
	Residential	2,102,000	2,297,000	2,808,000	2,936,000	5,321,000	5,948,000
	Industrial	991,000	1,220,000	1,058,000	1,034,000	817,000	824,000
	Commercial	569,000	1,195,000	1,222,000	510,000	1,801,000	3,081,000
	Total Gallons	<b>3,662,000.00</b>	<b>4,712,000.00</b>	<b>5,088,000.00</b>	<b>4,480,000.00</b>	<b>7,939,000.00</b>	<b>9,853,000.00</b>
	Acre Feet	<b>11.24</b>	<b>14.46</b>	<b>15.61</b>	<b>13.75</b>	<b>24.36</b>	<b>30.24</b>
Harper Ward	<b>Source</b>	<b>Annual Amount</b>	<b>Water Right</b>				
	Culinary Water Purchased from Brigham City	100 acre feet	29-4225 2.0 cfs (900 AF)				Jan - Nov
	<b>Retail Sales</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
	Residential	19,196,000	22,701,000	26,231,000	20,431,000	22,968,000	18,690,000
	Commercial	54,000	138,000	255,000	76,000	31,000	77,000
	Total Gallons	<b>19,250,000.00</b>	<b>22,839,000.00</b>	<b>26,486,000.00</b>	<b>20,507,000</b>	<b>22,999,000.00</b>	<b>18,767,000.00</b>
	Acre Feet	<b>59.08</b>	<b>70.09</b>	<b>81.28</b>	<b>62.93</b>	<b>70.58</b>	<b>57.59</b>
South Willard	<b>Source</b>	<b>Annual Amount</b>	<b>Water Right</b>				
	South Willard Well/Purchased from South Willard Water Company	1,647 acre feet	29-4145				Jan - Nov
	<b>Retail Sales</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
	Residential			6,000	25,000	49,000	42,000
	Institutional				53,000	43,000	27,000
	Commercial		25,000	802,000	220,000	175,000	141,000
	Total Gallons		<b>25,000</b>	<b>808,000</b>	<b>298,000</b>	<b>267,000</b>	<b>210,000</b>
	Acre Feet		<b>0.08</b>	<b>2.48</b>	<b>0.91</b>	<b>0.82</b>	<b>0.64</b>

## **BRIGHAM CITY / HARPER WARD**

When the District constructed the Harper Ward system in 1995, the District contracted with Brigham City to purchase water for this project. This arrangement continues presently and is renewable. The District has approved Water Right 29-4225 for 2.0cfs (900 AF) and owns property for two groundwater wells, a pump station and reservoir in the Harper Ward area in preparation for developing our own source. A test well was be drilled in the summer of 2021.

## **DEWEYVILLE / COLLINSTON**

The District has a contracted agreement with Deweyville Town to purchase surplus water from the Town to supply water for the Collinston System until the District has its own sources developed. This agreement goes through 2027. Water Right Change Application a75391 was approved in 2019 to move 250 A/F to Deweyville's sources for District use. The District drilled a culinary water well at Flat Canyon on property in Deweyville in 2019 that is currently in the development stages. The goal is to put this water to use in the Collinston system in the next 3 years. Water Right 29-4741 has been filed for 250 AF to divert water from this well.

## **NEWMAN WELL AND BACK-UP WELL**

In 1993, the District purchased the Newman Farm located in the Bothwell area. The farm included four groundwater wells and the associated water rights for irrigation supply to 787.5 acres of land. After conversion to municipal use, these rights yield up to 1,669.5 acre-feet. A fifth well, known as the Newman Back Up well, was drilled in 2001 approximately 100 feet east of the Newman Well. Both wells are situated on farmland owned by the District and both wells can be used for either irrigation or M & I use. The Newman and Backup Wells are presently equipped at 3,100 gallons per minute and 2,400 gallons per minute, respectively.

## **SOUTH WILLARD CULINARY SYSTEM**

In 2006, the District drilled a new well in the South Willard area for M & I use. Construction of a 1,000,000 gallon reservoir, pump station and distribution pipeline project began in 2009 and was completed in 2011. Significant future residential growth in this area is expected.

## POPULATION GROWTH AND WATER DEMAND PROJECTIONS

Existing population and future growth trends directly impact water source and system capacity requirements. Estimated population growth and resulting connections for the BRWCD service areas are shown in Table 3 and Table 4 respectively. Many factors influence this projection and the estimates shown may vary substantially from the actual population experienced.

**Table 3**  
**Population Projections for 2030 and 2050**

	2020	2030	2050
EXISTING DISTRICT SERVICE AREAS	Population	Population	Population
Beaver Dam Retail	85	147	151
Bothwell Retail	150	193	273
Collinston Retail	143	263	420
Harper Ward Retail	283	340	382
South Willard Retail	3	231	980

**Table 4**  
**Connection Projections for 2030 and 2050**

	2020	2030	2050
EXISTING DISTRICT SERVICE AREAS	Connections	Connections	Connections
Beaver Dam Retail	26	42	43
Bothwell Retail	46	55	78
Collinston Retail	44	75	120
Harper Ward Retail	87	97	109
South Willard Retail	1	66	280

\*Note: Sources of the population projections for 2030 and 2050 were based on data from the US Department of Commerce Census Bureau estimated population for Box Elder County. The population was calculated by multiplying projected connections by 3.25. According to Census Records, Box Elder County experienced a growth rate of 15.4% from 7/1/2010 to 7/1/2020.

## **PROJECTED WATER SUPPLY THAT CAN BE DELAYED BY IMPLEMENTING CONSERVATION PROGRAMS AND PRACTICES**

Box Elder County is experiencing a rapid growth in 2020 and 2021. Conservation programs and practices are important to the water supply of the County. As our growth increases, we need to be prepared to be able to serve the residents of Box Elder County as well as the industrial and commercial entities that come with growth.

Included below is a list of items specific to the District regarding future water supply plans, details about the District's customer base, and the importance conservation could play in delaying development of future water sources.

1. The District's Per Capita usage is already low compared to the state average.
2. The District's users are predominantly rural large lots with other water sources for the outside watering including; wells, springs, and irrigation water sources.
3. Still, if conservation can reduce District water use even further, more homes can be served with existing supplies. New supplies can be delayed until they are actually needed.
4. The District is currently planning new sources of water to meet future demands. These future sources include new wells and the Bear River Water Development project, which is currently being studied by the State of Utah.
5. To the degree that conservation can reduce water use among existing users, the future water supply projects can be delayed until they are needed.

Two of the District's systems are currently served by surplus water from other providers. The District has contracted with Brigham City for the use of their surplus water to supply water to the Harper Ward area. The new Collinston project is supplied with surplus water from Deweyville. This helps to delay water supply projects and encourages the District's customers to conserve, since they are being served by surplus water and the District. The District acknowledges that these are temporary solutions and is working to develop new sources in both areas.

## **CURRENT PRICING STRUCTURE WATER RATES**

Individual water meters are read at the beginning of each month. Retail customers of the Bear River Water Conservancy District are billed at the beginning of each month for water used the previous month. The water rates for each of the District's water systems are presented in Table 5 below.

**Table 5**  
**Current Retail Water Rates for All Water Systems**

Beaver Dam	Base Rate	Base Rate Up To	\$1.00 per 1,000	\$1.25 per 1,000	\$1.50 per 1,000	\$2.00 per 1,000	
	\$40.00	11,000 Gallons	11,000 - 22,000	22,000-33,000	33,000-44,000	>44,000	
Bothwell	Base Rate	Base Rate Up To	\$1.00 per 1,000	\$1.25 per 1,000	\$1.50 per 1,000	\$2.00 per 1,000	
	\$29.00	7,000 Gallons	7,000 - 14,000	14,000-28,000	28,000-56,000	>56,000	
Collinston	\$40.00	7,000 Gallons	7,000 - 14,000	14,000-28,000	28,000-56,000	>56,000	
Harper Ward	Base Rate	Base Rate Up To	\$2.00 per 1,000	\$3.00 per 1,000	\$5.00 per 1,000	\$7.00 per 1,000	\$10.00 per 1,000
	\$49.00	10,000 Gallons	10,000-100,000	100,000-200,000	200,000-400,000	400,000-700,000	>700,000
South Willard	Base Rate	Base Rate Up To	\$2.00 per 1,000				
	\$35.00	7,000 Gallons	>7,000				

To encourage conservation, the retail water rates for the Harper Ward System were adjusted March 1, 2021. The retail rates for the District's other systems are being reviewed. The wholesale water rate is currently \$345.00 per acre foot. The wholesale water customers of BRWCD are billed quarterly for the contracted amount of water.

## **WATER PROBLEMS, CONSERVATION MEASURES AND GOALS**

The following problem areas have been identified, reviewed, and prioritized for meeting conservation goals outlined in this plan.

1. With the exception of the Harper Ward System, the District's retail water rates have been in place since the construction of the projects. The customers pay the basic monthly charge for a minimum amount of usage and pay an overage charge for usage beyond the minimum. The collective rates have been calculated at each project based on cost. New tiered rates were implemented January 2019 to provide incentives for conservation. However, the challenge is to adopt rates that encourage conservation but provide sufficient revenue to meet the District's financial obligations. The District relies on the water revenue to repay bonds issued to fund construction of infrastructure.
2. For those water users who use District water for lawns and gardens, some users may lack information and understanding of landscaping water requirements and efficient water use habits and practices. Users may lack the knowledge in the amount of water required to maintain healthy landscaped areas and how to consistently use water efficiently outdoors. Many customers irrigation and indoor practices are based on convenience rather than plant needs and water supply considerations.

3. As water meters age, they become less accurate which leads to loss of revenue.
4. The District wholesales water to fourteen other public water suppliers in Box Elder County through annual take or pay contracts and other systems on an emergency case basis only including: Tremonton City, Bothwell Water Company, Thatcher Penrose Water Company, S & K Water Company, Box Elder County Road Department, Ukon Water Company, Riverside North Garland Water Company, Cedar Ridge, Hot Springs Mobile Home Park, Coleman Mobile Home Court, South Willard Water Company, Corinne City, West Corinne Water Company, and Honeyville City. The District's use of take or pay contracts for these customers guarantees the revenue needed to pay bond obligations for constructed infrastructure but may not encourage conservation since the District's wholesale customers pay for the contracted amount of water whether they use it or not.

#### **GOALS:**

1. To follow the water conservation goal of the State of Utah to decrease water use by 18% by the year 2030 in the Bear River Region through the conservation methods stated in this plan. The savings will be measured by consistently reading the meters every month on the retail systems and determining the gpcd for each year.
2. To maintain a financially viable water system while supporting and encouraging water conservation through good operation and maintenance procedures and implementing good management practices.
3. To educate customers on the use of water wise landscaping. The District has added links to several conservation websites from the District's website and continue to provide conservation messages on our Monthly Newsletters, also posted on our website.
4. To develop and implement a meter replacement schedule for the retail systems and monitor wholesale meters and replace them as necessary. The District began replacing meters in the Harper Ward system in 2020 and will continue to replace all meters that have been in service more than 15 years. Wholesale meters are replaced as needed.
5. The District is working with the municipalities and other public water suppliers in the County to develop a Drought Resiliency Plan that will best serve the residents of Box Elder County. We have met with many stakeholders with a goal of strengthening partnerships between the stakeholders and the District, to identify drought vulnerabilities and their potential risk levels, and to discuss potential projects that could help mitigate the drought vulnerabilities in the region.
6. To develop, prepare and adopt a resolution requiring customers of the District to connect to secondary water systems where available and preserve the culinary water for indoor use only.
7. Adopt more aggressive rates that encourage water conservation while preserving adequate revenue for the District.



## CURRENT CONSERVATION PRACTICES

The District has developed and adopted this water conservation plan as required by law and submitted it to the State of Utah, Division of Water Resources and updated the plan according to law in July 2021.

The District's current water conservation program is directed primarily at providing useful material to assist residents to use water more efficiently and to conserve and protect water. This includes educational bill stuffers to inform customers of conservation practices. The District is also actively seeking secondary water sources for new development and future customers.

The District is supportive and has adopted the practice as recommended by the State of Utah to refrain from outdoor watering between the hours of 10:00 a.m. and 6:00 p.m. We have recommended following this schedule to our customers through mailings and through our website at [www.brwcd.com](http://www.brwcd.com).

Large amounts of water can be lost through leaks in a water system that are undetected or slow to be repaired. The District works diligently to detect leaks and quickly make repairs. The District compares water produced with water sold each month. This allows the District to determine how much unaccounted for water was lost. Historically, the District has had much success in tracking down the cause of unaccounted for water and making the necessary repairs. The water meters are read each month and readings reviewed for any abnormality in water use that could be caused by a leak.

Rules and Regulations for Retail Service were revised and adopted by the Board of Trustees in May of 2010. Conservation measures described in these rules include:

Section 1.1.5 .13 – “residential water provided by the District pursuant to this agreement is for household use and limited outdoor use”.

Section 5.1.3 – “to promote water conservation and encourage the immediate repair of a leak, the District may adjust the customer’s bill by crediting the average cost of wholesale water for the estimated amount of water lost because of a leak. The account will not be adjusted until the customer has presented sufficient proof that the leak in the water line has been repaired successfully.”

Section 5.1.5 – “The District shall periodically, or upon reasonable request of the customer, test water meters for accuracy. Faulty meters shall be repaired and replaced by the District.”

The Rules and Regulations also address limitations in water service due to scarcity or drought. The Board of Trustees or General Manager can issue a proclamation to “limit water use for any purpose to the extent as in its judgment is required for the public good”.

All residential, commercial, institutional, industrial, and wholesale connections are metered and read each month. The District will continue to monitor wholesale and retail usage and replace meters when necessary.

The District's Assistant General Manager has been designated as the Water Conservation Coordinator for the District. They will facilitate conservation information to be posted on the District website and/or added to the monthly utility bills.

The District encourages Box Elder County to develop and adopt landscaping ordinances that require water-efficient landscaping, irrigation efficiency standards and acceptable plant materials for commercial and residential developments.

Information on efficient outdoor and indoor water use is available to our retail customers through annual mailings and the District web site ([www.brwcd.com](http://www.brwcd.com)).

## ADDITIONAL CONSERVATION MEASURES IMPLEMENTED IN RESPONSE TO THE CURRENT DROUGHT CONDITIONS.

In June 2021 the District implemented the following Drought Response Plan. The results of the plan have been significant in reduced water usage. As shown on tables 1 and 1a on page 5 and 6 the gpcd was reduced from 216 to 157. Meters were read weekly during the high usage months, rather than monthly, and the results were posted on our website for the customers to view and then adjust their watering habits. The new rates and reading meters weekly also aided several customers to find leaks on their properties.

**Table 6 Drought Response Plan**

BRWCD Retail System Drought Response Plan For 20% Indoor Use Reduction and 50% Outdoor Use Reduction						
Heading	Metric	Retail Water Systems				
		Harper Ward	Bothwell	Beaver Dam	South Willard	Collinston
Water Rates	Base Monthly Water Rate (\$):	\$49.00	\$49.00	\$40.00	\$35.00	\$40.00
	Tier 1 Monthly Water Rate:	= \$5.00 per 1000 gallons over base rate, up to 50,000 gallons				
	Tier 2 Monthly Water Rate:	= \$10.00 per 1000 gallons over 50,000 gallons				
Monthly Targets (Gallons included in Base Rate) by Customer by System	Monthly Targets for January	9,000	8,000	9,000	9,500	7,000
	Monthly Targets for February	9,000	8,000	9,000	9,500	7,000
	Monthly Targets for March	9,000	8,000	9,000	9,500	7,000
	Monthly Target for April	11,000	12,000	9,000	9,500	8,000
	Monthly Target for May	17,000	24,000	10,000	9,500	11,000
	Monthly Target for June	26,000	35,000	14,000	9,500	14,000
	Monthly Targets for July	30,000	44,000	18,000	9,500	20,000
	Monthly Targets for August	30,000	44,000	18,000	9,500	20,000
	Monthly Targets for September	19,000	26,000	11,000	9,500	14,000
	Monthly Targets for October	12,000	14,000	8,000	9,500	10,000
	Monthly Targets for November	10,000	12,000	8,000	9,500	10,000
	Monthly Targets for December	10,000	12,000	8,000	9,500	10,000

In conjunction with the retail plan and pricing, wholesale customers were not required to take the minimum contracted amount of water if it was not needed.

## IMPLEMENTATION, MONITORING AND EVALUATION

The General Manager will oversee the implementation of this plan. The following procedures are indicated to accomplish the goals outlined on Page 14 of this plan:

Goal #1 – The General Manager will ensure that the water usage meters are read on a minimum of once per month and reports of the usage are prepared and reviewed to evaluate progress in accomplishing the State of Utah goal to decrease water use by 25%. The gpcd will be calculated at the end of each year for comparison.

Goal #2 – The General Manager will provide training in all conservation measures, best management practices and operation and maintenance procedures for the Certified Systems Operator and ensure that the systems operator continues to maintain certification.

Goal #3 – A new Water Service Policy to be adopted by the Board of Trustees to include provisions for the requirement of secondary water lines to be constructed in new developments and customers to connect where secondary water is made available.

Goal #4 – The District will begin replacing meters after 2.25 million gallons of water have passed through them per the manufacturer's recommendations.

Goal #5 – The District will consider implementing a more conservation based rate structure.

### **WATER CONSERVATION PLAN UPDATE**

The Bear River Water Conservancy District will update its Water Conservation Plan every five years as required by law. The process is as follows:

1. Review the current plan
2. Set new goals
3. Input new data as it becomes available
4. Hold a public meeting on the updated plan
5. Adopt the plan by resolution of the Board of Trustees

# APPENDIX A

## All Available Retail Water Usage Data from 2016 to November 2021 for all BRWCD Systems

2016 Water Usage by System and by Type														
	January	February	March	April	May	June	July	August	September	October	November	December	Total	Active Connections
<b>Residential</b>														
Beaver Dam	228,000	183,000	175,000	202,000	206,000	524,000	771,000	676,000	364,000	234,000	290,000	240,000	4,093,000	25
Bothwell	331,000	371,000	404,000	492,000	1,126,000	2,684,000	4,075,000	2,798,000	1,471,000	383,000	387,000	433,000	14,955,000	43
Collinston	70,000	75,000	97,000	121,000	160,000	160,000	497,000	429,000	245,000	84,000	76,000	88,000	2,102,000	17
Harper Ward	723,000	732,000	639,000	756,000	1,202,000	3,093,000	3,609,000	3,511,000	2,160,000	1,085,000	851,000	835,000	19,196,000	82
	<b>1,352,000</b>	<b>1,361,000</b>	<b>1,315,000</b>	<b>1,571,000</b>	<b>2,694,000</b>	<b>6,461,000</b>	<b>8,952,000</b>	<b>7,414,000</b>	<b>4,240,000</b>	<b>1,786,000</b>	<b>1,604,000</b>	<b>1,596,000</b>	<b>40,346,000</b>	<b>167</b>
<b>Institutional</b>														
Beaver Dam	1,000	2,000	1,000	2,000	55,000	129,000	9,000	5,000	-	-	-	-	204,000	1
<b>Industrial</b>														
Collinston	71,000	76,000	81,000	84,000	81,000	81,000	91,000	101,000	90,000	72,000	73,000	90,000	991,000	3
<b>Commercial</b>														
Bothwell	1,000	-	1,000	51,000	44,000	65,000	131,000	144,000	113,000	124,000	116,000	44,000	834,000	2
Collinston	43,000	45,000	15,000	4,000	14,000	14,000	45,000	169,000	120,000	30,000	38,000	32,000	569,000	3
Harper Ward	6,000	4,000	3,000	3,000	4,000	6,000	6,000	6,000	6,000	5,000	3,000	2,000	54,000	2
	<b>50,000</b>	<b>49,000</b>	<b>19,000</b>	<b>58,000</b>	<b>62,000</b>	<b>85,000</b>	<b>182,000</b>	<b>319,000</b>	<b>239,000</b>	<b>159,000</b>	<b>157,000</b>	<b>78,000</b>	<b>1,457,000</b>	<b>7</b>

2017 Water Usage by System and by Type														
	January	February	March	April	May	June	July	August	September	October	November	December	Total	Active Connections
<b>Residential</b>														
Beaver Dam	201,000	190,000	186,000	144,000	221,000	585,000	639,000	596,000	303,000	144,000	144,000	155,000	3,508,000	25
Bothwell	319,000	339,000	433,000	365,000	1,586,000	3,099,000	3,164,000	2,962,000	1,703,000	934,000	649,000	504,000	16,057,000	45
Collinston	71,000	63,000	84,000	69,000	169,000	428,000	465,000	435,000	263,000	88,000	80,000	82,000	2,297,000	20
Harper Ward	717,000	688,000	888,000	768,000	1,938,000	4,408,000	4,031,000	3,782,000	2,154,000	1,248,000	1,145,000	934,000	22,701,000	85
	<b>1,308,000</b>	<b>1,280,000</b>	<b>1,591,000</b>	<b>1,346,000</b>	<b>3,914,000</b>	<b>8,520,000</b>	<b>8,299,000</b>	<b>7,775,000</b>	<b>4,423,000</b>	<b>2,414,000</b>	<b>2,018,000</b>	<b>1,675,000</b>	<b>44,563,000</b>	<b>175</b>
<b>Institutional</b>														
Beaver Dam	4,000	-	-	-	-	3,000	4,000	1,000	-	1,000	3,000	2,000	18,000	1
<b>Industrial</b>														
Collinston	84,000	74,000	87,000	74,000	91,000	117,000	109,000	137,000	138,000	137,000	85,000	87,000	1,220,000	3
<b>Commercial</b>														
Bothwell	47,000	54,000	71,000	105,000	160,000	158,000	142,000	201,000	206,000	239,000	235,000	155,000	1,773,000	2
Collinston	39,000	33,000	51,000	59,000	57,000	106,000	188,000	383,000	159,000	67,000	22,000	31,000	1,195,000	3
Harper Ward	3,000	12,000	11,000	7,000	7,000	21,000	13,000	10,000	14,000	12,000	15,000	13,000	138,000	2
South Willard								-	-	10,000	8,000	7,000	25,000	1
	<b>89,000</b>	<b>99,000</b>	<b>133,000</b>	<b>171,000</b>	<b>224,000</b>	<b>285,000</b>	<b>343,000</b>	<b>594,000</b>	<b>379,000</b>	<b>328,000</b>	<b>280,000</b>	<b>206,000</b>	<b>3,131,000</b>	<b>8</b>

2018 Water Usage by System and by Type														
	January	February	March	April	May	June	July	August	September	October	November	December	Total	Active Connections
<b>Residential</b>														
Beaver Dam	163,000	153,000	227,000	187,000	443,000	550,000	710,000	612,000	302,000	165,000	151,000	182,000	3,845,000	26
Bothwell	355,000	364,000	379,000	696,000	2,059,000	3,261,000	3,484,000	3,545,000	2,293,000	598,000	413,000	366,000	17,813,000	45
Collinston	69,000	88,000	74,000	80,000	190,000	446,000	569,000	581,000	320,000	127,000	136,000	128,000	2,808,000	27
Harper Ward	741,000	706,000	940,000	1,230,000	2,368,000	4,500,000	4,721,000	4,562,000	3,041,000	1,424,000	1,046,000	952,000	26,231,000	87
South Willard				1,000	-	1,000	1,000	1,000	1,000	-	-	1,000	6,000	1
	<b>1,328,000</b>	<b>1,311,000</b>	<b>1,620,000</b>	<b>2,194,000</b>	<b>5,060,000</b>	<b>8,758,000</b>	<b>9,485,000</b>	<b>9,301,000</b>	<b>5,957,000</b>	<b>2,314,000</b>	<b>1,746,000</b>	<b>1,629,000</b>	<b>50,703,000</b>	<b>186</b>
<b>Institutional</b>														
Beaver Dam	2,000	1,000	2,000	1,000	-	1,000	9,000	215,000	186,000	5,000	2,000	2,000	426,000	1
<b>Industrial</b>														
Bothwell										24,000	125,000	5,000	154,000	1
Collinston	66,000	87,000	76,000	80,000	119,000	136,000	93,000	101,000	61,000	80,000	77,000	82,000	1,058,000	3
	<b>66,000</b>	<b>87,000</b>	<b>76,000</b>	<b>80,000</b>	<b>119,000</b>	<b>136,000</b>	<b>93,000</b>	<b>101,000</b>	<b>61,000</b>	<b>104,000</b>	<b>202,000</b>	<b>87,000</b>	<b>1,212,000</b>	<b>4</b>
<b>Commercial</b>														
Bothwell	19,000	20,000	16,000	10,000	14,000	16,000	1,000	-	4,000	5,000	1,000	-	106,000	2
Collinston	36,000	33,000	50,000	63,000	59,000	132,000	313,000	320,000	124,000	70,000	18,000	4,000	1,222,000	3
Harper Ward	25,000	26,000	34,000	23,000	23,000	58,000	35,000	13,000	10,000	3,000	3,000	2,000	255,000	2
South Willard	17,000	21,000	9,000	9,000	11,000	17,000	24,000	24,000	17,000	13,000	110,000	530,000	802,000	1
	<b>97,000</b>	<b>100,000</b>	<b>109,000</b>	<b>105,000</b>	<b>107,000</b>	<b>223,000</b>	<b>373,000</b>	<b>357,000</b>	<b>155,000</b>	<b>91,000</b>	<b>132,000</b>	<b>536,000</b>	<b>2,385,000</b>	<b>8</b>

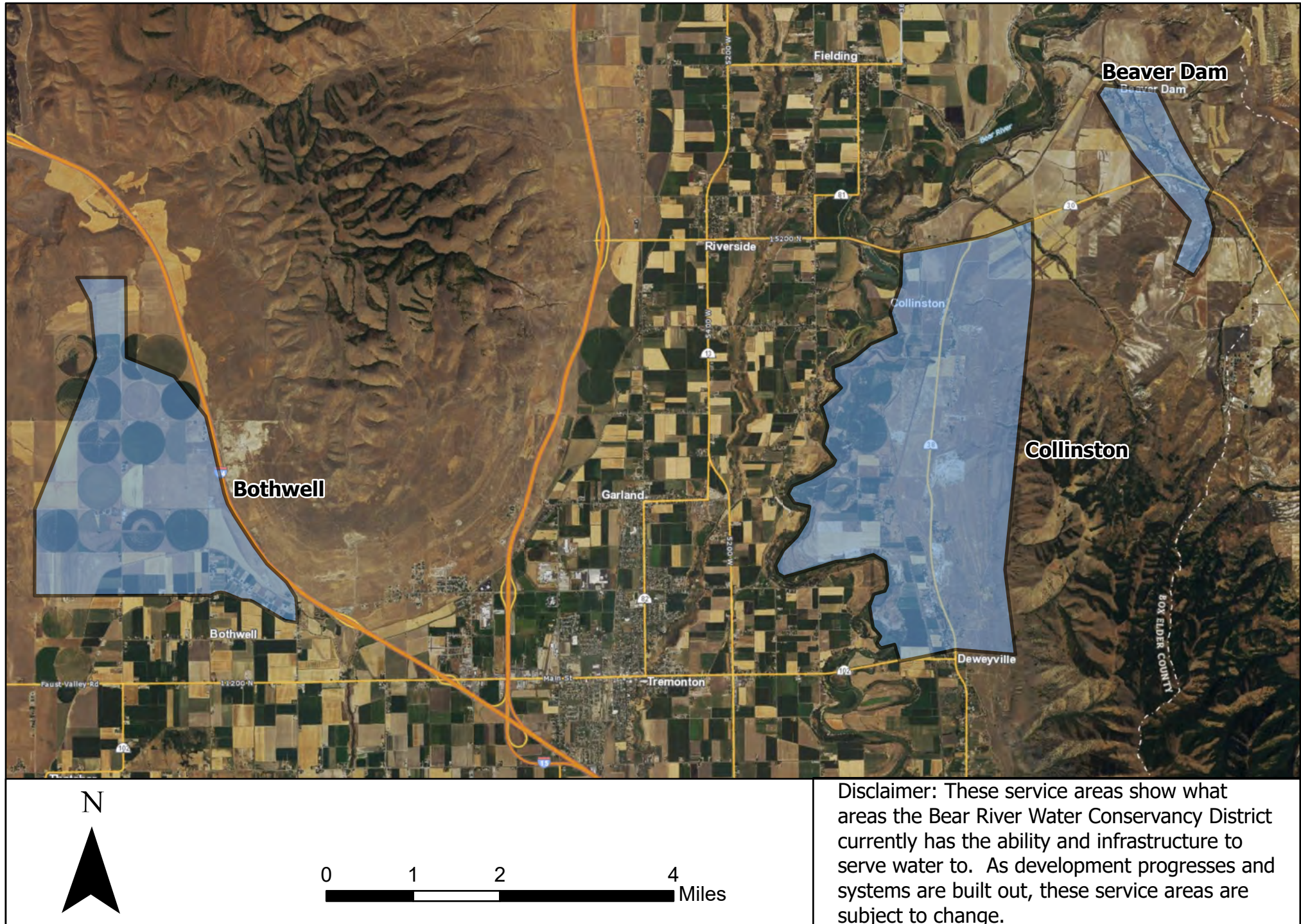
2019 Water Usage by System and by Type														
	January	February	March	April	May	June	July	August	September	October	November	December	Total	Active
<b>Retail</b>														
Beaver Dam	172,000	166,000	246,000	178,000	160,000	348,000	599,000	688,000	271,000	151,000	151,000	176,000	3,306,000	26
Bothwell	349,000	330,000	405,000	428,000	1,123,000	2,219,000	3,601,000	3,721,000	1,584,000	577,000	483,000	439,000	15,259,000	46
Collinston	119,000	115,000	136,000	127,000	178,000	372,000	608,000	519,000	231,000	191,000	154,000	186,000	2,936,000	34
Harper Ward	985,000	916,000	765,000	730,000	1,580,000	2,806,000	4,487,000	4,532,000	1,888,000	693,000	545,000	504,000	20,431,000	76
South Willard	1,000	1,000	1,000	2,000	3,000	3,000	4,000	3,000	2,000	2,000	1,000	2,000	25,000	1
	<b>1,626,000</b>	<b>1,528,000</b>	<b>1,553,000</b>	<b>1,465,000</b>	<b>3,044,000</b>	<b>5,748,000</b>	<b>9,299,000</b>	<b>9,463,000</b>	<b>3,976,000</b>	<b>1,614,000</b>	<b>1,334,000</b>	<b>1,307,000</b>	<b>41,957,000</b>	<b>183</b>
<b>Institutional</b>														
Bothwell	-	-	-	-	-	-	-	7,000	-	58,000	93,000	-	158,000	1
Collinston	69,000	69,000	67,000	54,000	75,000	101,000	77,000	81,000	93,000	106,000	117,000	125,000	1,034,000	3
	<b>69,000</b>	<b>69,000</b>	<b>67,000</b>	<b>54,000</b>	<b>75,000</b>	<b>101,000</b>	<b>77,000</b>	<b>88,000</b>	<b>93,000</b>	<b>164,000</b>	<b>210,000</b>	<b>125,000</b>	<b>1,192,000</b>	<b>4</b>
<b>Industrial</b>														
Beaver Dam	2,000	1,000	3,000	1,000	2,000	2,000	60,000	66,000	2,000	1,000	1,000	2,000	143,000	1
South Willard					6,000	-	3,000	6,000	7,000	5,000	23,000	3,000	53,000	1
	<b>2,000</b>	<b>1,000</b>	<b>3,000</b>	<b>1,000</b>	<b>8,000</b>	<b>2,000</b>	<b>63,000</b>	<b>72,000</b>	<b>9,000</b>	<b>6,000</b>	<b>24,000</b>	<b>5,000</b>	<b>196,000</b>	<b>2</b>
<b>Commercial</b>														
Bothwell	-	-	7,000	12,000	9,000	4,000	-	-	-	1,000	-	-	33,000	2
Collinston	1,000	2,000	3,000	4,000	15,000	82,000	147,000	155,000	64,000	14,000	12,000	11,000	510,000	3
Harper Ward	3,000	1,000	12,000	12,000	4,000	5,000	8,000	12,000	5,000	10,000	3,000	1,000	76,000	2
South Willard	32,000	9,000	14,000	11,000	15,000	16,000	18,000	32,000	35,000	13,000	15,000	10,000	220,000	1
	<b>36,000</b>	<b>12,000</b>	<b>36,000</b>	<b>39,000</b>	<b>43,000</b>	<b>107,000</b>	<b>173,000</b>	<b>199,000</b>	<b>104,000</b>	<b>38,000</b>	<b>30,000</b>	<b>22,000</b>	<b>839,000</b>	<b>8</b>

2020 Water Usage by System and by Type														
	January	February	March	April	May	June	July	August	September	October	November	December	Total	Active Connections
<b>Retail</b>														
Beaver Dam	257,000	386,000	243,000	234,000	362,000	406,000	548,000	603,000	374,000	249,000	194,000	188,000	4,044,000	26
Bothwell	489,000	433,000	445,000	1,238,000	2,772,000	2,363,000	3,706,000	3,209,000	2,470,000	1,347,000	709,000	785,000	19,966,000	46
Collinston	193,000	124,000	156,000	208,000	542,000	556,000	1,064,000	970,000	671,000	473,000	176,000	188,000	5,321,000	44
Harper Ward	519,000	462,000	553,000	1,341,000	3,150,000	2,749,000	4,564,000	3,978,000	2,704,000	1,546,000	684,000	718,000	22,968,000	87
South Willard	1,000	2,000	1,000	3,000	5,000	6,000	6,000	8,000	5,000	4,000	3,000	5,000	49,000	1
	1,459,000	1,407,000	1,398,000	3,024,000	6,831,000	6,080,000	9,888,000	8,768,000	6,224,000	3,619,000	1,766,000	1,884,000	52,348,000	204
<b>Institutional</b>														
Bothwell	-	-	-	-	-	-	-	-	-	31,000	71,000	4,000	106,000	1
Collinston	112,000	78,000	68,000	60,000	72,000	77,000	84,000	31,000	50,000	61,000	58,000	66,000	817,000	3
	112,000	78,000	68,000	60,000	72,000	77,000	84,000	31,000	50,000	92,000	129,000	70,000	923,000	4
<b>Industrial</b>														
Beaver Dam	2,000	1,000	-	1,000	-	1,000	15,000	18,000	12,000	1,000	1,000	1,000	53,000	1
South Willard	5,000	3,000	6,000	1,000	3,000	6,000	9,000	10,000	-	-	-	-	43,000	1
	7,000	4,000	6,000	2,000	3,000	7,000	24,000	28,000	12,000	1,000	1,000	1,000	96,000	2
<b>Commercial</b>														
Bothwell	-	-	1,000	3,000	4,000	3,000	6,000	3,000	1,000	-	-	1,000	22,000	2
Collinston	15,000	20,000	48,000	61,000	155,000	141,000	247,000	217,000	211,000	241,000	191,000	254,000	1,801,000	3
Harper Ward	2,000	2,000	3,000	2,000	2,000	4,000	3,000	3,000	3,000	4,000	2,000	1,000	31,000	2
South Willard	11,000	10,000	12,000	15,000	15,000	17,000	18,000	18,000	13,000	25,000	11,000	10,000	175,000	1
	28,000	32,000	64,000	81,000	176,000	165,000	274,000	241,000	228,000	270,000	204,000	266,000	2,029,000	8

2021 Water Usage by System and by Type														
	January	February	March	April	May	June	July	August	September	October	November	December (not yet reported)		Active Connections
<b>Retail</b>														
Beaver Dam	147,000	152,000	157,000	231,000	369,000	662,000	581,000	301,000	286,000	190,000	130,000	-	3,206,000	30
Bothwell	612,000	556,000	616,000	1,263,000	2,110,000	2,674,000	2,144,000	1,293,000	1,136,000	858,000	1,012,000	-	14,274,000	51
Collinston	166,000	159,000	178,000	306,000	652,000	1,421,000	1,096,000	694,000	712,000	331,000	233,000	-	5,948,000	55
Harper Ward	552,000	548,000	603,000	1,065,000	2,256,000	3,842,000	3,532,000	2,470,000	2,404,000	859,000	559,000	-	18,690,000	89
South Willard	4,000	3,000	4,000	4,000	4,000	6,000	3,000	3,000	4,000	3,000	4,000	-	42,000	1
	1,481,000	1,418,000	1,558,000	2,869,000	5,391,000	8,605,000	7,356,000	4,761,000	4,542,000	2,241,000	1,938,000	-	42,160,000	226
<b>Institutional</b>														
Bothwell	-	-	-	-	-	-	-	-	-	76,000	68,000	-	144,000	2
Collinston	57,000	59,000	75,000	77,000	75,000	84,000	88,000	90,000	95,000	50,000	74,000	-	824,000	3
	57,000	59,000	75,000	77,000	75,000	84,000	88,000	90,000	95,000	126,000	142,000	-	968,000	5
<b>Industrial</b>														
Beaver Dam	-	1,000	-	2,000	1,000	3,000	4,000	3,000	2,000	1,000	1,000	-	18,000	1
South Willard	-	-	-	-	-	-	-	1,000	20,000	4,000	2,000	-	27,000	1
	-	1,000	-	2,000	1,000	3,000	4,000	4,000	22,000	5,000	3,000	-	45,000	2
<b>Commercial</b>														
Bothwell	5,000	12,000	20,000	21,000	1,000	-	1,000	19,000	196,000	262,000	205,000	-	742,000	2
Collinston	182,000	187,000	225,000	241,000	286,000	441,000	413,000	308,000	278,000	264,000	256,000	-	3,081,000	3
Harper Ward	1,000	3,000	6,000	12,000	3,000	4,000	28,000	6,000	5,000	4,000	5,000	-	77,000	2
South Willard	9,000	9,000	12,000	12,000	12,000	15,000	16,000	15,000	15,000	14,000	12,000	-	141,000	1
	197,000	211,000	263,000	286,000	302,000	460,000	458,000	348,000	494,000	544,000	478,000	-	4,041,000	8



# BRWCD System Service Areas





# BRWCD System Service Areas





BEAR RIVER WATER CONSERVANCY DISTRICT  
RESOLUTION OF THE BOARD OF TRUSTEES

RESOLUTION NUMBER 2021-43

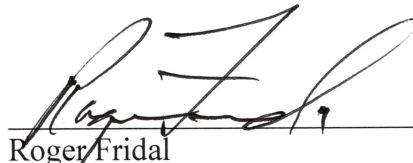
A RESOLUTION AMENDING THE PROVISION OF THE BEAR RIVER WATER  
CONSERVANCY DISTRICT POLICIES AND PROCEDURES PERTAINING TO  
THE ADOPTION OF A WATER CONSERVATION PLAN UPDATE

WHEREAS, the Bear River Water Conservancy District is a Water Conservancy District organized under the Utah Water Conservancy Act as amended, for the purpose of making water available to the residents of Box Elder County and operates culinary water systems; and

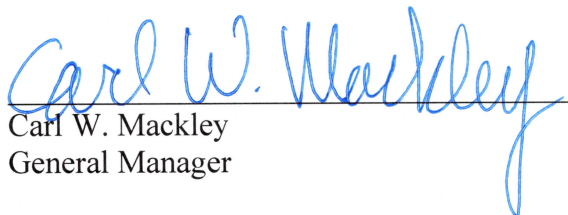
WHEREAS, the Board of Trustees understands the pressing need to use water in a most efficient manner to allow for the future sustained growth of Box Elder County;

NOW THEREFORE, it is hereby resolved the Board of Trustees of the Bear River Water Conservancy District approves and adopts the updated Water Conservation Plan dated November 2021 prepared by the Bear River Water Conservancy District in the form attached to this resolution having considered the foregoing recitals and having a motion made by JAY CAPENER and seconded by RICHARD DAY with a unanimous vote of all Trustees in attendance.

The Water Conservation Plan, adopted on the November 15, 2010 is hereby updated, revised and readopted on this 15<sup>th</sup> of December, 2021 at the regularly scheduled meeting of the Board of Trustees. The plan will be amended no less than every (5) years and will continue to play a vital role in the future development of water systems in Box Elder County.

  
\_\_\_\_\_  
Roger Fridal  
Chairman of the Board of Trustees

ATTEST:

  
\_\_\_\_\_  
Carl W. Mackley  
General Manager

# BOX ELDER NEWS JOURNAL

## PROOF OF PUBLICATION

State of Utah  
Box Elder County

**BEAR RIVER WATER  
CONSERVANCY DISTRICT  
NOTICE OF PUBLIC HEARING  
Conservation Plan Update**

In accordance with Utah Code 17B-2a the Bear River Water Conservancy District gives notice it will hold a public hearing beginning at 6:00 PM December 15, 2021 at the District Office, 102 West Forest Street in Brigham City, to receive comments regarding the Updated Conservation Plan, prior to its final adoption. Copies of the plan are on file at the office of the Bear River Water Conservancy and are available for public inspection.

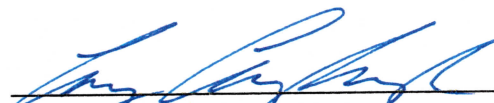
Carl W. Mackley, P. E.  
General Manager  
Bear River Water Conservancy  
District  
December-8-15

I, Casey Claybaugh, being first duly sworn depose and say that I am the Publisher of the Box Elder News Journal, a newspaper of general circulation, published every Wednesday in Brigham City, Utah, County of Box Elder; that the notice


**BEAR RIVER WATER CONSERVANCY  
DISTRICT NOTICE OF PUBLIC HEARING  
CONSERVATION PLAN UPDATE**

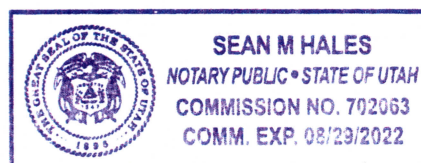
of which a copy is hereto attached, was published in said newspaper, the first publication having been made on the 8th day of December 2021, and the last on the 15th day of December 2021; that said notice was published in the regular and entire issue of every number of the paper during the period and times of publication, and the same was published in the newspaper proper and not in the supplement.

Same was also published online at [utahlegals.com](http://utahlegals.com), according to Section 45-1-101, Utah Code Annotated beginning on the first date of publication and for 30 days thereafter.

  
Casey Claybaugh, Publisher

Subscribed and sworn before me this  
15th day of December 2021.

  
Sean Michael Hales, Notary Public  
Residence: Brigham City, Utah  
My commission expires August 29, 2022





<b>BILLING DATE</b>	11/30/2021
<b>ACCOUNT NO.</b>	171002
<b>PAY BEFORE</b>	<b>12/31/2021</b>

**Service Address:**  
4580 N 1100 W



14 \*\*\*\*\*SINGLE-PIECE 84057  
R SHAWN BINGHAM  
4580 N 1100 W  
BRIGHAM CITY UT 84302-1201

1

<b>METER READING</b>		<b>TOTAL GALLONS USED (THOUSANDS)</b>
<b>PREVIOUS</b>	<b>PRESENT</b>	

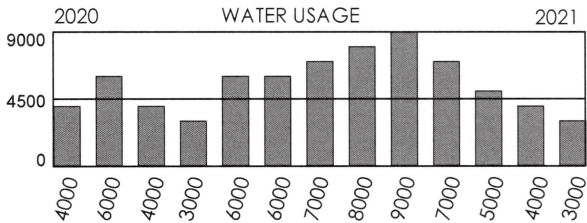
3255                      3258                      3000

Base Amount: 49.00                      Units                      1  
Usage calculation:

<b>DESCRIPTION</b>	<b>AMOUNT</b>
--------------------	---------------

PREVIOUS BALANCE	49.00
PAYMENTS	49.00CR
ADJUSTMENTS	0.00
WTR - Harper Ward	49.00

Usage calculation Total: 49.00



Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

CURRENT CHARGES                      49.00  
**Total Amount Due                      49.00**

<b>MESSAGES</b>
<p>Meters were read on December 1, 2021 for November 2021 usage.</p> <p>BRWCD Office will be closed December 24th and December 31st for the Holidays. December Payments will be due 12/30/2021 by 3:00 PM.</p> <p>→ The annual budget public hearing is scheduled 12/15 at 6:00 PM. Public hearing for the updated Water Conservation Plan is also 12/15 at 6:00 PM.</p>

DETACH HERE                      PLEASE DETACH AND RETURN LOWER PORTION WITH YOUR PAYMENT                      DETACH HERE



12/31/2021

R SHAWN BINGHAM  
4580 N 1100 W  
BRIGHAM CITY UT 84302-1201

<b>PAYMENT DUE DATE</b>	<b>ACCOUNT NO.</b>
12/31/2021	171002

<b>AMOUNT DUE</b>	<b>AMOUNT PAID</b>
49.00	

**Service Address:**  
4580 N 1100 W



**Bear River Water Conservancy District  
Board Meeting  
Wednesday December 15, 2021 6:00 p.m.  
Bear River Water Conservancy District Conference Room  
102 West Forest Street, Brigham City, Utah**

**Minutes**

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

Absent: Tyler Vincent

Staff: General Manager Carl Mackley, Assistant General Manager Andrew Beecher, Administrative Assistant Jill Jeppsen, Systems Operations Manager, Rob Thayne

Other: As listed on the Visitor's Attendance Sheet

**Welcome:** Vice Chairman Dave Forsgren

Invocation: Jay Carter

Pledge of Allegiance: Richard Day

**Declaration of Conflicts of Interest:** None

**Adoption of the Agenda** – Vice Chairman Dave Forsgren

A motion was made by Board Member Larson to approve the agenda. 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 November 17, 2021**

The minutes of the Board Meeting held November 17, 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 November 17, 2021. The motion was seconded by Board Member Carter. All Board Members voted in favor of the motion.

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

The financial statements for November 2021 were prepared and provided to the Board Members. Financial Chairman Holmgren has reviewed the reports and asked for the Board to approve them.

**Not Yet Approved**

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

**Public Hearing to receive comments regarding the Tentative Budget.**

There were no public comments.

A motion was made by Board Member Day to adopt the 2022 budget as presented. The motion was seconded by Board Member Larson. All Board Members voted in favor of the motion.

**Public Hearing to receive comments regarding adoption of the updated Conservation Plan.**

The changes that have been made from the original Draft version were pointed out to the Board Members.

Brian Bowen made the comment it was hard to review the Plan since it was not posted on the website. It was noted that the Public Meeting announcement stated the Plan was available at the District for review. The final version will be posted on BRWCD.com and a link will be emailed to those in attendance, as requested.

A motion was made by Board Member J. Capener to adopt the updated Conservation Plan as presented. The motion was seconded by Board Member Day. All Board Members voted in favor of the motion.

Vice Chairman Dave Forsgren presented a plaque to Russ Howe in recognition of his service on the Board from July 2014 to December 2021. He expressed his appreciation for his service.

Tyler Vincent has also completed his term on the Board. He served from January 2012 until December 2021. He was not in attendance.

The County Commission has approved the appointment of Joe Summers to represent the Bothwell/Thatcher and Howell areas beginning January 2022. DJ Bott has been appointed to represent Brigham City.

**Rob Thayne – System Operations**

A recap where we are in South Willard; we have pulled everything we can out of the well, the pump is still there and a 6” piece of the column is still there. The column comes from where the pump is stuck to about halfway up the well. They have perforated the inside of that column and have installed a 4” submersible pump to do the pump test. This is the same size pump we will put in when we are finished with the test pumping. The pump went in to 435 feet, which is in the area they perforated. They pumped for about an hour, the water was starting to clear up then the pump quit. We couldn’t figure out

**Not Yet Approved**

why. We had an electrician come and look at it, the panel is good, the drive is good, the motor on the pump is good. The only thing we can figure out is that one of the legs on the 3 phase power must have scrapped the side of the well and shorted out. Now we will have to pull the pump and repair the wire. During the hour that they were pumping, they pumped 187 gallons per minute, it drew down about 62 feet, which is typical for that well at that rate. We were not close to what we could have pumped. The well went down 62 feet then it came up a little and stayed there. If we start pumping 250 gpm it will probably draw down about 90 feet. We don't know what the sand production is, or what happened to the gravel pack in the screen. When we get the pump to work, we will do a step test; we will start at 150 gpm then raise it to 200 gpm then raise it again to 250. We will pump it until it stabilizes at each rate, about 1 to 1 ½ hours per step. The static water level is 322 feet.

There was a discussion regarding sealing the bottom. Nothing will be decided until after the pump test but it is likely we will not seal it off. The discussion continued regarding the new pump specifications.

After the test pumping is complete, we will do a series of chemical treatments for the iron bacteria. The plan is to run the pump at least twice per week to keep the water moving and lessen the bacteria problem.

General Manager Mackley added some information about the iron bacteria present in this well.

Robbie Thayne continued his report. Iron bacteria is not harmful, but it tastes and smells bad. We have been able to control it by keeping the chlorine level high.

We now own the 1 acre of ground in Deweyville for the Flat Canyon well site. We have most of the rights-of-way to access the property along the canal road.

Country Sunset Ranchettes has been issued the operating permit for phase 2.

We have had three mainline leaks in Bothwell. They have all been at the corp. stops. We are looking to change the way we install the service line by lowering the angle at which it attaches to the mainline so the dirt and pressure over time will not break the connection.

We have installed the 3 one inch meters in Beaver Dam for the Brodie Calder subdivision. These will service 2 inch waterlines to provide sufficient water for the fire suppression systems they will be required to install in their homes, in lieu of putting in a hydrant.

At The Tremonton booster station in east Tremonton there is a vault and a booster pump that has always been there in case of emergency we could take water from Tremonton to provide water to Riverside North Garland and Ukon. We have never used this pump. We thought we might want to take more water from this connection for Ukon we wanted to test it to see how much we could deliver, we cannot deliver it by gravity feed due to Ukon's system having more pressure than we do and we found the

**Not Yet Approved**

pump does not work. We have had the electrical checked out but suspect that something is stuck in the motor. Mountain Valley Pump will be coming out to look at the pump.

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

General Manager Mackley asked the board members to refer to his written report included in the packets. There was an item on the report to talk about the concept of pressurized irrigation. We are going to hold off on that discussion for this meeting while a few ideas are defined better.

We were hoping for an update from Board Member Scott on the County’s ARPA funds. Water is one of the few areas where this money can be used. We are curious to know how that compares to the ARPA funds that were administered through the Governor’s Office of Planning and Budget. There was \$50 million available and there were 389 applications for those funds; 81% of them were for water or wastewater related. About 75% of the funding allocated went towards water and wastewater projects. We were disappointed that none of that money went anywhere in Box Elder County. There were other entities beside the District that applied for funding.

The County will not have an easier way of funding water projects than with this money that is allocated for very specific uses, including water and wastewater. This is something we will continue to track. About 10% of the \$10.8 million that the County received has already been allocated for Broadband in the Howell area.

On a state level, a large portion of the money that was allocated went for secondary metering in the large counties. This was not specifically ARPA funds, but it is still Federal funds. It is easy to justify this allocation because the data that shows the water savings when users are metered vs when they are not metered is significant.

The drought resiliency funds that we applied for will be 50/50 matching funds. Results for these funds should be out by February.

Board Member Scott has now arrived at the meeting. He was asked about the types of requests the county is seeing for the County ARPA funds. There are a few applications that the money cannot be used for. We have seen some interest from a couple of small water companies and some broadband and sewer. We will be making some decisions around the first of the year. Water is toward the top of the list. It is not for sure, but I think there will be an allocation. General Manager Mackley asked if the process was still open for requests. Board Member Scott answered it will probably be open until the end of the year, then the requests will be evaluated at the beginning of the year.

The board members were provided with a Board Meeting schedule and a calendar with holiday and pay date schedules for 2022. It was noted we did change the August board meeting to the 5<sup>th</sup> Wednesday due to the County Fair the previous week.

**Not Yet Approved**

A motion was made by Board Member Larson to adopt the 2022 Board Meeting Schedule as presented with a correction to the meeting times. The motion was seconded by Chairman Fridal. All Board Members voted in favor of the motion.

A motion was made by Board Member N. Capener the Holiday and pay date schedule as presented. The motion was seconded by Board Member Day. All Board Members voted in favor of the motion.

Carl Mackley said he would like to change things a little for 2022 meetings. We have the annual meeting in March where the audit report is presented to the Board along with the General Manager giving an annual report to review the highlights of the previous year and set some goals for the current year. This year I would like to do the review of the previous year and set some goals for 2022 in January as some projects may be delayed if we wait until March. The annual meeting will still be held in March. Beginning with the January meeting I would like to receive direction and feedback and have you suggest any course corrections or solidify the direction we are going, in your Trustee reports.

### **Closed Meeting**

**Pending or reasonably imminent litigation**

**Purchase, exchange, lease, or sale of real property, including any form of a water right or water shares**

A motion was made by Board Member Larson to enter a closed meeting. The motion was seconded by Board Member Howe. The roll call vote is as follows:

Dave Forsgren, Aye	Charles Holmgren, Aye	Jay Capener, Aye
Neil Capener, Aye	Mark Larson, Aye	Roger Fridal, Aye
Russ Howe, Aye	Richard Day, Aye	Jay Carter, Aye
Jeff Scott, Aye		

A motion was made by Vice Chairman Forsgren to end the closed meeting and return to the open meeting. The motion was seconded by Board Member Scott. The roll call vote is as follows.

Dave Forsgren, Aye	Charles Holmgren, Aye	Jay Capener, Aye
Neil Capener, Aye	Mark Larson, Aye	Roger Fridal, Aye
Russ Howe, Aye	Richard Day, Aye	Jay Carter, Aye
Jeff Scott, Aye		

### **Trustee Reports**

**Charles Holmgren** – We measured .44” of rain at the farm from the last storm. Except for Western Box Elder County, it was one of the lowest readings in the state. Brigham City received over 1 inch and Mantua and Cache Valley did well. We ran the cloud seeder, there was some good water in that storm.

**Not Yet Approved**



We had a Board of Water Resources meeting on the 7<sup>th</sup> and Candice Hasenyager was selected to represent the Bear River Commission for the State of Utah, replacing Todd Adams. There is also an agreement to share more data from the Division of Water Resources with the State Engineer. This means we will have monthly meetings with the Bear River Commission to discuss water rights issues and depletion issues on the Bear River. Joel Williams was selected as the Deputy Director of the Division of Water Resources. The ranchers in Rich county have had a severe year. The summer was very hard on them, one rancher had a culling rate of 25%. A lot of people were hurt by the continuing drought.

**Jay Capener** – We are trying to measure the water layer with sonic now, and we are seeking funding to do that.

**Neil Capener** – Riverside North Garland had an interesting meeting with Will (Atkin, from the Division of Water Rights). We were interested to see what was going to happen with Steve (Welling). Will would not give much information only saying that the well has not been used. Brian (Shaffer) is under the opinion that they may not let Ukon drill the well they planned next to the King well because it might affect the King's well, though it has not been decided for sure yet. There could be some mitigating.

**Mark Larson** – no report

**Roger Fridal** – There are a lot of things going on in Tremonton. Water is one of the main things citizens are complaining about because there is a potential for a fair amount of growth coming to Tremonton. Tremonton is doing well; the water sources are doing well. The secondary water has been very beneficial.

**Russ Howe** – Expressed his thanks and appreciation to the Board. Thatcher is doing well. Thanks and appreciation were also expressed by the Board members to Russ for his service on the Board.

**Richard Day** – no report

**Jay Carter** – Read an article that California is wanting 40% of the early run-off flow, instead of letting it go in the reservoirs. The irrigation districts are not happy about the request.

**Jeff Scott** – Waiting for an email from a lobbying group that works with Wasatch Regional Council, they have several infrastructure grants that are going to be available on the federal level. They are mainly to do with transportation, but they also have some that are for water infrastructure. It may be an opportunity for matching funds for regional projects.

**Dave Forsgren** – no report

Not Yet Approved

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

The meeting adjourned at 8:20 PM.

Not Yet Approved