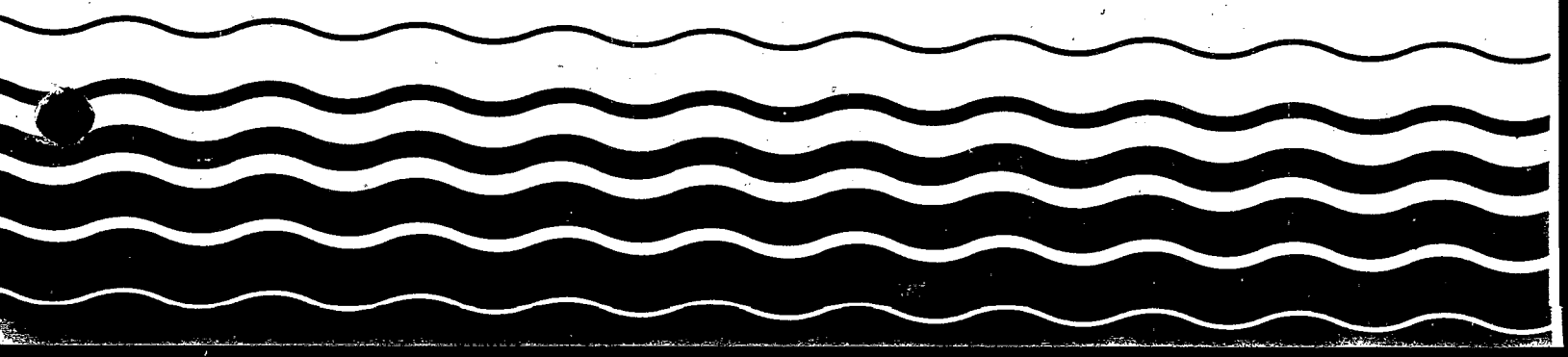


Water



State Water Quality Standards Summary: North Dakota



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The reader should consult the water quality standards of a particular State for exact regulatory language applicable to that State. Copies of State water quality standards may be obtained from the State's Water Pollution Control Agency or its equivalent.

Additional information may also be obtained from the:

Standards Branch
Criteria and Standards Division (WH-585)
Office of Water Regulations and Standards
U.S. Environmental Protection Agency
Washington, D.C. 20460
202-475-7315

This document may be obtained only from the National Technical Information Service (NTIS) at the following address:

National Technical Information Service
5285 Front Royal Road
Springfield, Virginia 22161
703-487-4650

The NTIS order number is: PB89-141956

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Responsible Agency:

N.D. State Health Council-c/o Gene A. Christianson
Environmental Health Section
State Dept. of Health
Missouri Office Bldg. 1200 Missouri Ave.
Bismarck 57501

State Contact:

Standards Available From:

Francis J. Schwindt
North Dakota State Dept. of Health
Div. of Water Supply & Pollution Control
1200 Missouri Avenue
Bismarck 58505
701-224-2354 Fee: no Mailing List: yes

State Contact:

State Narrative Language For: Antidegradation

The state of North Dakota, in accordance with the 1972 Federal Water Pollution Control Act, as amended, declares that state and public policy is to maintain or improve, or both, standards of quality and purity of the waters of this state. These standards are established for the protection of public health and enjoyment of these waters, to ensure the propagation and well-being of fish, wildlife, and all biota associated or dependent upon said waters, and to safeguard social, economical, and industrial development associated with this resource. All known and reasonable methods to control and prevent pollution of the waters of this state are required, including improvement in water quality, when feasible.

The portion of the statement of policy contained in North Dakota Century Code section 61-28-01 which reads as follows, is part of this chapter;

It is hereby declared to be the policy of the state of North Dakota to act in the public interest to protect, maintain and improve the quality of the waters in the state for continued use as public and private water supplies, propagation of wildlife, fish and aquatic life, and for domestic, agricultural, industrial, recreational and other legitimate beneficial uses, to require necessary and reasonable treatment of sewage, industrial, or other wastes.

It is the purpose of this chapter to maintain and improve the quality of waters in the state and to maintain and protect existing water uses. The "quality of the waters" shall be the quality of record existing at the time the first standards were established in 1967, or later records if these indicate an improved quality in certain waters. Waters whose existing quality is higher than the established standards will be maintained at the higher quality unless it can be affirmatively demonstrated that a change in quality is justifiable to provide necessary economic and social development and will not adversely affect the stated beneficial uses.

State Narrative Language For: Toxics

Free from substances attributable to municipal, industrial, or other discharges or agricultural practices in concentrations or combinations which are toxic or harmful to human, animal, plant or resident aquatic biota.

State Narrative Language For: Free From

All waters of the state shall be free from:

- A. Substances attributable to municipal, industrial, or other discharges or agricultural practices that will cause the formation or putrescent or otherwise objectionable sludge deposits.
- B. Floating debris, oil, scum, and other floating materials attributable to municipal, industrial, or other discharges or agricultural practices in sufficient amount to be unsightly or deleterious.
- C. Materials attributable to municipal, industrial, or other discharges or agricultural practices producing color, odor, or other conditions in such a degree as to create a nuisance or render any undesirable taste to fish flesh, or in any way, make fish inedible.
- D. Substances attributable to municipal, industrial, or other discharges or agricultural practices in concentrations or combinations which are toxic or harmful to human, animal, plant, or resident aquatic biota.
- E. Oil or grease residue attributable to wastewater, which causes a visible film or sheen upon the waters or any discoloration of the surface of adjoining shoreline or causes a sludge or emulsion to be deposited beneath

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the surface of the water or upon the adjoining shorelines or prevents classified uses of such waters.

F. There shall be no materials such as garbage, rubbish, trash, cans, bottles, or any unwanted or discarded material disposed of into the waters of the state.

State Narrative Language For: Low Flow

When the flow in the stream is less than the ten-year, seven-day low flow level, the department reserves the right to make a case-by-case evaluation of application of these standards. However, no substances shall be present in concentrations or combinations that materially interfere with, or prove hazardous to, the intended water usage.

State Narrative Language For: Mixing Zones

The size and configurations of a mixing zone cannot be uniformly prescribed for all streams due to the particular characteristics of each stream. However the following considerations are taken into account when mixing zones are determined:

(a) The Water Quality Standards must be met at every point outside the mixing zone. The department (North Dakota State Department of Health) may require a means of expediting mixing and dispersion of wastes, if found necessary.

(b) The total mixing zone (or zones) at any cross-sectional area of the stream should not be larger than 25 percent of the cross-sectional area or volume of flow and shall not extend more than 50 percent of the width. Mixing zones shall provide an acceptable passageway for movement of fish and other aquatic organisms.

(c) The 96-hour LC-50 for indigenous and/or resident fish and fish food organisms shall not be exceeded at any point in the mixing zone.

(d) Mixing zones shall be as small as possible and shall not intersect spawning or nursery areas, migratory routes, or municipal water intakes. Overlapping of mixing zones should be avoided or minimized to prevent adverse synergistic effects.

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Classifications:

Class I Streams

The quality of waters in this class shall be such as to permit the propagation or life, or both, of resident fish species and shall be suitable for boating, swimming, and other water recreation. The quality shall be such that after treatment consisting of coagulation, settling, filtration, and chlorination, or equivalent treatment processes, the treated water shall meet the bacteriological, physical, and chemical requirements of the State Health Department for municipal use. The quality of water shall be such as to permit its use for irrigation, stock watering, and wildlife use without injurious effects.

Class IA Streams

The quality of this class of waters shall be such that its uses shall be the same as those identified for Class I, except that treatment for municipal use may also require softening to meet the chemical requirements of the State Dept. of Health. The physical and chemical criteria shall be those for Class I, with some exceptions.

Class II Streams

The quality of this class of waters shall be such that its uses shall be the same as those identified for Class I, except that additional treatment may be required over that noted in Class IA to meet the drinking water requirements of the State Dept. of Health.

Class III Streams

The quality of this class of waters shall be suitable for industrial and agricultural uses, i.e. cooling, washing, irrigation, and stock watering. These streams all have low average flows, and generally, prolonged periods of no flow. The physical and chemical criteria shall be those for Class II, with some exceptions.

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	All Classes	Class I Streams	Class IA Stream..	Class II Stream..
Physical				
pH				
Upper Value		8.5	8.5	9.0
Lower Value		7.0	7.0	6.0
Dissolved Oxygen				
Lower Value	5.0 mg/L			
Temperature				
Upper Value		85 F		
Secondary Upper Limit		5 F		
Temperature Change				
Upper Value	5 F			
Nutrients				
Ammonia				
Upper Value		Narr.	Narr.	Narr.
Nitrates				
Upper Value		1.0 mg/L	1.0 mg/L	1.0 mg/L
Phosphates				
Upper Value		0.1 mg/L	0.1 mg/L	0.1 mg/L
Toxic Metals				
Arsenic				
Upper Value		0.05 mg/L	0.05 mg/L	0.05 mg/L
Cadmium				
Upper Value		0.01 mg/L	0.01 mg/L	0.01 mg/L
Chromium - Total				
Upper Value	0.05 mg/L			
Copper				
Upper Value		0.05 mg/L	0.05 mg/L	0.1 mg/L
Cyanide				
Upper Value		0.005 mg/L	0.005 mg/L	0.005 mg/L
Lead				
Upper Value	0.05 mg/L			
Mercury				
Upper Value	0.002 mg/L			
Zinc				
Upper Value	1.0 mg/L			
Barium				
Upper Value		1.0 mg/L	1.0 mg/L	1.0 mg/L
Boron				
Upper Value		.75 mg/L	.75 mg/L	.75 mg/L
Selenium				
Upper Value		.01 mg/L	.01 mg/L	.01 mg/L
Pesticides				
Organics				
PCBs				
Upper Value	0.15 ug/L			
Bacteria				

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Fecal Coliform Upper Value	All Classes	Class I Streams	Class IA Stream..	Class II Stream..
		Narr.	Narr.	Narr.

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Class III Strea..

Physical

pH

Upper Value

9.0

Lower Value

6.0

Nutrients

Ammonia

Upper Value

0.10 mg/L

Phosphates

Upper Value

0.1 mg/L

Toxic Metals

Arsenic

Upper Value

0.1 mg/L

Cadmium

Upper Value

0.01 mg/L

Copper

Upper Value

0.1 mg/L

Cyanide

Upper Value

0.1 mg/L

Barium

Upper Value

1.0 mg/L

Boron

Upper Value

.75 mg/L

Selenium

Upper Value

.01 mg/L

Pesticides

Organics

Bacteria

Fecal Coliform

Upper Value

Narr.