North Dakota's NORTHWEST AREA WATER SUPPLY PROJECT

DESIGNED TO SERVE 81,000 PEOPLE



HISTORY

In order to address long-standing water quality and quantity problems experienced by residents of northern North Dakota, the Northwest Area Water Supply (NAWS) project was authorized by the Garrison Diversion Reformulation Act of 1986 and the Dakota Water Resources Act of 2000 under the Municipal, Rural, and Industrial (MR&I) Grant Program. Previously, as a part of the federal Flood Control Act of 1944, water supply was planned for the region along with construction of the Missouri River mainstem dams.

In 1991, the state passed a law creating the NAWS Advisory Committee, while giving the North Dakota State Water Commission (SWC) the authority to construct, operate, and manage the project. In 2023, the NAWS Advisory Committee transitioned to an Authority by Legislative action as detailed on page 4.

Construction of NAWS began on April 5, 2002, with a main line and associated features to be built between the city of Minot and Lake Sakakawea. Later in 2002, lawsuits were initiated, delaying the project for years. The District Court ruled in favor of the project in 2017, and that decision was upheld by the Appellate Court in 2019 - ending 17 years of litigation. Since 2019, construction on the NAWS project is back underway with the construction of pipelines, storage reservoirs, pump stations, and water treatment plants.

PROJECT FEATURES

(after completion)

- 1 Raw Water Intake & Pump Stations
- 1 Raw Water Reservoir
- 1 Hydraulic Control Structure
- Biota Water Treatment Plant
 (24.5 Million Gallons Per Day Capacity)
- MGD Water Treatment Plant
 Maximum Daily Flow
- High Service Pump Station
 (Shared High Service Pump Station)
- 5 Ground Storage Reservoirs
- 1 Elevated Storage Reservoir
- 10 Pump & Booster Stations

Miles Of Pipe

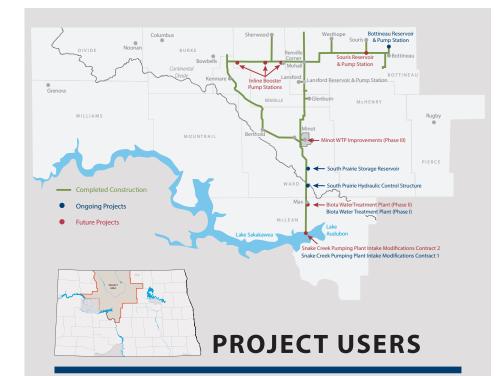
PURPOSE & NEED

Prior to the NAWS project, communities within the NAWS project area were supplied by groundwater that did not meet secondary drinking water standards. Total dissolved solids (TDS) are elevated throughout the project area, and many communities also experience elevated levels of iron, manganese, sodium, sulfate, hardness, and other contaminants. Berthold's groundwater from the Fort Union aquifer was found to be unsuitable as a public supply due to very high levels of TDS and sodium, and Kenmare's water supply contained arsenic levels that exceeded primary drinking water standards.

Since 2008, the city of Minot has been providing water from the city's groundwater wells to the communities of Berthold, Burlington, Kenmare, Sherwood, Bottineau, Westhope, and Mohall, as well as to rural water systems including West River, All Seasons, Upper Souris, and North Prairie to temporarily alleviate some of the area's most severe problems. However, this is not a long-term suitable water supply. The Minot and Sundre aquifers, although recharged during the record flooding of 2011, continue to decline. An intake for the NAWS project on Lake Sakakwea is currently under construction, but until operational, the aguifers will be used to augment the system.

AQUIFERS MINOT & SUNDRE

The Minot aquifer has been used as a source of public water supply by the city for the past 95 years, in conjunction with the Sundre aquifer and the Souris River. Although Minot holds a permit to withdraw water from the Souris River, the river is no longer used as a regular source to meet municipal demands due to treatment difficulties and unreliability of the river (quantity and quality). The future availability of aquifer water for the city of Minot is also very uncertain, both in terms of quantity and quality.



NAWS is designed to service a project area of 81,000 people, (63,000 in urban areas). Most recently, service was added to the city of Bottineau in October 2022, Upper Souris Water District System I in February 2023, and the city of Westhope in October 2023. Combined these newer connections increased water service under NAWS contracts by 60%.



Westhope







PROJECT CONSTRUCTION & FINANCING

The \$440 million NAWS project was intended to be funded on a cost-share basis with 65 percent federal funds from the federal Municipal, Rural and Industrial (MR&I) water supply program, and 35 percent through local funding. With the legal challenges that faced the project and difficulties in the federal funding, the Department of Water Resources continued to advance the project for years with only state and local funds. The city of Minot has been covering the entire local share through a 1 percent city sales tax. Those users who purchase water from the system will pay for the operating costs of the water delivery system. With an increase in available federal funds over the last several years - federal support of NAWS totaled about \$176 million by late 2023. For additional information related to NAWS funding, scan the QR code.





SCAN FOR NAWS FUNDING

NAWS WATER USE COMPARISON



Missouri River System Capacity

69.4 MAF (million acre feet)

Projected Average Annual NAWS Water Use In 2060

0.0136 MAF

CONSTRUCTION RESUMES

Construction resumed upon lifting of the court injunction in August 2017. Upgrades to the softening basins, associated chemical storage, and feed systems at the Minot Treatment Plant are nearing completion. The distribution pipeline contracts and the Lansford Reservoir and Pumping Station are complete and operational. Phase I of the Biota Treatment Plant in Max is under construction, with final completion scheduled for 2024. The South Prairie Raw Water Reservoir and Hydraulic Control Center are nearing completion. Procurement, demolition, and construction contracts are in place and underway for the intake modifications at the Snake Creek Pumping Plant and the discharge connecting the plant to the NAWS raw water transmission line is under contract and partially constructed with completion estimated in 2025. The reservoir and pump station near Bottineau is under construction with completion in late 2024. The remaining Souris Reservoir and Pump Station, in-line booster pump station, Phase III improvements to the Minot Water Treatment Facility, and Phase II/III of the Biota Water Treatment Facility will be designed and constructed as funding and water availability allow and as water demands dictate.

Average Annual NAWS Water Use

0.02% of Total Missouri River System Capacity



NAWS AUTHORITY

In 2023, the 68th North Dakota Legislative Assembly passed House Bill 1218, transitioning the Northwest Area Water Supply (NAWS) Project's Advisory Committee created in 1991 into the NAWS Authority. The bill changed portions of North Dakota Century Code (N.D.C.C.) § 61-24.6 and became effective on August 1, 2023. This transition puts the NAWS Authority in line with the other regional systems in the state. The NAWS Authority includes representatives from all entities receiving water from the project.

N.D.C.C. § 61-24.6-04 requires the State Water Commission to consult with the NAWS Authority in carrying out responsibilities related to NAWS, including when the Commission moves forward with efforts to:

- Accept funds, property, services, or other assistance, financial or otherwise, from federal, state, tribal, and other public or private sources for the purpose of aiding and promoting the development of a project to deliver water to northwestern North Dakota.
- Cooperate and contract with the state, its agencies, or its political subdivisions, the Three Affiliated Tribes, or any agency of the United States, in research and investigation or other activities promoting the development of a project to deliver water to northwestern North Dakota.
- Appoint and procure the services of engineers, attorneys, and others to assist in developing a project to deliver water to northwestern North Dakota.
- Exercise such other powers as may be necessary for, or incidental to, the achievement of the purposes of N.D.C.C. § 61-24.6.
- Construct, operate, and manage a project to deliver water throughout the project area.

| ADVISORY BOARD 7 VOTING 1 NON-VOTING | 2023 Transition | | NAWS AUTHORITY (HB 1218) 9 VOTING 2 NON-VOTING |
|--|-----------------|---|--|
| City Of Minot | 1 | 4 | City Of Minot |
| County Water Resource District Representative | 1 | 1 | Cities Other Than Minot With Direct Water Service From NAWS |
| State Water Commission | 1 | 1 | State Water Commission Souris River Basin |
| Rural Water Distribution System Representative | 1 | 3 | North Prairie Regional Water District All Seasons Water Users District Upper Souris Water District |
| Garrison Diversion Conservancy District | 1 | 1 | Garrison Diversion Conservancy District (Non-Voting) |
| Turtle Mountain Band Of Chippewa Indians (Non-Voting) | 1 | 1 | Turtle Mountain Band Of Chippewa Indians (Non-Voting) |
| At-Large | 1 | | |
| Municipalities Outside Of Minot | 1 | | |



City of Minot

1200 Memorial Highway · Bismarck, ND 58504 · 701.328.2750 DWR.nd.gov · facebook.com/NDWaterResources

515 2nd Ave SW · Minot, ND 58702 · 701.857.4140