United States
Environmental Protection
Agency

Office of Water
Regulations and Standards
Washington, DC 20460

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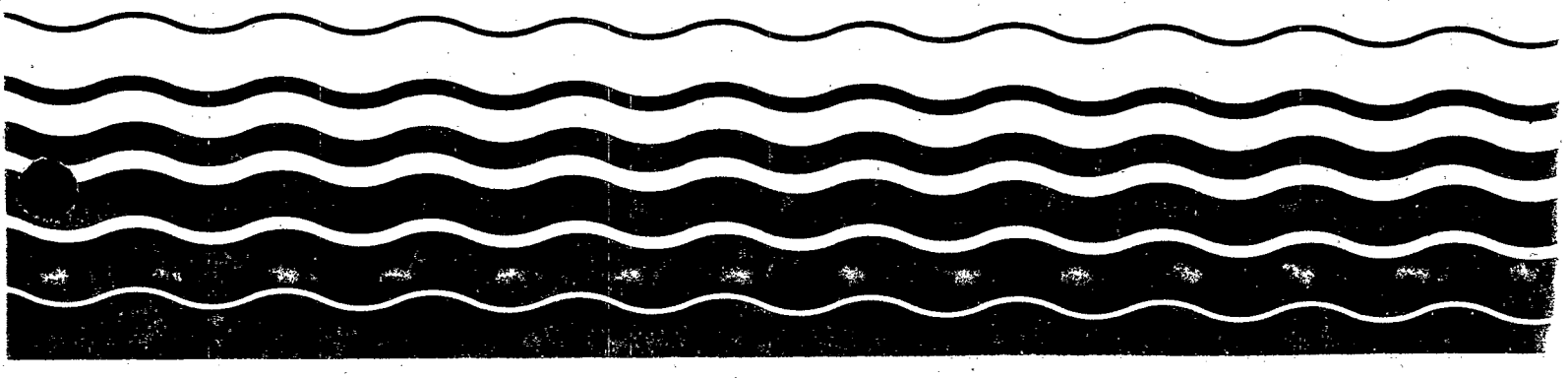
Water

EPA

State Water Quality Standards Summary: Virginia



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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: PB89-142145

VIRGINIA

Responsible Agency:

State Water Control Board
P.O. Box 11143

Richmond 23230

State Contact:

Standards Available From:

Anne Field, Specialist
Bureau of Enforcement
State Water Control Board
P.O. Box 11143
Richmond 23230
804-257-6355 Fee: Mailing List: no

State Contact:

State Narrative Language For: Antidegradation

Waters whose existing quality is better than the established standards as of the date on which such standards become effective will be maintained at high quality; provided that the Board (State Water Control Board) has the power to authorize any project or development, which would constitute a new or an increased discharge of effluent to high quality water, when it has been affirmatively demonstrated that a change is justifiable to provide necessary economic or social development; and provided, further, that the necessary degree of waste treatment to maintain high water quality will be required where physically and economically feasible.
Present and anticipated use of such waters will be preserved and protected.
Existing instream beneficial water uses will be maintained and protected, and actions that would interfere with or become injurious to existing uses should not be undertaken.
In considering whether a possible change is justifiable to provide necessary economic or social development, the Board will provide notice and opportunity for a public hearing so that interested persons will have an opportunity to present information.
Upon a finding that such a change is justifiable, the change, nevertheless, must not result in violation of those water quality characteristics necessary to attain the national water quality goal of protection and propagation of fish, shellfish, and wildlife, and recreation in and on the water. Further, if a change is considered justifiable, it must not result in any significant loss of marketability of fish, shellfish, or other marine resources, and all practical measures should be taken to eliminate or minimize the impact on water quality.
Please refer to the "EPA Water Quality Criteria Summaries: A Compilation of State/Federal Criteria for additional antidegradation language for Virginia.

State Narrative Language For: Toxics

All State waters shall be free from toxic substances attributable to sewage, industrial waste, or other waste in concentrations, amounts, or combinations which contravene established standards or interfere directly or indirectly with reasonable, beneficial uses of such water or which are inimical or harmful to human, animal, plant, or aquatic life. Specific substances to be controlled include, but are not limited to: floating debris, oil, scum, and other floating material; toxic substances; substances that settle to form sludge deposits, and sustances which nourish undesirable or nuisance aquatic plant life. Effluents which tend to ra ise the temperature of the receiving water will also be controlled.

State Narrative Language For: Free From

All State waters shall be free from substances attributable to sewage, industrial waste, or other waste in concentrations, amounts, or combinations which contravene established standards or interfere directly or indirectly with reasonable, beneficial uses of such water or which are inimical or harmful to human, animal, plant, or aquatic life. Specific substances to be controlled include, but are not limited to: floating debris, oil, scum, and other floating materials; toxic substances; substances that produce color, tastes, turbidity, odors, or settle to form sludge deposits, and substances which nourish undesirable or nuisance aquatic plant life. Effluents which tend to raise the temperature of the receiving water will also be

controlled.

State Narrative Language For: Low Flow

Stream Standards shall apply whenever flows are equal to, or greater than, the lowest flow which, on a statistical basis, would occur for a 7-consecutive-day period once every 10 years.

State Narrative Language For: Mixing Zones

Zones for mixing wastes with receiving waters shall be determined in a case-by-case basis; shall be kept as small as practical; shall not be used for, or considered as, a substitute for minimum treatment technology required by the Federal Water Pollution Control Act and other applicable State and Federal laws; and shall be implemented, to the greatest extent practicable, in accordance with the provisions of subsections 1.01A and 1.01B of the Virginia Water Quality Standards, and shall not contain toxic substances in acutely toxic concentrations. An area of initial dilution may be allowed. This area of initial dilution will be determined on a case-by-case basis and shall not at any time exceed the lethal concentration for appropriate representative species for time periods of exposures likely to be encountered by that species and likely to cause acute effects. Mixing within these zones shall be as quick as practical and may require the installation and use of devices which insure that waste is mixed with the allocated receiving waters in the smallest practical area. The need for such devices shall be determined on a case-by-case basis. The boundaries of these zones of admixture shall be such as to provide a suitable passageway for fish and other aquatic organisms. In an area where more than one discharge occurs and several mixing zones are close together, these mixing zones shall be so situated that this passageway is continuous.

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Classifications:

Nutrient Enriched Waters

Open Ocean

Estuaring Waters (Tidal Water-Coastal Zone to Fall Line)

Non-Tidal Waters (Coastal Zone & Peidmont Zones)

Mountainous Zone Waters

Put and Take Trout Waters

Natural Trout Waters

Swamp Waters

Surface Public Water Supplies

Protection of Aquatic Life - Freshwater

Protection of Aquatic Life - Saltwater

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	All Classes	Open Ocean		Estuaring Water..		Non-Tidal Water..	
Physical							
pH							
Upper Value	9.0						
Lower Value	6.0						
Dissolved Oxygen							
Lower Value		5.0	mg/L	4.0	mg/L		
Temperature							
Upper Value						32	C
Temperature Change							
Upper Value		3	C	3	C	3	C
Nutrients							
Toxic Metals							
Pesticides							
Organics							
Bacteria							
Fecal Coliform							
Upper Value		Narr.		Narr.		Narr.	

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	Mountainous	Put and Take	Natural	Swamp Waters
Physical				
Dissolved Oxygen				
Upper Value		mg/L	mg/L	Narr.
Lower Value		5.0 mg/L	6.0 mg/L	
Temperature				
Upper Value	31 C	21 C	20 C	Narr.
Temperature Change				
Upper Value	3 C	3 C	1 C	3 C
Nutrients				
Toxic Metals				
Pesticides				
Organics				
Bacteria				
Fecal Coliform				
Upper Value	Narr.	Narr.	Narr.	Narr.

VIRGINIA

	Surface Public		Protection of		Protection of	
Physical						
Chlorides						
Upper Value	250	mg/L				
Sulfates						
Upper Value	250	mg/L				
Total Dissolved Solids						
Upper Value	500	mg/L				
Nutrients						
Nitrate						
Upper Value	10.0	mg/L				
Toxic Metals						
Arsenic						
Upper Value	0.05	mg/L	190 D	ug/L	36 D	ug/L
Cadmium						
Upper Value	0.01	mg/L	funct.	ug/L	9.3	ug/L
Chromium						
Upper Value	0.05	mg/L				
Chromium - Hexavalent						
Upper Value			7.2	ug/L	54	ug/L
Chromium - Trivalent						
Upper Value			funct.			
Copper						
Upper Value	1.0	mg/L	Narr.		2.0	ug/L
Cyanide						
Upper Value			4.2	ug/L	0.57	ug/L
Iron						
Upper Value	0.3	mg/L	1000	ug/L		
Lead						
Upper Value	0.05	mg/L	funct.	ug/L	5.6	ug/L
Mercury						
Upper Value	0.002	mg/L			0.10	ug/L
Zinc						
Upper Value	5.0	mg/L	47	ug/L	58	ug/L
Barium						
Upper Value	1.0	mg/L				
Manganese						
Upper Value	0.05	mg/L			100	ug/L
Nickel						
Upper Value			funct.	ug/L	7.1	ug/L
Selenium						
Upper Value	0.01	mg/L	35	ug/L	54	ug/L
Silver						
Upper Value	0.05	mg/L	funct.	ug/L	0.023	ug/L
Pesticides						
Aldrin						
Upper Value			0.03	ug/L	0.003	ug/L

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	Surface Public	Protection of	Protection of
Dieldrin			
Upper Value		0.0019 ug/L	0.0019 ug/L
Chlordane			
Upper Value		0.0043 ug/L	0.004 ug/L
2,4-D			
Upper Value	0.1 mg/L		
2,4,5-TP (Silvex)			
Upper Value	0.01 mg/L		
DDT			
Upper Value		0.001 ug/L	0.001 ug/L
Demeton			
Upper Value		0.1 ug/L	0.1 ug/L
Endosulfan			
Upper Value		0.056 ug/L	0.0087 ug/L
Endrin			
Upper Value	0.0002 mg/L	0.0023 ug/L	0.0023 ug/L
Guthion			
Upper Value		0.01 ug/L	0.01 ug/L
Heptachlor			
Upper Value		0.0038 ug/L	0.0036 ug/L
Lindane			
Upper Value	0.004 ug/L	0.080 ug/L	0.0016 ug/L
Malathion			
Upper Value		0.1 ug/L	0.1 ug/L
Methoxychlor			
Upper Value	0.1 mg/L	0.03 ug/L	0.03 ug/L
Mirex			
Upper Value		0.00 ug/L	0.00 ug/L
Parathion			
Upper Value		0.04 ug/L	0.04 ug/L
Toxaphene			
Upper Value	0.005 mg/L	0.013 ug/L	0.0007 ug/L
Organics			
Phenol			
Upper Value	0.001 mg/L	1.0 ug/L	1.0 ug/L
Phthalate Esters			
Upper Value		3.0 ug/L	3.0 ug/L
PCBs			
Upper Value		0.014 ug/L	0.03 ug/L
Bacteria			