

The Oxbow

FROM THE NORTH DAKOTA STATE WATER COMMISSION

ANS Prevention: Protecting ND's Waters

By Michael Noone

Over the last decade, aquatic nuisance species (ANS) have been one of the main concerns raised about several vitally important North Dakota water projects, such as the Devils Lake outlet, the Northwest Area Water Supply (NAWS) project, and the Red River Valley Water Supply Project.

What is important to consider, is that precautions have been taken to minimize the potential spread of ANS through these types of projects by conducting rigorous studies and implementing physical controls. It should be recognized that ANS traditionally arrive through a number of other everyday activities and seemingly innocent pathways, such as: boats, trailers, outdoors equipment, landscaping plants, and even as unwanted pets released to the wild. Ironically, of the handful of ANS in North Dakota that came from other states and provinces— none have ever done so via water supply or flood control projects. And, of those ANS that have arrived, none are the higher profile invaders such as the zebra mussel, Asian carp, Eurasian watermilfoil, and the giant snakehead.

ANS present huge potential problems for a variety of reasons. For example, zebra mussels, a small clam no bigger than a thumbnail, have no natural predators in the U.S. Thus, their population can grow virtually uncontrolled. High numbers of zebra mussels have significant impacts on the ecosystem into which they

have invaded, such as out-competing native mussels, and reducing the productivity of game fish. However, zebra mussels do not only affect wildlife. In the Great Lakes region, a medium sized city like Bismarck could spend hundreds of thousands of dollars annually to clean zebra mussel infestations out of their city's water intakes.

While North Dakota waters are relatively ANS free today, the threat is very real. Zebra mussels have recently been found as close as about 150 miles from the North Dakota border in Minnesota, and silver carp have made their way into the lower reaches of the James River in South Dakota.

In 2004, as a result of this looming threat, a number of state agencies (including the Water Commission)

and local interest groups, with coordination by North Dakota Game and Fish, initiated the development of an ANS plan. A few important aspects of the plan included: the designation of appropriate experts to be informed should an ANS be detected; and a response matrix for different severities of ANS infestations. In addition, corresponding legislation was passed to initiate public ANS education efforts. The legislation also addressed methods that can be used to prevent infestations, identified strategies to control an infestation should it occur, and established new penalties to prevent the introduction of ANS into North Dakota waters.

While ANS infestations can do irreversible damage to our waters, they can be prevented with minimal effort. Imagine the millions of dollars, and countless hours of effort that would have been saved if a noxious weed such as leafy spurge had not established itself in North Dakota.

ANS prevention is the key to this problem, which relies on not giving ANS a free ride into North Dakota waters.

Prevention methods are simple and easy to do:

- 1) Remove plant fragments from

The giant snakehead is a voracious predatory fish that eats anything it can fit into its mouth. It has also been known to walk on its fins overland for short distances to move to a new lake or river.



Photo courtesy of Jean-Francois Helias, Fishing Adventure Thailand

your boat, other watercraft, trailer, or any other gear that comes in contact with water, when leaving a waterbody.

2) Drain water from the boat motor, live well, bilge, and behind the transom before leaving a lake.

3) Do not release bait into a lake. Place excess bait in the fish grinder, garbage, or bury it at home.

4) Do not move fish or plants from one lake to another.

5) Do not release aquarium fish or plants, or water garden plants into the wild.

6) Clean, and disinfect your boat, other watercraft, or any other gear that comes in contact with water, in water that is 110 degrees Fahrenheit or hotter; or rinse with a bleach solution of one part chlorine bleach to 20 parts warm water.

When all of us work together for ANS prevention, the problems will not reach our favorite fishing, hunting, and boating spots. **LOSE the HITCHHIKER or LOSE the LAKE** — It's our choice! We can prevent ANS problems. For additional information, contact your local North Dakota Game and Fish Department office or go to their website at: <http://www.state.nd.us/gnf/fishing/ans.html>.



Zebra mussels have caused problems for native mussels, game fish, and cities in the Great Lakes region.



Photograph by Edwin C. Mueller, Penn Yan, NY. Photo courtesy of Eric...

Bighead carp, which can grow to nearly 90 pounds and nearly five feet in length, eat food that would otherwise be used by other game fish, and have a habit of jumping several feet into the air when startled by boats.

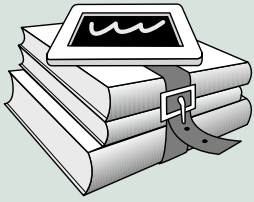


Photo courtesy of U.S. Fish and Wildlife Service



Eurasian watermilfoil forms dense mats of vegetation in affected lakes, making them unsuitable for game fish and unpleasant for recreation.

Photo courtesy of Susan Warren



THE WATER PRIMER

How do large-scale water supply projects impact Lake Sakakawea's water levels?

As water levels at Lake Sakakawea continue to fall, and as record low elevations become an almost everyday occurrence, concerns over the wellbeing of the big lake continue to grow among North Dakotans. With those concerns comes an increased awareness of the amount of water leaving the reservoir – and not just for power and other downstream purposes. In the past, the downstream navigation industry, endangered species, power generation, and even a keelboat, have received sharp criticism (and sometimes rightfully so) for resulting in the loss of water from Lake Sakakawea. But today, as the lake's water budget grows even tighter, projects such as the Southwest Pipeline Project (SWPP) and Northwest Area Water Supply (NAWS) project are also prompting questions about their impact on the lake's water levels.

Fortunately, we can say with confidence that the impact of those types of water supply projects on Sakakawea's water levels are minute, and in fact, are barely noticeable. However, the benefits to the citizens they serve are great. Let's have a look at the numbers:

- In the last year, the SWPP served about 33,000 North Dakotans, using 3,376 acre-feet of water from Lake Sakakawea.
- At an elevation of 1808 feet above mean sea level

(amsl), the annual decline in the lake's level from water removed for the SWPP only amounts to 0.18 inches.

• When the NAWS project is completed, service to 63,000 people will require about 11,762 acre-feet of water from Lake Sakakawea.

• At an elevation of 1808 feet amsl, the NAWS project would only remove 0.65 inches of water from the lake in a year.

In comparison, if we look at a common discharge rate from Garrison Dam, which might be 18,000 cubic feet per second, the SWPP could be served for an entire year by what passes through the dam in about two and one quarter hours. The NAWS project could be served for a year at that discharge rate in just under seven hours.

Clearly, the benefits of serving tens of thousands of people with good quality water far outweighs the impact of using only a fraction of an inch of water off Lake Sakakawea over the course of a year. In short, the SWPP and NAWS are worth every drop.

Note: In the first part of May 2005, Lake Sakakawea was at an elevation of about 1806 feet (amsl).



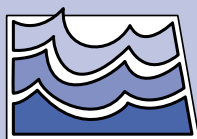
COMMISSION MEETING MINUTES

The North Dakota State Water Commission (Commission), chaired by Governor John Hoeven, acted on three items of business at its May 11 conference call meeting.

After approving the minutes from the March 10 meeting, the Commission adopted the 2005 Series B Bond Resolution. This authorizes the Commission to proceed with the issuance of bonds that will provide \$60 million for water project funding.

And lastly, the Commission increased their cost-share participation for repairs at Sweetbriar Creek Dam,

from \$25,333 to \$29,344. The Commission's percentage of the overall project cost remained the same, however, the total project cost increased due to change orders, which prompted the Commission action to make up the balance. Other partners in the cost-share agreement for the repairs at the dam include the Morton County Park Board and the North Dakota Game and Fish Department.



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