



FROM THE NORTH DAKOTA STATE WATER COMMISSION

CONFLICT OVER WATER: Lake Sakakawea And Challenges To State Use



Lake Sakakawea in 2011

A dispute that will determine whether North Dakota can utilize some of its own water has erupted in recent years. At stake, is whether North Dakota will be able to manage the waters of the Missouri River and Lake Sakakawea for the benefit of its citizens; a question having long-term ramifications on municipal and industrial water supply projects and uses in an area of the state that is seeing unprecedented growth because of the oil industry.

It was a stunning challenge to the state's prosperity, when in May 2010 the U.S. Army Corps of Engineers (Corps) began denying access to, and attempting to require payment

for, Missouri River water flowing through Lake Sakakawea. The Corps was also looking to regain costs of approximately \$1 billion related to the construction of the Missouri River mainstem dams, eventually recouping those costs by charging water users. In other areas of the United States, where reservoir storage is necessary for water supply, a policy like this would make sense, but Missouri River water use by North Dakota is well below what would be available without the reservoir's storage.

In May 2012, a reprieve of sorts was gained, when the Corps announced that they had agreed to begin issuing temporary, no-

cost permits for water usage from the Missouri River and Lake Sakakawea in North Dakota. In addition to existing water use on Lake Sakakawea, the Corps made available approximately 100,000 acre-feet of water in Lake Sakakawea for ten years, enough to meet current demands in the state. The Corps is expected to develop a national water rate policy over the next 18 months, based upon studies that will be conducted and a public comment period, and follow that process with a water allocation study of the mainstem Missouri River dams. Thus, the conflict over North Dakota's right to access Missouri River water is far from over.

The Corps asserts that they have a right to charge for water because the Missouri River flows through the boundaries of the federally managed Lake Sakakawea, claiming that users benefit from reservoir storage. This action presents a serious threat to the right of North Dakota to manage its own waters. The attempt to charge for Sakakawea water also was a harsh penalty to North Dakota, for it allowed the construction of a project (Garrison Dam) within its borders in order to provide flood control benefits for the entire Missouri River basin, and navigation for the lower Missouri River. The water supply benefits of the reservoirs that were envisioned for the Dakotas in order to offset the impact of the reservoirs have not occurred.

Lake Sakakawea is the third largest reservoir in the U.S., built almost 50 years ago, and up until 2010, water users (with the exception of an electrical utility) had never been charged for the use of water from the reservoir. In 2010, North Dakota utilized approximately 570,000 acre-feet of water from the Missouri River annually (with 461,000 acre-feet of that being for power generation and then returned to the river), compared with historic flows of the Missouri River near Williston of approximately 17.6 million acre-feet annually; an amount of naturally flowing water, that in the absence of the reservoir, North Dakota could put to beneficial use. (For comparison purposes, the average North Dakota household uses approximately one-third of an acre-foot of water annually.) At North and South Dakota's request, the Corps initiated a study in the 1980s to quantify the natural flows of the Missouri River, but that study was never completed.

To provide some history on the subject, you need to return to 1953, when Garrison Dam was completed, creating Lake Sakakawea. Lake Sakakawea and the other mainstem Missouri River dams were built for the primary purpose of reducing serious flooding in states downstream of North Dakota. Allowing Garrison Dam to create Lake Sakakawea resulted in the loss of approximately 300,000 acres of prime farmland in the state (550,000 acres with Lake Oahe), and 155,000 acres of that land was from the Three Affiliated Tribes. To compensate North Dakota for lost land and income from a project designed to benefit downstream states, the federal government originally promised over 1.2 million acres of irrigation.

For a variety of reasons, the promised benefits never materialized. Over successive years, the monetary benefits the state was to receive were gradually reduced and transformed, resulting in a small amount of irrigation, and funding for municipal, rural, and industrial water. However, through all of the missed agricultural and lake development opportunities, one thing has always remained constant - the waters of the state belong to the people of North Dakota, and that includes the natural flows of the Missouri River.

In the mid-2000s, the high price of oil and innovations in technology made feasible a method of oil extraction known as hydraulic fracturing, where water and other

materials are injected into oil-bearing formations of rock, under high pressure, allowing the oil to be pumped to the surface. North Dakota proved to have substantial deposits of oil-bearing rock suitable for hydraulic fracturing. Oil wells of this type in North Dakota can require as much as three acre-feet of fresh water for the drilling and hydraulic fracturing process, necessitating access to ample water supplies. Thus, with needs for water in the state at historically high levels, the Corps' attempt to deny North Dakota access to water from the reservoirs of the mainstem Missouri River, which is located in the part of the state that most needs that water, could not have come at a worse time.

While groundwater can be used for hydraulic fracturing, limited availability and quality in the locations in North Dakota with oil-bearing rock mean that the Missouri River and Lake Sakakawea represent the best available source. With the Missouri River providing nearly 96 percent of the annual flow in the rivers and streams of North Dakota, demand for its water has never been greater.

In 2011, in an attempt to alleviate some of the strain resulting from the Corps' policy that was denying North Dakotans access to their own water, the Water Commission began allowing for the temporary use of water for industrial purposes in lieu of irrigation, and temporary surface water permits to divert water from smaller lakes and water bodies. In



North Dakota State Water Commission
Todd Sando, P.E., State Engineer
900 East Boulevard Ave. • Bismarck, ND 58505
(701) 328-2750 • <http://swc.nd.gov>

The State Water Commission does not discriminate on the basis of race, color, national origin, sex, age, or disability in employment or the provision of services.

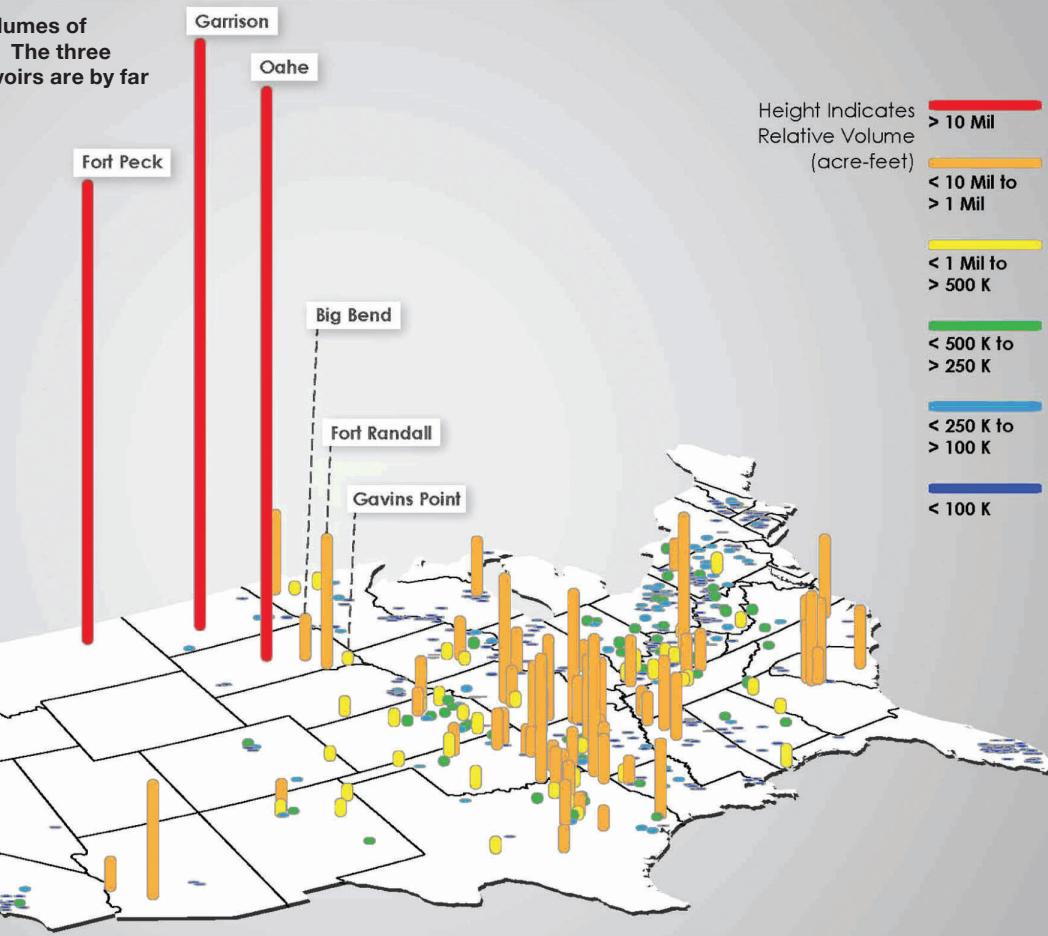
addition, the Water Commission has also vigorously opposed the Corps' contention that they have the right to charge for the Missouri

River's natural flows. One of the few benefits of the record precipitation in 2011, was that it caused many waterbodies to be

substantially larger, providing a temporary source of water for hydraulic fracturing.

Storage Capacity of Corps Reservoirs

A comparison of the relative volumes of the Corps reservoirs in the U.S. The three mainstem Missouri River reservoirs are by far the largest in the nation.



US Army Corps of Engineers
BUILDING STRONG

Prepared and Produced by the U.S. Army Corps of Engineers Omaha District 2010

Looking Ahead

The Assistant Secretary of the Army (Civil Works) directed the Corps to establish an updated nationwide pricing policy for surplus water that is fair and reasonable, in accordance with the Administrative Procedure Act. After that is completed, a water allocation study of the mainstem Missouri River dams will be developed.

While the Corps' recent decision buys some time, their overall position still conflicts with that held by North Dakota; that at a minimum, the natural flows of the Missouri River have and always will, belong to the state for the beneficial use of its citizens. Further, as long as natural flows in the river are sufficient, the reservoirs (such as Lake Sakakawea) provide no service to water users, and in

fact can impede access to the states' waters.

This issue will continue to be of vital importance to the long-term prosperity of North Dakota. For that reason, the state's water managers and any concerned stakeholders need to stay informed about the Corps' national water rate policy as it is developed over the course of the next 18 months.