

# Cooperative Project Will Improve Water Quantity, Quality for Parshall, Fort Berthold

By Angela Magstadt

It's a project that will bridge the gap between city and country, town and tribe. Next year at this time, a new water project will bring a reliable supply of high-quality water to 1,000 people in the city of Parshall and 2,000 rural residents of the northeast segment of the Fort Berthold Indian Reservation.

This combination city-rural water system will be jointly owned and operated with the City of Parshall owning and operating the water treatment plant and Fort Berthold Rural Water distributing the water via the system's pipelines, and delivering it to the city.

"This solution was a collaborative effort between the City of Parshall and the Three Affiliated Tribes with input from Sen. [Byron] Dorgan's (D-N.D.) office, the governor's office, the State Water Commission, and the Bureau of Reclamation," says Cory Chorne, project manager with AE2S, the company that designed the water treatment facility. "Several meetings were held between all these parties to develop a solution to meet the water needs of the region."

This project will solve problems that have been plaguing the city and the tribe for decades. For Parshall, an intake that is situated in the low pool elevation of Lake Sakakawea has been causing problems since the early 1990s, several times



Ground was broken on Oct. 17 for the water treatment plant that will serve the city of Parshall and the northeast segment of the Fort Berthold Indian Reservation. Pictured at the ground breaking ceremony are from left to right, Shane Hart (Parshall City Council), Al Christianson (Parshall Public Works superintendent), Loren Hoffman (Parshall city auditor), Rep. Earl Pomeroy, Sen. Byron Dorgan, State Engineer Dale Frink, Marvin Danks (Fort Berthold Rural Water), and Richard Bolken (mayor of Parshall).

This site will be home to the project's 2.5 million gallon-per-day membrane filtration water treatment plant.

causing the city to resort to its backup wells, which, says City Auditor Loren Hoffman, have terrible water quality. “We still have to charge the same amount for water when we use our backup wells, because our costs don’t change,” Hoffman says. “This really upsets people, because they’re paying the same money for terrible water.” The new intake will be located in the old Missouri River channel, so even if Lake Sakakawea reaches low pool stage, the intake will still have 30-40 feet of water over it.

For the Three Affiliated Tribes, the residents of the Fort Berthold reservation, many rural residents have been waiting for quality water since they were relocated to the reservation after the construction of the Garrison Dam in the 1950s.

Ground was broken on Oct. 17 for the new 2.5 million gallon per day membrane filtration water treatment plant, located on the north shore of Lake Sakakawea. The cost of the new treatment plant is \$12 million, and is being funded through three sources: an \$8.4 million grant through the federal Water Resources Development Act, administered by the U.S. Army Corps of Engineers; a \$1.75 million state MR&I (Municipal, Rural and Industrial) grant from the North Dakota State Water Commission; and a \$1.75

million loan taken out by the City of Parshall.

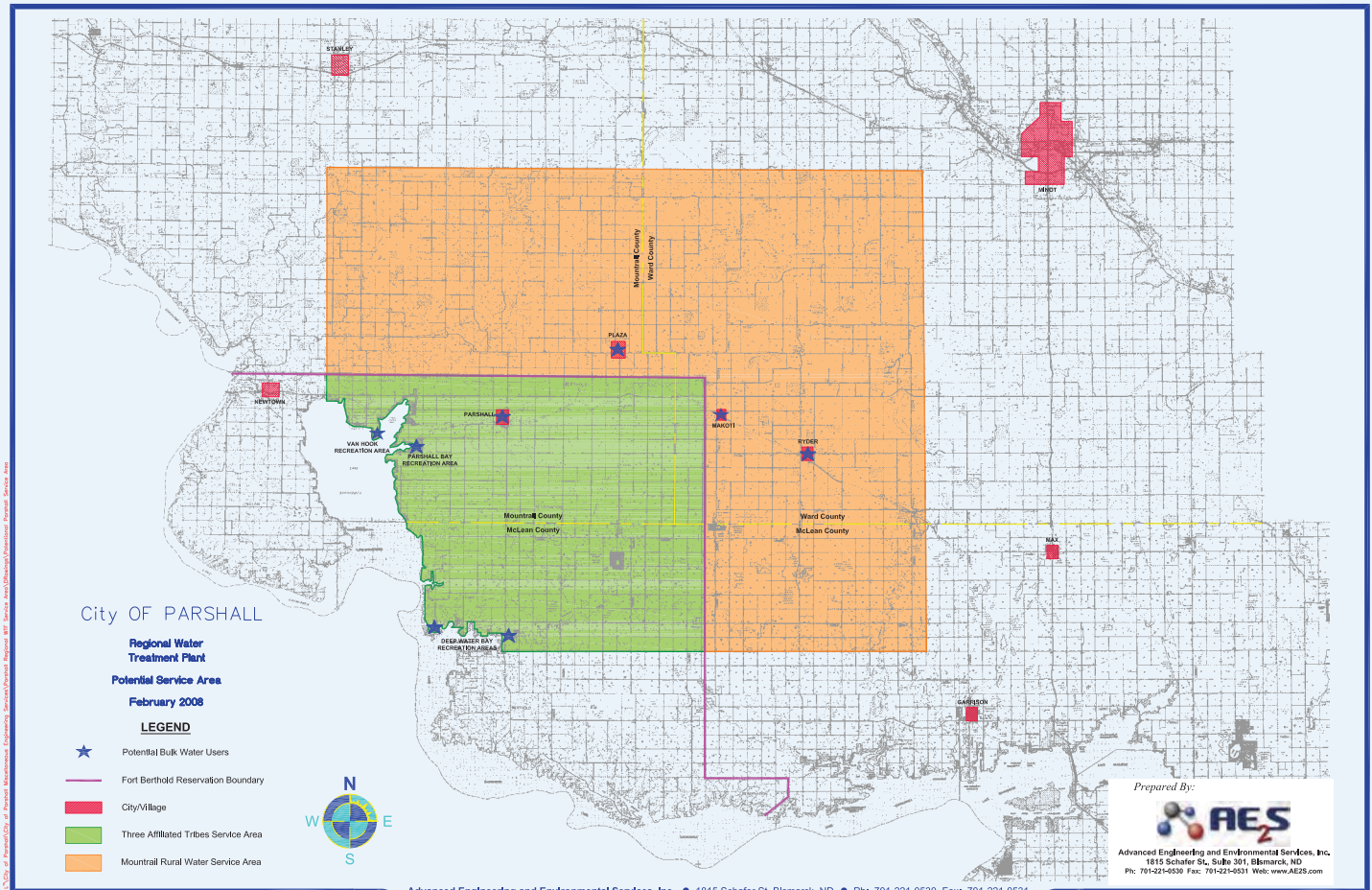
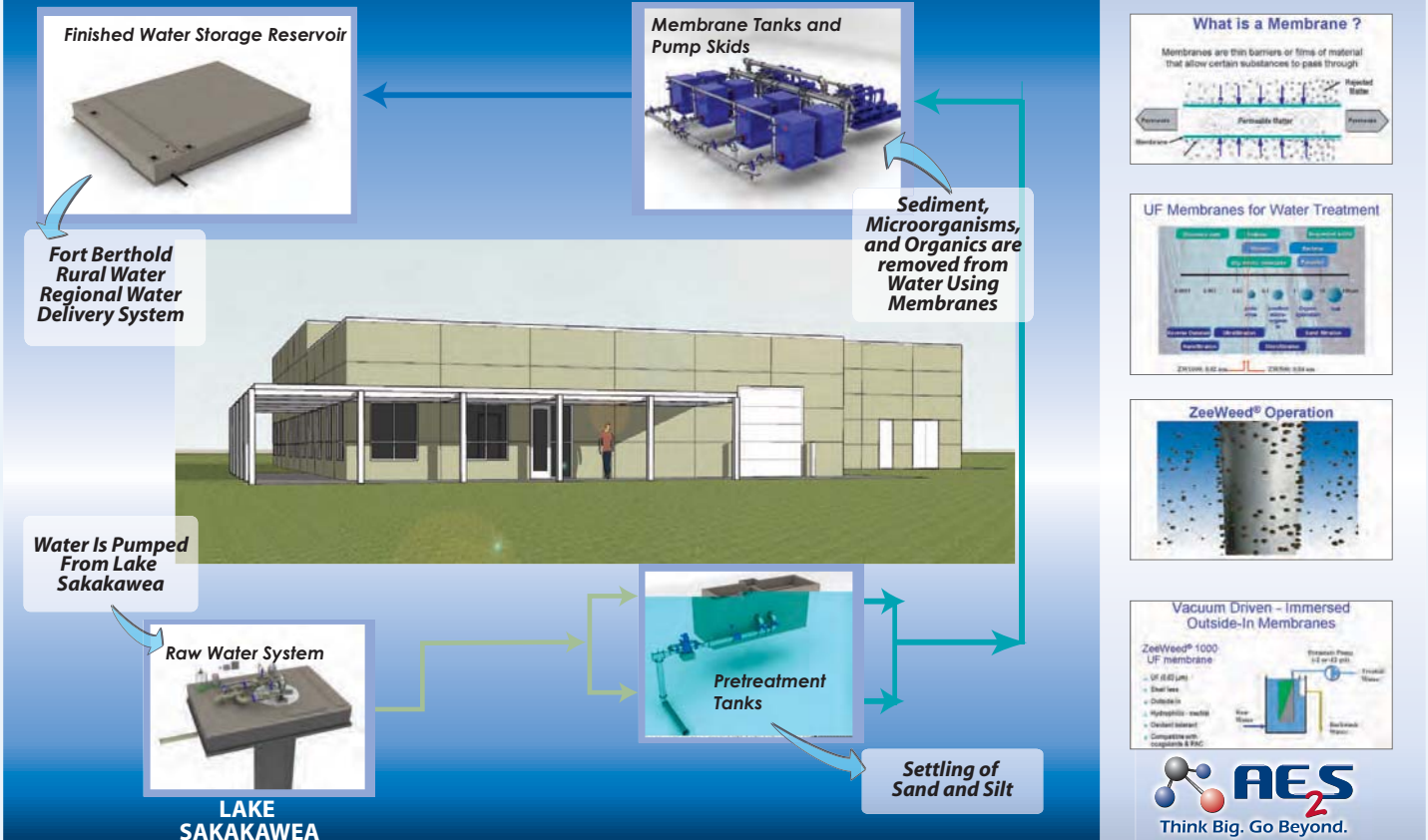
The distribution system will cost another \$15 million, and will be paid for solely through the tribes’ Dakota Water Resources Act appropriation.

Parshall is a city setting on top of a section of the country’s largest continuous oil field. According to the U.S. Geological Survey, the Bakken Formation is the largest oil field it has ever assessed, and an estimated 3 to 4.3 billion barrels of oil are located some two miles beneath the earth’s surface, buried within layers of shale and other rock. Oil companies get to the oil by forcing 1 million gallons of water (per well) into the earth to break up the rock and open the well up for production. The City of Parshall has seen significant revenue from selling water to the companies drilling for the oil in the area, but it has only been able to sell the companies 12 million gallons per month, a fraction of what they need. “Water is a major need for these oil companies. The new project will allow us to produce four times more than what we can currently produce, so we’ll be able to sell that much more to the oil companies. It’s a win-win situation for all involved,” Hoffman says.

**The new intake will be located in the old Missouri River Channel. This photo shows the site where the intake structure will be constructed.**



# PARSHALL REGIONAL WATER TREATMENT PLANT



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