The Oxbow

FROM THE NORTH DAKOTA STATE WATER COMMISSION

State Water Commission
Approves Rural Water Supply Funding

Continuing its strong support for rural water development, the Water Commission approved $31.35 million at its February meeting for projects associated with the Southwest Pipeline, McLean-Sheridan Water District, North Central Rural Water Consortium, and Stutsman Rural Water.

House Bill 1269, which had an emergency clause to make funding available as soon as possible, appropriated the necessary funds for the projects, and was signed by Governor Dalrymple on February 19.

With the increase in population that has resulted from the oil boom, water demand upon the Southwest Pipeline Project (SWPP) faces the real possibility of exceeding the design capacity of the system in the years to come. In order to be prepared for that demand, the State Legislature, Water Commission, Southwest Water Authority (SWA), and counties in the area have identified additions to the SWPP necessary to maintain sufficient capacity to meet the increasing needs of the population in the service area.

Specific to the SWPP, $21 million was appropriated by the legislature, and then approved for cost-share by the State Water Commission. Of the $21 million, funding will go toward:

A main transmission line (18.75 miles of 14-16" PVC pipe and 6 miles of 6" PVC pipe) from the Oliver Mercer North Dunn (OMND) water treatment plant, a Dunn Center Booster Station (50,000 gallon underground reservoir and three 120 horsepower (HP) pumps).

Three 50 HP pumps at the OMND water treatment plant to move water to the Dunn Center Booster Station.

A second potable water reservoir at the OMND water treatment plant with a 1.67 million gallon capacity.

A 200,000-gallon water tank at Dunn Center to serve Killdeer, Mountain, and the Grassy Butte area from the OMND water treatment plant.

A 25.8-mile long main transmission line (18" to 8" PVC pipe) from the Dunn Center booster station to Killdeer, west of Killdeer, and Dunn Center.

House Bill 1269 also provides $10.35 million for rural water projects – as previously mentioned. With that guidance, the Water Commission approved cost-share for:

McLean-Sheridan Water District's Blue and Brush Lake Expansion Project in order to provide a more reliable water supply for 250 rural users and to address water quality issues associated with high iron, manganese, and sodium in the current water supply. Cost-share approval is for 50% of eligible costs - up to $800,000.

North Central Rural Water Consortium's city of Plaza project, including two miles of pipeline to provide water service to 171 people in Plaza who are dealing with local supplies high in sulfates and dissolved solids. Cost-share approval is for 50% of eligible costs - up to $250,000.

Stutsman Rural Water District's Phase II-B and Phase III projects to provide water supply to 574 rural members, and the cities of Woodworth and Streeter. Cost-share approval is for 70% of eligible costs - not to exceed $2.5 million for Phase II-B, and 75% of eligible costs not to exceed $7.5 million for Phase III.

Dalrymple Signs Legislation for Water Supply, Flood Protection and Water Management Projects

House Bill 1020 is the State Water Commission budget for the 2013-205 biennium, which allocates more than half a billion dollars from the Resources Trust Fund for water development. This historic level of funding supports permanent flood control in communities across the state, as well as infrastructure to bring fresh water to households and to industry in our growing western communities.

Of the many projects identified in the bill, highlights include:

- The Western Area Water Supply (WAWS) will receive $40 million for the Williston Water Treatment Plant expansion, as well as an additional $79 million to expand the fresh water supply into rural areas and communities in western North Dakota. This brings the total WAWS project funding to nearly $230 million.

- The Southwest Pipeline Project is allocated $79 million to move forward with construction of transmission lines in Dunn and Oliver Counties from the new water treatment plant near Zap, an upgrade of the Dickinson Water Treatment Plant, and expansion of raw water transmission. Funding will also expand rural water supplies.

- To enhance water supply statewide, $96 million will fund the Northwest Area Water Supply ($14 million), the Red River Valley Water Supply project ($11 million), and several rural water supply district expansions, treatment plant upgrades and improvements, and system storage or pump station improvements.

- $100 million will fund permanent flood protection in Fargo and surrounding communities.

- $61 million will go toward permanent flood protection in Minot, including planning, design, engineering, and home acquisitions.

- $31 million will support both Sheyenne River and Devils Lake flood control. On the Sheyenne, $21 million will be used for permanent flood control projects in Valley City, Lisbon, and Fort Ransom, including property acquisitions, and flood walls and levees. For Devils Lake, $10 million will continue operations of the east and west end outlets that continue reducing water levels and flooding.

- For general water management statewide, House Bill 1020 includes $33 million for rural and other flood control, dam safety, repairs and reconstructions; snagging and clearing; studies and planning; and Devils Lake outlet downstream mitigation.

"As progress is made with each water project, there is no doubt that we will see the benefits," Governor Dalrymple said. *"It all relates back to quality of life. For generations, North Dakota has been the best state to live, work and raise a family. These water projects will play a significant role in ensuring that, while we may be growing and in some respects changing, our reputation for a great quality of life continues for generations to come."*

In total, House Bill 1020 provides $515 million to support flood control, water management and water supply needs across North Dakota.

For additional information about North Dakota's future water development efforts, see the 2013-2015 Water Development Plan at www.swc.nd.gov.

SHAVER RETIRING AFTER 37 Years

After nearly four decades of distinguished service to the people of North Dakota, Bob Shaver, Director of the Water Appropriations Division for the Water Commission, is retiring.

Bob grew up in Detroit, Michigan, earning both Bachelors and Masters of Science degrees in with emphasis in groundwater hydrology geology from Wayne State University. While in college, Bob served a tour in Thailand, and his experiences in southeast Asia gave him a strong desire to gain a better understanding about water resources.

Hired by the Water Commission in 1975, Bob entered a field and discipline that was being revolutionized by ever-easier access to powerful computers for analysis of data. *"I was very impressed with North Dakota's water resource program, which is the best in the nation."* Bob noted, *"Strong support by our State Legislature, and a proactive approach to managing the waters of the state for its citizens, makes the Water Commission a place that people come to make a career."*

During his tenure at the Water Commission, Bob credited the visionary efforts initiated by Milt Lindvig, who was Director of Water Appropriations for decades, and previous State Engineers, in planting the seeds that are bearing fruit today. *"Having a long-term, continuous period of record for ground and surface water information throughout the state, through highly variable climate conditions, has resulted in an exceedingly high quality, detailed, database of the state's waters, that is the envy of other states." "While the daily, monthly, and yearly collection and analysis of water resource data by our highly qualified staff is not as exciting as a ribbon cutting on a big construction project, it is the foundation of making wise decisions about management of the waters of the state."*

The value of those exhaustive records and long-term analysis has been demonstrated in recent years, with the development of oil hydraulic-fracturing, which requires access to quality water in significant quantities. Water has been highly appropriated in western North Dakota, and without decades of hard science as a basis for decision-making, effective and sustainable use of water resources would be far more challenging, and time consuming. *"People are becoming increasingly aware that there is a balance among the various water uses; municipal, agricultural, industrial, and wildlife. One negative impact may not outweigh numerous positive impacts."* Bob stated.

In reflecting on his career, and recent developments in the state, Bob foresees that the courts will be increasingly drawn in to answer where the balance between competing water uses lies; that horizontal drilling into previously difficult to tap thin, fine textured surficial aquifers will become a game changer for irrigation; and that artificial aquifer recharge could prove to be a vital tool in mitigating the boom-bust nature of precipitation that the state frequently experiences.

While Bob is looking forward to pursuing his passions of international travel and music after his retirement, he also intends to stay involved in the discipline that has served him so well, by publishing hydrology articles in professional journals, and remaining available to the Water Commission staff as a resource when necessary. *"Working with the fine people of the Water Commission has been like playing an instrument in a symphony; many talented and skilled professionals collaborating to create something whose value is greater than the sum of its parts."*

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