


REGIONAL WATER SYSTEM

Explorer

Spring 2023

Sioux Center and Hull Connected!

Lewis & Clark (L&C) water finally started flowing to Sioux Center on April 4 and to Hull on April 5! The communities are the 16th and 17th members connected to the tristate system. “This is a huge milestone for both communities to finally be connected. Lewis & Clark’s Articles of Incorporation were signed on January 29, 1990, so Sioux Center waited 12,119 days to get water and one day more for Hull. It took far longer than anyone imagined when the project was started, but it was well worth the wait. The water will ensure continued future growth and expanded economic development opportunities for many decades to come. We far too often take water for granted, but both communities

marked this as a monumental day over 33 years in the making,” said Chairman Murray Hulstein of Sioux Center, who has been involved with the project in various capacities since incorporation.

Sioux Center has reserved 600,000 gallons per day and Hull has reserved 400,000 gallons per day. Work started last year to expand the System’s capacity from 44 million gallons a day to 60 million gallons. When the expansion is completed, which is anticipated to be in 2030 or 2031, Sioux Center will have access to a total of 949,000 gallons per day and 633,000 gallons per day for Hull.



Three members remain unconnected. The schedules are subject to change, but Sheldon is anticipated to be connected in late 2023/early 2024, Madison in mid-2024 and Sibley in late 2024/early 2025.

Sioux Center officials opening the valve to allow L&C water to flow into their distribution system where it is blended with water from their plant shown in the background. Left to right: Zach Boneschans (water distribution technician), Kevin Vander Ploeg (water department staff), Harlan Kruid (Water Department Supervisor), Adam Fedders (Assistant Utilities Manager), Louis Vander Velde (water department staff) and Murray.

SD Expansion Funding Increased to \$15 Million

As recommended by the SD Board of Water & Natural Resources and SD Department of Ag & Natural Resources staff, the Omnibus Water Bill the Legislature approved this session and Governor Noem signed into law increased funding for L&C to \$15M to help expand the System to 60 MGD! The funding will be used on two expansion projects – adding a sixth lime drying bed and a second clearwell at the treatment plant. \$7.3M is ARPA funding



and \$7.7M is from converting a zero interest loan (a.k.a. federal funding advance) into a grant. During the 2022 legislative session \$13.1M in ARPA funds was approved for L&C. Converting the loan into a grant provided an additional \$1.9M to L&C, while allowing the State to use more

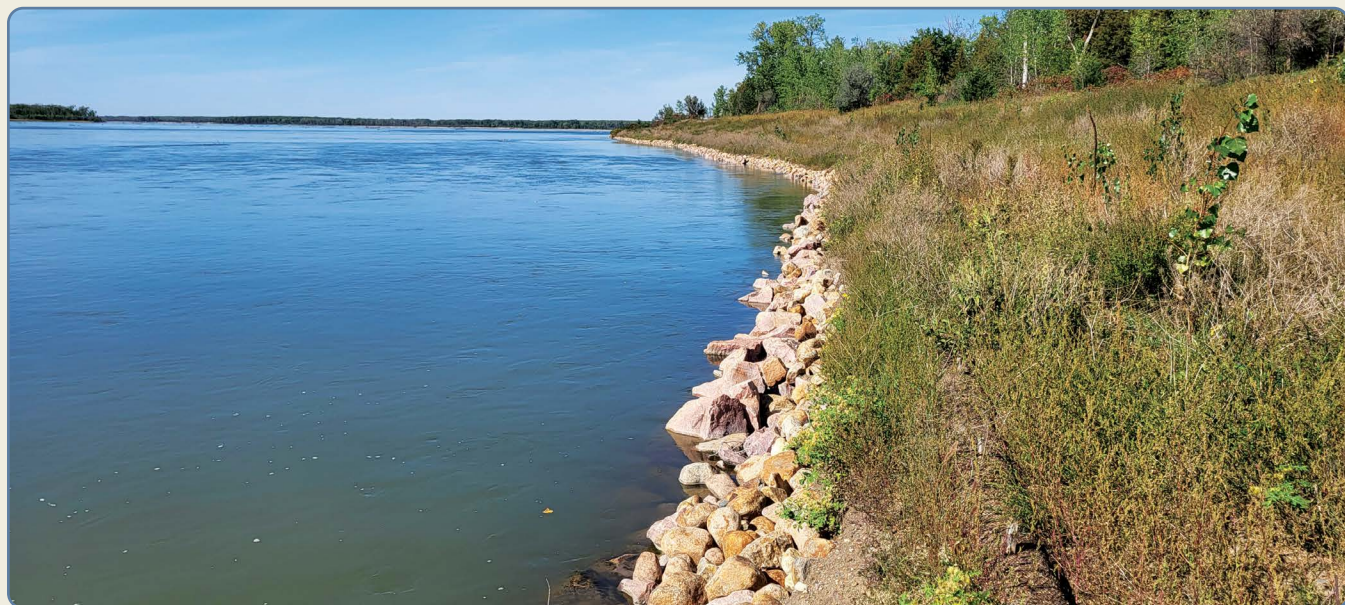
of the ARPA funds elsewhere. Win-win. “A big thank you to State officials on every level for this funding and their continued support!” said Executive Director Troy Larson.

Additional Water Rights Approved

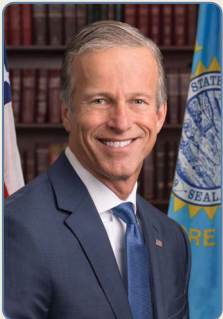
Future Water Rights Application Pending

The SD Water Management Board on March 8 unanimously approved L&C’s request for an additional 7.39 MGD in ground water rights (8,277 acre feet) from the Missouri-Elk Point Aquifer. The request was uncontested and had the support of the SD Department of Ag & Natural Resources (DANR) and the SD Geological Survey. L&C now has ground water rights totaling 47.71 MGD; the amount needed to deliver the base system capacity of 44.19 MGD. The higher number accounts for 5% line loss and 2.5% treatment loss. **The 47.71 is a daily average on an annual basis.** L&C’s max withdrawal on a given day can be up to 51.06 MGD.

An application for another 17.07 MGD (19,121 acre feet) in future ground water rights was submitted to DANR on April 13, which is the well capacity needed when L&C expands to 60 MGD in 2030 or 2031. “This request will be considered by the Water Management Board at its July or October meeting. According to calculations by State officials, there is far more capacity in the aquifer than 19,121 acre feet, so if the Water Management Board recommends approval it will then go to the Legislature during the 2024 session for approval,” said Executive Director Troy Larson. Any request for 10,000 acre feet or more requires legislative approval. The last utility to seek legislative approval for a water right was L&C in 1995.



Delegation Working on FY24 Appropriations



Senator Thune



Senator Klobuchar



Senator Rounds



Senator Smith

The Administration released its proposed FY24 Budget on March 9. It includes \$6.825M for L&C, a slight increase from the \$6.6M proposed in last year's budget! Thank you to the Bureau of Reclamation and the rest of the Administration for its continued support!

Executive Director Troy Larson and lobbyists Jane Lucas and Evan Collier are now working with the tristate delegation to secure additional funding in the FY24 Appropriations Bill. L&C requested a \$12M congressionally directed spending request (i.e. earmark). This is the same amount requested and received last year. Like last year, if approved the funding would be in addition to the Administration's proposed funding. "We are incredibly thankful to Senators John Thune, Amy Klobuchar, Mike Rounds and Tina Smith for each submitting a \$12 million congressionally

directed spending request on Lewis & Clark's behalf! They continue to go above and beyond to help get us across the finish line," said Executive Director Troy Larson.

The six other members of the tristate delegation –

Senator Chuck Grassley, Senator Joni Ernst, Rep. Dusty Johnson, Rep. Randy Feenstra, Rep. Michelle Fischbach and Rep. Brad Finstad – are again working to try to increase programmatic funding for Reclamation's Rural Water Program. "Their efforts and continued support are greatly appreciated. We are basically burning the candle at both ends. What we have found though the last two years is the congressionally directed spending requests are what carry the day. We hope that is the case again this year," said Larson.

Banner's Tim Conner estimates L&C needs a combined \$37M in FY24 to complete the base system. L&C officials expect to receive the rest of the funding needed in FY24 from the Bipartisan Infrastructure Law. "Fingers crossed that FY24 is the last year we need federal funding to complete the authorized base system," said Larson.

Johnson Joins Board of Directors

Sioux Falls' Utility Administrator Ryan Johnson was appointed to the Board of Directors on April 27. He takes over for Gavin Graverson, who recently retired from the City after serving close to two years on the Board.



Left to right: Gavin Graverson and Ryan Johnson

Gavin's next career is a Circuit Rider for the SD Association of Rural Water Systems.

Ryan grew up on an organic farm and graduated in 1994 from Madison High School. He has a Bachelor of Science in Civil Engineering from SDSU. Ryan started with the City in June 2011 as Principle Engineer for Water Reclamation. In September 2021 he was promoted to his current position. Ryan and his wife Tiffanee have an eight-year old son. He enjoys fishing and hunting, especially archery hunting, and also keeps busy with youth sports.

"Our thanks and appreciation to Gavin for his service on the Board. Ryan has attended several board meetings and kept up with all the emails and discussions the last eighteen months, so we know he won't miss a beat," said Chairman Murray Hulstein. Welcome aboard, Ryan!

FROM THE PIPELINE



Senator Tina Smith toured Luverne's new daycare learning facility on April 4. During the tour Smith voiced her strong support to Mayor/Director Pat Baustian for securing L&C funding in the FY24 Appropriations Bill.



Dan Graber retired on March 31 after almost 40 years at HDR. He worked on various L&C projects during many of those years, including the treatment plant, wells and revetment. "All of us at Lewis & Clark express our deepest thanks and appreciation to Dan for his hard work, expertise and professionalism to help get us to where we are today! We wish him the very best," said Executive Director Troy Larson.



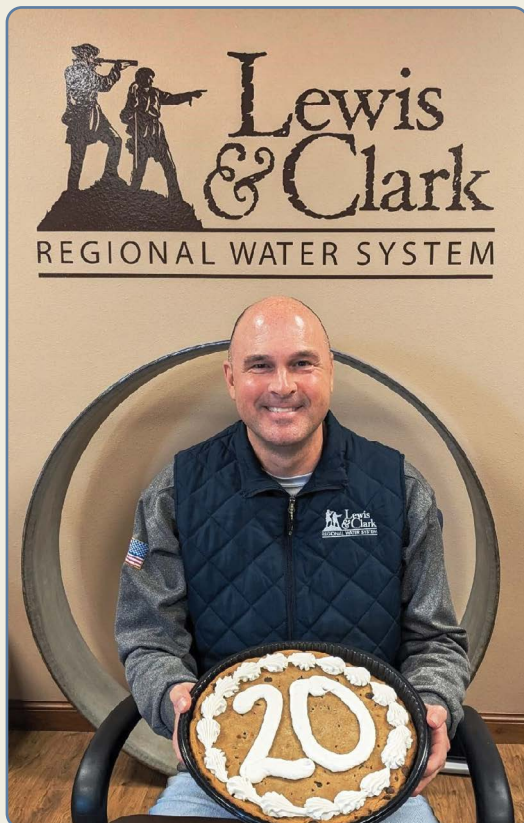
Four people are in new positions with the City of Luverne. Executive Director Troy Larson, Mayor/Director Pat Baustian and Councilman/Joint Powers Board Chairman Kevin Aaker brought them up to speed on L&C at a March 15 meeting. City Administrator Jill Wolf took over for John Call. Finance Officer Robyn Wessels took over for Barb Berghorst. Water Superintendent Darrel Ykema took over for Al Lais. These changes were made because of retirements. Senior Water Operator Aric Uithoven took over for Darrel when he was promoted. Front to back on the left side: Aric, Darrel, Jill and Robyn. Front to back on the right side: Kevin, Troy and Pat. Big thanks to John, Barb and Al for their long-time support and advocacy for L&C!



Gacke Enterprises started removing sludge from the north drying bed in April. Each of the three existing drying beds get cleaned out every three years on a rotation basis. Lime sludge is dried down for application on farm fields.



Hull officials toured the treatment plant on April 20. Left to right: Streets/Storm Sewer Supervisor Todd Woelber and Public Works Director Brent Kleinwolterink.



Executive Director Troy Larson celebrated his 20 year work anniversary in March. He is shown with L&C's late Chairman Charlie Kuehl in March 2003.

Beresford Water Tower Completion Delayed

It is taking Caldwell a few months longer than expected to reach substantial completion due to the ripple effect of the delays with the variable frequency drives for the Beresford pump station (see page 7), as well as completing the controls. They anticipate the controls will be operational by mid-May. The delay thankfully though does not impact L&C's ability to deliver water to Sioux Center and Hull. More coordination is needed though in the short-term between L&C and the operators in those communities. "The team from Caldwell has been great to work with. They were very responsive. Special shout out to project manager Maria Yuhus," said Operations Manager Jim Auen.



Controls room

Pump Station, Meter Buildings & Disinfection Completed

After a painful eight month delay getting the four variable frequency drives for the four pumps that were added at the Beresford pump station, D.W. Proehl finally reached substantial completion on February 24. Getting the pump station operational had a ripple effect on other projects. It was the lynchpin that allowed Carstensen Contracting to flush, pig (see photos) and disinfect the lines between the Beresford pump station and Hull. It also meant the Beresford water tower could be put into operation, as well as allowed D.W. Proehl to reach substantial completion on the Sioux Center and Hull meter buildings on April 4 and 5 respectively.



Hull Reservoir Contract Awarded

A \$3.36 million contract was awarded to DN Tanks on April 27 for a 1.5 million gallon ground storage reservoir a few miles southwest of Hull, Iowa. This project is part of expanding the System from 44 MGD to 60 MGD. Construction is expected to start in the spring of 2024; substantial completion deadline is November 2024. A portion of the \$12M in American Rescue Plan Act funding provided by the State of Iowa will be used for

this contract, which, along with \$15M in funding provided by the State of South Dakota (see page 2), helps lower the still hefty price tag of the expansion for the members. “We are incredibly thankful to Iowa and South Dakota for this funding. The members’ remaining expansion cost share is estimated at over \$100 million in today’s dollars,” said Executive Director Troy Larson.

Hull Pump Station Delayed

No Impact to Sheldon Meter Building

West Branch has been making remarkable progress on the Hull pump station and Sheldon meter building. The process piping has been completed in both facilities. Due to a snafu not of their making, however, they will not meet the October 2023 substantial completion deadline on the pump station because the pumps are not scheduled to arrive until at least November and possibly later. The shop drawings for the pumps were approved last November, but due to a mix-up the pump supplier readily admits was on their end the pumps were not ordered until March 14.

Based on Banner’s hydraulic modeling, the engineers are confident enough capacity can gravity flow to the Sheldon water tower and Sheldon meter building without the pumps to ensure substantial completion is not delayed on either of those projects. It is also anticipated a limited amount of water could be delivered to Sheldon without the pumps if City officials deem that necessary.



Hull pump station



Rear of Sheldon meter building



Operations Update

Staff annually rotates in removing built up scale from two of the four solids contact basins using fire hoses, air chisels and high pressure sprayers as shown below. It is a long and tedious process that takes a couple months of off-and-on work as their schedules allow. They also clean the other basins at the plant including the gravity thickener, equalization, recarbonation and clearwell (lower right photo) on a regular basis.

The treatment plant is being built in three phases; only Phase 3 remains. The main components of Phase 3 include adding two more solids contact basins, a

second gravity thickener, a third lime slaker, conversion to gas chlorination and additional garage/storage space. In a cost-saving move, a second clearwell needed for the expansion to 60 MGD will be included in the Phase 3 contract and invoiced separately. ARPA funds from SD will cover roughly half the cost of the clearwell, with the members covering the rest.

Staff and engineers from Banner and HDR held their first Phase 3 design team meeting in December and they continue to meet on a regular basis. Design is at roughly the 30 percent level. The goal is to award this estimated \$70M contract in the spring of 2024.



Collector Well Finally Operational

Welfl Construction finally reached substantial completion on the Site B collector well on April 11. “It took ten months longer than originally thought, and seemingly whatever could go wrong did, but we are very relieved that we don’t need to try to get through another summer without it,” said Operations Manager Jim Auen.

One very good thing that happened with the collector well is favorable soil conditions allowed Layne Christensen (subcontractor) to install 600 feet more lateral screen than designed. This 34.3% increase in screen in turn increased capacity from 16 million gallons a day (MGD) to 22 MGD. The added capacity required adding a fourth 400 h.p. pump, which was ordered about one year later than the first three. The fourth pump is expected to be operational in June.

Another part of this contract involved adding a surge tank and associated equipment to each of the four existing well houses at Sites A, C, D and E. The engineers originally believed surge tanks were not needed, but later analysis showed they are indeed needed for expected future surge levels. Walls needed to be knocked out to allow the surge tanks to be installed

as shown below. These buildings were not designed to include a surge tank, so it is tight fit. “It would have been a lot easier and cheaper if we had installed these surge tanks when the well houses were constructed, but better late than never,” said Auen. Welfl anticipates completing this work in June, which does not impact current operations.



Iowa Transmission Line Work Resumes

Eatherly Constructors resumed pipe installation in early April on the 17 mile segment of 16-inch diameter PVC pipe between Hull and Sheldon, and has been focusing on road bores as shown below. The substantial completion deadline is this October and they have completed roughly one-third of the project. All of the pipe has been delivered and is staged along the route. The Sheldon water tower is shown in the background of the photo below, which will be painted later this spring.



Madison Service Lines

Halme continued working through the winter as conditions allowed on the 16 mile stretch referred to as Madison – Segments 2 & 3A. They installed 10,000 feet of 16-inch diameter PVC pipe in six wet areas where the freezing conditions made the installation a little less challenging than would have been the case in other times of the year (see photos below). It was still challenging though to be sure. They also focused on tree removal. Halme has installed 39,040 feet of pipe so they are just over 46% complete. Pipe installation will resume soon. October 2023 is the substantial completion deadline.

Carstensen Construction halted pipeline construction in mid-December, but continued working on tree removal as conditions allowed. Due to the endangered Northern Long-Eared bat, tree removal can only be done in the winter and needed to be completed by March 31. Carstensen will soon resume installing 16-inch PVC pipe on this 16.1 mile stretch known as Madison – Segments 3B & 4. They have installed 28,718 feet of pipe so they are just over 33% complete. August 2024 is the substantial completion deadline.





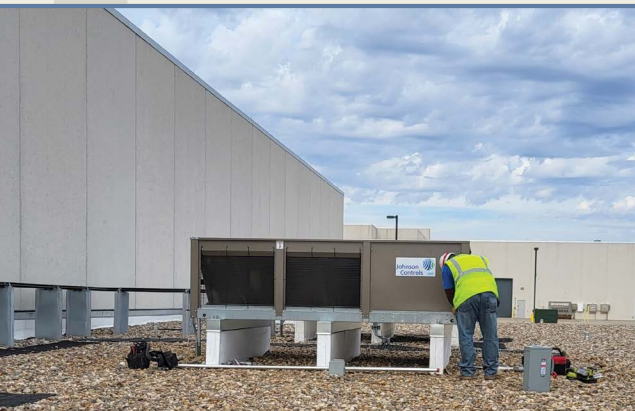
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Plant Improvements Delayed Further

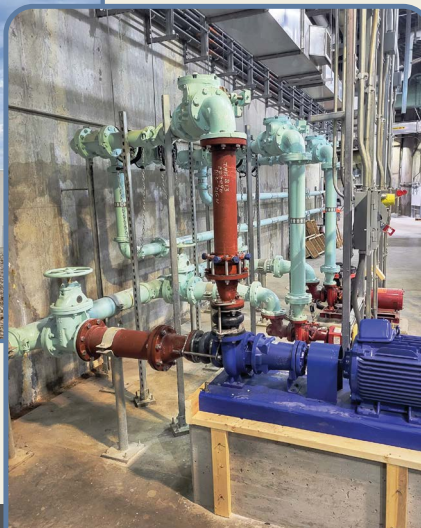
No Impact Expected on Water Deliveries

PKG's substantial completion deadline for this contract is April 2023, but with repeated delays in getting two 1,250 h.p. high service pumps it is now anticipated they will not reach that milestone until late summer or early fall. This just over \$2.7M contract was awarded in December 2021 and the pumps were ordered shortly after. Later a just over \$2.2M change order was approved to add two more 1,250 h.p. pumps that are part of the expansion to 60 MGD. This was a cost-saving move since there was a significant savings to add the two expansion pumps as part of this contract instead of a separate contract later. These expansion pumps have a later deadline.

The delay with the two original high service pumps is fortunately not expected to impact water production. According to Operations Manager Jim Auen, "We currently have four high service pumps. In the past we've only had to run three of them. However, with the collector well coming online and a corresponding increase in demands, including the connection of Sioux Center and Hull, we fully expect we'll need to run all four pumps this summer. **As long as we don't lose a pump, motor or have other mechanical issues, this delay will have no impact on water deliveries this summer. However, if we lose one we could have capacity limitations this summer depending on demands.**"



HVAC unit for the high service pump station electrical room



In the meantime, PKG is making good progress on the other two parts of the project. They added A/C units for the process room to replace the louvers and added an additional A/C unit for the electrical room. They are also installing three 25 h.p. service water pumps for the upsizing of the two existing CO₂ feed skids, along with the addition of a third CO₂ skid.

One of the 25 h.p. service water pumps