The Oxbow
FROM THE DEPARTMENT OF WATER RESOURCES

NORTHWEST AREA WATER SUPPLY
CONTINUING PROGRESS

The Northwest Area Water Supply (NAWS) project began in 1987 as an answer to poor drinking water quality and quantity issues in northern North Dakota, by supplying communities and rural areas in that region with water from the Missouri River. Within the NAWS project area, communities have historically dealt with high Total Dissolved Solids (TDS) and elevated levels of iron, manganese, sodium, sulfate, hardness and other contaminates. For instance, the City of Berthold's water source was found to be unsuitable as a public supply due to high levels of TDS and sodium and Kenmare's water supply contained arsenic levels that exceeded primary drinking water standards. Since 2008, these communities, and others, have been relying on the City of Minot to deliver suitable drinking water as an interim water supply until NAWS can be completed.

Construction on NAWS initially began on April 5, 2002, but lawsuits delayed the project for nearly 17 years. Litigation over environmental and water depletion concerns ended in 2019 when the District of Columbia Circuit Court of Appeals affirmed a previous ruling favoring the Department of the Interior, subsequently allowing the project to finally continue. Today, many NAWS projects are well underway or nearing completion. Remaining NAWS efforts are projected to be finished in 2029, with a final upgrade at the Minot Water Treatment Plant and completion of Phase II at the Biota Water Treatment Plant. The following are updates related to ongoing NAWS projects.

MINOT WATER TREATMENT PLANT IMPROVEMENTS

In February 2018, the State Water Commission (SWC) awarded a contract to replace aging softening and chemical storage and dosing infrastructure at the Minot Water Treatment Plant with a new addition to the primary treatment building. The filtration capacity was updated under a prior project initiated in 2012. Today, the facility is currently producing water. Finishing touches on the project have begun, with the project scheduled to be fully operational later this summer. The estimated total project cost is $33 million.

BIOTA WATER TREATMENT PLANT

To comply with the Boundary Waters Treaty Act of 1909 and the supplemental Environmental Assessment enforced during litigation, the Biota Water Treatment Plant was initiated to reduce the transport of animal and plant life (biota) across the continental divide into shared watersheds with Canada. Located near Max, ND, the facility will use conventional water treatment methods for removal or inactivation of aquatic species, pathogens and microbes native to the Missouri River Basin before the water is transported further north into the Mouse River Basin.

Contracts for the plant were awarded in February 2021 and Notices to Proceed for the general and electrical construction were issued in March 2021. Currently, the project is well underway with most of the concrete structures being erected and equipment scheduled to be installed later this year.

Department of Water Resources (DWR) staff estimates the project to be half complete, with Phase I currently on pace for final completion in the summer of 2024. The capital and operation costs are, and will be, a federal responsibility established by the Dakota Water Resource Act of 2000. The estimated project cost of Phase I is $64 million. Costs associated with Phase II have yet to be determined.

LANSFORD RESERVOIR & PUMP STATION

The Lansford Reservoir and Pump Station, located north of the Minot Air Force Base, is nearing completion. This 4.5-million-gallon reservoir and 2,500 gallon per minute pump station will serve as the primary storage on the distribution system north of the City of Minot, allowing additional user turnouts to be activated as more water from the Minot Water Treatment Plant becomes available. The estimated project cost is $11.7 million.

SOURIS CORNER TO BOTTINEAU DISTRIBUTION

Roughly 14.5 miles of distribution pipe and related appurtenances, known as the Souris Corner to Bottineau project is nearly complete and ready to use. This undertaking acts as the final leg of the potable distribution system. Payments on the final contract have been funded and the system is preparing to go operational. Initiation of water distribution to Bottineau is anticipated to begin later this fall with completion of the Lansford Reservoir and Pump Station, and efforts to shore up firm capacity of the ground water supply system. The estimated project cost is $5.7 million.

SNAKE CREEK PUMPING PLANT

The design phase for intake modifications to the Snake Creek Pumping Plant is nearing completion, with the permit application submitted to the Corps of Engineers (COE) in May 2022. DWR Director, Andrea Travnicek, met with the COE in July to provide input on the pending application, and to encourage its timely processing. Project bidding will commence after final approval of the COE permit. The current estimate for project cost is $35 million.

SUPPLEMENTAL SUNDRE AQUIFER WELL

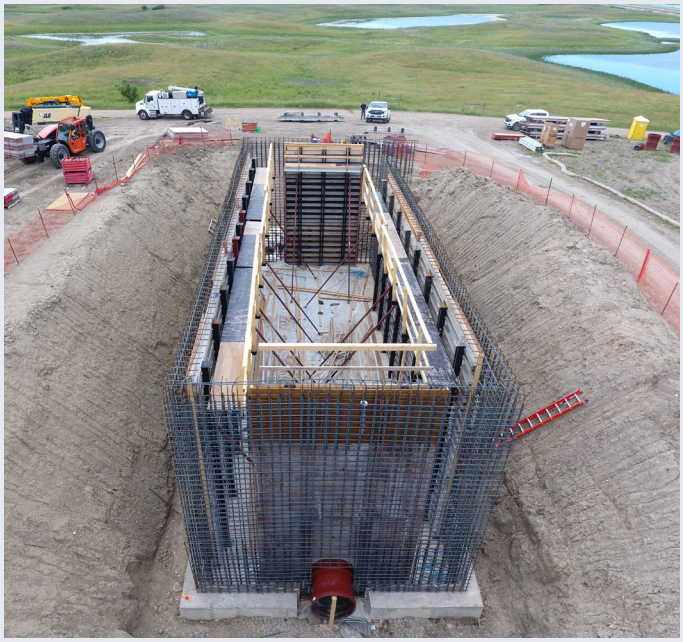
Contracts have been awarded to install an additional supply well in the Sundre Aquifer to fulfil the needs of the NAWS Interim Water Supply project. Since 2008, NAWS has been purchasing 4-4.5 million gallons of water per day from the Minot Water Treatment Plant. In 2021, one of the source wells temporarily failed, emphasizing the need for the additional well. Once activated, the new well will contribute to a firm capacity of 14-15 million gallons per day. A location for the well has been decided, with completion anticipated for late 2022. Project cost is estimated at $600,000.

SOURIS & BOTTINEAU RESERVOIRS & BOOSTER STATION

Design on the Souris and Bottineau Reservoirs and Booster Pump Station projects is nearing completion, with project bidding approaching. Consisting of a one-million-gallon ground storage reservoir and pump station and a three-million-gallon storage reservoir and pump station, this project will aid in supplying water to the City of Bottineau and All Seasons Water Users District northwest of Bottineau.

SOUTH PRAIRIE RESERVOIR & HYDRAULIC CONTROL STRUCTURE

Work is underway on the South Prairie Reservoir and Hydraulic Control Structure project. Designed to provide system stability, the projects consist of a 10-million-gallon (average day demand) reservoir, a hydraulic control structure and a flow control facility. The reservoir is scheduled to be complete in 2023. Work on the flow control structure will begin after the hydraulic control structure is complete. Completion of the entire project is slated to be coincidental with the Biota Water Treatment Plant, concluding in 2024. The estimated project cost is $18 million.



For more information on NAWS and other projects, please visit the Department of Water Resources website at www.dwr.nd.gov.