United States
Environmental Protection
Agency

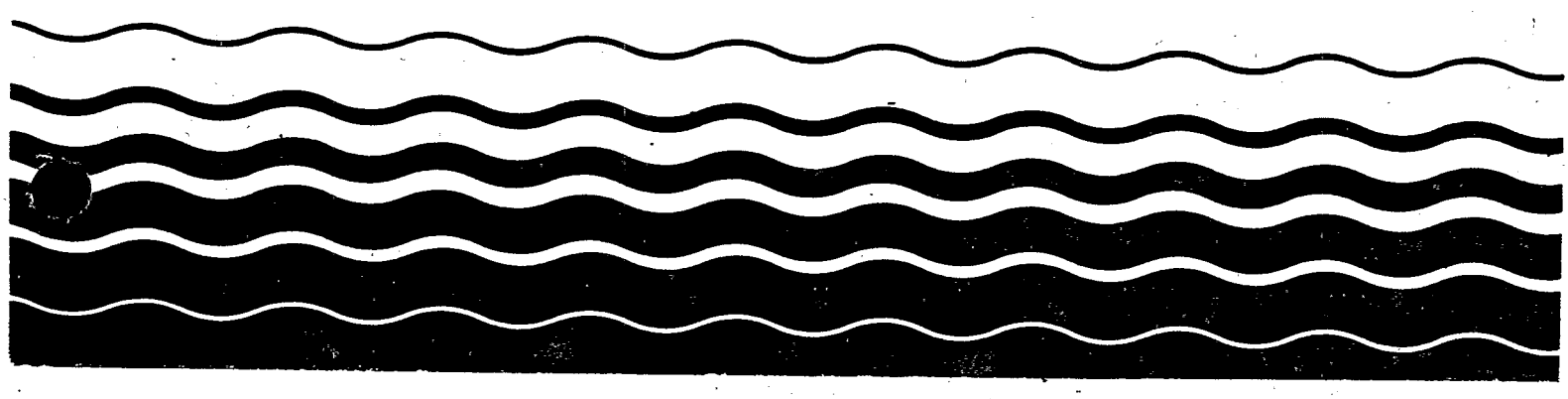
Office of Water
Regulations and Standards
Washington, DC 20460

EPA 440/5-88-075
September 1988

Water

EPA

State Water Quality Standards Summary: Rhode Island



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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
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703-487-4650

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RHODE ISLAND

Responsible Agency:

State of Rhode Island and Providence
Department of Health
Division of Water Pollution Control

State Contact:

Standards Available From:

State Contact:

James W. Fester, Chief
Division of Water Resources
Dept. of Environmental Management
75 Davis Street
Providence 02908
401-277-2234 Fee: no Mailing List: yes

State Narrative Language For: Antidegradation

Discharges Shall Not Violate Water Quality Standards - No person shall discharge into any waters of the State sewage or other waste which the director determines would result in the violation of any State water criterion assigned to the receiving waters or to down stream waters pursuant to subsection 6.03 and 6.04 of these regulations.

Discharges Shall Not Further Degrade Low Quality Waters - No person shall discharge into any waters of the State sewage or other waste which the director determines would result in the additional degradation of any water quality criterion of the receiving waters or downstream waters which is already below the water quality standard assigned to such waters.

Discharges Shall Not Degrade High Quality Waters - No person shall discharge into any waters of the State sewage or other waste which the director determines would result in the degradation of any water quality criterion of the receiving waters or downstream waters whose quality is higher than the minimum required by the water quality standards assigned to such waters.

Antidegradation and Upgrading of Water Quality Standards - Any water uses being achieved shall be maintained. Where existing water use classifications specify water uses less than those which are presently being achieved, the director shall propose to the E S B that it upgrade the classification of the waters in question to reflect the uses actually being attained.

State Narrative Language For: Toxics

Waters shall be free from chemical constituents in concentrations or combinations which could be harmful to human, animal, or aquatic life for the appropriate most sensitive and governing water class use, unfavorably alter the biota, or impair the waters for any other uses.

If an aquatic toxicity value has not been established in the R.I. DEM Ambient Water Quality Guidelines, then the level of any "priority pollutant" shall not exceed the "detection limits" in the ambient water unless the discharger demonstrates to the satisfaction of the Director that a higher concentration will not adversely effect the most sensitive use of the water body.

State Narrative Language For: Free From

1. At a minimum, all waters shall be free of pollutants in concentrations that will:
a. Adversely effect the composition of bottom aquatic life;
b. Adversely effect the physical or chemical nature of the bottom;
c. Interfere with the propagation of fish and shellfish; or
d. Undesirably alter the qualitative and quantitative character of the biota.
2. Aesthetics - All waters shall be free from pollutants in concentrations or combinations that:
a. Settle to form objectionable deposits;
b. Float as debris, scum or other matter to form nuisances;
c. Produce objectionable odor, color, taste or turbidity; or
d. Result in the dominance of nuisance species.

State Narrative Language For: Low Flow

The water quality standards apply under the most adverse conditions, as determined by the Director according to sound engineering and scientific practices. For fresh water, most adverse conditions shall include a minimum average daily flow for seven consecutive days that can be expected to occur once in ten years. For tidal waters, most adverse conditions shall mean when the most unfavorable hydrographic and pollution conditions occur at the particular point of evaluation.

State Narrative Language For: Mixing Zones

Thermal Mixing Zones - In the case of thermal discharges into tidal rivers or estuaries, or fresh water streams or estuaries, where thermal mixing zones are allowed by the director, the mixing zone will be limited to no more than 1/4 of the cross sectional area and/or volume of flow river, stream or estuary, leaving at least 3/4 free as a zone of passage. In wide estuaries and oceans, the limits of mixing zones will be established by the director.

Non-thermal Mixing Zones - In applying these standards the director may recognize, where appropriate, a limited mixing zone or zone of initial dilution on a case-by-case basis. The locations, size, and shape of these zones shall provide for the maximum protection of aquatic resources. At minimum, mixing zones must:

(a) Meet the criteria for aesthetics;

(b) Be limited to an area or volume that will minimize interference with the designated uses in the segment;

(c) Allow an appropriate zone of passage for migrating fish and other organisms; and

(d) Not result in substances accumulating in sediments, aquatic life or food chains to exceed known or predicted safe exposure levels for the health of humans or aquatic life.

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Classifications:

Fresh Water Class A	Drinking water supply.
Fresh Water Class B	Public Water Supply with appropriate treatment: 1) agricultural uses: 2) bathing, other primary contact recreatioanl activities: 3) fish and wildlife habitat.
Fresh Water Class C	Boating, other secondary contact recreational activities. 1) fish and wildlife habitat: 2) industrial processes and cooling.
Fresh Water Class D	Migration of fish. Good aesthetic value.
Fresh Water Class E	Nuisance conditions, uses limited to: 1) certain industrial processes and cooling: 2) power: 3) navigation.
Sea Water Class SA	Bathing and contact recreation: 1) shellfish harvesting for direct human consumption: 2) fish and wilflife habitat.
Sea Water Class SB	Shellfish harvesting for human consumption after depuration: 1) bathing, other primary contact recreational activities: 2) fish and wildlife habitat.
Sea Water Class SC	Boating, other secondary contact recreational activities: 1) fish and wildlife habitat: 2) industrial cooling: 3) good aesthetic value.

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	All Classes	Fresh Water Class A	Fresh Water Class B	Fresh Water Class C
Physical				
pH				
Upper Value		Narr.	8.0	8.5
Lower Value			6.5	6.0
Dissolved Oxygen				
Lower Value		5 mg/L	5 mg/L	5 mg/L
Temperature				
Upper Value		Narr.	83 F	Narr.
Secondary Upper Limit			68 F	
Temperature Change				
Upper Value		Narr.	4 F	
Turbidity				
Upper Value		5 JU	10 JU	15 JU
Nutrients				
Phosphates				
Upper Value	Narr.			
Toxic Metals				
Arsenic				
Upper Value			440 ug/L	440 ug/L
Lower Value			9.8 ug/L	9.8 ug/L
Secondary Upper Limit			52 ug/L	52 ug/L
Cadmium				
Secondary Upper Limit			Narr. ug/L	Narr. ug/L
Cyanide				
Upper Value			52 ug/L	52 ug/L
Secondary Upper Limit			3.5 ug/L	3.5 ug/L
Beryllium				
Upper Value			7.5 ug/L	7.5 ug/L
Secondary Upper Limit			.17 ug/L	.17 ug/L
Nickel				
Secondary Upper Limit			Narr. ug/L	Narr. ug/L
Selenium				
Upper Value			260 ug/L	260 ug/L
Secondary Upper Limit			35 ug/L	35 ug/L
Silver				
Secondary Upper Limit			Narr. ug/L	Narr. ug/L
Pesticides				
Aldrin				
Upper Value		3.0 ug/L	3.0 ug/L	3.0 ug/L
Dieldrin				
Upper Value		2.5 ug/L	2.5 ug/L	2.5 ug/L
Secondary Upper Limit		0.0019 ug/L	0.0019 ug/L	0.0019 ug/L
Chlordane				
Upper Value		2.4 ug/L	2.4 ug/L	2.4 ug/L
Secondary Upper Limit		0.0043 ug/L	0.0043 ug/L	0.0043 ug/L
DDT				
Upper Value		1.1 ug/L	1.1 ug/L	1.1 ug/L
Secondary Upper Limit		0.001 ug/L	0.001 ug/L	0.001 ug/L

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	All Classes	Fresh Water Class A	Fresh Water Class B	Fresh Water Class C
Endosulfan				
Upper Value		0.22 ug/L	0.22 ug/L	0.22 ug/L
Secondary Upper Limit		0.056 ug/L	0.056 ug/L	0.056 ug/L
Endrin				
Upper Value		0.18 ug/L	0.18 ug/L	0.18 ug/L
Secondary Upper Limit		0.0023 ug/L	0.0023 ug/L	0.0023 ug/L
Heptachlor				
Upper Value		0.52 ug/L	0.52 ug/L	0.52 ug/L
Secondary Upper Limit		0.0038 ug/L	0.0038 ug/L	0.0038 ug/L
Lindane				
Upper Value		2.0 ug/L	2.0 ug/L	2.0 ug/L
Secondary Upper Limit		0.080 ug/L	0.080 ug/L	0.080 ug/L
Toxaphene				
Upper Value		1.6 ug/L	1.6 ug/L	1.6 ug/L
Secondary Upper Limit		0.013 ug/L	0.013 ug/L	0.013 ug/L
Organics				
Bacteria				
Fecal Coliform				
Upper Value		Narr.	Narr.	
Total Coliform				
Upper Value		Narr.	Narr.	Narr.

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	Fresh Water Class D		Fresh Water Class E	Sea Water Class SA		Sea Water Class SB	
Physical							
pH							
Upper Value	9.0			8.5		8.5	
Lower Value	6.0			6.8		6.8	
Dissolved Oxygen							
Lower Value	2	mg/L		6.0	mg/L	5.0	mg/L
Temperature							
Upper Value	90	F		83	F	83	F
Temperature Change							
Upper Value				1.6	F	1.6	F
Secondary Upper Limit				4	F	4	F
Turbidity							
Upper Value			Narr.	Narr.		Narr.	
Nutrients							
Toxic Metals							
Arsenic							
Upper Value	440	ug/L		120	ug/L	120	ug/L
Lower Value	9.8	ug/L		63	ug/L	63	ug/L
Secondary Upper Limit	52	ug/L			ug/L		ug/L
Cadmium							
Upper Value		ug/L		59	ug/L	59	ug/L
Secondary Upper Limit	Narr.	ug/L		4.5	ug/L	4.5	ug/L
Chromium - Hexavalent							
Upper Value	21	ug/L				1260	ug/L
Secondary Upper Limit	.29	ug/L				18	ug/L
Chromium - Trivalent							
Upper Value	Narr.						
Cyanide							
Upper Value	52	ug/L		1.0	ug/L	1.0	ug/L
Secondary Upper Limit	3.5	ug/L		.57	ug/L	.57	ug/L
Lead							
Upper Value						220	ug/L
Secondary Upper Limit						8.6	ug/L
Mercury							
Upper Value	4.1	ug/L				3.7	ug/L
Secondary Upper Limit	.2	ug/L				.10	ug/L
Zinc							
Upper Value		ug/L				170	ug/L
Secondary Upper Limit	47	ug/L				58	ug/L
Beryllium							
Upper Value	7.5	ug/L					
Secondary Upper Limit	.17	ug/L					
Nickel							
Upper Value		ug/L		140	ug/L	140	ug/L
Secondary Upper Limit	Narr.	ug/L		7.1	ug/L	7.1	ug/L
Selenium							
Upper Value	260	ug/L		410	ug/L	410	ug/L
Secondary Upper Limit	35	ug/L		54	ug/L	54	ug/L

	Fresh Water Class D	Fresh Water Class E	Sea Water Class SA	Sea Water Class SB
Silver				
Upper Value	ug/L		2.3 ug/L acute	2.3 ug/L acute
Secondary Upper Limit	Narr. ug/L		ug/L acute	ug/L acute
Pesticides				
Aldrin				
Upper Value	3.0 ug/L	3.0 ug/L	1.3 ug/L	1.3 ug/L
Dieldrin				
Upper Value	2.5 ug/L	2.5 ug/L	0.71 ug/L	0.71 ug/L
Secondary Upper Limit	0.0019 ug/L	0.0019 ug/L	0.0019 ug/L	0.0019 ug/L
Chlordane				
Upper Value	2.4 ug/L	2.4 ug/L	0.09 ug/L	0.09 ug/L
Secondary Upper Limit	0.0043 ug/L	0.0043 ug/L	0.0040 ug/L	0.0040 ug/L
DDT				
Upper Value	1.1 ug/L	1.1 ug/L	0.13 ug/L	0.13 ug/L
Secondary Upper Limit	0.001 ug/L	0.001 ug/L	0.010 ug/L	0.010 ug/L
Endosulfan				
Upper Value	0.22 ug/L	0.22 ug/L	0.034 ug/L	0.034 ug/L
Secondary Upper Limit	0.056 ug/L	0.056 ug/L	0.0087 ug/L	0.0087 ug/L
Endrin				
Upper Value	0.18 ug/L	0.18 ug/L	0.037 ug/L	0.037 ug/L
Secondary Upper Limit	0.0023 ug/L	0.0023 ug/L	0.0023 ug/L	0.0023 ug/L
Heptachlor				
Upper Value	0.52 ug/L	0.52 ug/L	0.053 ug/L	0.053 ug/L
Secondary Upper Limit	0.0038 ug/L	0.0038 ug/L	0.0036 ug/L	0.0036 ug/L
Lindane				
Upper Value	2.0 ug/L	2.0 ug/L	0.16 ug/L	0.16 ug/L
Secondary Upper Limit	0.080 ug/L	0.080 ug/L	ug/L	ug/L
Toxaphene				
Upper Value	1.6 ug/L	1.6 ug/L	0.07 ug/L	0.07 ug/L
Secondary Upper Limit	0.013 ug/L	0.013 ug/L	ug/L	ug/L
Organics				
Phenol				
Upper Value	251 ug/L			
Secondary Upper Limit	5.6 ug/L			
Dimethyl Phthalate				
Upper Value	1650 ug/L			
Secondary Upper Limit	37 ug/L			
Diethyl Phthalate				
Upper Value	2605 ug/L			
Secondary Upper Limit	58 ug/L			
Di-2-ethylhexyl Phthalate				
Upper Value	555 ug/L			
Secondary Upper Limit	12 ug/L			
Butylbenzyl Phthalate				
Upper Value	85 ug/L			
Secondary Upper Limit	1.9 ug/L			
PCBs				
Upper Value	0.014 ug/L			
Bacteria				

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	Fresh Water Class D	Fresh Water Class E	Sea Water Class SA	Sea Water Class SB
Fecal Coliform				
Upper Value			Narr.	Narr.
Total Coliform				
Upper Value	Narr.		Narr.	Narr.

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	Sea Water Class SC	
Physical		
pH		
Upper Value	8.5	
Lower Value	6.5	
Dissolved Oxygen		
Lower Value	4	mg/L
Temperature		
Upper Value	83	F
Temperature Change		
Upper Value	1.6	F
Secondary Upper Limit	4	F
Turbidity		
Upper Value	Narr.	
Nutrients		
Toxic Metals		
Arsenic		
Upper Value	120	ug/L
Lower Value	63	ug/L
Cadmium		
Upper Value	59	ug/L
Secondary Upper Limit	4.5	ug/L
Cyanide		
Upper Value	1.0	ug/L
Secondary Upper Limit	.57	ug/L
Nickel		
Upper Value	140	ug/L
Secondary Upper Limit	7.1	ug/L
Selenium		
Upper Value	410	ug/L
Secondary Upper Limit	54	ug/L
Silver		
Upper Value	2.3	ug/L acute
Pesticides		
Aldrin		
Upper Value	1.3	ug/L
Dieldrin		
Upper Value	0.71	ug/L
Secondary Upper Limit	0.0019	ug/L
Chlordane		
Upper Value	0.09	ug/L
Secondary Upper Limit	0.0040	ug/L
DDT		
Upper Value	0.13	ug/L
Secondary Upper Limit	0.010	ug/L
Endosulfan		
Upper Value	0.034	ug/L
Secondary Upper Limit	0.0087	ug/L

	Sea Water Class SC
Endrin	
Upper Value	0.037 ug/L
Secondary Upper Limit	0.0023 ug/L
Heptachlor	
Upper Value	0.053 ug/L
Secondary Upper Limit	0.0036 ug/L
Lindane	
Upper Value	0.16 ug/L
Toxaphene	
Upper Value	0.07 ug/L
Organics	
Bacteria	
Total Coliform	
Upper Value	Narr.