

**Bear River Water Conservancy District
Board Meeting
Wednesday, February 22, 2017 @ 7:00 p.m.
Bear River Water Conservancy District Conference Room
102 West Forest Street, Brigham City, Utah**

Minutes

Present: Trustees: Chairman Roger Fridal, Vice Chairman David Forsgren, Financial Chairman Charles Holmgren, Tyler Vincent, Jay Capener, Mark Larson, Neil Capener, Richard Day, Russell Howe, Jay Carter, and Jeff Scott

Staff: General Manager Voneene Jorgensen, System Operators Robert Phippen and Robert Thayne and Administrative Assistant Cassee Harper

Visitors: Bill Bigelow – Hansen, Allen & Luce
Lance Nielsen – Hansen, Allen & Luce

Invocation: David Forsgren

Pledge of Allegiance led by: Charles Holmgren

Adoption of the Agenda – Chairman Fridal

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

Approval of the Minutes for the Board Meeting held January 25, 2017

The minutes of the meeting held January 25, 2017 were included with the packet that was mailed to the Board Members.

A motion was made by Vice Chairman Forsgren to approve the minutes for the meeting held January 25, 2017. The motion was seconded by Board Member Day. Chairman Fridal, Vice Chairman Forsgren, Financial Chairman Holmgren and Board Members Vincent, N. Capener, J. Capener, Larson, Day, Howe, Carter and Scott voted in favor of the motion.

Master Plan Update – Bill Bigelow and Lance Nielsen

Lance Nielsen –

Any time you do a Master Plan, the first thing you need to do is to project your population in the future to see what the demands are going to be so you can plan for those. We first looked at the population of Box Elder County from 1950 through 2010 and found the absolute minimum growth would be 1.7% per year. With recent developments in Box Elder County there are indications that the growth rate will start increasing at the south end of the county, in particular, and will far exceed the growth rate that we have seen in the past. We wanted to get a reasonable idea of what growth rate we could expect so we looked at other counties who have seen this kind of growth in the past; Salt Lake, Utah, Weber, Davis, and Tooele Counties. All those counties, within a decade's time at some point in their history has experienced a sharp increase in growth rate. We wanted to see where Box Elder County matched up compared to those counties. The average population in Salt Lake, Weber, Davis and Utah Counties and the population before the rapid growth occurred in all those counties was around 47,000 – 48,000. Box Elder is projected to be 55,000 by the year 2020. That is one benchmark we are lining up with the other counties when they hit their growth spike. Then we looked at population density. The other counties were averaging about 204 people per square mile and Box Elder County in 2020 will be about 208 people per square mile. This would indicate that Box Elder County is poised for some rapid growth. To give you an idea of what kind of growth that might mean, in that first year of the other counties growth spike they averaged 6% per year which is pretty steep. Then in the 3 decades following that they were averaging 3-4% per year. Because of Box Elder Counties distance from the epicenter of the Salt Lake County area, perhaps the growth rate won't be as steep as the other counties experienced so we are projecting a 3% per year growth rate in Box Elder County which would put the population at over 150,000 by the year 2060.

We need to determine when additional water supplies will be needed by the various communities so the District can be able to meet those needs. We have developed a water needs horizon for each decade from 2020 to 2060 that compares the projected demand with the existing supply. There are some areas in Box Elder County that need water now and by 2060 everyone in the county will need additional water supply.

The drinking water supply for Box Elder County is solely ground water but the Utah State Engineer is not issuing new ground water rights. We need to start thinking about what supplies we need and how we are going to meet the needs of the County. We looked at what the supply vs. demand for the whole county relative to peak day flow and the annual average use. By the year 2040 to 2045 if a community runs out of water they will not be able to go to their neighbor to supply that additional water because their neighbor will be in need also. Even if we conserved an additional 25% than what we are doing now, demand will exceed the supply by 2055. What this is telling us is that the Bear River Development is essential to Box Elder County's future water supply. The District will need to be in position to meet additional demands by the year 2040 to 2045.

Bill Bigelow –

The Bear River water won't be available until the year 2040 to 2045. Some of our communities are hurting for water right now so the question is, what can we do in the meantime.

Conservation – This is the most economical way. At Jordan Valley Water Conservancy District, for every dollar they spend on conservation, they have 5 dollars of savings in terms of water that doesn't have to be developed.

Increasing water rates – This is the most effective way to get people to conserve water.

Water audit – AWWA has a program where they go through your system to find out how much water you produce, how much water you sell, figure all the unaccounted-for water, etc. Just the act of doing the audit wakes everybody up to be more conscious of the system to make it run for efficiently.

Pressurized Irrigation – Saves 65% of the culinary water.

Water Banking – There are many ways to do this. ARS or Aquifer Storage and Recovery can be used to recharge the aquifers and use water injection wells to store spring water in the wintertime. There are Spring Basins where you take excess water that would go to waste and put it in a gravel pit, it goes down through the dry gravel and sand and eventually starts building up a pretty good amount of water and then drill a recovery well and pump it out. Not only are you saving the water but you also have a new drinking water source.

Redevelopment – Of the 31 public water suppliers in Box Elder County, 24 of them have spring flows. One thing we noticed while doing this Master Plan is that a lot of wells are not in use right now, some are due to poor water quality, and some don't work as well, etc. A lot of towns are not aware of this, but you can go into a well and you can redevelop it and you can also redevelop springs to capture 100% of the flow.

Water Treatment – One town in Box Elder County has put in a treatment plant to treat their water that was high in radon. They found it was less expensive to treat the water than to drill another well.

Bear River Development – 60,000 AF of water from the Bear River Development is allocated to the District for Box Elder County and this is our future sources of water. There are two reservoir sites in Box Elder County that are still in the running; Fielding and Whites Valley. The Fielding site would be able to store 70,000 AF and Whites Valley could store anywhere from 120,000 to 400,000 AF of water. It will be a long time before final selections are made. This would be the first reservoir in our county. Three other sites are in Cache County and one in Weber County.

Some of the long term needs for the District are an additional source in Collinston and a pipeline to the Willow Creek and Beaver Dam Water Systems, a TDS removal plant in Bothwell to take the TDS from 800 to 250, a well drilling project in South Willard to be done as the growth demands it, a storage tank project in Harper Ward, build an enclosure on the back up well in Bothwell and a storage tank in Bothwell.

One of the biggest issues the District has is water supply. The District has water rights that were approved in the late 1990's for two well sites on the east Deweyville foothill benches. The District is looking at those sites as a possible source for the Collinston System. It would also include a pipeline from Collinston to serve Ukon so the District wouldn't have to wheel water through Tremonton's System. There are two well sites approved and land purchased already in Harper ward for drilling a well to put District water in the Harper Ward System, and in South

Willard, the District has been encouraging interconnections between water suppliers for emergency purposes.

Trustee Reports – Board Members

Jeff Scott – Last night there was an open house in Park Valley for the County Resource Management Plan, there is one tonight here in Brigham City and tomorrow night at the Box Elder County Fairgrounds. If you haven't had a chance yet, please take the survey on the county's website. The State has mandated that the management plan be done by July of this year. Once the County Water Master Plan is done for the District we would like to incorporate that into the County Resource Management Plan.

Eden Valley lost a water pipe. The Grouse Creek road is gone, you can't get in or out it is isolated. Union Pacific lost $\frac{3}{4}$ mile of tracks in that area and it was washed out 12 feet below the rails and you can see some of the utility lines.

Jay Carter – About 3-4 years ago, an outfit was getting water from me out of my irrigation well to drill south of Park Valley. They had to quit because they ran into a big cavern and they couldn't keep their bits going straight so they abandoned the project. I was thinking that would make great storage for water.

Hwy 30 just inside Nevada is washed out. The Railroad is losing a million dollars an hour having those tracks washed out.

Russ Howe – We have lots of water. What is coming from the north is going south and we have been pumping and sandbagging. Our water system is good. We have that meeting in March for the shareholders to decide what they want to do with Sunset Park Subdivision.

Richard Day – We are in good shape in South Willard. We only have a few homes here and there that have flooding. There is still 8 feet of snow in Sourdough up above Pineview.

Neil Capener – The water is terrible. My dairy is sitting on an island.

Mark Larson – There has been a lot of water in Fielding and East Garland. We have had more snow there and as the snow and ice melts and it fills up the fields. There are a lot of roads closed because hoses are across the roads pumping water. I'm new at this, I don't know a lot of the independent water systems but I have talked with a few of them to see what they need.

Jay Capener – We need a master plan in the county of drainage systems. Projects are going on with the canal that we had talked about previously if it dries out in time this spring.

Tyler Vincent – I am grateful for Brigham City's sewer system. I went out to Bear River and my parent's house looks like it is sitting on an island. The water is so high the septic tanks aren't working.

Brigham City did 300 tons of sandbags and will continue doing them every Saturday. The Public Works Director said we are sandbagging pitch points on the creek. In 2005 we had a flood

in Brigham City and spent millions of dollars upgrading the creek and runoff so we could be prepared. We are seeing some catastrophic things happening with mud slides and homes moving. We pray for rain and snow and are grateful for the moisture but it can be tough to manage.

Charles Holmgren – To echo what has been said, there is a fine line between a blessing and a curse and we might have crossed that line. It's been unfortunate for a lot of people but fascinating for others. On the 14th of February, the Bear River hit 9,000 cfs. That isn't a record flow but it is for that date. 14,000 cfs is the record flow for the Bear River. The Bear River is at 168% and the Raft River is at 155%. The Malad River peaked today, it is running 1,000 or 1,500 cfs. Union Pacific breached the causeway on the first of December on the north arm of the Great Salt Lake and it went up 3 feet and the south arm went up 6 inches. The Weber River can't put all the water into Willard Bay and there is a lot of water on I-15. On the first of February PacifiCorp estimated that Bear Lake would get within 3 feet of full but now they say it will likely fill and will go up 11 or 12 feet, that is the prediction. The run off will hit Bear Lake in June.

Dave Forsgren – Honeyville's springs went up 500 gpm in 24 hours. We are spilling the first time out of our reservoir in 8 years. We have about 20 homes with water in their basements. Mark Millett is holding a meeting this Friday at 10 am for any municipalities that need to apply for relief funding at the Sheriff's office

Roger Fridal – Tremonton is an adventure. During this meeting, I got a text that Garland wants to dump their water down the railroad tracks into Tremonton City. There is nowhere to put all the water. There was a subdivision in Tremonton that was flooded yesterday so we started pumps to dump it across the road. I went back out there at 9 am this morning and the water was gone. We will deal with the flooding just like we always do. We are meeting on March 7 with UDOT to see what we can do to plan for future flooding.

We have a company we are trying to recruit and we are looking at the District to get more water for them.

Talking about the District's water systems, we talk about these projects and we see pictures of everything with the slide shows but most of us have never been to any of these sights. Wouldn't it be a good idea to know what we are talking about and visit the sights and have a tour of the District's water systems. I would suggest we do that sometime soon.

General Manager's Report – Voneene Jorgensen

I will let you read my report at your leisure and will default to Bob Phippen to show you pictures of the road to the Beaver Dam tank and treatment building. However, I would like to report that we will have our first retail customer in South Willard just south of the Coleman Trailer Park. I am thrilled about the process of the Master Plan and how it is coming along. Hopefully we will get our draft written on time and on budget. I think our first priority is to get a source in the Deweyville. We have talked with the Division of Drinking Water about getting some grant money to drill test wells. We have a conceptual of the well plan and we will move forward on that project in the spring. The audit is still in progress and going well.

Beaver Dam Water System – Robert Phippen

Bob Phippen presented a slide show of the washout that happened on the road to the District's Beaver Dam reservoir and treatment building on February 10, 2017 and the repair. There were some areas that had washed out and had exposed the District's water line. Some of the culverts had been plugged with debris and sent the water over the road and washed it out. Grover Excavation opened the culverts and repaired the road. There was also some flooding at Early Park that had some of the collection boxes overflowing.

Financial Business – Charles Holmgren Approval of Financial Statements

The financial statements for January 2017 were prepared and provided to the Board Members. Financial Chairman Holmgren asked for the Board to review the financial statements and approve them.

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

Public Comment

There was no public comment.

Adjourn

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

The meeting adjourned at 9:00 p.m.