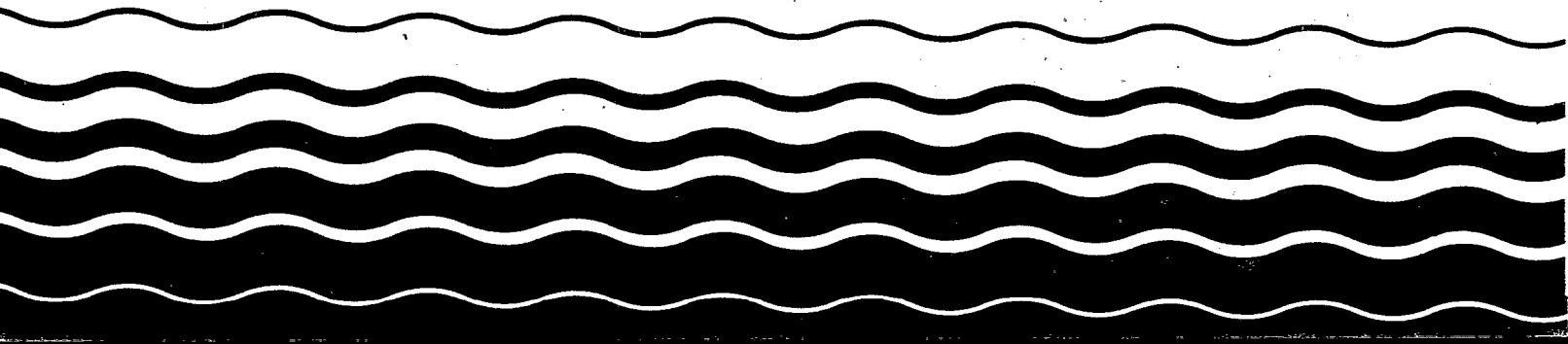


Water



State Water Quality Standards Summary: Tennessee



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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: PB89-142103.

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Responsible Agency:

Tennessee Dept. of Health & Environment
TERRA Building
150 Ninth Ave., North

Nashville 37219-5404
615-741-3111

State Contact:

Ken Pointer

Dept. of Health and Environment
TERRA Building
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Standards Available From:

Ken Pointer
Dept. of Health and Environment
TERRA Building
150 Ninth Ave., North
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615-741-7883 Fee: no Mailing List: yes

State Contact:

State Narrative Language For: Antidegradation

1. The purpose of the Water Quality Standards and Plan as adopted are to provide for the protection of existing water quality and/or the upgrading or "enhancement of water quality in all waters within Tennessee; and to protect the public health or welfare in accordance with the public interest." The latest edition of Quality Criteria for Water published by the EPA pursuant to Section 304(a) of the Federal Water Pollution Control Act (Public Law 92-500) and other documents as specified in the Commissioner of the Tennessee Department of Health and Environment and the Water Quality Control Board, shall be used as guides in interpreting the water quality criteria set out in these rules.

2. The Tennessee Water Quality Standards shall not be construed as permitting the degradation of water whose existing quality is better than the established standards unless and until it is affirmatively demonstrated to the Tennessee Water Quality Control Board that a change is justifiable as a result of necessary economic or social development and will not interfere with or become injurious to any existing uses made of such waters. In no case will water quality be degraded below the base levels set forth in the criteria for the protection of the reasonable and necessary uses described herein. It is the purpose of Tennessee's standards to fully protect existing water uses of all Waters of the State. Additionally, no degradation shall be allowed in high quality waters which constitute an outstanding national resource, such as; waters of National and State parks and wildlife refuges, and waters of exceptional recreational or ecological significance. These standards shall be construed as to be consistent with Section 316 of the Clean Water Act regarding thermal discharges.

Please refer to the "EPA Water Quality Criteria Summaries: A Compilation of State/Federal Criteria" for additional antidegradation language for Tennessee.

State Narrative Language For: Toxics

The waters shall not contain toxic substances, whether alone or in combination with other substances, which will produce toxic conditions that materially affect the health and safety of man or animals or impair the safety of conventionally treated water supplies. Available references to be used in determining such conditions shall include, but not be limited to: Quality Criteria for Water (Section 304(a) of PL 92-500); Federal Regulations under Section 307 of PL 92-500; and Federal Regulations under Section 1412 of the Public Health Service Act as amended by the Safe Drinking Water Act (PL 93-523).

Industrial Water Supply: The waters shall not contain toxic substances whether alone or in combination with other substances; which will adversely affect industrial processing.

Fish and Aquatic Life: The waters shall not contain substances or combination of substances including disease causing agents which, by way of either direct exposure or indirect exposure through food chains may cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions in reproduction), physical deformations, or restrict or impair growth in fish or aquatic life or their offspring. In no event shall the diversity or productivity of biota significant to the aquatic community of the receiving stream be decreased. References to be used in determining toxicity limitations shall include but not be limited to: Quality Criteria for Water (Section 304(a) of Public Law 92-500), Federal Regulations under Section 307 of Public Law 92-500, and Federal Regulations under Section

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1412 of the Public Health Service Act as amended by the Safe Drinking Water Act (Public Law 93-523). The use of such information should be limited to that part applicable to the aquatic community found within the receiving stream or waters under consideration. Please refer to the "EPA Criteria Summaries: A Compilation of State/Federal Criteria for additional toxic substance language for Tennessee.

State Narrative Language For: Free From

There shall be no distinctly visible solids, scum, foam, oily slick, or the formation of slimes, bottom deposits or sludge banks of such size or character as may impair the usefulness of the water as a source of domestic water supply.

There shall be no turbidity or color in amounts or characteristics that cannot be reduced to acceptable concentrations by conventional water treatment processes.

The waters shall not contain substances which will result in taste or odor that prevent the production of potable water by conventional water treatment processes.

The waters shall not contain toxic substances, whether alone or in combination with other substances, which will produce toxic conditions that materially affect the health and safety of conventionally treated water supplies.

State Narrative Language For: Low Flow

The criteria set forth shall be applied on the basis of the following stream flows:

Unregulated Streams - stream flows equal to or exceed in the 3-day minimum, 20-year recurrence interval;

Regulated Streams - all flows in excess of the minimum critical flow occurring once in twenty (20) years as determined by an analysis of records of operation and approved by the Commissioner or the Tennessee Department of Health and Environment.

Wet Weather Conveyance - Wet weather conveyances are natural watercourse, including natural watercourse that have been modified by channelization, that flow only in direct response to precipitation in their immediate locality and whose channel are above the groundwater table and which do not support fish or aquatic life and are not suitable for drinking water supplies. Statutory Authority: TCA Section 4-5-202, TCA Section 69-3-105.

State Narrative Language For: Mixing Zones

Mixing zone refers to that section of a flowing stream or impounded waters in the immediate vicinity of an outfall where an effluent becomes dispersed and mixed. Such zones shall be restricted in area and length and shall not (i) prevent the free passage of fish or cause aquatic life mortality in the receiving water; (ii) contain materials in concentrations that exceed recognized acute toxicity levels for biota significant to the aquatic community in receiving water; (iii) result in offensive conditions; (iv) produce undesirable aquatic life or result in dominance of a nuisance species; (v) endanger the public health or welfare; or (vi) adversely affect the reasonable and necessary uses of the area; (vii) create a condition of chronic toxicity beyond the edge of the mixing zone; and (viii) adversely affect nursery and spawning areas.

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Classifications:

Domestic
Water Supply

Industrial Water
Supply

Fish & Aquatic Life

Recreation

Irrigation

Livestock Watering
and Wildlife

Navigation

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	All Classes	Domestic	Industrial Wate..	Fish & Aquatic ..
Physical				
pH				
Upper Value		9.0	9.0	8.5
Lower Value		6.0	6.0	6.5
Dissolved Oxygen				
Upper Value		Narr.	Narr.	mg/L
Lower Value				5.0 mg/L
Temperature				
Upper Value		30.5 C	30.5 C	30.5 C
Secondary Upper Limit		C	C	20 C
Temperature Change				
Upper Value		3 C	3 C	3 C
Turbidity				
Upper Value		Narr.	Narr.	Narr.
Total Dissolved Solids				
Upper Value		500 mg/L	500 mg/L	
Nutrients				
Toxic Metals				
Cadmium				
Upper Value		10 ug/L		
Chromium - Total				
Upper Value		50 ug/L		
Copper				
Upper Value		1000 ug/L		
Cyanide				
Upper Value		200 ug/L		
Lead				
Upper Value		50 ug/L		
Mercury				
Upper Value		0.2 ug/L		
Zinc				
Upper Value		5000 ug/L		
Nickel				
Upper Value		100 ug/L		
Selenium				
Upper Value		10 ug/L		
Silver				
Upper Value		50 ug/L		
Pesticides				
Organics				
Bacteria				
Fecal Col. (Max, Geo. Mean)				
Upper Value		5000 /100 mL		5000 /100 mL
Secondary Upper Limit		1000 /100 mL		1000 /100 mL

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	Recreation	Irrigation	Livestock Water..	Navigation
Physical				
pH				
Upper Value	9.0	9.0	9.0	
Lower Value	6.0	6.0	6.0	
Dissolved Oxygen				
Upper Value		Narr.	Narr.	
Temperature				
Upper Value	30.5 C	Narr.	Narr.	
Temperature Change				
Upper Value	3 C			
Turbidity				
Upper Value	Narr.			
Nutrients				
Toxic Metals				
Pesticides				
Organics				
Bacteria				
Fecal Col. (Max, Geo. Mean)				
Upper Value	1000	/100 mL		
Secondary Upper Limit	200	/100 mL		

