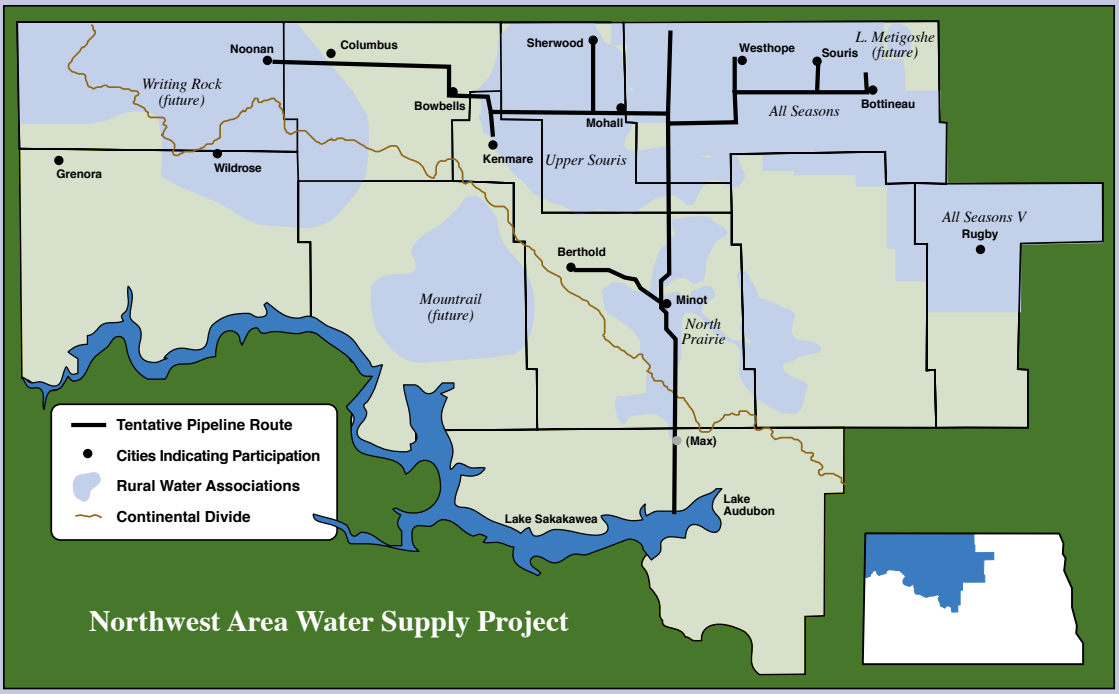
The Oxbow

FROM THE NORTH DAKOTA STATE WATER COMMISSION

NAWS DEIS on Water Treatment Finalized

Ironically, one of the greatest assets of the future Northwest Area Water Supply (NAWS) project has also been one of its greatest hurdles.



The basic concept of the NAWS project is to pipe treated, abundant, high-quality Missouri River water to Minot, treat it again, and then distribute it to areas in need of water in northwest North Dakota, within the Hudson Bay drainage.

But, it is that crossing of the basin boundary that has also divided project proponents and the Canadian Province of Manitoba. What has been questioned, is if the proposed level of treatment will sufficiently reduce the risk of transferring real or hypothetical invasive species between the basins before the water is piped 30 miles across the divide into the Minot treatment plant.

To answer that question, a recently released Draft Environmental Impact Statement (DEIS) for the NAWS project specifically focused on the potential environmental impacts associated with various proposed biota water treatment options. In a positive development for project sponsors, the DEIS suggests, among other things, that "the risk of transferring invasive species through the construction and operation of any of the proposed alternatives is very low compared to other existing and competing pathways."

What that basically means, is if there are aquatic-based invasive species in the Missouri River system that are not currently in the Hudson Bay drainage (which has not been proven to be the case), it is far more likely that they would arrive by several other existing means - not by NAWS.

The DEIS includes four water treatment alternatives, which were all evaluated by the U.S. Geological Survey (the Department of the

NOTICE: Water Project Sponsors

The State Water Commission (SWC) has initiated the process of updating the State Water Management Plan. To make this process a success, the Water Commission needs help from project sponsors in identifying North Dakota's potential water management projects and programs, the timing of their implementation, and their estimated costs. To collect this information, the Commission has sent project information forms to water boards, cities, rural/regional water system managers, and other known water project and program sponsors. As in the past, the product of this effort will become the foundation of the Commission's budget request to the Governor and Legislature.

If you are a water project or program sponsor who may come to the Commission for cost-share assistance to fund your effort and you did not receive a form, please contact the Commission at 701-328-4989. The project information form can also be downloaded from the Commission's website at www.swc.nd.gov.

Interior's lead scientific agency), to determine the risks of transferring biota associated with their long term operation and maintenance. The four alternatives evaluated are outlined in the process depictions from the DEIS (see the figures below).

Construction costs of the four alternatives range from $8.1 million to $90 million, while annual operation and maintenance costs range from $232,000 to just over $2 million (see the table below). An obvious concern of project sponsors is that if all options have a low risk of transferring biota, then choosing a more costly alternative only works to delay the completion of NAWS due to a substantial increase in project costs. What is also unsettling for project sponsors is the prospect of what lies ahead will not be know for several months, as the U.S. Bureau of Reclamation will not disclose its decision on a preferred alternative until the Final EIS is completed.

Prior to the development of the current DEIS, a final Environmental Assessment (EA) was completed by Reclamation. The EA looked at various alternatives to meeting the water needs of northwest North Dakota, outlined potential environmental impacts, and identified mitigation efforts. Based on the findings of the EA, Reclamation decided to pursue the development of the NAWS project and issued a Finding of No Significant Impact (FONSI) in September 2001.

In 2002, construction began on the main transmission line between Lake Sakakawea and Minot. But that same fall, Manitoba filed a lawsuit challenging the FONSI, which ultimately resulted in the development of the current DEIS. Despite that challenge, a judge allowed construction to continue on non-treatment related project components. As a result, the 47-mile main NAWS transmission line is, for the most part, complete. In addition, the court allowed three other projects to proceed that will allow NAWS to start providing water to the community of Berthold and the North Prairie Rural Water District using Minot's existing water supply. These projects are scheduled for completion in 2008 and 2009.

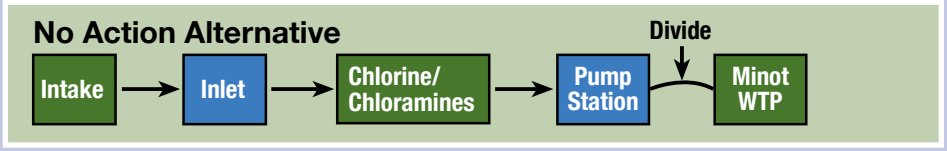
Once the NAWS EIS on Treatment and a Record of Decision are completed, work can continue on the distribution system and the required pumping and treatment facilities near Max, North Dakota. Ultimately, the NAWS project will provide up to 26 million gallons of Missouri River water per day to communities and rural water systems in northwest North Dakota.

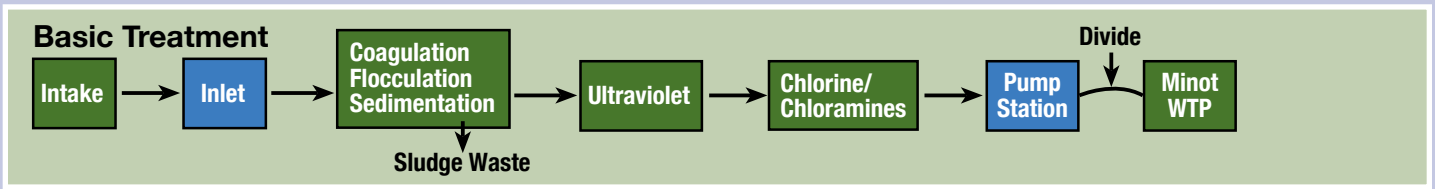
The U.S. Bureau of Reclamation developed the NAWS DEIS on Water Treatment in cooperation with the U.S. Army Corps, U.S. Environmental Protection Agency, Three Affiliated Tribes, North Dakota State Water Commission, Garrison Diversion Conservancy District, and the City of Minot.

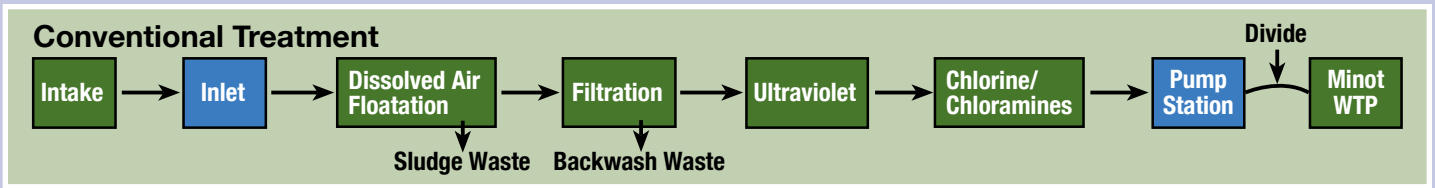
Construction and Annual OM&R Costs for Each Alternative*

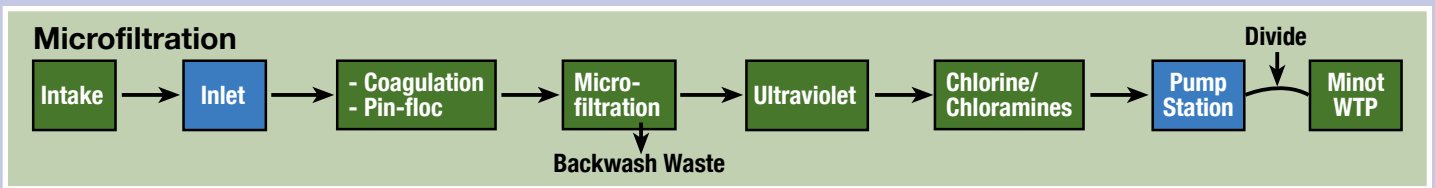
Alternative	*Construction Costs*	*Annual OM&R Costs*
No Action	$ 8,100,000	$ 232,000
Basic Treatment	68,000,000	1,781,000
Conventional Treatment	73,000,000	1,789,000
Microfiltration	90,000,000	2,076,000

*Costs are rounded and are in 2007 dollars.

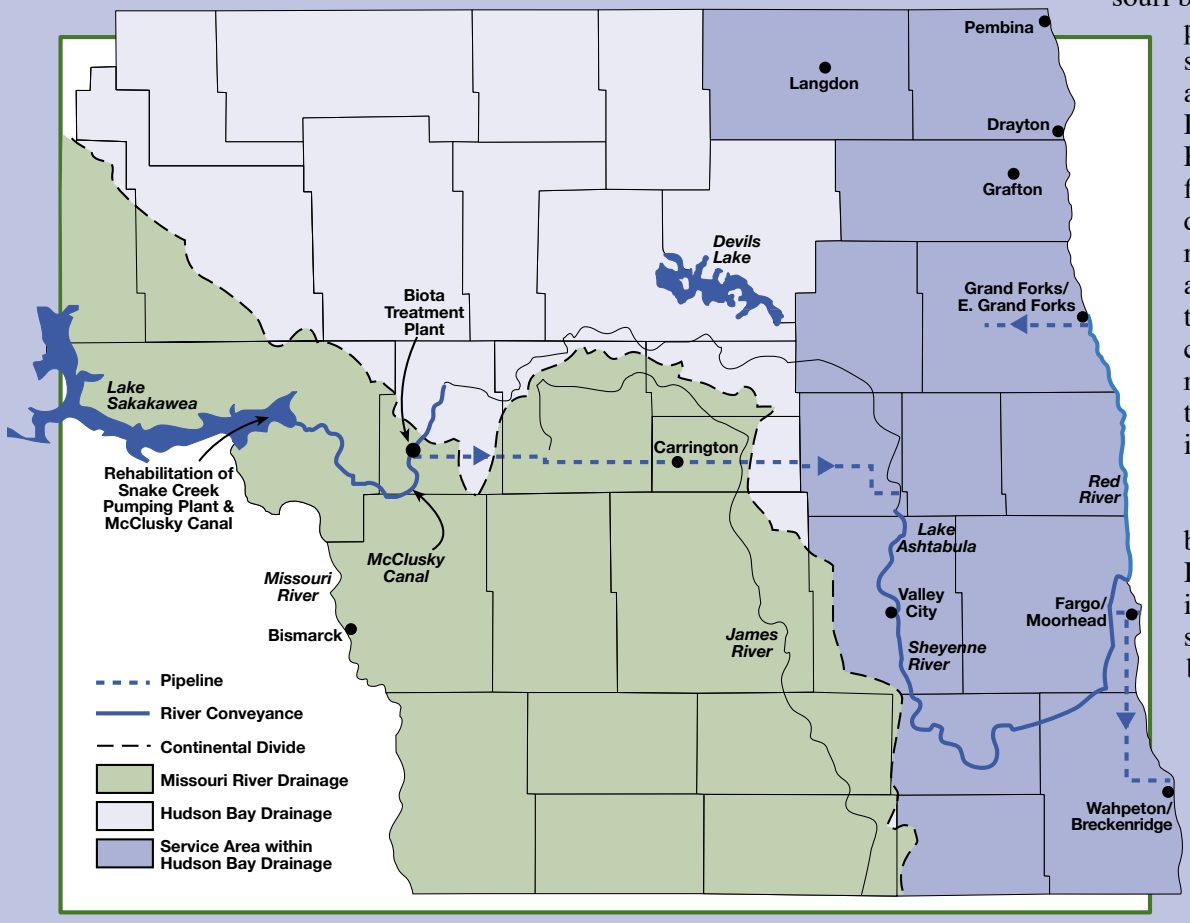








FEIS for RRVWS Project Completed



A final Environmental Impact Statement for the Red River Valley Water Supply Project has been completed, and the U.S. Department of the Interior and the State of North Dakota have both chosen an alternative that would deliver Missouri River water to the valley. The preferred alternative is the Garrison Diversion Unit Import to Sheyenne River project, which will supplement existing water supplies with a combination of Red River water, other in-basin sources, and imported Missouri River Water.

According to the FEIS, the primary feature of the alternative would include a 122 cubic feet per second buried pipeline from the McClusky Canal to Lake Ashtabula, that would transport treated Missouri River water into the Sheyenne River slightly north of the reservoir (see map).

To virtually eliminate the risk of transferring invasive species from the Missouri River basin to the Red River, and ultimately Canada, the U.S. Bureau of Reclamation has proposed a treatment plant adjacent to the McClusky Canal (before Missouri River water leaves the Missouri basin). The treatment process is one that was suggested by Manitoba, and will include In-filter DAF (Dissolved Air Flotation) pre-treatment, filtration, ultraviolet disinfection, and chlorination. And, because aquatic life is so sensitive to chlorine, residual concentrations will be removed before the treated water is released into the Sheyenne.

An official decision by the Secretary of the Interior will be included in the Record of Decision (ROD), which will be issued in late February. This will mark the end of the NEPA process.

If any Missouri River import alternatives are selected in the ROD, a report will then need to be submitted to Congress that identifies environmental issues, effects on Minnesota and other Missouri River states, and Boundary Waters Treaty compliance. In addition, a Missouri River import alternative would require authorization by Congress prior to implementation.

The estimated construction cost of the preferred alternative is about $660 million, with annual operating costs estimated at just under $5 million.

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