



# Explorer

Lewis & Clark  
REGIONAL WATER SYSTEM

WINTER 2010

## “Golden Spike” for the 54" Main Trunk Line



Don Kelly Construction (DKC) successfully pressured tested Treated Water Pipeline – Segment 8/7B, an 11 mile stretch of 54" diameter pipe in southern Clay County near Vermillion. On December 1, they installed the last section of the 54" pipe for the 69-mile main trunk line between the Missouri River and Sioux Falls. This was the “golden spike” that connected this segment to the rest of the previously completed trunk line. It was a celebrated milestone, marked by Chairman Red Arndt and others on hand signing their names to the pipe. Hoping for no leaks, Water Plant Superintendent Jim Auen quipped, “I never want to see that pipe again.” DKC has some clean up and re-seeding remaining, which will be completed this spring.

As this contract nears completion, two other pipeline projects got underway this fall – the Parker and Centerville service lines (one contract) and Treated Water Pipeline – Segment 10 (TWP-10) southeast of Sioux Falls, which is the first segment of the Minnesota Transmission Line. Nitteberg Construction of Estelline, SD and Morgan Contracting of Albertville, MN are the contractors, respectively. Both contractors have completed the highway borings and plan to start burying pipe this spring. The Parker line is close to 14 miles of 10" PVC (see photo below) and the Centerville line is five miles of 6" PVC. TWP-10 is five miles of mainly 30" pipe. November 2010 is the substantial completion deadline for both projects.

## Construction Begins on Two Other Pipeline Projects



## Chairman's Report – Red Arndt

Congratulations to the Lewis & Clark Regional Water System, which marked its 20 year anniversary of incorporation on January 29! Many may be surprised to know the project has been underway for so long, but for those of us who have been around from the start it often seems much longer. After incorporation, the first organizational meeting was held at the Howard Johnson Hotel in Sioux Falls on April 18, 1990. I remember being at that meeting, which according to the minutes lasted only 30 minutes (that'd be nice!).

No project like L&C has ever been attempted before, where the Federal government, three states and 20 cities and rural water systems are working cooperatively to address critical water needs in such a large service area. It is truly a remarkable undertaking in that regard. Nothing worth doing is ever easy and if you are doing it for the first time, it adds an increased level of difficulty. That certainly has been true

for L&C these last 20 years. While we've had more than our share of challenges, we've also been blessed in so many ways these past 20 years, including but not limited to – getting the project authorized, which was a Herculean task in itself; strong bi-partisan support from elected leaders; close working relationship with the Bureau of Reclamation and SD Department of Environment & Natural Resources; top notch engineers, attorneys and consultants; pre-payment by the members and States; stimulus

funding; and dedicated and visionary directors and staff.

One of those dedicated and visionary directors was Don Habicht of Worthington, MN. He was there from the start and made many trips with us to St. Paul and Washington, D.C. We benefited greatly from his expertise and common sense. Sadly, Don passed away in late October. We are better people for having known and worked with Don. He was a good friend.



Don Habicht

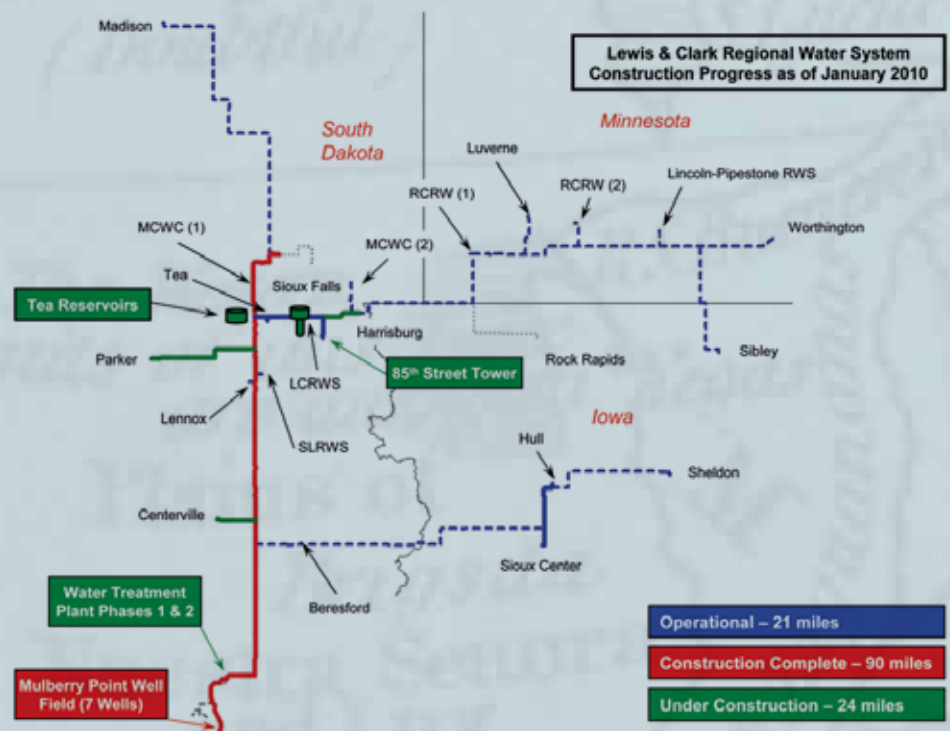
*"We are better people for having known and worked with Don. He was a good friend."*

Those involved with L&C have shown a great deal of determination and perseverance through the years. Despite the many hurdles, we've all maintained our belief in the project and eternal optimism in its eventual success. We lift our glasses in celebration of 20 years of vision and 20 years of progress! Here's a toast to completing the project before the end of the decade.

## 20 Years of Vision, 20 Years of Progress!

January 29th marked the 20th anniversary of Lewis & Clark's (L&C) incorporation. The idea for a regional water supply system started in 1989 and the organization, then known as the Southeastern South Dakota Water Supply System, was incorporated on January 29, 1990. The first Board meeting was held on April 18. From the delegates and alternates represented at that first meeting, 16 directors were elected, including current Director John Buss (MCWC). It is ironic to note that of the 16 cities and rural water systems those first directors represented, only six are still members. In its early stages, L&C had over 50 members. When it came time to sign the Commitment Agreement in 1993, quite a few dropped out.

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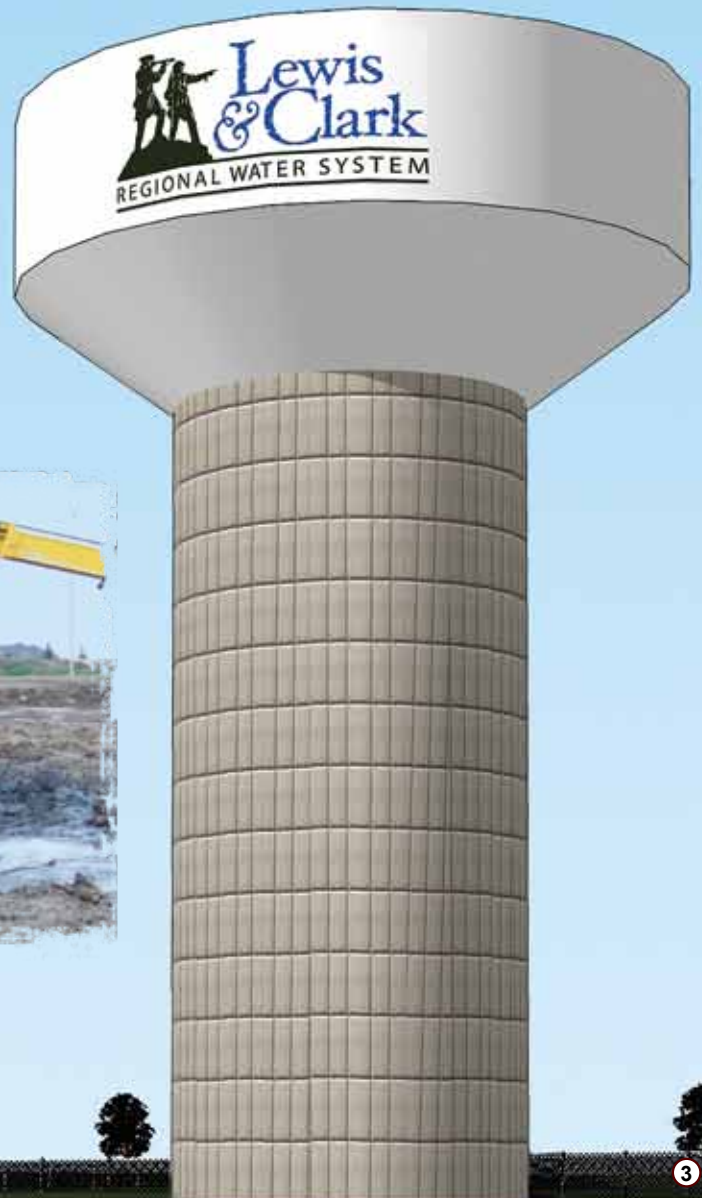
## Construction Underway on Tea Reservoirs & 85th Street Water Tower

Construction began this fall on two projects that are high profile, literally and figuratively – the two 7.5-million-gallon reservoirs near Tea (one project) and the 3-million-gallon composite water tower along 85th Street in southern Sioux Falls. The contractors are NATGUN of Wakefield, MA and Landmark Structures of Fort Worth, TX, respectively. Both contractors made substantial progress this fall on the foundations, and plan to begin construction of the structures themselves this spring.

The foundations for the two above ground reservoirs were excavated to 12 1/2' deep and 169' in diameter. They were then filled with compacted sand and rock (see photo below), which serve as the base for the floors of the reservoirs. Soukup Construction of Sioux Falls is the excavation subcontractor. NATGUN plans to construct the reservoirs simultaneously. When completed, the reservoirs will be 70' high at the peak of the domes. October 2011 is the substantial completion deadline. The pump station, which will be located between the two reservoirs, will be bid in mid-March.



On the 85th Street water tower, results of the soil stress tests were better than expected, which reduced the needed number of pilings. The piling system serves as the foundation for the water tower. Ninety-five pilings were installed, each 94' deep and 18" in diameter. The pilings were constructed by drilling a hole and filling the hole with concrete grout as the hollow shaft auger was pulled out of the hole. Rebar was lowered into the top 20' of the holes (see bottom photo). A three foot thick, 72' diameter concrete "pile cap" that will tie all the pilings together will be poured this spring. Blackhawk Foundation of Geneseo, IL is the foundation subcontractor. Three million gallons is the largest capacity water tower currently in use in the U.S. When completed, the water tower will be 184' high and the bowl will be 116' in diameter. November 2011 is the substantial completion deadline.



## Administration Only Proposes \$2 Million for Lewis & Clark

Lewis & Clark (L&C) officials and Congressional leaders expressed disappointment with the Administration again only proposing \$2M for L&C in the FY11 Budget, which was released on February 1. The tri-state Congressional delegation had urged increased funding for the project, including the SD delegation meeting personally with Office of Management & Budget (OMB) Director Peter Orszag.

Senator John Thune said, “The unacceptably low funding levels in the President’s budget will further delay construction.” In questioning the Administration’s priorities, Thune remarked “The amount of money the Bureau of Reclamation was allocated was about \$1.1 billion. \$350 million of that is being used for endangered species, but they could only find \$2 million for a water project that is going to serve literally hundreds of thousands of people?” Elected leaders have re-affirmed that L&C remains a top priority for them and will do whatever they can to increase funding levels.

In addition to the budget being cut for the Bureau of Reclamation, OMB again used the stimulus funding as a reason to offset L&C’s annual appropriation. A point of frustration for elected leaders and L&C officials. “It doesn’t make much sense to create jobs on the front end with the stimulus funding, only to take away jobs on the back end by cutting annual funding. Two million dollars wouldn’t allow us to award any projects, since none are that small,” said Executive Director Troy Larson.

Despite perennial Federal funding shortfalls (with the notable exception of the stimulus funding), L&C has somewhat maintained its construction schedule because of the pre-payment by the members and States. However, those supplemental funding sources will be exhausted in 2010. Beginning with the FY11 Budget, L&C will be entirely dependent upon Federal funding for the amount of construction it is able to perform each year. “That is why the FY11 Budget is so critically important,” said Chairman Red Arndt.

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*-Senator John Thune*

Despite their disappointment and frustration, L&C officials and the Congressional delegation have been down this road before. In an effort to increase funding levels, they will continue to make the case during the appropriations process that increased funding for L&C creates jobs during construction and ensures critical water needs are met in a timely manner, thereby creating jobs through expanded economic development opportunities. They will also emphasize the pre-payment made by the members and States (SD is poised to approve its final payment of \$6.3M this session).

In FY09, Congress approved \$27M for L&C after the Administration proposed zero. After the Administration proposed \$2M in FY10, Congress approved \$10M, a much lower amount than the previous year due to the stimulus funding. L&C officials are confident Congress will again be able to significantly improve upon the Administration’s number. The project needs \$35M a year to keep on schedule, which is already two years behind.

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# Treatment Plant Construction Slowed by Winter Weather



Aerial view of the work on the four solids contact basins.

Foley Construction and their subcontractors have not let winter stop construction, but the heavy snows, freezing rain and bitter cold have certainly slowed the progress being made. Despite the cold and snow, concrete continues to be poured for both phases. In addition to routinely moving snow, a great deal of time is spent heating the ground in preparation for the concrete.

*Reminder: you can follow the construction progress by webcam, which can be accessed by the Live Webcam link on Lewis & Clark's website ([www.lcrws.org](http://www.lcrws.org)).*

**Phase 1:** This phase includes a 3-million-gallon underground reservoir, pump station, standby generators and electrical building. The reservoir is divided into two parts – water enters from the plant and is held in the clearwell until it is pumped out of the wetwell. The concrete deck of the reservoir is completed, so the reservoir is now covered. The pre-fabricated walls and roof were erected for

the electrical switchgear building over a three-day period in late October. The electrical subcontractor, E&I out of Sioux Falls, is busy installing the electrical conduit and switchgear infrastructure in the building.



Electrical switchgear building

**Phase 2:** This phase includes the main treatment plant building. Construction is well underway on the solids contact basins. The concrete center column bases for the four basins have been finished, and the contractor has poured roughly half of the concrete for the floor area. Work recently began on the stub walls that will surround the basins. (see bottom photo) The entire basin area is 230' by 230', which is roughly one-third of the plant's footprint. Construction is expected to begin this summer on the remaining portions of the plant (e.g. re-carbonation and equalization basins, filters, chemical feed area, and administrative/maintenance areas).

In addition, the three lime sludge lagoons have been excavated and finish grading and seeding will take place this spring. LRC Contracting of Spicer, MN is the excavation subcontractor.



"Flowable fill" (thinner consistency concrete used for filling gaps) being poured in the floor area of one of the solids contact basins.



Baffle walls in the clearwell portion of the underground reservoir. This maze of walls ensures the first water into the reservoir is the first water pumped out. The entire reservoir is now covered.

## 20 Years of Vision, 20 Years of Progress! *continued*

During these past 20 years, L&C has essentially been divided into three phases. The first was authorization. The stories are legendary about the many battles on Capitol Hill to get the project authorized. Those involved with L&C never imagined it would take over ten years just to get the project authorized. They stuck with it though and the project was finally signed into law in July 2000.

Once the project was authorized, the second phase of securing the environmental and engineering approvals began. This process also took longer than expected, but the Finding of No Significant Impact environmental clearance was finally issued in March 2003 and the Final Engineering Report was approved by Congress in November 2003. This was the long-awaited green light to start the third and current phase – construction. The first pipeline contract was awarded in November 2003.

Over the last six years, thanks in large part to the members and states pre-paying their share of the project, L&C has approved construction contracts and change orders totaling just over \$250 million. In current dollars, the estimated cost of the entire project is approximately \$537 million.

When the treatment plant begins operation in 2012, it will begin the fourth phase of the project. For several years L&C will be in both an operations phase and construction phase, which will undoubtedly bring a new set of opportunities and challenges. Depending on Federal funding levels, the System should be completed sometime between 2017 and 2020. With the next five years promising to bring a great deal of progress and opportunity, everyone involved with L&C eagerly looks forward to its 25th Silver Anniversary.

Former Executive Director Pam Bonrud and late Chairman Charlie Kuehl proudly show off the first Federal funding received by Lewis & Clark in July 2000.

