

## High-service pumps the heart of the NAWS system

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A high-service pump station capable of distributing 26 million gallons of water a day is now serving the Northwest Area Water Supply project and City of Minot.

"This is the heart of the NAWS system," project manager Michelle Klose said as equipment vendors, engineers and city and State Water Commission staff checked out the start-up operation Wednesday.

The station, which had been under construction for the past year and a half, went into operation Tuesday. It is in an eight-day commissioning period, during which time it is operating at a testing level.

The plant has four pumps distributing water to Minot at 3,000 to 6,000 gallons a minute. Another four pumps are serving the rest of the NAWS system at 3,000 gallons a minute. The NAWS water is going to Berthold and Kenmare.

If all goes well, the plant will be fully commissioned after the eight days to replace an interim pumping station and the pumping system at the Minot Water Treatment Plant.

So far, Klose said, "It's actually going pretty good"

John T. Jones Construction Co., Fargo, built the \$12.4 million project. Some finishing and landscaping work remains so official completion won't happen until February, although the station will be operating.

In addition to the pumps, other features of the plant include two large tanks filled with water and air that will be used to guard against pressure surges if the flow ever needs to stop suddenly.

Two 1-million gallon reservoirs of treated water also exist underground near the station.

During the commissioning period, equipment vendors will be training city and water commission staff. The city will be able to monitor the new station through its existing computer control system at the water treatment plant.

Once the new station is fully on line, an interim pump station built in the area to distribute up to an extra 3.5 million gallons a day will be dismantled. The pumps will be used elsewhere in the NAWS system. Eight aging pumps at the Minot Water Treatment Plant also will be removed. "This is going to be a more efficient system for the city," Klose said. The city's treatment plant can treat up to 18 million gallons of water a day. Alan Walter, Minot public works director, said the city will not be able to draw enough from its aquifers to keep the new pumping station at full capacity, but once water becomes available from the Missouri River, the infrastructure will be there to distribute that larger quantity.

"It's going to be a big plus for this region," he said.

There's also room, if needed, to expand the station's capacity with another pump and more water clarifiers. Area towns have signed up for about 300,000 gallons of water a day from Minot until NAWS gets Missouri River water. That's less than 10 percent of Minot's winter water usage, Walter said. The high-service pump station is the first of a three-phase NAWS project at the Minot treatment plant. The next phase would upgrade the plant to handle 18 million gallons a day of surface water. The final phase would increase the capacity to 26 million gallons of production.

The additional work is held up for now by an injunction issued by a federal judge in a lawsuit brought by Manitoba. That case continues in a Washington, D.C., court.

John T. Jones Construction also has sought to get an extra \$500,000 to cover work that it claims wasn't in the original contract. NAWS officials have denied the claim, and settlement negotiations failed to reach resolution. The company has the option to go to court.



The pipes and pumps at left will serve Minot and the NAWS system. The tanks at right are tanks used to protect against pressure surges. Equipment vendors and engineers were going over the operation with state and city workers Wednesday.