

North Dakota Department of Environmental Quality

# Beneficial Uses Helping to classify wetlands, streams and lakes

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Black's Law Dictionary defines a beneficial use as "The right to use and enjoy property according to one's own liking or so as to derive a profit or benefit from it, including all that makes it desirable or habitable, as light, air, and access; as distinguished from a mere right of occupancy or possession."

The United States Environmental Protection Agency (EPA) requires



A water tower providing the town of Sherwood with drinking water. (ND Tourism)

that, "Each State must specify appropriate water uses to be achieved and protected. The classification of the waters of the State must take into consideration the use and value of water for public water supplies, protection and propagation of fish, shellfish and wildlife, recreation in and on the water, agricultural, industrial, and other purposes including navigation."

In North Dakota, the Department of Environmental Quality (NDDEQ) has identified "those uses determined to be the most consistent with present and potential uses in accordance with the economic and social development of the area." Those uses are:

- 1. **Municipal and domestic water** Waters suitable for use as a source of water supply for drinking and culinary purposes after treatment to a level approved by the department.
- 2. Fish and aquatic biota Waters suitable for the propagation and support of fish and other aquatic biota and waters that will not adversely affect wildlife in the area. Low flows or natural physical and

chemical conditions in some waters may limit their value for fish propagation or aquatic biota.

# 3. Recreation

Primary recreational waters are suitable for recreation where direct body contact is involved, such as bathing and swimming, and where secondary recreational activities such as boating, fishing, and wading are involved. Natural high turbidities in some waters and physical characteristics of banks and streambeds of many streams are factors that limit their value for bathing.



Fishing is specified as a secondary recreational activity. (ND Tourism)

## 4. Agricultural uses

Waters suitable for irrigation, stock watering, and other agricultural uses, but not suitable for use as a source of domestic supply for the farm unless satisfactory treatment is provided.

## 5. Industrial water

Waters suitable for industrial purposes, including food processing, after treatment. Treatment may include that necessary for prevention of boiler scale and corrosion.

The NDDEQ considers these beneficial uses when determining the quality of the state's streams, rivers, wetlands and lakes. For instance, the following classes of streams and rivers must attain certain beneficial uses.

- Class I (e.g., Missouri River) must meet all five beneficial uses.
- Class IA (e.g., Sheyenne River) must meet all five of the beneficial uses, although there may be additional treatment needed to meet the municipal and domestic use.
- Class II (e.g., Apple Creek) are the same as Class IA; however, the stream/river may be intermittent (times of no flow).
- Class III (e.g., Rush River) must meet agricultural and industrial uses and maintained to protect secondary contact recreation (e.g., wading) and fish and aquatic biota. Waters in this class may have low flows and periods of no flow.

# Lakes

Lakes and reservoirs are classified according to the water characteristics which are to be maintained.

The physical and chemical criteria for Class I streams shall apply to all classified lakes and reservoirs listed. For lakes and other lentic



Wetlands dot the landscape of North Dakota, particularly in the Prairie Pothole Region.

(still) waterbodies not listed, the physical and chemical criteria for Class III streams shall apply.

## Wetlands

Wetlands are classified the same as a Class IV lake and maintained to meet the beneficial uses of a Class III stream (agricultural and industrial).

## **Impaired Waterbodies**

If a waterbody is not meeting all its beneficial uses, it is placed on what is known as the 303(d) listed of impaired waters. This may trigger further assessment to determine the cause of the impairment (i.e., excess nutrients, sediment, dissolved oxygen, habitat, etc.). Also, it may be included on the list for total Maximum Daily Load (TMDL) report development.

A TMDL report outlines the condition of the waterbody, the impairments to beneficial uses and a plan for water quality improvement. The NDDEQ staff have developed more than 80 TMDL reports for impaired waterbodies in the state.

Beneficial uses are key to improving and maintaining the quality of North Dakota's surface waters. To learn more about beneficial uses and water quality standards, please visit our webpage at www.deq.nd.gov, or contact the North Dakota Department of Environmental Quality's Watershed Management Program at 701-328-5210.



Environmental Quality

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The Sheyenne River is a Class IA stream.