

Northeast Interstate Water Quality Standards Matrix

Prepared by NEIWPC in cooperation with the States of Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. Last updated April 2014. For more information, contact Dan Peckham, NEIWPC.

Notes:

*Classification of waters is not necessarily consistent across states - NEIWPC maintains a separate Interstate Waterbody Classification and Designated Use Matrix that summarizes the classifications and designated uses by state, including further details regarding partial uses and unique classifications. In Maine, lakes are classified uniquely as Class GPA. Standards and criteria for Class GPA can be found on the state website: <http://www.mainelegislature.org/legis/statutes/38/title38sec465-A.html>. In New York, Class N waters are those for "enjoyment of water in its natural condition," and more information can be found on the state website: <http://www.dec.ny.gov/regis/4592.html#15993>.

**This matrix is not an exhaustive list of every parameter each state adopts - it looks to identify parameters of particular interest for states to compare with other states.

†EPA WQS recommendations are included for reference and are not specific to class - the same EPA-recommended freshwater standards are listed for classes AA-D, and the same EPA-recommended saltwater standards are listed for classes SA-SD.

Class*	Parameter**	EPA Recommended Criteria†	CT	MA	ME*	NH	NY*	RI	VT
AA	Class AA: Aesthetics	All waters free from substances attributable to wastewater or other discharges that: settle to form objectionable deposits; float as debris, scum, oil, or other matter to form nuisances; produce objectionable color, odor, taste, or turbidity; injure or are toxic or produce adverse physiological responses in humans, animals or plants; and produce undesirable or nuisance aquatic life.	Uniformly Excellent.	No such classification.	N/A	No such classification.	No taste-, color-, and odor-producing, toxic, or other deleterious substances in amounts that will adversely affect the taste, color or odor thereof, or impair the waters for their best uses. See 6 NYCRR 703.5, Table 1 in the Regulation for standards for specific substances.	All waters shall be free from pollutants in concentrations or combinations that: Settle to form deposits that are unsightly, putrescent, or odorous; float as debris, oil, grease, scum or other floating material attributable to wastes; Produce odor or taste or change the color or physical, chemical or biological conditions; or result in the dominance of species of fish and wildlife; To such a degree as to create a nuisance or interfere with the existing or designated uses.	No such classification.
AA	Class AA: Aquatic Life	N/A	Sustainable, diverse biological communities of indigenous taxa shall be present. Moderate changes, from natural conditions in the structure of the biological communities, and minimal changes in ecosystem function may be evident; however, water quality shall be sufficient to sustain a biological condition within the range of Connecticut Biological Condition Gradient Tiers 1-4 as assessed along a 6 tier stressor gradient of Biological Condition Gradient (See Section 22a-42b-5 of the Regulations of the Connecticut State Agencies).	No such classification.	As naturally occurs.	No such classification.	See 6 NYCRR 703.5, Table 1 for standards for specific substances.	At a minimum, all waters shall be free of pollutants in concentrations or combinations or from anthropogenic activities subject to these regulations that: adversely affect the composition of fish and wildlife; adversely affect the physical, chemical, or biological integrity of the habitat; interfere with the propagation of fish and wildlife; or adversely alter the life cycle functions, uses, processes and activities of fish and wildlife.	No such classification.
AA	Class AA: Dissolved Oxygen (DO)	Cold Water Criteria: 30 day mean of 6.5 mg/L for other life stages; 7 day mean of 9.5 mg/L for early life stages; 7 day mean minimum of 5.0 mg/L for other life stages; 1 day minimum of 6.0 mg/L for early life stages and 4.0 mg/L for other life stages. Warm Water Criteria: 30 day mean of 5.5 mg/L for other life stages; 7 day mean of 6.0 mg/L for early life stages; 7 day mean minimum of 4.0 mg/L for other life stages; 1 day minimum of 5.0 mg/L for early life stages and 3.0 mg/L for other life stages.	Not less than 5 mg/L at any time.	No such classification.	As naturally occurs.	No such classification.	For AA and AA-Special: For trout spawning waters (TS), the dissolved oxygen concentration shall not be less than 7.0 mg/L from other than natural conditions. For trout waters (T), the minimum daily average shall not be less than 6.0 mg/L, and at no time shall the concentration be less than 5.0 mg/L. For nontrout waters the minimum daily average shall not be less than 5.0 mg/L, and at no time shall the dissolved oxygen be less than 4.0 mg/L.	Cold Water Fish Habitat - Dissolved oxygen content of not less than 75% saturation, based on a daily average, and an instantaneous minimum dissolved oxygen concentration of at least 5 mg/L, except as naturally occurs. For the period from October 1st to May 14th, where in areas identified by the RI Division of Fish and Wildlife as cold water fish spawning areas the following criteria apply: For species whose early life stages are not directly exposed to the water column (i.e., early life stages are intergravel), the 7 day mean water column dissolved oxygen concentration shall not be less than 9.5 mg/L and the instantaneous minimum dissolved oxygen concentration shall not be less than 8 mg/L. For species that have early life stages exposed directly to the water column, the 7 day mean water column dissolved oxygen concentration shall not be less than 6.5 mg/L and the instantaneous minimum dissolved oxygen concentration shall not be less than 5.0 mg/L. (See Appendix A for coldwater designated waters) Warm Water Fish Habitat - Dissolved oxygen content of not less than 60% saturation, based on a daily average, and an instantaneous minimum dissolved oxygen concentration of at least 5.0 mg/L, except as naturally occurs. The 7 day mean water column dissolved oxygen concentration shall not be less than 6 mg/L. (See Appendix A for warmwater designated waters)	No such classification.
AA	Class AA: Sludge Deposits, Solid Refuse, Floating Solids, Oil, Grease and Scum	Oil and Grease - For domestic water supply: Virtually free from oil and grease, particularly from the basins and odors that emanate from petroleum products. For aquatic life: (1) 0.01 of the lowest continuous flow 96-hour LC50 to several important freshwater or marine species, each having a demonstrated high susceptibility to oils and petrochemicals; (2) Levels of oils or petrochemicals in the sediment which cause deleterious effects to the biota should not be allowed; (3) Surface waters shall be virtually free from floating non-petroleum oils of vegetable or animal origin, as well as petroleum derived oils.	None other than of natural origin.	No such classification.	All surface waters of the State shall be free of settled substances which alter the physical or chemical nature of bottom material and of floating substances, except as naturally occur, which impair the characteristics and designated uses ascribed to their class.	No such classification.	No residue attributable to sewage, industrial wastes or other wastes, nor visible oil film or globules of grease.	None allowable.	No such classification.
AA	Class AA: Color and Turbidity	Waters shall be virtually free from substances producing objectionable color for aesthetic purposes; the source of supply should not exceed 75 color units on the platinum-cobalt scale for domestic water supplies; increased color should not reduce the depth of the compensation point for photosynthetic activity by more than 10% from seasonally established norm for aquatic life.	Color: None other than of natural origin. Turbidity: Shall not exceed 5 NTU over ambient levels and none exceeding levels necessary to protect and maintain all designated uses. All reasonable controls or Best Management Practices are to be used to control turbidity.	No such classification.	Discharge of pollutants to waters of the state that imparts color or turbidity are not allowed.	No such classification.	Color: No substances in amounts that will adversely affect the color. Turbidity: No increase that will cause a substantial visible contrast to natural conditions.	None in such concentrations that would impair any usages specifically assigned to this class. Turbidity not to exceed 5 NTU over background.	No such classification.
AA	Class AA: Bacteria	Based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period), the geometric mean of the indicated bacterial densities should not exceed one or the other of the following: E. coli 126 per 100 ml or enterococci 33 per 100 ml; no sample should exceed a one sided confidence limit (C.L.) calculated using the following as guidance: designated bathing beach 75% C.L.; moderate use for bathing 82% C.L.; light use for bathing 89% C.L.; infrequent use for bathing 95% C.L.; based on a site-specific log standard deviation, or if site data are insufficient to establish a log standard deviation, then using 0.4 as the log standard deviation for both indicators.	For drinking water supply, total coliform monthly moving average less than 100/100 ml and single sample maximum 500/100 ml. For designated swimming areas: E. coli geometric mean less than 126/100 ml and single sample maximum 235/100 ml. For non-designated swimming areas: E. coli geometric mean less than 126/100 ml and single sample maximum 410/100ml. For all other recreational uses: E. coli geometric mean less than 126/100 ml and single sample maximum 576/100 ml.	No such classification.	As naturally occurs.	No such classification.	Total Coliforms: The monthly median value and more than 20 percent of the samples, from a minimum of five examinations, shall not exceed 50 and 240, respectively.	Fecal Coliform: Drinking Water Supply Criteria: Applied at the terminal reservoir of the system - Not to exceed a geometric mean value of 20 MPN/100 ml and not more than 10% of the samples shall exceed a value of 200. Primary Contact Recreational/Swimming Criteria: Not to exceed a geometric mean value of 200 MPN/100 ml and not more than 10% of the total samples taken shall exceed 400 MPN/100 ml, applied only when adequate enterococci data are not available. Enterococci: Primary Contact Recreational/Swimming Criteria - Non-Designated Bathing Beach Waters Geometric Mean Density: 54 colonies/100 ml. Designated Bathing Beach Waters Geometric Mean Density: 33 colonies/100 ml. Single Sample Maximum: 61 colonies/100 ml. * Criteria for determining beach swimming advisories at designated beaches as evaluated by Health.	No such classification.
AA	Class AA: Taste and Odor	Materials should not be present in concentrations that individually or in combination produce undesirable flavors which are detectable by organoleptic tests performed on the edible portions of aquatic organisms.	None other than natural origin.	No such classification.	Discharge of pollutants to waters of the state that imparts taste are not allowed.	No such classification.	No substances in amounts that will adversely affect the taste or odor.	None other than of natural origin and none associated with nuisance algal species.	No such classification.
AA	Class AA: pH	For protection of aquatic life: 6.5-9 continuous concentration. For protection of human health: 5-9 for consumption of water and organisms.	As naturally occurs.	No such classification.	6.0 - 8.5	No such classification.	Shall not be less than 6.5 nor more than 8.5	6.5 - 9.0 or as naturally occurs.	No such classification.

Class*	Parameter**	EPA Recommended Criteria*	CT	MA	N/A	ME*	NH	N/A	NY*	RI	VT
AA	Class AA: Alkalinity	For protection of freshwater aquatic life: 20,000 µg/L continuous concentration	N/A	No such classification.	N/A	No such classification.	No such classification.	N/A	N/A	N/A	No such classification.
	Class AA: Temperature	For any time of year, there are two upper limiting temperatures for a location based on the important sensitive species found there at that time: (1) One limit consists of a maximum temperature for short exposures that is time dependent and is given by a species-specific equation; (2) the second value is a limit on the weekly average temperature (see Gold Book for more information).	There shall be no changes from natural conditions that would impair any existing or designated uses assigned to this Class and, in no case exceed 85 degrees F, or in any case raise the temperature of surface water more than 4 degrees F.	No such classification.	N/A	No such classification.	All thermal discharges to the waters of the State shall assure the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in and on the body of water. The natural seasonal cycle shall be retained. Annual spring and fall temperature changes shall be gradual. Large day-to-day temperature fluctuations due to heat of artificial origin shall be avoided. Development or growth of nuisance organisms shall not occur in contravention of water quality standards. Discharges which would lower receiving water temperature shall not cause a violation of water quality standards and 6 NYCRR 704.3. For the protection of the aquatic biota from severe temperature changes, routine shut down of an entire thermal discharge at any site shall not be scheduled during the period from December through March. Additional special criteria for different types of waters are provided in 6 NYCRR 704.	No activity shall raise the temperature of the receiving waters above the recommended limit on the most sensitive receiving water use nor cause the growth of undesirable or nuisance species of biota. In no cases shall an activity cause the temperature to exceed 83 degrees F. Heated discharges into designated coldwater habitats shall not raise the temperature above 68 degrees F outside an established thermal mixing zone. In no case shall the temperature of the receiving water be raised more than 4 degrees F.	No such classification.		
AA	Class AA: Silt or Sand Deposits	N/A	None other than of natural origin except as may result from normal agricultural, road maintenance, construction activity, dredging activity or the discharge of dredged or fill materials provided all reasonable controls or Best Management Practices are used in such activities and all designated uses are protected and maintained.	No such classification.	N/A	No such classification.	No such classification.	N/A	N/A	N/A	No such classification.
AA	Class AA: Chemical Constituents	Criteria are provided for a number of chemical constituents classified as priority and non-priority pollutants. See www.epa.gov/waterscience/criteria/wqcriteria.html for specific chemicals.	None in concentrations or combinations which would be harmful to designated uses. Refer to Table 3 of this section and sections 22a-426-4(a)(5); 22a-426-4(a)(9)(B); 22a-426-4(a)(11); 22a-426-4(l); 22a-426-4(m); 22a-426-9(a)(3); 22a-426-9(a)(4) and 22a-426-9(a)(5) of the Regulations of Connecticut State Agencies.	No such classification.	Except as naturally occurs, surface waters must be free of pollutants in concentrations which impart toxicity and cause those waters to be unsuitable for the existing and designated uses of the water body. Except as naturally occur, levels of toxic pollutants in surface waters must not exceed federal water quality criteria as established by USEPA, pursuant to Section 304(a) of the Clean Water Act, or alternative criteria established by the state and listed in Chapter 584 Surface Water Quality Criteria for Toxic Pollutants.	No such classification.	None in amounts that will adversely affect the taste, color, odor or impair the waters for their best use. See 6 NYCRR 703.5, Table 1 of the Regulation and DOW TOCS 1.1.1 for criteria and guidance values for specific substances.	a. None in concentrations or combinations that could be harmful to humans or fish and wildlife for the most sensitive and governing water class use, or unfavorably alter the biota, or which would make the waters unsafe or unsuitable for fish and wildlife or their propagation, impair the palatability of same, or impair waters for any other existing or designated use. None in such concentrations that would exceed the Water Quality Criteria and Guidelines as provided in Appendix B. b. The ambient concentration of a pollutant in a water body shall not exceed the Ambient Water Quality Criteria and Guidelines, (Appendix B) for the protection of aquatic organisms from acute or chronic effects, unless the criteria or guidelines are modified by the Director based on results of bioassay tests conducted in accordance with the terms and conditions provided in the RIDEIM Site-Specific Aquatic Life Water Quality Criteria Development Policy.	No such classification.		
AA	Class AA: Phosphorus	To prevent the development of biological nuisances and to control accelerated or cultural eutrophication, total phosphates as phosphorus (P) should not exceed 50 µg/L in any stream at the point where it enters any lake or reservoir, nor 25 µg/L within the lake or reservoir.	The loading of nutrients, principally phosphorus and nitrogen, to any surface water body shall not exceed that which supports maintenance of attainment of designated uses.	No such classification.	N/A	No such classification.	None in amounts that will result in growth of algae, weeds and slimes that will impair the waters for their best usage.	Nutrients: a. Average Total Phosphorus shall not exceed 0.025 mg/L in any lake, pond, kettlehole or reservoir, and average Total P in tributaries at the point where they enter such bodies of water shall not cause exceedance of this phosphorus criteria, except as naturally occurs, unless the Director determines, on a site-specific basis, that a different value for phosphorus is necessary to prevent cultural eutrophication. b. None in such concentration that would impair any usages specifically assigned to said Class, or cause undesirable or nuisance aquatic species associated with cultural eutrophication, nor cause exceedance of the criterion of 10(a) above in a downstream lake, pond, or reservoir. New discharges of wastes containing phosphates will not be permitted into or immediately upstream of lakes or ponds. Phosphates shall be removed from existing discharges to the extent that such removal is or may become technically and reasonably feasible.	No such classification.		
AA	Class AA: Sodium	N/A	Not to exceed 20 mg/L.	No such classification.	N/A	No such classification.	No such classification.	N/A	N/A	N/A	No such classification.
AA	Class AA: Chloride	For protection of freshwater aquatic life: 860,000 µg/L maximum concentration; 230,000 µg/L continuous concentration.	For protection of freshwater aquatic life: 860,000 µg/L maximum concentration; 230,000 µg/L continuous concentration.	No such classification.	For protection of freshwater aquatic life: 860,000 µg/L maximum concentration; 230,000 µg/L continuous concentration.	No such classification.	For protection of human health: 250,000 µg/L for consumption of water.	For protection of freshwater aquatic life: 860,000 µg/L maximum concentration; 230,000 µg/L continuous concentration.	No such classification.		
AA	Class AA: Sulfates	For domestic water supply: 250 mg/L	N/A	No such classification.	N/A	No such classification.	For protection of human health: 250,000 µg/L for consumption of water.	N/A	N/A	No such classification.	
AA	Class AA: Nitrate	For protection of human health: 10,000 µg/L for consumption of water and organisms.	N/A	No such classification.	For protection of human health: 10,000 µg/L for consumption of water and organisms.	No such classification.	None in amounts that will result in growth of algae, weeds and slimes that will impair the waters for their best use. For protection of human health: 10,000 µg/L for sources of drinking water.	N/A	N/A	No such classification.	
AA	Class AA: Phenol	For protection of human health: 10,000 µg/L for consumption of water and organisms; 860,000 for consumption of organisms only	For protection of human health: 10,000 µg/L for consumption of water and organisms; 860,000 µg/L for consumption of organisms only.	No such classification.	For protection of human health: 21,000 µg/L for consumption of water and organisms; 93,000 µg/L for consumption of organisms only.	No such classification.	For aesthetics: total chlorinated phenols 1 µg/L, total unchlorinated phenols 5 µg/L.	For protection of freshwater aquatic life: 251 µg/L for acute exposure and 5.6 µg/L for chronic exposure. For protection of human health: 21 mg/L for consumption of water and organisms; 1700 mg/L for consumption of organisms only	No such classification.		
AA	Class AA: Total Dissolved Solids	For protection of human health: 250,000 µg/L for consumption of water and organisms.	N/A	No such classification.	N/A	No such classification.	Shall be kept as low as practicable to maintain the best usage of waters but in no case shall it exceed 500 mg/L.	N/A	N/A	No such classification.	

Class*	Parameter**	EPA Recommended Criteria†	CT	MA	ME*	NH	NY*	RI	VT
	Class AA: Substances Potentially Toxic	Criteria are provided for a number of chemical constituents classified as priority and non-priority pollutants. See www.epa.gov/waterscience/criteria/wqcriteria.html for specific chemicals.	Surface waters and sediments shall be free from chemical constituents in concentrations or combinations which will or can reasonably be expected to result in acute or chronic toxicity to aquatic organisms or otherwise impair the biological integrity of aquatic or marine ecosystems outside of any dredged material disposal area or areas designated by the Commissioner for disposal or placement of fill materials or any zone of influence allowed by the Commissioner, or bioconcentrate or bioaccumulate in tissues of fish, shellfish and other aquatic organisms at levels which will impair the health of aquatic organisms or wildlife or result in unacceptable tastes, odors or health risks to human consumers of aquatic organisms or wildlife unless such sediments are capped with material suitable for unconfined, open water disposal as an appropriate means of ensuring consistency with this standard as approved by the Commissioner in writing. In determining consistency with this Standard, the Commissioner shall at a minimum consider the numeric criteria listed in Table 3 of section 22a-426-9 of the Regulations of Connecticut State Agencies and any other information he or she deems relevant.	No such classification.	Except as naturally occurs, surface waters must be free of pollutants in concentrations which impart toxicity and cause those waters to be unsuitable for the existing and designated uses of the water body. Except as naturally occur, levels of toxic pollutants in surface waters must not exceed federal water quality criteria as established by USEPA, pursuant to Section 304(a) of the Clean Water Act, or alternative criteria established by the state and listed in Chapter 584 Surface Water Quality Criteria for Toxic Pollutants.	No such classification.	None in amounts that will adversely affect the taste, color, odor or other characteristics of the waters for their best use. See 6 NYCRR 703.5, Table 1 of the Regulation for specific standards.	Criteria for specific substances are listed in Table 1 in Appendix B of the Regulation. To protect aquatic life, the one hour average concentration of a pollutant should not exceed the acute criteria more than once every three years on the average. An exclusion to this rule are the pesticides and PCBs acute criteria, which are considered instantaneous values. The four day average concentration of a pollutant should not exceed the chronic criteria more than once every three years on the average. These aquatic life criteria shall be achieved in all waters, except mixing zones, regardless of the waters' classification.	No such classification.
AA	Class AA: Radioactivity	N/A	Discharge of radioactive materials to a surface water in concentrations or combinations which would be harmful to human, animal or aquatic life shall not be allowed. Applicable criteria can be found in Title 10 Part 20 of the Code of Federal Regulations.	No such classification.	Discharge of pollutants to waters of the State that imparts radioactivity that causes those waters to be unsuitable for the designated uses and characteristics ascribed to their class are not allowed.	No such classification.	Should be kept at the lowest practicable levels, and in any event should be controlled to the extent necessary to prevent harmful effects on health.	The level of radioactive materials in all waters shall not be in concentrations or combinations which will likely be harmful to humans, fish and wildlife, or result in concentrations in organisms producing undesirable conditions.	No such classification.
AA	Class AA: Gross Beta	N/A	N/A	No such classification.	N/A	No such classification.	1000 PCIL excluding Sr-90 and alpha-emitters.	N/A	No such classification.
AA	Class AA: Gross Alpha	N/A	N/A	No such classification.	N/A	No such classification.	15 PCIL, excluding radon and uranium.	N/A	No such classification.
AA	Class AA: Radium 226	N/A	N/A	No such classification.	N/A	No such classification.	3 PCIL	N/A	No such classification.
AA	Class AA: Sum of Radium 226 and 228	N/A	N/A	No such classification.	N/A	No such classification.	5 PCIL	N/A	No such classification.
AA	Class AA: Strontium 90	N/A	N/A	No such classification.	N/A	No such classification.	8 PCIL, if two or more radionuclides are present, the sum of their doses shall not exceed an annual potential dose of 4 millirems per year.	N/A	No such classification.
AA	Class AA: Tritium	N/A	N/A	No such classification.	N/A	No such classification.	20,000 PCIL, if two or more radionuclides are present, the sum of their annual dose equivalent to the total body or any organ shall not exceed 4 millirems per year.	N/A	No such classification.
AA	Class AA: Mercury	For protection of aquatic life: 1.4µg/l for acute exposure and 0.77µg/l for chronic exposure.	For protection of aquatic life: 1.4µg/l for acute exposure and 0.77µg/l for chronic exposure (both total values) For protection of human health: 0.05µg/l for water and fish ingestion, 0.05µg/l for fish consumption only (both total values).	No such classification.	For protection of aquatic life: 1.7µg/l for acute exposure and 0.91µg/l for chronic exposure.	No such classification.	Health (Water Source): 0.7µg/l Aquatic (Chronic): 0.77µg/l in dissolved form Aquatic (Acute): 1.4µg/l in dissolved form Health (Fish Consumption): 0.0007µg/l in dissolved form Wildlife: 0.0028µg/l in dissolved form.	For protection of aquatic life: 1.4µg/l for acute exposure and 0.77µg/l for chronic exposure and For protection of human health: 0.14µg/l for consumption of water and aquatic organisms, 0.15µg/l for consumption of aquatic organisms only.	No such classification.
AA	Class AA: Methylmercury	Fish tissue residue criterion for human health: 0.3mg/kg in the edible portion of the fish.	N/A	No such classification.	Fish tissue residue criterion for human health: 0.2mg/kg in the edible portion of the fish.	No such classification.	N/A	N/A	No such classification.
	Class AA: Mixing Zones	Allowable mixing zone characteristics should be established to ensure that: 1) mixing zones do not impair the integrity of the waterbody as a whole, 2) there is no lethality to organisms passing through the mixing zones, and 3) there are no significant health risks, considering likely pathways of exposure.	The Commissioner may, on a case-by-case basis, establish zones of influence when permitting discharges to surface waters under Section 22a-430 and 22a-133(a) of the Connecticut General Statutes in order to allocate a portion of the receiving surface waters for mixing and assimilation of the discharge. In establishing a zone of influence the Commissioner shall consider without limitation: See 22a-426-4(i) for additional details.	No such classification.	N/A	No such classification.	Non-Thermal Mixing Zones: The presence of a mixing zone in a receiving water is accepted as a normal and expected consequence of a wastewater discharge. Within mixing zones, water quality standards for pollutants are expected to be exceeded, potentially impairing habitat usability for fish and benthic communities. Detailed guidelines can be found in TOGS 1.3.1 Thermal Mixing Zones: The department shall specify definable, numerical limits for all mixing zones. Conditions in the mixing zone shall not be lethal in contravention of water quality standards to aquatic biota which may enter the zone. The location of mixing zones for thermal discharges shall not interfere with spawning areas, nursery areas, and fish migration routes. More details regarding thermal discharges and mixing zones can be found in 6 NYCRR Part 704.	All Mixing Zones: At a minimum, all mixing zones must: - Meet the criteria for aesthetics, in accordance with rule 8.D.1(b). - Be limited to an area or volume that will prevent interference with the existing and designated uses in the associated waterbody segment and beyond. - Allow an appropriate zone of passage for migrating fish and other organisms, prohibit lethality to organisms passing through the mixing zone, and protect for spawning and nursery habitat; and - Not allow substances to accumulate in sediments, fish and wildlife or food chains such that known or predicted safe exposure levels for the health of humans or fish and wildlife will be exceeded. Non-Thermal Mixing Zones: In the case of non-thermal discharges, in applying these standards the Director may recognize, where appropriate, a limited acute and/or chronic mixing zone(s) on a case-by-case basis. The locations, size and shape of these zones shall provide for the maximum protection of fish and wildlife. Thermal Mixing Zones: In the case of thermal discharges into tidal rivers, fresh water streams or estuaries, where thermal mixing zones are allowed by the Director, the mixing zone will be limited to no more than one quarter (1/4) of the cross sectional area and/or volume of river flow, stream or estuary, leaving at least three quarters (3/4) free as a zone of passage. In wide estuaries and oceans, the limits of mixing zones will be established by the Director.	No such classification.
AA	Class A: Aesthetics	All waters free from substances attributable to wastewater or other discharges that settle to form objectionable deposits; float as debris, scum, oil, or other matter to form nuisances; produce objectionable odor, color, taste, or turbidity; injure or are toxic or produce adverse physiological responses in humans, animals or plants; and produce undesirable or nuisance aquatic life.	Uniformly Excellent.	All surface waters shall be free from pollutants in concentrations or combinations that settle to form objectionable deposits; float as debris, scum or other matter to form nuisances; produce objectionable odor, color, taste or turbidity; or produce undesirable or nuisance species. Class A waters shall have excellent aesthetic value.	N/A	All waters shall be free from substances in kind or quantity which settle to form harmful deposits; float as foam, debris, scum or other visible substances; produce odor, color, taste or turbidity which is not naturally occurring and would render it unsuitable for its designated use; result in the dominance of nuisance species; or interfere with recreational activities.	No taste-, color-, and odor-producing, toxic, or other deleterious substances in amounts that will adversely affect the taste, color or odor thereof, or impair the waters for their best uses. See 6 NYCRR 703.5, Table 1 in the Regulation for standards for specific substances.	All waters shall be free from pollutants in concentrations or combinations that settle to form deposits that are unsightly, putrescent, or odorous. Float as debris, oil, grease, scum or other floating material attributable to wastes; Produce odor or taste or change the color or physical, chemical or biological conditions; or Result in the dominance of species of fish and wildlife. To such a degree as to create a nuisance or interfere with the existing or designated uses.	(A1) Water character, flows, water level, bed and channel characteristics, and flowing and falling waters in their natural condition. (A2) Water character, flows, water level, bed and channel characteristics, and flowing and falling waters consistently exhibiting aesthetic value.

Class*	Parameter**	EPA Recommended Criteria†	CT	MA	ME*	NH	NY*	RI	VT
	Class A: Aquatic Life	N/A	Sustainable, diverse biological communities of indigenous taxa shall be present. Moderate changes from natural conditions in the structure of the biological communities, and minimal changes in ecosystem function may be evident; however, water quality shall be sufficient to sustain a biological condition within the range of Connecticut Biological Condition Gradient Tiers 1-4 as assessed along a 6 tier stressor gradient of Biological Condition Gradient. (See Section 22A-426.5 of the Regulations of the Connecticut State Agencies).	N/A	As naturally occurs.	The surface waters shall support and maintain a balanced, integrated, and adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of similar natural habitats of region. Differences from naturally occurring conditions shall be limited to non-detrimental differences in community structure and function.	See 6 NYCRR 703.5, Table 1 for standards for specific substances.	At a minimum, all waters shall be free of pollutants in concentrations or combinations or from anthropogenic activities subject to these regulations that adversely affect the composition of fish and wildlife; adversely affect the physical, chemical, or biological integrity of the habitat; interfere with the propagation of fish and wildlife; or adversely alter the life cycle functions, uses, processes and activities of fish and wildlife.	(A1): Change from the natural condition limited to minimal impacts from human activity. Measures of biological integrity for aquatic macroinvertebrates and fish assemblages are within the range of the natural condition. Uses related to either the physical, chemical, or biological integrity of the aquatic habitat or the composition or life cycle functions of aquatic biota or wildlife are fully supported. All life cycle functions, including overwintering and reproductive requirements are maintained and protected. (A2): Biological integrity is maintained, no change from the reference condition that would prevent the full support of aquatic biota, wildlife or aquatic habitat uses. Change from the reference condition for aquatic macroinvertebrates and fish assemblages shall not exceed moderate changes in the relative proportions of taxonomic, functional, tolerant and intolerant components. All expected functional groups are present in a high quality habitat and none shall be eliminated. All life cycle functions, including overwintering and reproductive requirements, are maintained and protected. Changes in the aquatic habitat shall not exceed moderate differences from the reference condition consistent with full support of all aquatic biota and wildlife uses.
A	Class A: Dissolved Oxygen (DO)	Cold Water Criteria: 30 day mean of 6.5 mg/L for other life stages; 7 day mean of 6.5 mg/L for early life stages; 7 day mean minimum of 5.0 mg/L for other life stages; 1 day minimum of 6.0 mg/L for early life stages and 4.0 mg/L for other life stages. Warm Water Criteria: 30 day mean of 5.5 mg/L for other life stages; 7 day mean of 6.0 mg/L for early life stages; 7 day mean minimum of 4.0 mg/L for other life stages; 1 day minimum of 5.0 mg/L for early life stages and 3.0 mg/L for other life stages.	Not less than 5 mg/L at any time.	Shall not be less than 6.0 mg/L in cold water fisheries and not less than 5.0 mg/L in warm water fisheries. Where natural background conditions are lower, DO shall not be less than natural background conditions. Natural seasonal and daily variations that are necessary to protect existing and designated uses shall be maintained.	Shall not be less than 7 ppm or 75% saturation, whichever is higher.	Shall have a dissolved oxygen content of at least 75% saturation, based on a daily average, and an instantaneous amount of at least 6.0 mg/L at any place or time except as naturally occurs.	A: For trout spawning waters (TS), the DO concentration shall not be less than 7.0 mg/L from other than natural conditions. For trout waters (T), the minimum daily average shall not be less than 6.0 mg/L and at no time shall the concentration be less than 5.0 mg/L. For nontrout waters the minimum daily average shall not be less than 5.0 mg/L and at no time shall the dissolved oxygen be less than 4.0 mg/L. A-Special: In rivers and upper waters of lakes, not less than 6.0 mg/L at any time. In hypolimnetic waters, it should not be less than necessary for the support of fishlife, particularly cold water species.	Cold Water Fish Habitat - Dissolved oxygen content of not less than 75% saturation, based on a daily average, and an instantaneous minimum dissolved oxygen concentration of at least 5 mg/L, except as naturally occurs. For the period from October 1st to May 14th, where in areas identified by the RI Division of Fish and Wildlife as cold water fish spawning areas the following criteria apply: For species whose early life stages are not directly exposed to the water column (i.e., early life stages are interstitial), the 7 day mean water column dissolved oxygen concentration shall not be less than 5 mg/L, and the instantaneous minimum dissolved oxygen concentration shall not be less than 4 mg/L. For species that have early life stages exposed directly to the water column, the 7 day mean water column dissolved oxygen concentration shall not be less than 6 mg/L. Warm Water Fish Habitat - Dissolved oxygen content of not less than 60% saturation, based on a daily average, and an instantaneous minimum dissolved oxygen concentration of at least 5.0 mg/L, except as naturally occurs. The 7 day mean water column dissolved oxygen concentration shall not be less than 6 mg/L.	Class A(1) Ecological Waters: As exists in waters in their natural condition. Class A(2) : The specified dissolved oxygen criteria for each designated fish habitat type will be considered absolute instantaneous minimum values. In addition, fluctuations above the minimum values shall be maintained as necessary to support aquatic habitat. Cold Water Fish Habitat - Not less than 7mg/L and 75% saturation at all times, nor less than 95% saturation during late egg maturation and larval development of salmonids in areas that the secretary determines are salmon spawning or nursery areas important to the establishment or maintenance of the fishery resource. Not less than 6 mg/L and 70% saturation at all times in all other waters designated as a cold water fish habitat. Warm Water Fish Habitat : Not less than 5 mg/L and 60% saturation at all times.
A	Class A: Sludge Deposits, Solid Refuse, Floating Solids, Oil, Grease and Scum	Oil and Grease - For domestic water supply: Virtually free from oil and grease, particularly from the tastes and odors that emanate from petroleum products. For aquatic life: (1) 0.01 of the lowest continuous flow 96-hour LC50 to several important freshwater or marine species, each having a demonstrated high susceptibility to oils and petrochemicals; (2) Levels of oils or petrochemicals in the sediment which cause deleterious effects to the biota should not be allowed; (3) Surface waters shall be virtually free from floating non-petroleum oils of vegetable or animal origin, as well as petroleum derived oils.	None other than of natural origin.	These water shall be free from floating, suspended and settleable solids in concentrations or combinations that would impair any use assigned to this class, that would cause aesthetically objectionable characteristics and designated uses ascribed to their class.	All surface waters of the State shall be free of settled substances which alter the physical or chemical nature of bottom material and of floating substances, except as naturally occur, which impair the characteristics and designated uses ascribed to their class.	Shall contain no oil or grease, slicks, odors, or surface floating solids unless naturally occurring. Shall contain no benthic deposits unless naturally occurring. Shall be free from substances in kind or quantity which settle to form harmful deposits, float as foam, scum or other visible substances, produce odor, color, taste or turbidity which is not naturally occurring and would render it unsuitable for its designated use.	No residue attributable to sewage, industrial wastes or other wastes, nor visible oil film or globules of grease.	None allowable.	Sludge Deposits or solid refuse: None. Floating solids, oil, grease, and scum: None in such concentrations or combinations that would prevent the full support of uses.
A	Class A: Color and Turbidity	Waters shall be virtually free from substances producing objectionable color for aesthetic purposes; the source of supply should not exceed 75 color units on the platinum-cobalt scale for domestic water supplies; increased color should not reduce the depth of the compensation point for photosynthetic activity by more than 10% from seasonally established norm for aquatic life.	Color: None other than of natural origin. Turbidity: Shall not exceed 5 NTU over ambient levels and none exceeding levels necessary to protect and maintain all designated uses. All reasonable controls or Best Management Practices are to be used to control turbidity.	These waters shall be free from color and turbidity in concentrations or combinations that are aesthetically objectionable or would impair any use assigned to this class.	Discharge of pollutants to waters of the state that imparts color or turbidity is not allowed.	Shall contain no color or turbidity unless naturally occurring.	Color: No substances in amounts that will adversely affect the color. Turbidity: No increase that will cause a substantial visible contrast to natural conditions.	None in such concentrations that would impair any uses specifically assigned to this class. Turbidity not to exceed 5 NTU over background.	Color: None that would prevent the full support of uses. Turbidity: None in such amounts or concentrations that would prevent the full support of uses, and not to exceed 10 NTU as an average under dry weather base-flow conditions.
A	Class A: Bacteria	Based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period); the geometric mean of the indicated bacterial densities should not exceed one or the other of the following: E. coli 126 per 100 ml; or enterococci 33 per 100 ml; no sample should exceed a one sided confidence limit (C.L.) calculated using the following as guidance:designated bathing beach 75% C.L.; moderate use for bathing 82% C.L.; light use for bathing 90% C.L.; infrequent use for bathing 95% C.L. based on a site-specific log standard deviation, or if site data are insufficient to establish a log standard deviation, then using 0.4 as the log standard deviation for both indicators.	For designated swimming areas: E. coli geometric mean less than 126/100 ml and single sample maximum 235/100 ml For non-designated swimming areas: E. coli geometric mean less than 126/100 ml and single sample maximum 410/100 ml For all other recreational uses: geometric mean less than 126/100 ml and single sample maximum 576/100 ml.	a. At water supply intakes in unfiltered public water supplies, either fecal coliform shall not exceed 20 fecal coliform organisms per 100 ml in all samples taken in any six month period, or total coliform shall not exceed 100 organisms per 100 ml in 90% of the samples taken in any six month period. If both fecal coliform and total coliform are measured, then only fecal coliform criteria must be met. More stringent regulations may apply under the Massachusetts Drinking Water regulations, 310 CMR 22.00; b. At bathing beaches as defined by the Massachusetts Department of Public Health in 105 CMR 445.010; where E. coli is the chosen indicator, the geometric mean of the five most recent samples taken during the same bathing season shall not exceed 126 colonies per 100 ml and no single sample taken during the bathing season shall exceed 235 colonies per 100 ml; alternatively, where enterococci are the chosen indicator, the geometric mean of the five most recent samples taken during the same bathing season shall not exceed 33 colonies per 100 ml and no single sample taken during the bathing season shall exceed 61 colonies per 100 ml. c. For other waters and, during the non bathing, for waters at bathing beaches as defined by the Massachusetts Department of Public Health in 105 CMR 445.010; the geometric mean of all E. coli samples taken within the most recent six months shall not exceed 126 colonies per 100 ml typically based on a minimum of five samples and no single sample shall exceed 235 colonies per 100 ml; alternatively, where enterococci is the chosen indicator, the geometric mean of all enterococci samples taken within the most recent six months shall not exceed 33 colonies per 100 ml typically based on a minimum of five samples, and no single sample shall exceed 61 colonies per 100 ml. These criteria may be applied on a seasonal basis at the discretion of the Department; and d. Consistent with Massachusetts Department of Public Health regulations for bathing beaches, the single sample maximum values in the primary contact recreation bacteria criteria in 314 CMR 4.05(3)(a)4.b. and 4.05(3)(a)4.c. also are for use in the context of notification and closure decisions.	As naturally occurs.	Shall contain not more than either a geometric mean based on at least 3 samples obtained over a 60-day period of 47 Escherichia coli per 100 milliliters, or greater than 153 Escherichia coli per 100 milliliters in any one sample; and for designated beach areas shall contain not more than a geometric mean based on at least 3 samples obtained over a 60-day period of 47 Escherichia coli per 100 milliliters, or 88 Escherichia coli per 100 milliliters in any one sample, unless naturally occurring.	Total Coliforms - A: The monthly median value and more than 20 percent of the samples, from a minimum of five examinations, shall not exceed 2,400 and 5,000, respectively. A-Special: The geometric mean, of not less than five samples, taken over not more than a 30-day period shall not exceed 1,000. Fecal Coliforms - A: The monthly geometric mean, from a minimum of five examinations, shall not exceed 200. A-Special: The geometric mean, of not less than five samples, taken over not more than a 30-day period shall not exceed 200.	Fecal Coliform Bacteria: Primary Contact Recreational/Swimming Criteria: Not to exceed a geometric mean value of 200 MPN/100 ml and not more than 10% of the total samples taken shall exceed 400 MPN/100 ml, applied only when adequate enterococci data are not available. Enterococci: Primary Contact Recreational/Swimming Criteria: Non-Designated Bathing Beach Waters Geometric Mean Density: 54 colonies/100 ml. Designated Bathing Beach Waters Geometric Mean Density: 33 colonies/100 ml. Criteria for determining beach swimming advisories at designated beaches as evaluated by Health.	Escherichia coli: Not to exceed a geometric mean based on at least 3 samples obtained over a 30 day period of 16 organisms/100ml, no single sample above 33 organisms/100 ml. None attributable to the discharge of wastes.
A	Class A: Taste and Odor	Materials should not be present in concentrations that individually or in combination produce undesirable flavors which are detectable by organoleptic tests performed on the edible portions of aquatic organisms.	None other than that of natural origin.	None other than of natural origin.	Discharge of pollutants to waters of the State that imparts color, taste, turbidity, toxicity, radioactivity or other properties that cause those waters to be unsuitable for the designated uses and characteristics ascribed to their class are not allowed.	All surface waters shall be free from substances in kind or quantity which produce taste which is not naturally occurring and would render it unsuitable for its designated use. Shall contain no odors unless naturally occurring.	No substances in amounts that will adversely affect the taste or odor.	None other than of natural origin and none associated with nuisance algal species.	None that would prevent the full support of any designated uses or existing use or have an adverse effect on the taste or odor of fish.

Class*	Parameter**	EPA Recommended Criteria*	CT	MA	ME*	NH	NY*	RI	VT
A	Class A: pH	For protection of aquatic life: 6.5-9 continuous concentration. For protection of human health: 5-9 for consumption of water and organisms.	As naturally occurs.	Shall be in the range of 6.5 through 8.3 standard units but not more than 0.5 units outside of the natural background range. There shall be no change from natural background conditions that would impair any use assigned to this Class.	6.0 - 8.5	Shall be as naturally occurs.	Shall not be less than 6.5 nor more than 8.5.	6.5-9.0 or as naturally occurs.	pH values shall be maintained within the range of 6.5 and 8.5. Both the change and rate of change in pH values shall be controlled to ensure the full support of the aquatic biota, wildlife, and aquatic habitat uses.
A	Class A: Alkalinity	For protection of freshwater aquatic life: 20,000 µg/L continuous concentration	N/A	N/A	N/A	For protection of freshwater aquatic life: 20,000 µg/L continuous concentration	N/A	N/A	No change from reference conditions that would prevent the full support of the aquatic biota, wildlife, and aquatic habitat uses.
A	Class A: Temperature	For any time of year, there are two upper limiting temperatures for a location (based on the most important sensitive species found there at that time): (1) One limit consists of a maximum temperature for short exposures that is time dependent and is given by a species-specific equation; (2) the second value is a limit on the weekly average temperature (see Gold Book for more information).	There shall be no changes from natural conditions that would impair any existing or designated uses assigned to this Class and, in no case exceed 85 degrees F, or in any case raise the temperature of surface water more than 4 degrees F.	a. Shall not exceed 68F (20 C) based on the mean of the daily maximum temperature over a seven day period in cold water fisheries, unless naturally occurring. Where a reproducing cold water aquatic community exists at a naturally occurring higher temperature, the temperature necessary to protect the community shall not be exceeded and natural daily and seasonal temperature fluctuations necessary to protect the community shall be maintained. Temperature shall not exceed 83 F (28.3 C) in warm water fisheries. The rise in temperature due to a discharge shall not exceed 1.5 F (0.8 C) and b. Natural seasonal and daily variations that are necessary to protect existing and designated uses shall be maintained. There shall be no changes from natural background conditions that would impair any use assigned to this Class, including those conditions necessary to protect normal species diversity, successful migration, reproductive functions or growth of aquatic organisms.	N/A	There shall be no change in temperature unless naturally occurring.	All thermal discharges to the waters of the State shall assure the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in and on the body of water. The natural seasonal cycle shall be retained. Annual spring and fall temperature changes shall be gradual. Large day-to-day temperature fluctuations due to heat of artificial origin shall be avoided. Development or growth of nuisance organisms shall not occur in conjunction of water quality standards. Discharges which would lower receiving water temperature shall not cause a violation of water quality standards and section NYCRR 704.3. For the protection of the aquatic biota from severe temperature changes, routine shut down of an entire thermal discharge at any site shall not be scheduled during the period from December through March. Additional special criteria for different types of waters are provided in Section	No activity shall raise the temperature of the receiving waters above the recommended limit on the most sensitive receiving water nor cause the growth of undesirable or nuisance species of biota. In no cases shall an activity cause the temperature to exceed 83 degrees F. Heated discharges into designated coldwater habitats shall not raise the temperature above 68 degrees F outside an established thermal mixing zone. In no case shall the temperature of the receiving water be raised more than 4 degrees F.	The change or rate of change in temperature, either upward or downward, shall be controlled to ensure full support of aquatic biota, wildlife, and aquatic habitat uses. For the purpose of applying this criterion, ambient temperature shall mean the water temperature measured at a control point determined by the Secretary to be outside the influence of a discharge or activity. Cold Water Habitat: The total increase from the ambient temperature due to all discharges and activities shall not exceed 1.0 degree F except for specific situations noted in the WQS document. Warm Water Habitat: The total increase from the ambient temperature due to all discharges and activities shall not exceed the temperature criteria derived from tables 1 & 2 in the WQS document.
A	Class A: Silt or Sand Deposits	N/A	None other than of natural origin except as may result from normal agricultural, road maintenance, construction activity, dredging activity, or discharge of dredged or fill materials provided all reasonable controls or Best Management Practices are used in such activities and all designated uses are protected and maintained.	N/A	N/A	Class A waters shall contain no benthic deposits, unless naturally occurring.	N/A	N/A	N/A
A	Class A: Chemical Constituents	Criteria are provided for a number of chemical constituents classified as priority and non-priority pollutants. See www.epa.gov/waterscience/criteria/wqcriteria.html for specific chemicals.	Refer to Table 3 of this section and sections 22a-426-4(a)(5); 22a-426-4(a)(6)(B); 22a-426-4(a)(11); 22a-426-4(a)(12); 22a-426-4(m); 22a-426-9(a)(3); 22a-426-9(a)(4) and 22a-426-9(a)(5) of the Regulations of Connecticut State Agencies.	All surface waters shall be free from pollutants in concentrations or combinations that are toxic to humans, aquatic life or wildlife. For pollutants not otherwise listed in 314 CMR 4.00, the National Recommended Water Quality Criteria: 2002, EPA 822-R-02-047, November 2002 published by EPA pursuant to Section 304(a) of the Federal Water Pollution Control Act, are the allowable receiving water concentrations for the affected waters, unless the Department either establishes a site specific criterion or determines that naturally occurring background concentrations are higher. Where the Department determines that naturally occurring background conditions are higher, those concentrations shall be the allowable receiving water concentrations. The Department shall use the water quality criteria for the protection of aquatic life expressed in terms of the dissolved fraction. The EPA recommended criteria based on total recoverable metals shall be converted to dissolved metals using EPA's published conversion factors. Permit limits will be written in terms of total recoverable metals. Transition from dissolved metals criteria to total recoverable metals permit limits will be based on EPA's conversion factors or other methods approved by the Department. The Department may establish site specific criteria for toxic pollutants based on site specific considerations.	Except as naturally occurs, surface waters must be free of pollutants in concentrations which impart toxicity and cause those waters to be unsuitable for the existing and designated uses of the water body. Except as naturally occur, levels of toxic pollutants in surface waters must not exceed federal water quality criteria as established by USEPA, pursuant to Section 304(a) of the Clean Water Act, or alternative criteria established by the state and listed in Chapter 584 Surface Water Quality Criteria for Toxic Pollutants.	Unless naturally occurring or allowed under Env-Ws 1707, all surface waters shall be free from toxic substances or chemical constituents in concentrations or combinations that: injure or are injurious to plants, animals, humans or aquatic life; or persist in the environment or accumulate in aquatic organisms to levels that result in harmful concentrations in edible portions of fish, shellfish, other aquatic life, or wildlife which might consume aquatic life. Unless allowed in part Env-Ws 1707 or naturally occurring, concentrations of toxic substances in all surface waters shall not exceed the recommended safe exposure levels of the most sensitive surface water use shown in Table 1703.1, subject to the notes as explained in Env-Ws 1703.2.	None in amounts that will adversely affect the taste, color, odor or impair the waters for their best use. See 6 NYCRR 703.5, Table 1 of the Regulation and DOW TQGS 1.1.1 for criteria and guidance values for specific substances.	a. None in concentrations or combinations that could be harmful to humans or fish and wildlife for the most sensitive and governing water class use, or unfavorably alter the biota, or which would make the waters unsafe or unsuitable for fish and wildlife or their propagation, impair the palatability of same, or impair waters for any other existing or designated use. None in such concentrations that would exceed the Water Quality Criteria and Guidelines as found in Appendix B. b. The ambient concentration of a pollutant in a water body shall not exceed the Ambient Water Quality Criteria and Guidelines (Appendix B) for the protection of aquatic organisms from acute or chronic effects, unless the criteria or guidelines are modified by the Director based on results of bioassay tests conducted in accordance with the terms and conditions provided in the RIDEEM Site Specific Aquatic Life Water Quality Criteria Development Policy.	Criteria for specific substances are given in Appendix C of the Water Quality Standards.
A	Class A: Phosphorus	To prevent the development of biological nuisances and to control accelerated or cultural eutrophication, total phosphorus as phosphorus (P) should not exceed 50 µg/L in any stream at the point where it enters any lake or reservoir, nor 25 µg/L within the lake or reservoir.	The loading of nutrients, principally phosphorus and nitrogen, to any surface water body shall not exceed that which supports maintenance of attainment of designated uses.	Unless naturally occurring, all surface waters shall be free from nutrients in concentrations that would cause or contribute to impairment of existing or designated uses and shall not exceed the site specific criteria developed in a TMDL or as otherwise established by the Department pursuant to 314 CMR 4.00. Any existing point source discharge containing nutrients in concentrations that would cause or contribute to cultural eutrophication, including the excessive growth of aquatic plants or algae, in any surface water shall be provided with the most appropriate treatment as determined by the Department, including, where necessary, highest and best practical treatment (HBPT) for POTWs and BAT for non POTWs, to remove such nutrients to ensure protection of existing and designated uses. Human activities that result in the nonpoint source discharge of nutrients to any surface water may be required to be provided with cost effective and reasonable best management practices for nonpoint source control.	N/A	Shall contain no phosphorus unless naturally occurring.	None in amounts that will result in growth of algae, weeds and slimes that will impair the waters for their best use.	Nutrients: a. Average Total Phosphorus shall not exceed 0.025 mg/L in any lake, pond, kettlehole or reservoir; and average Total P in tributaries at the point where they enter such bodies of water shall not cause exceedance of this phosphorus criteria, except as naturally occurs, unless the Director determines, on a site-specific basis, that a different value for phosphorus is necessary to prevent cultural eutrophication. b. None in such concentration that would impair any uses specifically assigned to said Class, or cause undesirable or nuisance aquatic species associated with cultural eutrophication, nor cause exceedance of the criterion of 10(a) above in a downstream lake, pond, or reservoir. New discharges of wastes containing phosphates will not be permitted into or immediately upstream of lakes or ponds. Phosphates shall be removed from existing discharges to the extent that such removal is or may become technically and reasonably feasible.	In all waters, total phosphorus loadings shall be limited so that they will not contribute to the acceleration of eutrophication or stimulation of the growth of aquatic biota in a manner that prevents the full support of uses. Upland Streams: In addition to compliance with the general policy above, for all streams above 2,500 ft in elevation, total phosphorus shall not exceed 0.010 mg/L, at low median monthly flow. In addition, specific criteria apply to Lake Champlain and Lake Memphremagog.
A	Class A: Sodium	N/A	None other than of natural origin.	N/A	N/A	N/A	N/A	N/A	N/A
A	Class A: Chlorides	For protection of freshwater aquatic life: 860,000 µg/L maximum concentration; 230,000 µg/L continuous concentration.	For protection of freshwater aquatic life: 860,000 µg/L maximum concentration; 230,000 µg/L continuous concentration.	N/A	For protection of freshwater aquatic life: 860,000 µg/L maximum concentration; 230,000 µg/L continuous concentration.	For protection of freshwater aquatic life: 860,000 µg/L maximum concentration; 230,000 µg/L continuous concentration.	For protection of human health: 250,000 µg/L for consumption of water.	For protection of freshwater aquatic life: 860,000 µg/L maximum concentration; 230,000 µg/L continuous concentration.	N/A
A	Class A: Sulfates	For domestic water supply: 250 mg/L	N/A	N/A	N/A	N/A	For protection of human health: 250,000 µg/L for consumption of water.	N/A	N/A
A	Class A: Nitrate	For protection of human health: 10,000 µg/L for consumption of water and organisms.	N/A	Unless naturally occurring, all surface waters shall be free from nutrients in concentrations that would cause or contribute to impairment of existing or designated uses and shall not exceed the site specific criteria developed in a TMDL or as otherwise established by the Department pursuant to 314 CMR 4.00. Any existing point source discharge containing nutrients in concentrations that would cause or contribute to cultural eutrophication, including the excessive growth of aquatic plants or algae, in any surface water shall be provided with the most appropriate treatment as determined by the Department, including, where necessary, highest and best practical treatment (HBPT) for POTWs and BAT for non POTWs, to remove such nutrients to ensure protection of existing and designated uses. Human activities that result in the nonpoint source discharge of nutrients to any surface water may be required to be provided with cost effective and reasonable best management practices for nonpoint source control.	For protection of human health: 10,000 µg/L for consumption of water and organisms.	Shall contain no nitrogen unless naturally occurring.	None in amounts that will result in growth of algae, weeds and slimes that will impair the waters for their best use. For protection of human health: 10,000 µg/L for sources of drinking water.	N/A	All Waters: Nitrate shall be limited so not to contribute to the acceleration of eutrophication, or stimulation of the growth of aquatic biota, in a manner that prevents the full support of uses. Lakes, Ponds & Reservoirs: Not to exceed 5.0 mg/L nitrate-nitrogen regardless of classification. Other Waters: (1) Not to exceed 0.2 mg/L as nitrate-nitrogen at flows exceeding low median monthly flows in Class A(1) and A(2) waters above 2,500 feet altitude, NGVD. (2) Not to exceed 2.0 mg/L as nitrate-nitrogen at flows exceeding low median monthly flows in Class A(1) and A(2) waters at or below 2,500 feet altitude, NGVD.
A	Class A: Phenol	For protection of human health: 10,000 µg/L for consumption of water and organisms; 860,000 µg/L for consumption of organisms only	For protection of human health: 10,000 µg/L for consumption of water and organisms; 860,000 µg/L for consumption of organisms only	N/A	For protection of human health: 21,000 µg/L for consumption of water and organisms; 93,000 µg/L for consumption of organisms only	For protection of freshwater aquatic life: 10,200 µg/L for acute exposure and 2,560 µg/L for chronic exposure; For protection of human health: 300 µg/L for consumption of water and organisms; 300 µg/L for consumption of organisms only	For aesthetics: total chlorinated phenols 1 µg/L; total unchlorinated phenols 5 µg/L	For protection of freshwater aquatic life: 251 µg/L for acute exposure and 5.6 µg/L for chronic exposure; For protection of human health: 21 mg/L for consumption of water and organisms; 1700 mg/L for consumption of organisms only	For protection of water and organisms: 4.6 x 10 ⁶ µg/L for consumption of organisms only

Class*	Parameter**	EPA Recommended Criteria*	CT	MA	ME*	NH	NY*	RI	VT
A	Class A: Total Dissolved Solids	For protection of human health: 250,000 ug/L for consumption of water and organisms.	N/A	N/A	N/A	N/A	Shall be kept as low as practicable to maintain the best usage of waters but in no case shall it exceed 500 mg/L. A-Special: Shall not exceed 200 mg/L.	N/A	N/A
A	Class A: Substances Potentially Toxic	Criteria are provided for a number of chemical constituents classified as priority and non-priority pollutants. See www.epa.gov/waterscience/criteria/wqc/criteria.html for specific chemicals.	Surface waters and sediments shall be free from chemical constituents in concentrations or combinations which will or can reasonably be expected to result in acute or chronic toxicity to aquatic organisms or otherwise impair the biological integrity of aquatic or marine ecosystems outside of any dredged material disposal area or areas designated by the Commissioner for disposal or placement of fill materials or any zone of influence allowed by the Commissioner, or bioconcentrate or bioaccumulate in tissues of fish, shellfish and other aquatic organisms at levels which will impair the health of aquatic organisms or wildlife or result in unacceptable tastes, odors or health risks to human consumers of aquatic organisms or wildlife unless such sediments are capped with material suitable for unconfined, open water disposal as an appropriate means of ensuring consistency with this standard as approved by the Commissioner in writing. In determining consistency with this Standard, the Commissioner shall at a minimum consider the numeric criteria listed in Table 3 of section 22a-425-9 of the Regulations of Connecticut State Agencies and any other information he or she deems relevant.	All surface waters shall be free from pollutants in concentrations or combinations that are toxic to humans, aquatic life or wildlife. For pollutants not otherwise listed in 314 CMR 4.00, the National Recommended Water Quality Criteria: 2002, EPA 822-P-02-047, November 2002 published by EPA pursuant to Section 304(a) of the Federal Water Pollution Control Act, are the allowable receiving water concentrations for the affected waters, unless the Department either establishes a site specific criterion or determines that naturally occurring background concentrations are higher. Where the Department determines that naturally occurring background conditions are higher, those concentrations shall be the allowable receiving water concentrations. The Department shall use the water quality criteria for the protection of aquatic life expressed in terms of the dissolved fraction. The EPA recommended criteria based on total recoverable metals shall be converted to dissolved metals using EPA's published conversion factors. Permit limits will be written in terms of total recoverable metals. Translation from dissolved metals criteria to total recoverable metals permit limits will be based on EPA's conversion factors or other methods approved by the Department. The Department may establish site specific criteria for toxic pollutants based on site specific considerations.	Except as naturally occurs, surface waters must be free of pollutants in concentrations which impart toxicity and cause those waters to be unsuitable for the existing and designated uses of the water body. Except as naturally occur, levels of toxic pollutants in surface waters must not exceed federal water quality criteria as established by USEPA, pursuant to Section 304(a) of the Clean Water Act, or alternative criteria established by the state and listed in Chapter 584 Surface Water Quality Criteria for Toxic Pollutants.	Unless naturally occurring or allowed under Env-Ws 1707, all surface waters shall be free from toxic substances or chemical constituents in concentrations or combinations that result in harmful concentrations in edible portions of fish, shellfish, other aquatic life, or wildlife which might consume aquatic life. Unless allowed in part Env-Ws 1707 or naturally occurring, concentrations of toxic substances in all surface waters shall not exceed the recommended safe exposure levels of the most sensitive surface water use shown in Table 1703.1, subject to the notes as explained in Env-Ws 1703.22.	None in amounts that will adversely affect the taste, color, odor thereof or impair the waters for their best use. See 6 NYCRR 703.5, Table 1 of the Regulation for specific standards.	Criteria for specific substances are listed in Table 1 in Appendix B of the Regulation. To protect aquatic life, the one hour average concentration of a pollutant should not exceed the acute criteria more than once every three years on the average. An exclusion to this rule are the pesticides and PCBs acute criteria, which are considered instantaneous values. The four day average concentration of a pollutant should not exceed the chronic criteria more than once every three years on the average. These aquatic life criteria shall be achieved in all waters, except mixing zones, regardless of the waters' classification.	Where necessary to fully support an existing or designated use, waters shall be managed to prevent the discharge of toxic substances in concentrations, quantities or combinations that exceed: (1) for toxic substances that are carcinogenic, a maximum individual lifetime risk to human health greater than 10 ⁻⁶ ; (2) for toxic substances that are noncarcinogenic, a maximum individual life time risk of no adverse effect to human health; or (3) acute or chronic toxicity to aquatic biota or wildlife. Criteria for specific substances can be found in Appendix C of the Water Quality Standards.
A	Class A: Radioactivity	N/A	Discharge of radioactive materials in concentrations or combinations which would be harmful to human, animal or aquatic life shall not be allowed. Applicable criteria can be found in Title 10 Part 20 of the Code of Federal Regulations.	All surface waters shall be free from radioactive substances in concentrations or combinations that would be harmful to human, animal or aquatic life or the most sensitive designated use, result in radionuclides in aquatic life exceeding the recommended limits for consumption by humans; or exceed Massachusetts Drinking Water Regulations as set forth in 310 CMR 22.09.	Discharge of pollutants to waters of the State that imparts color, taste, turbidity, toxicity, radioactivity or other properties that cause those waters to be unsuitable for the designated uses and characteristics ascribed to their class are not allowed.	The level of radioactive materials in all waters shall not be in concentrations or combinations that would: a. Be harmful to human, animal, or aquatic life or the most sensitive designated use; b. Result in radionuclides in aquatic life exceeding the recommended limits for consumption by humans; or c. Exceed limits specified in EPA's national drinking water regulations or Env-Ws 300 whichever are more stringent.	A. See standards for gross beta radiation, radium 226, and strontium 90. A-Special: Should be kept at the lowest practicable levels, and in any event should be controlled to the extent necessary to prevent harmful effects on health.	The level of radioactive materials in all waters shall not be in concentrations or combinations which will likely be harmful to humans, fish and wildlife, or result in concentrations in organisms producing undesirable conditions.	Waters shall be managed so as to prevent the discharge of radioactive substances in concentrations, quantities, or combinations that may create a significant likelihood of an adverse impact on human health or a risk of acute or chronic toxicity to aquatic biota, fish or wildlife. Unless otherwise required by these rules, the Secretary shall determine limits for discharges containing radioactive substances based on the results of biological toxicity assessments and the appropriate available scientific data, including but not limited to: The VT State Health Regulation, Part 5, Chapter 3 "Radiological Health", effective as of 12/1/07, and the code 10 CFR 50, Appendix 1. The discharge of radioactive substances shall not exceed the lowest limits that are reasonably achievable.
A	Class A: Gross Beta	N/A	N/A	N/A	N/A	Shall not contain gross beta radioactivity in excess of 1000 PCIL.	1000 PCIL, excluding Sr-90 and alpha-emitters.	N/A	N/A
A	Class A: Gross Alpha	N/A	N/A	N/A	N/A	N/A	15 PCIL, excluding radon and uranium.	N/A	N/A
A	Class A: Radium 226	N/A	N/A	N/A	N/A	Shall not contain radium in excess of 3PCIL	3 PCIL	N/A	N/A
A	Class A: Sum of Radium 226 and 228	N/A	N/A	N/A	N/A	N/A	5 PCIL	N/A	N/A
A	Class A: Strontium 90	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	Class A: Tritium	N/A	N/A	N/A	N/A	N/A	20,000 PCIL; if two or more radionuclides are present, the sum of their annual dose equivalent to the total body or any organ shall not exceed 4 millirems per year.	N/A	N/A
A	Class A: Mercury	For protection of aquatic life: 1.4µg/l for acute exposure and 0.77µg/l for chronic exposure. For protection of human health: 0.05µg/l for water and fish ingestion, 0.051µg/l for fish consumption only (both total values).	For protection of aquatic life: 1.4µg/l for acute exposure and 0.77µg/l for chronic exposure (both total values). For protection of human health: 0.05µg/l for water and fish ingestion, 0.051µg/l for fish consumption only (both total values).	For protection of aquatic life: 1.4µg/l for acute exposure and 0.77µg/l for chronic exposure.	For protection of aquatic life: 1.7µg/l for acute exposure and 0.91µg/l for chronic exposure.	For protection of freshwater aquatic life: 1.4µg/l for acute exposure and 0.77µg/l for chronic exposure (both dissolved values). For protection of marine aquatic life: 1.8µg/l for acute exposure and 0.94µg/l for chronic exposure (both dissolved values). For protection of human health: 0.05µg/l for water and fish ingestion, 0.051µg/l for fish consumption only.	Health (Water Source): 0.7µg/l Aquatic (Chronic): 0.77µg/l in dissolved form Aquatic (Acute): 1.4µg/l in dissolved form Health (Fish Consumption): 0.0007µg/l in dissolved form Wildlife: 0.0028µg/l in dissolved form.	For protection of aquatic life: 1.4µg/l for acute exposure and 0.77µg/l for chronic exposure. For protection of human health: 0.14µg/l for consumption of water and aquatic organisms; 0.15µg/l for consumption of aquatic organisms only.	For the protection of aquatic biota: 2.4µg/l for acute exposure and 0.012µg/l for chronic exposure. For the protection of human health: 0.14µg/l for consumption of water and aquatic organisms; 0.15µg/l for consumption of aquatic organisms only.
A	Class A: Methylmercury	Fish tissue residue criterion for human health: 0.3mg/kg in the edible portion of the fish.	N/A	Fish tissue residue criterion for human health: 0.3mg/kg in the edible portion of the fish.	Fish tissue residue criterion for human health: 0.2mg/kg in the edible portion of the fish.	If the fresh or marine chronic criteria for total mercury exceeds 0.77 µg/l more than once in a 3-year period in the ambient water, the edible portion of aquatic species of concern shall be analyzed to determine whether the concentration of methyl mercury exceeds the FDA action level of 1.0 mg/kg.	N/A	N/A	If the CCC for total mercury exceeds 0.012µg/l more than once in a three year period in the ambient water, the edible portion of aquatic species of concern must be analyzed to determine whether the concentration of methyl mercury exceeds the FDA action level of 1.0 mg/kg.

Class*	Parameter**	EPA Recommended Criteria*	CT	MA	ME*	NH	NY*	RI	VT
A	Class A: Mixing Zones	Allowable mixing zone characteristics should be established to ensure that: 1) mixing zones do not impair the integrity of the waterbody as a whole, 2) there is no lethality to organisms passing through the mixing zones, and 3) there are no significant health risks, considering likely pathways of exposure.	The Commissioner may, on a case-by-case basis, establish zones of influence when permitting discharges to surface waters under Section 22a-430 and 22a-133(k) of the Connecticut General Statutes in order to allocate a portion of the receiving surface waters for mixing and assimilation of the discharge. In establishing a zone of influence the Commissioner shall consider without limitation: See 22a-426-4(f) for additional details.	In applying 314 CMR 4.00 the Department may recognize a limited area or volume of a waterbody as a mixing zone for the initial dilution of a discharge. Waters within a mixing zone may fail to meet specific water quality criteria provided the following conditions are met: a) Mixing zones shall be limited to an area or volume as small as feasible. There shall be no lethality to organisms passing through the mixing zone as determined by the Department. The location, design and operation of the discharge shall minimize the impacts on aquatic life and other existing and designated uses within and beyond the mixing zone. b) Mixing zones shall not interfere with the migration or free movement of fish or other aquatic life. There shall be safe and adequate passage for swimming and drifting organisms with no deleterious effects on their populations. c) Mixing zones shall not create nuisance conditions, accumulate pollutants in sediments or biota in toxic amounts or otherwise interfere with the existing or designated uses of surface waters.	N/A	Prohibited in all Class A waters.	Non-Thermal Mixing Zones: The presence of a mixing zone in a receiving water is accepted as a normal and expected consequence of a wastewater discharge. Within mixing zones, water quality standards for pollutants are expected to be exceeded, potentially impairing habitat usability for fish and benthic communities. Detailed guidelines can be found in TOGS 1.3.1. Thermal Mixing Zones: The department shall specify definable, numerical limits for all mixing zones. Conditions in the mixing zone shall not be lethal in contravention of water quality standards to aquatic biota which may enter the zone. The location of mixing zones for thermal discharges shall not interfere with spawning areas, nursery areas, and fish migration routes. More details regarding thermal discharges and mixing zones can be found in 6 NYCRR Part 704.	All Mixing Zones: At a minimum, all mixing zones must: - Meet the criteria for aesthetics, in accordance with rule 6.0 (11); - Be limited to an area or volume that will prevent interference with the existing and designated uses in the associated waterbody segment and beyond; - Allow an appropriate zone of passage for migrating fish and other organisms, prohibit lethality to organisms passing through the mixing zone, and protect for spawning and nursery habitat; and - Not allow substances to accumulate in sediments, fish and wildlife or food chains such that known or predicted safe exposure levels for the health of humans or fish and wildlife will be exceeded. Non-Thermal Mixing Zones: In the case of non-thermal discharges, in applying these standards the Director may recognize, where appropriate, a limited acute and/or chronic mixing zone(s) on a case-by-case basis. The location, size and shape of these zones shall provide for the maximum protection of fish and wildlife. Thermal Mixing Zones: In the case of thermal discharges into tidal rivers, fresh water streams or estuaries, where thermal mixing zones are allowed by the Director, the mixing zone will be limited to no more than one quarter (1/4) of the cross sectional area and/or volume of river flow, stream or estuary, leaving at least three quarters (3/4) free as a zone of passage. In wide estuaries and oceans, the limits of mixing zones will be established by the Director.	No mixing zones shall be created in any Class A water.
B	Class B: Aesthetics	All waters free from substances attributable to wastewater or other discharges that: settle to form objectionable deposits; float as debris, scum, oil, or other matter to form nuisances; produce objectionable color, odor, taste, or turbidity; injure or are toxic or produce adverse physiological responses in humans, animals or plants; and produce undesirable or nuisance aquatic life.	Good to Excellent.	All surface waters shall be free from pollutants in concentrations or combinations that settle to form objectionable deposits; float as debris, scum or other matter to form nuisances; produce objectionable odor, color, taste or turbidity; or produce undesirable or nuisance species. Class A waters shall have excellent aesthetic value.	N/A	All waters shall be free from substances in kind or quantity which: settle to form harmful deposits; float as foam, debris, scum or other visible substances; produce odor, color, taste or turbidity which is not naturally occurring and would render it unsuitable for its designated use; result in the dominance of nuisance species; or interfere with recreational activities.	No taste-, color-, and odor-producing, toxic, or other deleterious substances in amounts that will adversely affect the taste, color or odor thereof, or impair the waters for their best uses. See 6 NYCRR 703.5, Table 1 in the Regulation for standards for specific substances.	B, B(a), B1, B1(a)*: All waters shall be free from pollutants in concentrations or combinations that: settle to form deposits that are unsightly, putrescent, or odorous; float as debris, oil, grease, scum or other floating material attributable to wastes; produce odor or taste or change the color or physical, chemical or biological conditions; or result in the dominance of species of fish and wildlife. To such a degree as to create a nuisance or interfere with the existing or designated uses.	Water character, flows, water level, bed and channel characteristics, exhibiting good aesthetic value and, where attainable, excellent aesthetic value based on water management type designation.
B	Class B: Aquatic Life	N/A	Sustainable, diverse biological communities of indigenous taxa shall be present. Moderate changes, from natural conditionism in the structure of the biological communities, and minimal changes in ecosystem function may be evident; however, water quality shall be sufficient to sustain a biological condition within the range of Connecticut Biological Condition Gradient Tiers 1-4 as assessed along a 6 tier stressor gradient of Biological Condition Gradient (See Section 22a-426-5 of the Regulations of the Connecticut State Agencies).	N/A	Discharges may not cause adverse impact to aquatic life in that the receiving waters must be of sufficient quality to support all aquatic species indigenous to the receiving water without detrimental changes in the resident biological community.	The surface waters shall support and maintain a balanced, integrated, and adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of similar natural habitats of region. Differences from naturally occurring conditions shall be limited to non-detrimental differences in community structure and function.	See 6 NYCRR 703.5, Table 1 for standards for specific substances.	B, B(a), B1, B1(a)*: All waters shall be free of pollutants in concentrations or combinations that from anthropogenic activities subject to these regulations that: adversely affect the composition of fish and wildlife; adversely affect the physical, chemical, or biological integrity of a habitat; interfere with the propagation of fish and wildlife; or adversely alter the life cycle functions, uses, processes and activities of fish and wildlife.	B1): Change from the reference condition for aquatic macroinvertebrate and fish assemblages shall be limited to minor changes in the relative proportions of taxonomic and functional components; relative proportions of tolerant and intolerant components are within the range of the reference condition. Changes in the aquatic habitat shall be limited to minimal differences from the reference condition consistent with the full support of all aquatic biota and wildlife uses. B2): change from the reference condition for aquatic macroinvertebrate and fish assemblages shall be limited to moderate changes in the relative proportions of tolerant, intolerant, taxonomic, and functional components. Changes in the aquatic habitat shall be limited to minor differences from the reference condition consistent with the full support of all aquatic biota and wildlife uses. B2): change from the reference condition for aquatic macroinvertebrate and fish assemblages shall be limited to moderate changes in the relative proportions of tolerant, intolerant, taxonomic, and functional components. Changes in the aquatic habitat shall be limited to moderate differences from the reference condition consistent with the full support of all aquatic biota and wildlife uses. When such habitat changes are a result of hydrological modification or water level fluctuation, compliance may be determined on the basis of aquatic habitat studies. B2a) other waters): no change from reference conditions that would have an undue adverse effect on the composition of the aquatic biota, the physical or chemical nature of the substrate or the species composition or propagation of fishes.
B	Class B: Dissolved Oxygen (DO)	Cold Water Criteria: 30 day mean of 6.5 mg/L for other life stages; 7 day mean of 9.5 mg/L for early life stages; 7 day mean minimum of 5.0 mg/L for other life stages; 1 day minimum of 6.0 mg/L for early life stages and 4.0 mg/L for other life stages. Warm Water Criteria: 30 day mean of 5.5 mg/L for other life stages; 7 day mean of 6.0 mg/L for early life stages; 7 day mean minimum of 4.0 mg/L for other life stages; 1 day minimum of 5.0 mg/L for early life stages and 3.0 mg/L for other life stages.	Not less than 5 mg/L at any time.	Shall not be less than 6.0 mg/L in cold water fisheries and not less than 5.0 mg/L in warm water fisheries. Where natural background conditions are lower, DO shall not be less than natural background conditions. Natural seasonal and daily variations that are necessary to protect existing and designated uses shall be maintained.	The dissolved oxygen content may not be less than 7 ppm or 75% saturation, whichever is higher, except that for the period from October 1 to May 14, in order to ensure spawning and egg incubation of indigenous fish species, the 7-day mean dissolved oxygen concentration may not be less than 9.5 ppm and the 1-day minimum dissolved oxygen concentration may not be less than 8.0 ppm in identified fish spawning areas.	Except as naturally occurs, or in waters identified in RSA 485-A:8, III, or subject to provision below, class B waters shall have a dissolved oxygen content of at least 75% of saturation, based on a daily average, and an instantaneous minimum dissolved oxygen concentration of at least 6 mg/L. For the period from October 1st to May 14th, in areas identified by the fish and game department as cold water fish spawning areas of species whose early life stages are not directly exposed to the water, the 7 day mean dissolved oxygen concentration shall be at least 9.5 mg/L and the instantaneous minimum dissolved oxygen concentration shall be at least 8 mg/L. This period shall be extended to June 30 for a particular waterbody if the fish and game department determines it is necessary to protect spring spawners and late hatches of fall spawners. Unless naturally occurring, surface waters within the top 25 percent of depth of thermally unstratified lakes, ponds, impoundments and reservoirs or within the epilimnion shall contain a dissolved oxygen content of at least 75 percent saturation, based on a daily average and an instantaneous minimum dissolved oxygen content of at least 5 mg/L. Unless naturally occurring, the dissolved oxygen content below those depths shall be consistent with that necessary to maintain and protect existing and designated uses.	For trout spawning waters (TS), the DO concentration shall not be less than 7.0 mg/L from other than natural conditions. For trout waters, the minimum daily average shall not be less than 6.0 mg/L, and at no time shall the concentration be less than 5.0 mg/L. For nontrout waters, the minimum daily average shall not be less than 5.0 mg/L, and at no time shall the DO concentration be less than 4.0 mg/L.	B, B(a), B1, B1(a)*: Cold Water Fish Habitat - Dissolved oxygen content of not less than 75% saturation, based on a daily average, and an instantaneous minimum dissolved oxygen concentration of at least 5 mg/L, except as naturally occurs. For the period from October 1st to May 14th, where in areas identified by the RI Division of Fish and Wildlife as cold water fish spawning areas the following criteria apply: For species whose early life stages are not directly exposed to the water column (i.e., early life stages are intergravel), the 7 day mean water column dissolved oxygen concentration shall not be less than 9.5 mg/L and the instantaneous minimum dissolved oxygen concentration shall not be less than 8 mg/L. For species that have early life stages exposed directly to the water column, the 7 day mean water column dissolved oxygen concentration shall not be less than 6.5 mg/L and the instantaneous minimum dissolved oxygen concentration shall not be less than 5.0 mg/L. Warm Water Fish Habitat - Dissolved oxygen content of not less than 60% saturation, based on a daily average, and an instantaneous minimum dissolved oxygen concentration of at least 5.0 mg/L, except as naturally occurs. The 7 day mean water column dissolved oxygen concentration shall not be less than 6 mg/L.	The specified dissolved oxygen criteria for each designated fish habitat type will be considered absolute instantaneous minimum values. In addition, fluctuations above the minimum shall be maintained as necessary to support aquatic habitat. Cold Water Fish Habitat - Not less than 7mg/L and 75% saturation at all times, nor less than 95% saturation during late egg maturation and larval development of salmonids in areas that the secretary determines are salmon spawning or nursery areas important to the establishment or maintenance of the fishery resource. Not less than 6 mg/L and 70% saturation at all times in all other waters designated as a cold water fishery. Warm Water Fish Habitat: Not less 5 mg/L and 60% saturation at all times.

Class*	Parameter**	EPA Recommended Criteria†	CT	MA	ME*	NH	NY*	RI	VT
B	Class B: Sludge Deposits, Solid Refuse, Floating Solids, Oil, Grease and Scum	Oil and Grease - For domestic water supply: Virtually free from oil and grease, particularly from the tastes and odors that emanate from petroleum products. For aquatic life: (1) 0.01 of the lowest continuous flow 96-hour LC50 to several important freshwater or marine species, each having a demonstrated high susceptibility to oils and petrochemicals; (2) Levels of oils or petrochemicals in the sediment which cause deleterious effects to biota should not be allowed; (3) Surface waters shall be virtually free from floating non-petroleum oils of vegetable or animal origin, as well as petroleum derived oils.	None except for small amounts that may result from the discharge from a permitted waste treatment facility and none exceeding levels necessary to protect and maintain all designated uses.	These waters shall be free from floating, suspended and settleable solids in concentrations or combinations that would impair any use assigned to this class, that would cause aesthetically objectionable conditions, or that would impair the benthic biota or degrade the chemical composition of the bottom. These waters shall be free from oil, grease and petrochemicals that produce a visible film on the surface of the water, impart an oily taste to the water or an oily or other undesirable taste to the edible portions of aquatic life, coat the banks or bottom of the water course, or are deleterious or become toxic to aquatic life.	All surface waters of the State shall be free of settled substances which alter the physical or chemical nature of bottom material and of floating substances, except as naturally occur, which impair the characteristics and designated uses ascribed to their class.	Shall contain no oil or grease, slicks, odors, or surface floating solids in such concentrations that would impair any existing or designated use. Shall contain no benthic deposits that have a detrimental impact on the benthic community, unless naturally occurring. Shall be free from substances in kind or quantity which seem to form harmful deposits, float as foam, scum or other visible substances, produce color, taste or turbidity which is not naturally occurring and would render it unsuitable for its designated use.	No residue attributable to sewage, industrial wastes or other wastes, nor visible oil film or globules of grease.	B, B(a), B1, B1(a)* None allowable.	Sludge Deposits or solid refuse: None. Floating solids, oil, grease, and scum: None in such concentrations or combinations that would prevent the full support of uses.
B	Class B: Color and Turbidity	Waters shall be virtually free from substances producing objectionable color for aesthetic purposes; the source of supply should not exceed 75 color units on the platinum-cobalt scale for domestic water supplies; increased color should not reduce the depth of the compensation point for photosynthetic activity by more than 10% from seasonally established norm for aquatic life.	Color: None that causes visible discoloration of the surface water outside of the designated zone of influence. Turbidity: Shall not exceed 5 NTU over ambient levels and none exceeding levels necessary to protect and maintain all designated uses. All reasonable controls or Best Management Practices are to be used to control turbidity.	These waters shall be free from color and turbidity in concentrations or combinations that are aesthetically objectionable or would impair any use assigned to this Class.	No discharge of pollutants that imparts color or turbidity to the water is allowed.	Color: Shall contain no color in such concentrations that would impair any existing or designated uses, unless naturally occurring. Turbidity: Shall not exceed naturally occurring conditions by more than 10 NTUs.	Color: No substances in amounts that will adversely affect the color. Turbidity: No increase that will cause a substantial visible contrast to natural conditions.	B, B(a), B1, B1(a)* None in such concentrations that would impair any uses specifically assigned to this class. Turbidity not to exceed 10 NTU over natural background.	Color: None that would prevent the full support of uses. Turbidity: In Cold Water Fish Habitat waters - None in such amounts or concentrations that would prevent the full support of uses, and not to exceed 10 NTU as an annual average under dry weather base-flow conditions. In Warm Water Fish Habitat waters - None in such amounts or concentrations that would prevent the full support of uses, and not to exceed 25 NTU as an annual average under dry weather base-flow conditions.
B	Class B: Bacteria	Based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period), the geometric mean of the indicated bacterial densities should not exceed one of the following: E. coli 126 per 100 ml; or enterococci 33 per 100 ml; no sample should exceed a one sided confidence limit (C.L.) calculated using the following as guidance: designated bathing beach 75% C.L.; moderate use for bathing 82% C.L.; light use for bathing 90% C.L.; infrequent use for bathing 95% C.L. based on a site-specific log standard deviation, or if site data are insufficient to establish a log standard deviation, then using 0.4 as the log standard deviation for both indicators.	For designated swimming areas: E. coli geometric mean less than 126/100 ml and single sample maximum 235/100 ml. For non-designated swimming areas: E. coli geometric mean less than 126/100 ml and single sample maximum 410/100 ml. For all other recreational uses: E. coli geometric mean less than 126/100 ml and single sample maximum 578/100 ml. For all other recreational uses: E. coli geometric mean less than 126/100 ml and single sample maximum 578/100 ml. For all other recreational uses: E. coli geometric mean less than 126/100 ml and single sample maximum 578/100 ml. For all other recreational uses: E. coli geometric mean less than 126/100 ml and single sample maximum 578/100 ml. For all other recreational uses: E. coli geometric mean less than 126/100 ml and single sample maximum 578/100 ml.	a. At bathing beaches as defined by the Massachusetts Department of Public Health in 105 CMR 445.010, where E. coli is the chosen indicator, the geometric mean of the five most recent samples taken during the same bathing season shall not exceed 126 colonies per 100 ml sample and no single sample taken during the bathing season shall exceed 235 colonies per 100 ml. Alternatively, where enterococci are the chosen indicator, the geometric mean of the five most recent samples taken during the same bathing season shall not exceed 33 colonies per 100 ml and no single sample taken during the bathing season shall exceed 61 colonies per 100 ml. b. For other waters and, during the non bathing season, for waters at bathing beaches as defined by the Massachusetts Department of Public Health in 105 CMR 445.010, the geometric mean of all E. coli samples taken within the most recent six months shall not exceed 126 colonies per 100 ml typically based on a minimum of five samples, and no single sample shall exceed 235 colonies per 100 ml. Alternatively, where enterococci is the chosen indicator, the geometric mean of all enterococci samples taken within the most recent six months shall not exceed 33 colonies per 100 ml typically based on a minimum of five samples, and no single sample shall exceed 61 colonies per 100 ml. These criteria may be applied on a seasonal basis at the discretion of the Department, and c. Consistent with Massachusetts Department of Public Health regulations for bathing beaches, the single sample maximum values in the primary contact recreation bacteria criteria in 314 CMR 4.05(3)(a)(4), and 4.05(3)(a)(4), c. also are for use in the context of notification and closure decisions.	Between May 15th and September 30th, the number of Escherichia coli bacteria of human and domestic animal origin in these waters may not exceed a geometric mean of 64 per 100 milliliters or an instantaneous level of 236 per 100 milliliters. In determining human and domestic animal origin, the department shall assess licensed and unlicensed sources using available diagnostic procedures.	Shall contain not more than either a geometric mean based on at least 3 samples obtained over a 60-day period of 126 Escherichia coli per 100 milliliters, or greater than 406 Escherichia coli per 100 milliliters in any one sample, and for designated beach areas shall contain not more than a geometric mean based on at least 3 samples obtained over a 60-day period of 47 Escherichia coli per 100 milliliters, or 88 Escherichia coli per 100 milliliters in any one sample, unless naturally occurring.	Total Coliforms: The monthly median value and more than 20 percent of the samples, from a minimum of five examinations, shall not exceed 2,400/100 ml and 5,000/100 ml, respectively. Fecal Coliform: The monthly geometric mean, from a minimum of five examinations, shall not exceed 200/100 ml.	B, B(a), B1, B1(a)* Fecal Coliform Bacteria: Primary Contact Recreational/Swimming Criteria: Not to exceed a geometric mean value of 200 MPN/100 ml and not more than 10% of the total samples taken shall exceed 400 MPN/100 ml, applied only when adequate enterococci data are not available. Enterococci: Primary Contact Recreational/Swimming Criteria: Non-Designated Bathing Beach Waters Geometric Mean Density: 54 colonies/100 ml. Designated Bathing Beach Waters Geometric Mean Density: 33 colonies/100 ml. Single Sample Maximum: 61 colonies/100 ml. * Criteria for determining beach swimming advisories at designated beaches as evaluated by Health.	E. coli: Not to exceed 77 organisms/100 ml. The Secretary may, by permit condition, waive compliance with this criterion during all or any portion of the period between October 31 and April 1, provided that a health hazard is not created. The Secretary shall provide written notice to the Vermont Department of Health prior to issuing a permit waiving compliance with the Escherichia coli criterion.
B	Class B: Taste and Odor	Materials should not be present in concentrations that individually or in combination produce undesirable flavors which are detectable by organoleptic tests performed on the edible portions of aquatic organisms.	None that would impair any use specifically assigned to this Class.	None in such concentrations or combinations that are aesthetically objectionable, that would impair any use assigned to this Class, or that would cause tainting or undesirable flavors in the edible portions of aquatic life.	No discharge of pollutants that imparts taste to the water is allowed.	All surface waters shall be free from substances in kind of quantity which produce taste which is not naturally occurring and would render it unsuitable for its designated uses. Shall contain no odors that would impair any existing or designated use, unless naturally occurring.	No substances in amounts that will adversely affect the taste or odor.	B, B(a), B1, B1(a)* None in such concentrations that would impair any uses specifically assigned to this class nor cause taste or odor in edible portions of fish.	None that would prevent the full support of any designated uses or existing use or have an adverse effect on the taste or odor of fish.
B	Class B: pH	For protection of aquatic life: 6.5-9 continuous concentration. For protection of human health: 5.9 for consumption of water and organisms.	6.5-8.0	Shall be in the range of 6.5 through 8.3 standard units and not more than 0.5 units outside of the natural background range. There shall be no change from natural background conditions that would impair any use assigned to this Class.	6.0-8.5	Shall be 6.5-8.0, unless due to natural causes.	Shall not be less than 6.5 nor more than 8.5.	B, B(a), B1, B1(a)* 6.5-9.0 or as naturally occurs.	pH values shall be maintained within the range of 6.5 and 8.5. Both the change and rate of change in pH values shall be controlled to ensure the full support of the aquatic biota, wildlife, and aquatic habitat uses.
B	Class B: Alkalinity	For protection of freshwater aquatic life: 20,000 µg/L continuous concentration	N/A	N/A	N/A	N/A	N/A	B, B(a), B1, B1(a)* N/A	No change from reference conditions that would prevent the full support of the aquatic biota, wildlife, and aquatic habitat uses.
B	Class B: Temperature	For any time of year, there are two upper limiting temperatures for a location (based on the important sensitive species found there at that time): (1) One limit consists of a maximum temperature for short exposures that is time dependent and is given by a species-specific equation; (2) the second value is a limit on the weekly average temperature (see Gold Book for more information).	There shall be no changes from natural conditions that would impair any existing or designated uses assigned to this Class and, in no case exceed 85 degrees F, or in any case raise the temperature of surface water more than 4 degrees F.	a. Shall not exceed 68° F (20° C) based on the mean of the daily maximum temperature over a seven day period in cold water fisheries, unless naturally occurring. Where a reproducing cold water aquatic community exists at a naturally occurring higher temperature, the temperature necessary to protect the community shall not be exceeded and natural daily and seasonal temperature fluctuations necessary to protect the community shall be maintained. Temperature shall not exceed 83° F (28.3° C) in warm water fisheries. The rise in temperature due to a discharge shall not exceed 3° F (1.7° C) in rivers and streams designated as cold water fisheries nor 5° F (2.8° C) in rivers and streams designated as warm water fisheries (based on the minimum expected flow for the month). In lakes and ponds the rise shall not exceed 3° F (1.7° C) in the epilimnion (based on the monthly average of maximum daily temperature); and b. Natural seasonal and daily variations that are necessary to protect existing and designated uses shall be maintained. There shall be no changes from natural background conditions that would impair any use assigned to this Class, including those conditions necessary to protect normal species diversity, successful migration, reproductive functions or growth of aquatic organisms; c. alternative effluent limitations established in connection with a variance for a thermal discharge issued under 33 U.S.C. § 1251 (FWPCA, § 316(a)), and 314 CMR 4.00. As required by 33 U.S.C. § 1251 (FWPCA, § 316(a)) and 314 CMR 3.00, for permit and variance renewal, the applicant must demonstrate that alternative effluent limitations continue to comply with the variance standard for thermal discharges; and d. In the case of a cooling water intake structure (CWIS) regulated by EPA under 33 U.S.C. § 1251 (FWPCA § 316(b)), the Department has the authority under 33 U.S.C. § 1251 (FWPCA § 401), M.G.L. C. 21, §§ 26 through 53 and 314 CMR 3.00 to condition the CWIS to assure compliance of the withdrawal activity with 314 CMR 4.00, including, but not limited to, compliance with narrative and numerical criteria and protection of existing and designated uses.	N/A	Any stream temperature increase associated with the discharge of treated sewage, waste or cooling water, water diversions, or releases shall not be such as to appreciably interfere with the uses assigned to this class.	All thermal discharges to the waters of the State shall assure the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in and on the body of water. The natural seasonal cycle shall be retained. Annual spring and fall temperature changes shall be gradual. Large day-to-day temperature fluctuations due to heat of artificial origin shall be avoided. Development or growth of nuisance organisms shall not occur in contravention of water quality standards. Discharges which would lower receiving water temperature shall not cause a violation of water quality standards and 6 NYCRR 704.3. For the protection of the aquatic biota from severe temperature changes, routine shut down of an entire thermal discharge at any site shall not be scheduled during the period from December through March. Additional special criteria for different types of waters are provided in Section 704.	B, B(a), B1, B1(a)* No activity shall raise the temperature of the receiving waters above the recommended limit on the most sensitive receiving water use nor cause the growth of undesirable or nuisance species of biota. In no cases shall an activity cause the temperature to exceed 83 degrees F. Heated discharges into designated coldwater habitats shall not raise the temperature above 68 degrees F. Outside an established thermal mixing zone, in no case shall the temperature of the receiving water be raised more than 4 degrees F.	The change or rate of change in temperature, either upward or downward, shall be controlled to ensure full support of aquatic biota, wildlife, and aquatic habitat uses. For the purpose of applying this criterion, ambient temperature shall mean the water temperature measured at a control point determined by the Secretary to be outside the influence of a discharge or activity. Cold Water Habitat: The total increase from the ambient temperature due to all discharges and activities shall not exceed 1.0 degree F except for specific situations noted in the WQS document. Warm Water Habitat: The total increase from the ambient temperature due to all discharges and activities shall not exceed the temperature criteria derived from tables 1 & 2 in the WQS document.
B	Class B: Silt or Sand Deposits	N/A	None other than of natural origin except as may result from normal agricultural, road maintenance, construction activity, dredging activity or discharge of dredged or fill materials provided all reasonable controls or Best Management Practices are used in such activities and all designated uses are protected and maintained.	N/A	N/A	N/A	N/A	B, B(a), B1, B1(a)* N/A	N/A

Class*	Parameter**	EPA Recommended Criteria†	CT	MA	ME*	NH	NY*	RI	VT
B	Class B: Chemical Constituents	Criteria are provided for a number of chemical constituents classified as priority and non-priority pollutants. See www.epa.gov/waterscience/criteria/wqcriteria.html for specific chemicals.	Refer to Table 3 of this section and sections 22a-426-4(a)(5); 22a-426-4(a)(9)(b); 22a-426-4(a)(11); 22a-426-4(i); 22a-426-4(m); 22a-426-9(a)(3); 22a-426-9(a)(4) and 22a-426-9(a)(5) of the Regulations of Connecticut State Agencies.	All surface waters shall be free from pollutants in concentrations or combinations that are toxic to humans, aquatic life or wildlife. For pollutants not otherwise listed in 314 CMR 4.00, the National Recommended Water Quality Criteria: 2002, EPA 822-R-02-047, November 2002 published by EPA pursuant to Section 304(a) of the Federal Water Pollution Control Act, are the allowable receiving water concentrations for the affected waters, unless the Department either establishes a site specific criterion or determines that naturally occurring background concentrations are higher. Where the Department determines that naturally occurring background conditions are higher, those concentrations shall be the allowable receiving water concentrations. The Department shall use the water quality criteria for the protection of aquatic life expressed in terms of the dissolved fraction. The EPA recommended criteria based on total recoverable metals shall be converted to dissolved metals using EPA's published conversion factors. Permit limits will be written in terms of total recoverable metals. Translation from dissolved metals criteria to total recoverable metals permit limits will be based on EPA's conversion factors or other methods approved by the Department. The Department may establish site specific criteria for toxic pollutants based on site specific considerations.	Except as naturally occurs, surface waters must be free of pollutants in concentrations which impart toxicity and cause those waters to be unsuitable for the existing and designated uses of the water body. Except as naturally occur, levels of toxic pollutants in surface waters must not exceed federal water quality criteria as established by USEPA, pursuant to Section 304(a) of the Clean Water Act, or alternative criteria established by the state and listed in Chapter 584 Surface Water Quality Criteria for Toxic Pollutants.	Unless naturally occurring or allowed under Env-Ws 1707, all surface waters shall be free from toxic substances or chemical constituents in concentrations or combinations that: injure or a minimal to plants, animals, humans or aquatic life; or persist in the environment or accumulate in aquatic organisms to levels that result in harmful concentrations in edible portions of fish, shellfish, other aquatic life, or wildlife which might consume aquatic life. Unless allowed in part Env-Ws 1707 or naturally occurring, concentrations of toxic substances in all surface waters shall not exceed the recommended safe exposure levels of the most sensitive surface water use shown in Table 1703.1, subject to the notes as explained in Env-Ws 1703.22.	None in amounts that will adversely affect the taste, color, odor or impair the waters for their best use. See 6 NYCRR 703.5, Table 1 of the Regulation and DOW TOGS 1.1.1 for criteria and guidance values for specific substances.	B, B(a), B1, B1(a)* a. None in concentrations or combinations that could be harmful to humans or fish and wildlife for the most sensitive and governing water class use, or unfavorably alter the biota, or which would make the waters unsafe or unsuitable for fish and wildlife or their propagation, impair the palatability of same, or impair waters for any other existing or designated use. None in such concentrations that would exceed the Water Quality Criteria and Guidelines as found in Appendix B. b. The ambient concentration of a pollutant in a water body shall not exceed the Ambient Water Quality Criteria and Guidelines, (Appendix B) for the protection of aquatic organisms from acute or chronic effects, unless the criteria or guidelines are modified by the Director based on results of bioassay tests conducted in accordance with the terms and conditions provided in the RI/DEM Site Specific Aquatic Life Water Quality Criteria Development Policy.	Criteria for specific substances are given in Appendix C of the Water Quality Standards.
		N/A	The loading of nutrients, principally phosphorus and nitrogen, to any surface water body shall not exceed that which supports maintenance of attainment of designated uses.	Unless naturally occurring, all surface waters shall be free from nutrients in concentrations that would cause or contribute to impairment of existing or designated uses and shall not exceed the site specific criteria developed in a TMDL, or as otherwise established by the Department pursuant to 314 CMR 4.00. Any existing point source discharge containing nutrients in concentrations that would cause or contribute to cultural eutrophication, including the excessive growth of aquatic plants or algae, in any surface water shall be provided with the most appropriate treatment as determined by the Department, including, where necessary, highest and best practical treatment (HBPT) for POTWs and BAT for non POTWs, to remove such nutrients to ensure protection of existing and designated uses. Human activities that result in the nonpoint source discharge of nutrients to any surface water may be required to be provided with cost effective and reasonable best management practices for nonpoint source control.	N/A	In all surface waters shall contain no phosphorus in such concentrations that would impair any existing or designated uses, unless naturally occurring.	None in amounts that will result in growth of algae, weeds and slimes that will impair the waters for their best usage.	B, B(a), B1, B1(a)* Nutrients: a. Average Total Phosphorus shall not exceed 0.025 mg/L in any lake, pond, kettlehole or reservoir, and average Total P in tributaries at the point where they enter such bodies of water shall not cause exceedance of this phosphorus criteria, except as naturally occurs, unless the Director determines, on a site-specific basis, that a different value for phosphorus is necessary to prevent cultural eutrophication. b. None in such concentration that would impair any uses specifically assigned to said Class, or cause undesirable or nuisance aquatic species associated with cultural eutrophication, nor cause exceedance of the criterion of 10µg above in a downstream lake, pond, or reservoir. New discharges of wastes containing phosphates will not be permitted into or immediately upstream of lakes or ponds. Phosphates shall be removed from existing discharges to the extent that such removal is or may become technically and reasonably feasible.	In all waters, total phosphorus loadings shall be limited so that they will not contribute to the acceleration of eutrophication or stimulation of the growth of aquatic biota in a manner that prevents the full support of uses. Upland Streams: In addition to compliance with the general policy above, for all streams above 2,500 ft in elevation, total phosphorus shall not exceed 0.010 mg/L, at low median monthly flow. In addition, specific criteria apply to Lake Champlain and Lake Memphremagog.
B	Class B: Sodium	N/A	N/A	N/A	N/A	N/A	N/A	B, B(a), B1, B1(a)* N/A	N/A
B	Class B: Chlorides	For protection of freshwater aquatic life: 860,000 µg/L maximum concentration; 230,000 µg/L continuous concentration.	N/A	N/A	For protection of freshwater aquatic life: 860,000 µg/L maximum concentration; 230,000 µg/L continuous concentration.	For protection of freshwater aquatic life: 860,000 µg/L maximum concentration; 230,000 µg/L continuous concentration.	N/A	B, B(a), B1, B1(a)* For protection of freshwater aquatic life: 860,000 µg/L maximum concentration; 230,000 µg/L continuous concentration.	N/A
B	Class B: Sulfates	For domestic water supply: 250 mg/L	N/A	N/A	N/A	N/A	N/A	B, B(a), B1, B1(a)* N/A	N/A
B	Class B: Nitrate	For protection of human health: 10,000 µg/L for consumption of water and organisms.	N/A	Unless naturally occurring, all surface waters shall be free from nutrients in concentrations that would cause or contribute to impairment of existing or designated uses and shall not exceed the site specific criteria developed in a TMDL, or as otherwise established by the Department pursuant to 314 CMR 4.00. Any existing point source discharge containing nutrients in concentrations that would cause or contribute to cultural eutrophication, including the excessive growth of aquatic plants or algae, in any surface water shall be provided with the most appropriate treatment as determined by the Department, including, where necessary, highest and best practical treatment (HBPT) for POTWs and BAT for non POTWs, to remove such nutrients to ensure protection of existing and designated uses. Human activities that result in the nonpoint source discharge of nutrients to any surface water may be required to be provided with cost effective and reasonable best management practices for nonpoint source control.	For protection of human health: 10,000 µg/L for consumption of water and organisms.	Shall contain no nitrogen in such concentrations that would impair any existing or designated uses, unless naturally occurring. For the protection of human health, nitrate concentrations shall not exceed 10 mg/L.	None in amounts that will result in growth of algae, weeds and slimes that will impair the waters for their best use.	B, B(a), B1, B1(a)* N/A	All Waters: Nitrate shall be limited so not to contribute to the acceleration of eutrophication, or stimulation of the growth of aquatic biota, in a manner that prevents the full support of uses. Lakes, Ponds & Reservoirs: Not to exceed 5.0 mg/L nitrate-nitrogen regardless of classification. Other Waters: (1) Not to exceed 0.2 mg/L as nitrate-nitrogen at flows exceeding low median monthly flows in Class A(1) and A(2) waters above 2,500 feet altitude, NGVD. (2) Not to exceed 2.0 mg/L as nitrate-nitrogen at flows exceeding low median monthly flows in Class A(1) and A(2) waters at or below 2,500 feet altitude, NGVD.
B	Class B: Phenol	For protection of human health: 10,000 µg/L for consumption of water and organisms; 860,000 µg/L for consumption of organisms only	For protection of human health: 10,000 µg/L for consumption of water and organisms; 860,000 µg/L for consumption of organisms only	N/A	For protection of human health: 21,000 µg/L for consumption of water and organisms; 93,000 µg/L for consumption of organisms only	For protection of freshwater aquatic life: 10,200 µg/L for acute exposure and 2,560 µg/L for chronic exposure. For protection of human health: 300 µg/L for consumption of water and organisms; 300 µg/L for consumption of organisms only	For aesthetics: total chlorinated phenols 1 µg/L; total unchlorinated phenols 5 µg/L.	B, B(a), B1, B1(a)* For protection of freshwater aquatic life: 251 µg/L for acute exposure and 5.6 µg/L for chronic exposure. For protection of human health: 21 mg/L for consumption of water and organisms; 1700 mg/L for consumption of organisms only	For protection of human health: 21,000 µg/L for consumption of water and organisms; 4.6 x 10 ⁶ µg/L for consumption of organisms only
B	Class B: Total Dissolved Solids	For protection of human health: 250,000 µg/L for consumption of water and organisms.	N/A	N/A	N/A	N/A	Shall be kept as low as practicable to maintain the best usage of waters but in no case shall it exceed 500 mg/L.	B, B(a), B1, B1(a)* N/A	N/A
B	Class B: Substances Potentially Toxic	Criteria are provided for a number of chemical constituents classified as priority and non-priority pollutants. See www.epa.gov/waterscience/criteria/wqcriteria.html for specific chemicals.	Surface waters and sediments shall be free from chemical constituents in concentrations or combinations which will or can reasonably be expected to result in acute or chronic toxicity to aquatic organisms or otherwise impair the biological integrity of aquatic or marine ecosystems outside of any dredged material disposal area or areas designated by the Commissioner for disposal or placement of fill materials or any zone of influence allowed by the Commissioner, or bioconcentrate or bioaccumulate in tissues of fish, shellfish and other aquatic organisms at levels which will impair the health of aquatic organisms or wildlife or result in unacceptable tastes, odors or health risks to human consumers of aquatic organisms or wildlife unless such sediments are capped with material suitable for unconfined, open water disposal as an appropriate means of ensuring consistency with this standard as approved by the Commissioner in writing. In determining consistency with this Standard, the Commissioner shall at a minimum consider the numeric criteria listed in Table 3 of section 22a-426-9 of the Regulations of Connecticut State Agencies and any other information he or she deems relevant.	All surface waters shall be free from pollutants in concentrations or combinations that are toxic to humans, aquatic life or wildlife. For pollutants not otherwise listed in 314 CMR 4.00, the National Recommended Water Quality Criteria: 2002, EPA 822-R-02-047, November 2002 published by EPA pursuant to Section 304(a) of the Federal Water Pollution Control Act, are the allowable receiving water concentrations for the affected waters, unless the Department either establishes a site specific criterion or determines that naturally occurring background concentrations are higher, those concentrations shall be the allowable receiving water concentrations. The Department shall use the water quality criteria for the protection of aquatic life expressed in terms of the dissolved fraction. The EPA recommended criteria based on total recoverable metals shall be converted to dissolved metals using EPA's published conversion factors. Permit limits will be written in terms of total recoverable metals. Translation from dissolved metals criteria to total recoverable metals permit limits will be based on EPA's conversion factors or other methods approved by the Department. The Department may establish site specific criteria for toxic pollutants based on site specific considerations.	Except as naturally occurs, surface waters must be free of pollutants in concentrations which impart toxicity and cause those waters to be unsuitable for the existing and designated uses of the water body. Except as naturally occur, levels of toxic pollutants in surface waters must not exceed federal water quality criteria as established by USEPA, pursuant to Section 304(a) of the Clean Water Act, or alternative criteria established by the state and listed in Chapter 584 Surface Water Quality Criteria for Toxic Pollutants.	Unless naturally occurring or allowed under Env-Ws 1707, all surface waters shall be free from toxic substances or chemical constituents in concentrations or combinations that: injure or a minimal to plants, animals, humans or aquatic life; or persist in the environment or accumulate in aquatic organisms to levels that result in harmful concentrations in edible portions of fish, shellfish, other aquatic life, or wildlife which might consume aquatic life. Unless allowed in part Env-Ws 1707 or naturally occurring, concentrations of toxic substances in all surface waters shall not exceed the recommended safe exposure levels of the most sensitive surface water use shown in Table 1703.1, subject to the notes as explained in Env-Ws 1703.22.	None in amounts that will adversely affect the taste, color, odor or impair the waters for their best use. See 6 NYCRR 703.5, Table 1 of the Regulation for specific standards.	B, B(a), B1, B1(a)* Criteria for specific substances are listed in Table 1 in Appendix B of the Regulation. To protect aquatic life, the one hour average concentration of a pollutant should not exceed the acute criteria more than once every three years on the average. An exclusion to this rule are the pesticides and PCBs acute criteria, which are considered instantaneous values. The four day average concentration of a pollutant should not exceed the chronic criteria more than once every three years on the average. These aquatic life criteria shall be achieved in all waters, except mixing zones, regardless of the waters' classification.	Where necessary to fully support an existing or designated use, waters shall be managed to prevent the discharge of toxic substances in concentrations, quantities or combinations that exceed: (1) for toxic substances that are carcinogenic, a maximum individual lifetime risk to human health greater than 10 ⁻⁶ ; (2) for toxic substances that are noncarcinogenic, a maximum individual life time risk of no adverse effect to human health; or (3) acute or chronic toxicity to aquatic biota or wildlife. Criteria for specific substances can be found in Appendix C of the Water Quality Standards.

Class*	Parameter**	EPA Recommended Criteria†	CT	MA	ME*	NH	NY*	RI	VT
B	Class B: Radioactivity	N/A	Discharge of radioactive materials in concentrations or combinations which would be harmful to human, animal or aquatic life shall not be allowed. Applicable criteria can be found in Title 10 Part 20 of the Code of Federal Regulations.	All surface waters shall be free from radioactive substances in concentrations or combinations that would be harmful to human, animal or aquatic life or the most sensitive designated use; result in radionuclides in aquatic life exceeding the recommended limits for consumption by humans; or exceed Massachusetts Drinking Water Regulations as set forth in 310 CMR 22.09.	Discharge of pollutants to waters of the state that imparts radioactivity is not allowed.	The level of radioactive materials in all waters shall not be in concentrations or combinations that would be harmful to human, animal, or aquatic life or the most sensitive designated use; b. result in radionuclides in aquatic life exceeding the recommended limits for consumption by humans; or c. exceed limits specified in EPA's national drinking water regulations or Env-Ws 300 whichever are more stringent.	N/A	B, B(a), B1, B1(a)* The level of radioactive materials in all waters shall not be in concentrations or combinations which will likely be harmful to humans, fish and wildlife, or result in concentrations in organisms producing undesirable conditions.	Waters shall be managed so as to prevent the discharge of radioactive substances in concentrations, quantities, or combinations that may create a significant likelihood of an adverse impact on human health or a risk of acute or chronic toxicity of aquatic biota, fish or wildlife. Unless otherwise required by these rules, the Secretary shall determine limits for discharges containing radioactive substances based on the results of biological toxicity assessments and the appropriate available scientific data, including but not limited to: The VT State Health Regulation, Part 5, Chapter 3 "Radiological Health", effective as of 12/1/07, and the code 10 CFR 50, Appendix I. The discharge of radioactive substances shall not exceed the lowest limits that are reasonably achievable.
B	Class B: Gross Beta	N/A	N/A	N/A	N/A	Shall not contain gross beta radioactivity in excess of 1000 PCi/L.	N/A	B, B(a), B1, B1(a)* N/A	N/A
B	Class B: Radium 226	N/A	N/A	N/A	N/A	Shall not contain radium 226 in excess of 3 PCi/L.	N/A	B, B(a), B1, B1(a)* N/A	N/A
B	Class B: Strontium 90	N/A	N/A	N/A	N/A	Shall not contain strontium-90 in excess of 10 PCi/L.	N/A	B, B(a), B1, B1(a)* N/A	N/A
B	Class B: Mercury	For protection of aquatic life: 1.4µg/l for acute exposure and 0.77µg/l for chronic exposure.	For protection of aquatic life: 1.4µg/l for acute exposure (both total values) For protection of human health: 0.05µg/l for water and fish ingestion, 0.051µg/l for fish consumption only (both total values).	For protection of aquatic life: 1.4µg/l for acute exposure and 0.77µg/l for chronic exposure.	For protection of aquatic life: 1.7µg/l for acute exposure and 0.81µg/l for chronic exposure.	For protection of freshwater aquatic life: 1.4µg/l for acute exposure and 0.77µg/l for chronic exposure (both dissolved values). For protection of marine aquatic life: 1.8µg/l for acute exposure and 0.94µg/l for chronic exposure (both dissolved values). For protection of human health: 0.05µg/l for water and fish ingestion, 0.051µg/l for fish consumption only.	Aquatic (Chronic): 0.77µg/l in dissolved form Aquatic (Acute): 1.4µg/l in dissolved form Health (Fish Consumption): 0.0007µg/l in dissolved form Wildlife: 0.0026µg/l in dissolved form.	For protection of aquatic life: 1.4µg/l for acute exposure and 0.77µg/l for chronic exposure. For protection of human health: 0.14µg/l for consumption of water and aquatic organisms, 0.15µg/l for consumption of aquatic organisms only.	For the protection of aquatic biota: 2.4µg/l for acute exposure and 0.012µg/l for chronic exposure. For the protection of human health: 0.14µg/l for consumption of water and aquatic organisms, 0.15µg/l for consumption of aquatic organisms only.
B	Class B: Methylmercury	Fish tissue residue criterion for human health: 0.3mg/kg in the edible portion of the fish.	N/A	Fish tissue residue criterion for human health: 0.3mg/kg in the edible portion of the fish.	Fish tissue residue criterion for human health: 0.2mg/kg in the edible portion of the fish.	If the flesh or marine chronic criteria for total mercury exceeds 0.77 µg/l more than once in a 3-year period in the ambient water, the edible portion of aquatic species of concern shall be analyzed to determine whether the concentration of methyl mercury exceeds the FDA action level of 1.0 mg/kg.	N/A	N/A	If the CCC for total mercury exceeds 0.012µg/l more than once in a three year period in the ambient water, the edible portion of aquatic species of concern must be analyzed to determine whether the concentration of methyl mercury exceeds the FDA action level of 1.0 mg/kg.
B	Class B: Mixing Zones	Allowable mixing zone characteristics should be established to ensure that: 1) mixing zones do not impair the integrity of the waterbody as a whole, 2) there is no lethality to organisms passing through the mixing zones, and 3) there are no significant health risks, considering likely pathways of exposure.	The Commissioner may, on a case-by-case basis, establish zones of influence when permitting discharges to surface waters under Section 22a-430 and 22a-133(k) of the Connecticut General Statutes in order to allocate a portion of the receiving surface waters for mixing and assimilation of the discharge. In establishing a zone of influence the Commissioner shall consider without limitation: See 22a-426-4(i) for additional details.	In applying 314 CMR 4.00 the Department may recognize a limited area or volume of a waterbody as a mixing zone for the initial dilution of a discharge. Waters within a mixing zone may fail to meet specific water quality criteria provided the following conditions are met: a) Mixing zones shall be limited to an area or volume as small as feasible. There shall be no lethality to organisms passing through the mixing zone as determined by the Department. The location, design and operation of the discharge shall minimize the impacts on aquatic life and other existing and designated uses within and beyond the mixing zone. b) Mixing zones shall not interfere with the migration or free movement of fish or other aquatic life. There shall be safe and adequate passage for swimming and drifting organisms with no deleterious effects on their populations. c) Mixing zones shall not create nuisance conditions, accumulate pollutants in sediments or biota in toxic amounts or otherwise interfere with the existing or designated uses of surface waters.	N/A	Mixing zones shall be subject to site specific criteria that, as a minimum: (a) Meet the criteria in Env-Ws T03.03(1); (b) Do not interfere with biological communities or populations of indigenous species; (c) Do not result in the accumulation of pollutants in the sediments or biota; (d) Allow a zone of passage for swimming and drifting organisms; (e) Do not interfere with existing and designated uses of the surface water; (f) Do not impinge upon spawning grounds and/or nursery areas of any indigenous aquatic species; (g) Do not result in the mortality of any plants, animals, humans, or aquatic life within the mixing zone; (h) Do not exceed the chronic toxicity value of 1.0 TUs at the mixing zone boundary; and (i) Do not result in an overlap with another mixing zone.	Non-Thermal Mixing Zones: The presence of a mixing zone in a receiving water is accepted as a normal and expected consequence of a wastewater discharge. Within mixing zones, water quality standards for pollutants are expected to be exceeded, potentially impairing habitat usability for fish and benthic communities. Detailed guidelines can be found in TOCS 1.3.1 Thermal Mixing Zones: The department shall specify definable, numerical limits for all mixing zones. Conditions in the mixing zone shall not be lethal in conversion of water quality standards to aquatic biota which may enter the zone. The location of mixing zones for thermal discharges shall not interfere with spawning areas, nursery areas, and fish migration routes. More details regarding thermal discharges and mixing zones can be found in 6 NYCRR Part 704.	B, B(a), B1, B1(a)* All Mixing Zones: At a minimum, all mixing zones must: - Meet the criteria for aesthetics, in accordance with rule 8.D.1(b); - Be limited to an area or volume that will prevent interference with the existing and designated uses in the associated waterbody segment and beyond; - Allow an appropriate zone of passage for migrating fish and other organisms; prohibit lethality to organisms passing through the mixing zone, and protect for spawning and nursery habitat; and - Not allow substances to accumulate in sediments, fish and wildlife or food chains such that known or predicted safe exposure levels for the health of humans or fish and wildlife will be exceeded. Non-Thermal Mixing Zones: In the case of non-thermal discharges, in applying these standards the Director may recognize, where appropriate, a limited acute and/or chronic mixing zone(s) on a case-by-case basis. The locations, size and shape of these zones shall provide for the maximum protection of fish and wildlife. Thermal Mixing Zones: In the case of thermal discharges into tidal rivers, fresh water streams or estuaries, where thermal mixing zones are allowed by the Director, the mixing zone will be limited to no more than one quarter (1/4) of the cross sectional area and/or volume of river flow, stream or estuary, leaving at least three quarters (3/4) free as a zone of passage. In wide estuaries and oceans, the limits of mixing zones will be established by the Director.	The Secretary shall ensure that conditions due to discharges of waste within any mixing zone shall: (a) Not result in a significant increase in public health risk when evaluated using reasonable assumptions about exposure pathways; (b) Not constitute a barrier to the passage or movement of fish or prevent the full support of aquatic biota, wildlife, and aquatic habitat uses in the receiving waters outside the mixing zone; (c) Not kill organisms passing through the mixing zone; (d) Protect and maintain the existing uses of the waters; (e) Be free from materials in concentrations that settle to form objectionable deposits; (f) Be free from floating debris, oil, scum, and other material in concentrations that form nuisances; (g) Be free from substances in concentrations that produce objectionable color, odor, taste, or turbidity; and (h) Be free from substances in concentrations that produce undesirable aquatic life or result in a dominance of nuisance species.
B	Class C: Aesthetics	All waters free from substances attributable to wastewater or other discharges that: settle to form objectionable deposits; float as debris, scum, oil, or other matter to form nuisances; produce objectionable odor, color, taste, or turbidity; injure or are toxic or produce adverse physiological responses in humans, animals or plants; and produce undesirable or nuisance aquatic life.	No such classification.	All surface waters shall be free from pollutants in concentrations or combinations that settle to form objectionable deposits; float as debris, scum or other matter to form nuisances; produce objectionable odor, color, taste or turbidity; or produce undesirable or nuisance species. Class A waters shall have excellent aesthetic value.	N/A	No such classification.	No taste-, color-, and odor-producing, toxic, or other deleterious substances in amounts that will adversely affect the taste, color or odor thereof, or impair the waters for their best usages. See 6 NYCRR 703.5, Table 1 in the Regulation for standards for specific substances.	All waters shall be free from pollutants in concentrations or combinations that: settle to form deposits that are unsightly, putrescent, or odorous; float as debris, oil, grease, scum or other floating material attributable to wastes; produce odor or taste or change the color or physical, chemical or biological conditions; or result in the dominance of species of fish and wildlife; to such a degree as to create a nuisance or interfere with the existing or designated uses.	No such classification.
C	Class C: Aquatic Life	N/A	No such classification.	N/A	Discharges to Class C waters may cause some changes to aquatic life, except that the receiving waters must be of sufficient quality to support all species of fish indigenous to the receiving waters and maintain the structure and function of the resident biological community.	No such classification.	See 6 NYCRR 703.5, Table 1 for standards for specific substances.	At a minimum, all waters shall be free of pollutants in concentrations or combinations or from anthropogenic activities subject to these regulations that: adversely affect the composition of fish and wildlife; adversely affect the physical, chemical, or biological integrity of the habitat; interfere with the propagation of fish and wildlife; or adversely alter the life cycle functions, uses, processes and activities of fish and wildlife.	No such classification.

Class*	Parameter**	EPA Recommended Criteria†	CT	MA	ME*	NH	NY*	RI	VT
C	Class C: Dissolved Oxygen (DO)	Cold Water Criteria: 30 day mean of 6.5 mg/L for other life stages; 7 day mean of 9.5 mg/L for early life stages; 1 day minimum of 8.0 mg/L for other life stages; 4.0 mg/L for other life stages. Warm Water Criteria: 30 day mean of 5.5 mg/L for other life stages; 7 day mean of 6.0 mg/L for other life stages; 0.7 day mean minimum of 4.0 mg/L for other life stages; 0.5 mg/L for other life stages and 3.0 mg/L for other life stages.	No such classification.	Shall not be less than 5.0 mg/L at least 16 hours of any 24-hour period and not less than 3.0 mg/L at any time. Where natural background conditions are lower, DO shall not be less than natural background conditions. Natural seasonal and daily variations that are necessary to protect existing and designated uses shall be maintained.	Dissolved oxygen may be not less than 5 ppm or 60% of saturation, whichever is higher, except that in identified salmonid spawning areas where water quality is sufficient to ensure spawning, egg incubation and survival of early life stages, that water quality sufficient for these purposes must be maintained. In order to provide additional protection for the growth of indigenous fish, the following standards apply: (1) The 30-day average dissolved oxygen criterion of a Class C water is 6.5 ppm using a temperature of 22 degrees centigrade or the ambient temperature of the water body, whichever is less, if: (a) a license or water quality certificate other than a general permit was issued prior to March 16, 2004 for the Class C water and was not based on a 6.5 ppm 30-day average dissolved oxygen criterion; or (b) a discharge or a hydropower project was in existence on March 16, 2005 and required but did not have a license or water quality certificate other than a general permit for the Class C water. This criterion for the water body applies to licenses and water quality certificates issued on or after March 16, 2004. (2) In Class C waters not governed by subparagraph (1), dissolved oxygen may not be less than 6.5 ppm as a 30-day average based upon a temperature of 24 degrees centigrade or the ambient temperature of the water body, whichever is less. This criterion for the water body applies to licenses and water quality certificates issued on or after March 16, 2004. The department may negotiate and enter into agreements with licensees and water quality certificate holders in order to provide further protection for the growth of indigenous fish. Agreements entered into under this paragraph are enforceable as department orders according to the provisions of sections 347-A to 349. The board shall adopt rules governing the procedure for designation of spawning areas. Those rules must include provision for periodic review of designated spawning areas and consultation with affected persons prior to designation of a stretch of water as a spawning area.	No such classification.	For trout spawning waters (TS), the DO concentration shall not be less than 7.0 mg/L from other than natural conditions. For trout waters (T), the minimum daily average shall not be less than 6.0 mg/L, and at no time shall the concentration be less than 5.0 mg/L. For nontrout waters, the minimum daily average shall not be less than 5.0 mg/L, and at no time shall the DO concentration be less than 4.0 mg/L.	Cold Water Fish Habitat: Dissolved oxygen content of not less than 75% saturation, based on a daily average, and an instantaneous minimum dissolved oxygen concentration of at least 5 mg/L, except as naturally occurs. For the period from October 1st to May 14th, where in areas identified by the RI Division of Fish and Wildlife as cold water fish spawning areas the following criteria apply. For species whose early life stages are not directly exposed to the water column (i.e., early life stages are intergravel), the 7 day mean water column dissolved oxygen concentration shall not be less than 9.5 mg/L and the instantaneous minimum dissolved oxygen concentration shall not be less than 8 mg/L. For species that have early life stages exposed directly to the water column, the 7 day mean water column dissolved oxygen concentration shall not be less than 6.5 mg/L and the instantaneous minimum dissolved oxygen concentration shall not be less than 5.0 mg/L. Warm Water Fish Habitat: Dissolved oxygen content of not less than 60% saturation, based on a daily average, and an instantaneous minimum dissolved oxygen concentration of at least 5.0 mg/L, except as naturally occurs. The 7 day mean water column dissolved oxygen concentration shall not be less than 6 mg/L.	No such classification.
C	Class C: Sludge Deposits, Solid Refuse, Floating Solids, Oil, Grease and Scum	Oil and Grease - For domestic water supply: Free from oil and grease, particularly from the tastes and odors that emanate from petroleum products. For aquatic life: (1) 0.01 of the lowest continuous flow 96-hour LC50 to several important freshwater or marine species, each having a demonstrated high susceptibility to oils and petrochemicals. (2) Levels of oils or petrochemicals in the sediment which cause deleterious effects to the biota should not be allowed. (3) Surface waters shall be virtually free from floating non-petroleum oils of vegetable or animal origin, as well as petroleum derived oils.	No such classification.	These waters shall be free from floating, suspended and settleable solids in concentrations or combinations that would impair any use assigned to this class, that would cause aesthetically objectionable conditions, or that would impair the benthic biota or degrade the chemical composition of the bottom. These waters shall be free from oil, grease and petrochemicals that produce a visible film on the surface of the water, impart an oily taste to the edible portions of aquatic life, coat the banks or bottom of the water course, or are deleterious or become toxic to aquatic life.	All surface waters of the State shall be free of settled substances which alter the physical or chemical nature of bottom material and of floating substances, except as naturally occur, which impair the characteristics and designated uses ascribed to their class.	No such classification.	No residue attributable to sewage, industrial wastes or other wastes, nor visible oil film or globules of grease.	None in such amounts that would impair any uses specifically assigned to this class.	No such classification.
C	Class C: Color and Turbidity	Waters shall be virtually free from substances producing objectionable color for aesthetic purposes; the source of supply should not exceed 75 color units on the platinum-cobalt scale for domestic water supplies; increased color should not reduce the depth of the compensation point for photosynthetic activity by more than 10% from seasonally established norm for aquatic life.	No such classification.	These waters shall be free from color and turbidity in concentrations or combinations that are aesthetically objectionable or would impair any use assigned to this Class.	Discharge of pollutants to waters of the State that imparts color, taste, turbidity, toxicity, radioactivity or other properties that cause these waters to be unsuitable for the designated uses and characteristics ascribed to their class are not allowed.	No such classification.	Color: No substances in amounts that will adversely affect the color. Turbidity: No increase that will cause a substantial visible contrast to natural conditions.	None in such concentrations that would impair any uses specifically assigned to this class. Turbidity not to exceed 10 NTU over natural background.	No such classification.
C	Class C: Bacteria	Based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period), the geometric mean of the indicated bacterial densities should not exceed one or the other of the following: E. coli 126 per 100 ml; or enterococci 33 per 100 ml; no sample should exceed a one sided confidence limit (C.L.) calculated using the following as guidance: designated bathing beach 75% C.L.; moderate use for bathing 92% C.L.; light use for bathing 90% C.L.; infrequent use for bathing 95% C.L. based on a site-specific log standard deviation, or if site data are insufficient to establish a log standard deviation, then using 0.4 as the log standard deviation for both indicators.	No such classification.	The geometric mean of all E. coli samples taken within the most recent six months shall not exceed 630 colonies per 100 ml typically based on a minimum of five samples, and 10% of such samples shall not exceed 1260 colonies per 100 ml. This criterion may be applied on a seasonal basis at the discretion of the Department.	Between May 15th and September 30th, the number of Escherichia coli bacteria of human and domestic animal origin in Class C waters may not exceed a geometric mean of 126 per 100 milliliters or an instantaneous level of 236 per 100 milliliters. In determining human and domestic animal origin, the department shall assess licensed and unlicensed sources using available diagnostic procedures.	No such classification.	Total Coliforms: The monthly median value and more than 20 percent of the samples, from a minimum of five examinations, shall not exceed 2,400/100 ml and 5,000/100 ml, respectively. Fecal Coliform: The monthly geometric mean, from a minimum of five examinations, shall not exceed 200/100 ml.	None in such concentrations that would impair any uses specifically assigned to this class.	No such classification.
C	Class C: Taste and Odor	Materials should not be present in concentrations that individually or in combination produce undesirable flavors which are detectable by organoleptic tests performed on the edible portions of aquatic organisms.	No such classification.	None in such concentrations or combinations that are aesthetically objectionable, that would impair any use assigned to this Class, or that would cause tainting or undesirable flavors in the edible portions of aquatic life.	Discharge of pollutants to waters of the State that imparts color, taste, turbidity, toxicity, radioactivity or other properties that cause these waters to be unsuitable for the designated uses and characteristics ascribed to their class are not allowed.	No such classification.	No substances in amounts that will adversely affect the taste or odor.	None in such concentrations that would impair any uses specifically assigned to this class nor cause taste or odor in edible portions of fish.	No such classification.
C	Class C: pH	For protection of aquatic life: 6.5-9 continuous concentration. For protection of human health: 5-9 for consumption of water and organisms.	No such classification.	Shall be in the range of 6.5 through 9.0 standard units and not more than 1.0 standard unit outside of the natural background range. There shall be no change from natural background conditions that would impair any use assigned to this Class.	6.0-8.5	No such classification.	Shall not be less than 6.5 nor more than 8.5.	6.5-9.0 or as naturally occurs.	No such classification.
C	Class C: Alkalinity	For protection of freshwater aquatic life: 20,000 µg/L continuous concentration	No such classification.	N/A	N/A	No such classification.	N/A	N/A	No such classification.
C	Class C: Temperature	For any time of year, there are two upper limiting temperatures for a location (based on the impoundment and not the water at that time): (1) One limit consists of a maximum temperature for short exposures that is time dependent and is given by a species-specific equation; (2) the second value is a limit on the weekly average temperature (see Gold Book for more information).	No such classification.	a. Shall not exceed 85°F (29.4°C) nor shall the rise due to a discharge exceed 5°F (2.8°C); b. Natural seasonal and daily variations that are necessary to protect existing and designated uses shall be maintained. There shall be no changes from natural background conditions that would impair any use assigned to this Class, including those conditions necessary to protect normal species diversity, successful migration, reproductive functions or growth of aquatic organisms; c. alternative effluent limitations established in connection with a variance for a thermal discharge issued under 33 U.S.C. § 1251 (FWPCA, § 316(a)) and 314 CMR 3.00 are in compliance with 314 CMR 4.00. As required by 33 U.S.C. § 1251 (FWPCA, § 316(a)) and 314 CMR 3.00, for permit and variance renewal, the applicant must demonstrate that alternative effluent limitations continue to comply with the variance standard for thermal discharges, and d. in the case of a cooling water intake structure (CWIS) regulated by EPA under 33 U.S.C. § 1251 (FWPCA § 316(b)), the Department has the authority under 33 U.S.C. § 1251 (FWPCA § 401), M.G.L. c. 21, §§ 26 through 53 and 314 CMR 3.00 to condition the CWIS to assure compliance of the withdrawal activity with 314 CMR 4.00, including, but not limited to, compliance with narrative and numerical criteria and protection of existing and designated uses.	N/A	No such classification.	All thermal discharges to the waters of the State shall assure the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in and on the body of water. The natural seasonal cycle shall be retained. Annual spring and fall temperature changes shall be gradual. Large day-to-day temperature fluctuations due to heat of artificial origin shall be avoided. Development or growth of nuisance organisms shall not occur in concentration of water quality standards. Discharges which would lower receiving water temperature shall not cause a violation of water quality standards and 8 NYCRR 704.3. For the protection of the aquatic biota from severe temperature changes, routine shut down of an entire thermal discharge at any site shall not be scheduled during the period from December through March. Additional special criteria for different types of waters are provided in Section 704.	No activity shall raise the temperature of the receiving waters above the recommended limit on the most sensitive receiving water use nor cause the growth of undesirable or nuisance species of biota. In no cases shall an activity cause the temperature to exceed 83 degrees F. Heated discharges into designated coldwater habitats shall not raise the temperature above 68 degrees F outside an established thermal mixing zone. In no case shall the temperature of the receiving water be raised more than 4 degrees F.	No such classification.
C	Class C: Silt or Sand Deposits	N/A	No such classification.	N/A	N/A	No such classification.	N/A	N/A	No such classification.

Interstate Water Quality Standards Matrix

Class*	Parameter**	EPA Recommended Criteria*	CT	MA	ME*	NH	NY*	RI	VT
C	Class C: Chemical Constituents	Criteria are provided for a number of chemical constituents classified as priority and non-priority pollutants. See www.epa.gov/waterscience/criteria/wqcriteria.html for specific chemicals.	No such classification.	All surface waters shall be free from pollutants in concentrations or combinations that are toxic to humans, aquatic life or wildlife. For pollutants not otherwise listed in 314 CMR 4.00, the National Recommended Water Quality Criteria: 2002, EPA 822-R-02-047, November 2002 published by EPA pursuant to Section 304(a) of the Federal Water Pollution Control Act, are the allowable receiving water concentrations for the affected waters, unless the Department either establishes a site specific criterion or determines that naturally occurring background concentrations are higher. Where the Department determines that naturally occurring background conditions are higher, those concentrations shall be the allowable receiving water concentrations. The Department shall use the water quality criteria for the protection of aquatic life expressed in terms of the dissolved fraction. The EPA recommended criteria based on total recoverable metals shall be converted to dissolved metals using EPA's published conversion factors. Translation from dissolved metals criteria to total recoverable metals permit limits will be based on EPA's conversion factors or other methods approved by the Department. The Department may establish site specific criteria for toxic pollutants based on site specific considerations.	Except as naturally occurs, surface waters must be free of pollutants in concentrations which impart toxicity and cause those waters to be unsuitable for the existing and designated uses of the water body. Except as naturally occur, levels of toxic pollutants in surface waters must not exceed federal water quality criteria as established by USEPA, pursuant to Section 304(a) of the Clean Water Act, or alternative criteria established by the state and listed in Chapter 584 Surface Water Quality Criteria for Toxic Pollutants.	No such classification.	None in amounts that will adversely affect the taste, color, odor or impair the waters for their best use. See 6 NYCRR 703.5, Table 1 of the Regulation and DOW TOGS 1.1.1 for criteria and guidance values for specific substances.	a. None in concentrations or combinations that could be harmful to humans or fish and wildlife for the most sensitive and governing water class use, or unfavorably alter the biota, or which would make the waters unsafe or unsuitable for fish and wildlife or their propagation, impair the palatability of same, or impair waters for any other existing or designated use. None in such concentrations that would exceed the Water Quality Criteria and Guidelines as found in Appendix B. b. The ambient concentration of a pollutant in a water body shall not exceed the Ambient Water Quality Criteria and Guidelines, (Appendix B) for the protection of aquatic organisms from acute or chronic effects, unless the criteria or guidelines are modified by the Director based on results of bioassay tests conducted in accordance with the terms and conditions provided in the RIDEM Site Specific Aquatic Life Water Quality Criteria Development Policy.	No such classification.
C	Class C: Phosphorus	N/A	No such classification.	Unless naturally occurring, all surface waters shall be free from nutrients in concentrations that would cause or contribute to impairment of existing or designated uses and shall not exceed the site specific criteria developed in a TMDL, or as otherwise established by the Department pursuant to 314 CMR 4.00. Any existing point source discharge containing nutrients in concentrations that would cause or contribute to cultural eutrophication, including the excessive growth of aquatic plants or algae, in any surface water shall be provided with the most appropriate treatment as determined by the Department, including, where necessary, highest and best practical treatment (HBPT) for POTWs and BAT for non POTWs, to remove such nutrients to ensure protection of existing and designated uses. Human activities that result in the nonpoint source discharge of nutrients to any surface water may be required to be provided with cost effective and reasonable best management practices for nonpoint source control.	N/A	No such classification.	None in amounts that will result in growth of algae, weeds and slimes that will impair the waters for their best usage.	Nutrients. a. Average Total Phosphorus shall not exceed 0.025 mg/L in any lake, pond, kettlehole or reservoir, and average Total P in tributaries at the point where they enter such bodies of water shall not cause exceedance of this phosphorus criteria, except as naturally occurs, unless the Director determines, on a site-specific basis, that a different value for phosphorus is necessary to prevent cultural eutrophication. b. None in such concentration that would impair any usages specifically assigned to said Class, or cause undesirable or nuisance aquatic species associated with cultural eutrophication, nor cause exceedance of the criterion of 10µg above in a downstream lake, pond, or reservoir. New discharges of wastes containing phosphates will not be permitted into or immediately upstream of lakes or ponds. Phosphates shall be removed from existing discharges to the extent that such removal is or may become technically and reasonably feasible.	No such classification.
C	Class C: Sodium	N/A	No such classification.	N/A	N/A	No such classification.	N/A	N/A	No such classification.
C	Class C: Chloride	For protection of freshwater aquatic life: 860,000 µg/L maximum concentration; 230,000 µg/L continuous concentration.	No such classification.	N/A	For protection of freshwater aquatic life: 860,000 µg/L maximum concentration; 230,000 µg/L continuous concentration.	No such classification.	N/A	For protection of freshwater aquatic life: 860,000 µg/L maximum concentration; 230,000 µg/L continuous concentration.	No such classification.
C	Class C: Sulfate	For domestic water supply: 250 mg/L	No such classification.	N/A	N/A	No such classification.	N/A	N/A	No such classification.
C	Class C: Nitrate	For protection of human health: 10,000 µg/L for consumption of water and organisms.	No such classification.	Unless naturally occurring, all surface waters shall be free from nutrients in concentrations that would cause or contribute to impairment of existing or designated uses and shall not exceed the site specific criteria developed in a TMDL, or as otherwise established by the Department pursuant to 314 CMR 4.00. Any existing point source discharge containing nutrients in concentrations that would cause or contribute to cultural eutrophication, including the excessive growth of aquatic plants or algae, in any surface water shall be provided with the most appropriate treatment as determined by the Department, including, where necessary, highest and best practical treatment (HBPT) for POTWs and BAT for non POTWs, to remove such nutrients to ensure protection of existing and designated uses. Human activities that result in the nonpoint source discharge of nutrients to any surface water may be required to be provided with cost effective and reasonable best management practices for nonpoint source control.	For protection of human health: 10,000 µg/L for consumption of water and organisms.	No such classification.	None in amounts that will result in growth of algae, weeds and slimes that will impair the waters for their best use.	N/A	No such classification.
C	Class C: Phenol	For protection of human health: 10,000 µg/L for consumption of water and organisms; 860,000 for consumption of organisms only	No such classification.	N/A	For protection of human health: 21,000 µg/L for consumption of water and organisms; 93,000 µg/L for consumption of organisms only	No such classification.	For aesthetics: total chlorinated phenols 1 µg/L; total unchlorinated phenols 5 µg/L.	For protection of freshwater aquatic life: 251 µg/L for acute exposure and 5.6 µg/L for chronic exposure. For protection of human health: 21 mg/L for consumption of water and organisms; 1700 mg/L for consumption of organisms only	No such classification.
C	Class C: Total Dissolved Solids	For protection of human health: 250,000 µg/L for consumption of water and organisms.	No such classification.	N/A	N/A	No such classification.	Shall be kept as low as practicable to maintain the best usage of waters but in no case shall it exceed 500 mg/L.	N/A	No such classification.
C	Class C: Substances Potentially Toxic	Criteria are provided for a number of chemical constituents classified as priority and non-priority pollutants. See www.epa.gov/waterscience/criteria/wqcriteria.html for specific chemicals.	No such classification.	All surface waters shall be free from pollutants in concentrations or combinations that are toxic to humans, aquatic life or wildlife. For pollutants not otherwise listed in 314 CMR 4.00, the National Recommended Water Quality Criteria: 2002, EPA 822-R-02-047, November 2002 published by EPA pursuant to Section 304(a) of the Federal Water Pollution Control Act, are the allowable receiving water concentrations for the affected waters, unless the Department either establishes a site specific criterion or determines that naturally occurring background concentrations are higher. Where the Department determines that naturally occurring background conditions are higher, those concentrations shall be the allowable receiving water concentrations. The Department shall use the water quality criteria for the protection of aquatic life expressed in terms of the dissolved fraction. The EPA recommended criteria based on total recoverable metals shall be converted to dissolved metals using EPA's published conversion factors. Permit limits will be written in terms of total recoverable metals. Translation from dissolved metals criteria to total recoverable metals permit limits will be based on EPA's conversion factors or other methods approved by the Department. The Department may establish site specific criteria for toxic pollutants based on site specific considerations.	Except as naturally occurs, surface waters must be free of pollutants in concentrations which impart toxicity and cause those waters to be unsuitable for the existing and designated uses of the water body. Except as naturally occur, levels of toxic pollutants in surface waters must not exceed federal water quality criteria as established by USEPA, pursuant to Section 304(a) of the Clean Water Act, or alternative criteria established by the state and listed in Chapter 584 Surface Water Quality Criteria for Toxic Pollutants.	No such classification.	None in amounts that will adversely affect the taste, color, odor thereof or impair the waters for their best use. See 6 NYCRR 703.5, Table 1 of the Regulation for specific standards.	Criteria for specific substances are listed in Table 1 in Appendix B of the Regulation. To protect aquatic life, the one hour average concentration of a pollutant should not exceed the acute criteria more than once every three years on the average. An exclusion to this rule are the pesticides and PCBs acute criteria, which are considered instantaneous values. The four day average concentration of a pollutant should not exceed the chronic criteria more than once every three years on the average. These aquatic life criteria shall be achieved in all waters, except mixing zones, regardless of the waters' classification.	No such classification.
C	Class C: Radioactivity	N/A	No such classification.	All surface waters shall be free from radioactive substances in concentrations or combinations that would be harmful to human, animal or aquatic life or the most sensitive designated use, result in radioactivity in aquatic life exceeding the recommended limits for consumption by humans, or exceed Massachusetts Drinking Water Regulations as set forth in 310 CMR 22.09.	Discharge of pollutants to waters of the state that imparts radioactivity is not allowed.	No such classification.	N/A	The level of radioactive materials in all waters shall not be in concentrations or combinations which will likely be harmful to humans, fish and wildlife, or result in concentrations in organisms producing undesirable conditions.	No such classification.
C	Class C: Mercury	For protection of aquatic life: 1.4µg/l for acute exposure and 0.77µg/l for chronic exposure.	No such classification.	For protection of aquatic life: 1.4µg/l for acute exposure and 0.77µg/l for chronic exposure.	For protection of aquatic life: 1.7µg/l for acute exposure and 0.91µg/l for chronic exposure.	No such classification.	Aquatic (Chronic): 0.77µg/l in dissolved form Aquatic (Acute): 1.4µg/l in dissolved form Health (Fish Consumption): 0.0007µg/l in dissolved form Wildlife: 0.0026µg/l in dissolved form.	For protection of aquatic life: 1.4µg/l for acute exposure and 0.77µg/l for chronic exposure. For protection of human health: 0.14µg/l for consumption of water and aquatic organisms; 0.15µg/l for consumption of aquatic organisms only.	No such classification.
C	Class C: Methylmercury	Fish tissue residue criterion for human health: 0.3mg/kg in the edible portion of the fish.	No such classification.	Fish tissue residue criterion for human health: 0.3mg/kg in the edible portion of the fish.	Fish tissue residue criterion for human health: 0.2mg/kg in the edible portion of the fish.	No such classification.	N/A	N/A	No such classification.

Class*	Parameter**	EPA Recommended Criteria†	CT	MA	ME*	NH	NY*	RI	VT	
	Class C: Mixing Zones	Allowable mixing zone characteristics should be established to ensure that: 1) mixing zones do not impair the integrity of the waterbody as a whole, 3) there is no lethality to organisms passing through the mixing zones, and 3) there are no significant health concerns considering likely pathways of exposure.	No such classification.	In applying 314 CMR 4.00 the Department may recognize a limited area or volume of a waterbody as a mixing zone for the initial dilution of a discharge. Waters within a mixing zone may fail to meet specific water quality criteria provided the following conditions are met: a) Mixing zones shall be limited to an area or volume as small as feasible. There shall be no lethality to organisms passing through the mixing zone as determined by the Department. The location, design and operation of the discharge shall minimize the impacts on aquatic life and other existing and designated uses within and beyond the mixing zone. b) Mixing zones shall not interfere with the migration or free movement of fish or other aquatic life. There shall be safe and adequate passage for swimming and drifting organisms with no deleterious effects on their populations. c) Mixing zones shall not create nuisance conditions, accumulate pollutants in sediments or biota in toxic amounts or otherwise interfere with the existing or designated uses of surface waters.	N/A	No such classification.	No such classification.	Non-Thermal Mixing Zones: The presence of a mixing zone in a receiving water is accepted as a normal and expected consequence of a wastewater discharge. Within mixing zones, water quality standards for pollutants are expected to be exceeded, potentially impairing habitat usability for fish and benthic communities. Detailed guidelines can be found in TQS 1.3.1 Thermal Mixing Zones: The department shall specify definable, numerical limits for all mixing zones. Conditions in the mixing zone shall not be lethal in contravention of water quality standards to aquatic biota which may enter the zone. The location of mixing zones for thermal discharges shall not interfere with spawning areas, nursery areas, and fish migration routes. More details regarding thermal discharges and mixing zones can be found in 6 NYCRR Part 704.	All Mixing Zones: At a minimum, all mixing zones must: - Meet the criteria for aesthetics, in accordance with rule 6.D.(1); - Be limited to an area or volume that will prevent interference with the existing and designated uses in the associated waterbody segment and beyond; - Allow an appropriate zone of passage for migrating fish and other organisms, prohibit lethality to organisms passing through the mixing zone, and protect for spawning and nursery habitat; and - Not allow substances to accumulate in sediments, fish and wildlife or food chains such that known or predicted safe exposure levels for the health of humans or fish and wildlife will be exceeded. Non-Thermal Mixing Zones: In the case of non-thermal discharges, in applying these standards the Director may recognize, where appropriate, a limited acute and/or chronic mixing zone(s) on a case-by-case basis. The locations, size and shape of these zones shall provide for the maximum protection of fish and wildlife. Thermal Mixing Zones: In the case of thermal discharges into tidal rivers, fresh water streams or estuaries, where thermal mixing zones are allowed by the Director, the mixing zone will be limited to no more than one quarter (1/4) of the cross sectional area and/or volume of river flow, stream or estuary, leaving at least three quarters (3/4) free as a zone of passage. In wide estuaries and oceans, the limits of mixing zones will be established by the Director.	No such classification.
C	Class D: Aesthetics	All waters free from substances attributable to wastewater or other discharges that: settle to form objectionable deposits; float as debris, scum, oil, or other matter to form nuisances; produce objectionable color, odor, taste, or turbidity; injure or are toxic or produce adverse physiological responses in humans, animals or plants; and produce undesirable or nuisance aquatic life.	No such classification.	No such classification.	No such classification.	No such classification.	No such classification.	No such classification.	No such classification.	
D	Class D: Aquatic Life	N/A	No such classification.	No such classification.	No such classification.	No such classification.	See 6 NYCRR 703.5, Table 1 for standards for specific substances.	No such classification.	No such classification.	
D	Class D: Dissolved Oxygen (DO)	Cold Water Criteria: 30 day mean of 6.5 mg/L for other life stages; 7 day mean of 6.5 mg/L for early life stages; 7 day mean minimum of 5.0 mg/L for other life stages; 1 day minimum of 6.0 mg/L for early life stages and 4.0 mg/L for other life stages. Warm Water Criteria: 30 day mean of 5.5 mg/L for other life stages; 7 day mean of 6.0 mg/L for early life stages; 7 day mean minimum of 4.0 mg/L for other life stages; 1 day minimum of 5.0 mg/L for early life stages and 3.0 mg/L for other life stages.	No such classification.	No such classification.	No such classification.	No such classification.	Shall not be less than 3.0 mg/L at any time.	No such classification.	No such classification.	
D	Class D: Sludge Deposits, Solid Refuse, Floating Solids, Oil, Grease and Scum	Oil and Grease - For domestic water supply: Virtually free from oil and grease, particularly from the tastes and odors that emanate from petroleum products. For aquatic life: (1) 0.01 of the lowest continuous flow 96-hour LC50 to several important freshwater or marine species, each having a demonstrated high susceptibility to oils and petrochemicals, (2) Levels of oils or petrochemicals in the sediment which cause deleterious effects to the biota should not be allowed, (3) Surface waters shall be virtually free from floating non-petroleum oils of vegetable or animal origin, as well as petroleum derived oils.	No such classification.	No such classification.	No such classification.	No such classification.	No residue attributable to sewage, industrial wastes or other wastes, nor visible oil film or globules of grease.	No such classification.	No such classification.	
D	Class D: Color and Turbidity	Waters shall be virtually free from substances producing objectionable color for aesthetic purposes; the source of supply should not exceed 75 color units on the platinum-cobalt scale for domestic water supplies; increased color should not reduce the depth of the compensation point for photosynthetic activity by more than 10% from seasonally established norm for aquatic life.	No such classification.	No such classification.	No such classification.	No such classification.	Color: No substances in amounts that will adversely affect the color. Turbidity: No increase that will cause a substantial visible contrast to natural conditions.	No such classification.	No such classification.	
D	Class D: Bacteria	Based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period), the geometric mean of the indicated bacterial densities should not exceed one or the other of the following: E. coli 126 per 100 ml; or enterococci 33 per 100 ml; no sample should exceed a one sided confidence limit (C.L.) calculated using the following as guidance: designated bathing beach 75% C.L.; moderate use for bathing 82% C.L.; light use for bathing 90% C.L.; infrequent use for bathing 95% C.L. based on a site-specific log standard deviation, or if site data are insufficient to establish a log standard deviation, then using 0.4 as the log standard deviation for both indicators.	No such classification.	No such classification.	No such classification.	No such classification.	Total Coliforms: The monthly median value and more than 20 percent of the samples, from a minimum of five examinations, shall not exceed 2,400/100 ml and 5,000/100 ml, respectively. Fecal Coliforms: The monthly geometric mean, from a minimum of five examinations, shall not exceed 200/100 ml.	No such classification.	No such classification.	
D	Class D: Taste and Odor	Materials should not be present in concentrations that individually or in combination produce undesirable flavors which are detectable by organoleptic tests performed on the edible portions of aquatic organisms.	No such classification.	No such classification.	No such classification.	No such classification.	No substances in amounts that will adversely affect the taste or odor.	No such classification.	No such classification.	
D	Class D: pH	For protection of aquatic life: 6.5-9 continuous concentration. For protection of human health: 5-9 for consumption of water and organisms.	No such classification.	No such classification.	No such classification.	No such classification.	Shall not be less than 6.0 nor more than 9.5.	No such classification.	No such classification.	
D	Class D: Alkalinity	For protection of freshwater aquatic life: 20,000 µg/L continuous concentration	No such classification.	No such classification.	No such classification.	No such classification.	N/A	No such classification.	No such classification.	

Class*	Parameter**	EPA Recommended Criteria†	CT	MA	ME*	NH	NY*	RI	VT
D	Class D: Temperature	For any time of year, there are two upper limiting temperatures for a location (based on the important sensitive species found there at that time): (1) One limit consists of a maximum temperature for short exposures that is time dependent and is given by a species-specific equation; (2) the second value is a limit on the weekly average temperature (see Gold Book for more information).	No such classification.	No such classification.	No such classification.	No such classification.	All thermal discharges to the waters of the State shall assure the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in and on the body of water. The natural seasonal cycle shall be retained. Annual spring and fall temperature changes shall be gradual. Large day-to-day temperature fluctuations due to heat of artificial origin shall be avoided. Development or growth of nuisance organisms shall not occur in contravention of water quality standards. Discharges which would lower receiving water temperature shall not cause a violation of water quality standards and 6 NYCRR 704.3. For the protection of the aquatic biota from severe temperature changes, routine shut down of an entire thermal discharge at any site shall not be scheduled during the period from December through March. Additional special criteria for different types of waters are provided in Section 704.	No such classification.	No such classification.
D	Class D: Silt or Sand Deposits	N/A	No such classification.	No such classification.	No such classification.	No such classification.	N/A	No such classification.	No such classification.
D	Class D: Chemical Constituents	Criteria are provided for a number of chemical constituents classified as priority and non-priority pollutants. See www.epa.gov/waterscience/criteria/wqcriteria.html for specific chemicals.	No such classification.	No such classification.	No such classification.	No such classification.	None in amounts that will adversely affect the taste, color, odor or impair the waters for their best use. See 6 NYCRR 703.5, Table 1 of the Regulation and DOW TOQS 1.1.1 for criteria and guidance values for specific substances.	No such classification.	No such classification.
D	Class D: Phosphorus	N/A	No such classification.	No such classification.	No such classification.	No such classification.	None in amounts that will result in growth of algae, weeds and slimes that will impair the waters for their best usage.	No such classification.	No such classification.
D	Class D: Sodium	N/A	No such classification.	No such classification.	No such classification.	No such classification.	N/A	No such classification.	No such classification.
D	Class D: Chloride	For protection of freshwater aquatic life: 860,000 µg/L maximum concentration; 230,000 µg/L continuous concentration.	No such classification.	No such classification.	No such classification.	No such classification.	N/A	No such classification.	No such classification.
D	Class D: Sulfate	For domestic water supply: 250 mg/L	No such classification.	No such classification.	No such classification.	No such classification.	N/A	No such classification.	No such classification.
D	Class D: Nitrate	For protection of human health: 10,000 µg/L for consumption of water and organisms.	No such classification.	No such classification.	No such classification.	No such classification.	None in amounts that will result in growth of algae, weeds and slimes that will impair the waters for their best use.	No such classification.	No such classification.
D	Class D: Phenol	For protection of human health: 10,000 µg/L for consumption of water and organisms; 860,000 for consumption of organisms only	No such classification.	No such classification.	No such classification.	No such classification.	For aesthetics: total chlorinated phenols 1 µg/L; total unchlorinated phenols 5 µg/L.	No such classification.	No such classification.
D	Class D: Total Dissolved Solids	For protection of human health: 250,000 µg/L for consumption of water and organisms.	No such classification.	No such classification.	No such classification.	No such classification.	Shall be kept as low as practicable to maintain the best usage of waters but in no case shall it exceed 500 mg/L.	No such classification.	No such classification.
D	Class D: Substances Potentially Toxic	Criteria are provided for a number of chemical constituents classified as priority and non-priority pollutants. See www.epa.gov/waterscience/criteria/wqcriteria.html for specific chemicals.	No such classification.	No such classification.	No such classification.	No such classification.	None in amounts that will adversely affect the taste, color, odor thereof or impair the waters for their best use. See Table 1 of part 703.5 of the Regulation for specific standards.	No such classification.	No such classification.
D	Class D: Mercury	For protection of aquatic life: 1.4µg/l for acute exposure and 0.77µg/l for chronic exposure.	No such classification.	No such classification.	No such classification.	No such classification.	Aquatic (Acute): 1.4µg/l in dissolved form Health (Fish Consumption): 0.0007µg/l in dissolved form Wildlife: 0.0026µg/l in dissolved form.	No such classification.	No such classification.
D	Class D: Methylmercury	Fish tissue residue criterion for human health: 0.3mg/kg in the edible portion of the fish.	No such classification.	No such classification.	No such classification.	No such classification.	N/A	No such classification.	No such classification.
D	Class D: Mixing Zones	Allowable mixing zone characteristics should be established to ensure that: 1) mixing zones do not impair the integrity of the waterbody as a whole; 2) there is no lethality to organisms passing through the mixing zones; and 3) there are no significant health risks, considering likely pathways of exposure.	No such classification.	No such classification.	No such classification.	No such classification.	For thermal mixing zones: the department shall specify definable, numerical limits for all mixing zones. Conditions in the mixing zone shall not be lethal in contravention of water quality standards to aquatic biota which may enter the zone. The location of mixing zones for thermal discharges shall not interfere with spawning areas, nursery areas, and fish migration routes. More details regarding thermal discharges and mixing zones can be found in 6 NYCRR Part 704. For non-thermal mixing zones: The presence of a mixing zone in a receiving water is accepted as a normal and expected consequence of a wastewater discharge. Within mixing zones, water quality standards for pollutants are expected to be exceeded, potentially impairing habitat usability for fish and benthic communities. Detailed guidelines can be found in TOQS 1.3.1	No such classification.	No such classification.
SA	Class SA: Aesthetics	All waters free from substances attributable to wastewater or other discharges that settle to form objectionable deposits; float as debris, scum, oil, or other matter to form nuisances; produce objectionable color, odor, taste, or turbidity; injure or are toxic or produce adverse physiological responses in humans, animals or plants; and produce undesirable or nuisance aquatic life.	Uniformly excellent.	All surface waters shall be free from pollutants in concentrations or combinations that settle to form objectionable deposits; float as debris, scum or other matter to form nuisances; produce objectionable odor, color, taste or turbidity, or produce undesirable or nuisance species. Class SA waters shall have excellent aesthetic value.	N/A	No such classification.	No taste, color, and odor-producing, toxic, or other deleterious substances in amounts that will adversely affect the taste, color or odor thereof, or impair the waters for their best uses. See 6 NYCRR 703.5, Table 1 in the Regulation for standards for specific substances.	SA, SA(b): All waters shall be free from pollutants in concentrations or combinations that settle to form deposits that are unsightly, putrescent, or odorous; float as debris, oil, grease, scum or other floating material attributable to wastes; Produce odor or taste or change the color or physical, chemical or biological conditions; or Result in the dominance of species of fish and wildlife; To such a degree as to create a nuisance or interfere with the existing or designated uses.	No such classification.
SA	Class SA: Aquatic Life	N/A	Sustainable, diverse biological communities of indigenous taxa shall be present. Moderate changes, from natural conditions in the structure of the biological communities, and minimal changes in ecosystem function may be evident; however, water quality shall be sufficient to sustain a healthy, diverse biological community.	N/A	As naturally occurs.	No such classification.	See 6 NYCRR 703.5, Table 1 for standards for specific substances.	SA, SA(b): At a minimum, all waters shall be free of pollutants in concentrations or combinations or from anthropogenic activities subject to these regulations that: adversely affect the composition of fish and wildlife; adversely affect the physical, chemical, or biological integrity of the habitat; interfere with the propagation of fish and wildlife; or adversely alter the life cycle functions, uses, processes and activities of fish and wildlife.	No such classification.

Class*	Parameter**	EPA Recommended Criteria†	CT	MA	ME*	NH	NY*	RI	VT
SA	Class SA: Dissolved Oxygen (DO)	The recommended criteria apply to both continuous (persistent) and cyclic (diel, tidal, or episodic) hypoxia. If the DO exceeds the chronic protective value for growth (4.8 mg/L), the site meets objectives for protection. If the DO is below the limit for juveniles and adult survival (2.3 mg/L), the site does not meet objectives for protection. When the DO is between these values, the site requires evaluation of duration and intensity of hypoxia to determine suitability of habitat for the larval recruitment objective.	Acute: Not less than 3.0 mg/L. Chronic: Not less than 4.8 mg/L with cumulative periods of dissolved oxygen in the 3.0–4.8 mg/L range as detailed in Note 3 in this table.	Shall not be less than 6.0 mg/L. Where natural background conditions are lower, DO shall not be less than natural background. Natural seasonal and diurnal variations necessary to protect existing and designated uses shall be maintained.	As naturally occurs.	No such classification.	Chronic: Shall not be less than a daily average of 4.8 mg/L. The DO concentration may fall below 4.8 mg/L for a limited number of days, as defined by a formula given in 6 NYCRR 703.3. Acute: Shall not be less than 3.0 mg/L at any time.	SA, SA(b): For surface waters above a seasonal pycnocline: not less than an instantaneous value of 4.8 mg/L, more than once every three years, except as naturally occurs. For waters below a seasonal pycnocline: Aquatic Life Uses are considered to be protected if conditions do not fail to meet protective thresholds, as described in Table 3 of the Surface Water Quality Regulations, more than once every three years. For waters without a seasonal pycnocline: DO concentrations above 4.8 mg/L shall be considered protective of Aquatic Life Uses. When instantaneous DO values fall below 4.8 mg/L, the waters shall not be: 1. Less than 3.0 mg/L for more than 24 consecutive hours during the recruitment season; nor 2. Less than 1.4 mg/L for more than 1 hour more than twice during the recruitment season; nor 3. Shall they exceed the cumulative DO exposure presented in Table 3.A.	No such classification.
SA	Class SA: Sludge Deposits, Solid Refuse, Floating Solids, Oil, Grease and Scum	Oil and Grease - For aquatic life: (1) 0.01 of the lowest continuous flow 96-hour LC50 to several important freshwater or marine species, each having a demonstrated high susceptibility to oils and petrochemicals; (2) Levels of oils or petrochemicals in the sediment which cause deleterious effects to the biota should not be allowed; (3) Surface waters shall be virtually free from floating non-petroleum oils of vegetable or animal origin, as well as petroleum derived oils.	None other than natural origin.	These waters shall be free from floating, suspended and settleable solids in concentrations or combinations that would impair any use assigned to this class, that would cause aesthetically objectionable conditions, or that would impair the benthic biota or degrade the chemical composition of the bottom. These waters shall be free from oil and grease and petrochemicals.	All surface waters of the State shall be free of settled substances which alter the physical or chemical nature of bottom material and of floating substances, except as naturally occur, which impair the characteristics and designated uses ascribed to their class.	No such classification.	No residue attributable to sewage, industrial wastes or other wastes, nor visible oil film or globules of grease.	SA, SA(b): None allowable.	No such classification.
SA	Class SA: Color and Turbidity	Waters shall be virtually free from substances producing objectionable color for aesthetic purposes; the source of supply should not exceed 75 color units on the platinum-cobalt scale for domestic water supplies; increased color should not reduce the depth of the compensation point for photosynthetic activity by more than 10% from seasonally established norm for aquatic life.	Color: None other than of natural origin. Turbidity: None other than of natural origin except as may result from normal agricultural, road maintenance, or construction activity, dredging activity or discharge of dredged or fill materials provided all reasonable controls and Best Management Practices are used to control turbidity and none exceeding levels necessary to protect and maintain all designated uses.	These waters shall be free from color and turbidity in concentrations or combinations that are aesthetically objectionable or would impair any use assigned to this class.	Discharge of pollutants to waters of the state that imparts color or turbidity is not allowed.	No such classification.	Color: No substances in amounts that will adversely affect the color. Turbidity: No increase that will cause a substantial visible contrast to natural conditions.	SA, SA(b): In such concentrations that would impair any uses specifically assigned to this class. Turbidity not to exceed 5 NTU over background.	No such classification.
SA	Class SA: Bacteria	Based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period), the geometric mean of the enterococci densities should not exceed 35 per 100 ml, no sample should exceed a one sided confidence limit using the following as guidance: designated bathing uses: Enterococci geometric mean less than 75% C.L.; moderate use for bathing 82% C.L.; light use for bathing 80% C.L.; infrequent use for bathing 95% C.L., based on a site-specific log standard deviation, or if site data are insufficient to establish a log standard deviation, then using 0.7 as the log standard deviation.	For direct consumption of shellfish: Fecal coliform geometric mean less than 14/100 ml and 80% of samples less than 31/100 ml. For designated swimming areas: Enterococci geometric mean less than 35/100 ml and single sample maximum 104/100 ml. For all other recreational uses: Enterococci geometric mean less than 35/100 ml and single sample maximum 500/100 ml.	Waters designated for shellfishing: fecal coliform shall not exceed a geometric mean Most Probable Number (MPN) of 14 organisms per 100 ml, nor shall more than 10% of the samples exceed an MPN of 29 per 100 ml, or other values of equivalent protection based on sampling and analytical methods used by the Massachusetts Division of Marine Fisheries and approved by the National Shellfish Sanitation Program in the latest revision of the Guide For The Control of Molluscan Shellfish (more stringent regulations may apply, see 314 CMR 4.06(1)(d)(5)); b. at bathing beaches as defined by the Massachusetts Department of Public Health in 105 CMR 445.010, no single enterococci sample taken during the bathing season shall exceed 104 colonies per 100 ml, and the geometric mean of the five most recent samples taken within the same bathing season shall not exceed a geometric mean of 35 enterococci colonies per 100 ml. In non bathing beach waters and bathing beach waters during the non bathing season, no single enterococci sample shall exceed 104 colonies per 100 ml and the geometric mean of all samples taken within the most recent six months typically based on a minimum of five samples shall not exceed 35 enterococci colonies per 100 ml. These criteria may be applied on a seasonal basis at the discretion of the Department; and c. consistent with Massachusetts Department of Public Health regulations for bathing beaches, the single sample maximum values in the primary contact recreation bacteria criteria in 314 CMR 4.05(4)(A), B, also are for use in the context of notification and closure decisions.	As naturally occurs.	No such classification.	Total Coliforms: The median most probable number (MPN) value in any series of representative samples shall not be in excess of 70/100 ml.	SA, SA(b): Shellfishing Criteria: Not to exceed a geometric mean MPN value of 14/100 ml and not more than 10% of the samples shall exceed an MPN value of 49/100 for a three-tube decimal dilution. Primary Contact Recreational/Swimming Criteria (Fecal Coliform Bacteria): Not to exceed a geometric mean value of 50 MPN/100 ml and not more than 10% of the total samples taken shall exceed 400 MPN/100 ml, applied only when adequate enterococci data are not available. Primary Contact Recreational/Swimming Criteria (Enterococci): Geometric Mean Density: 35 colonies/100 ml Single Sample Maximum: 104/100 ml * Criteria for determining beach swimming advisories at designated beaches as evaluated by HEALTHH.	No such classification.
SA	Class SA: Taste and Odor	Materials should not be present in concentrations that individually or in combination produce undesirable flavors which are detectable by organoleptic tests performed on the edible portions of aquatic organisms.	As naturally occurs.	None other than of natural origin.	Discharge of pollutants to waters of the state that imparts taste is not allowed.	No such classification.	No substances in amounts that will adversely affect the taste or odor.	SA, SA(b): None allowable except as naturally occurs.	No such classification.
SA	Class SA: pH	For protection of aquatic life: 6.5-8.5 continuous concentration. For protection of human health: 5-9 for consumption of water and organisms.	6.8-8.5	Shall be in the range of 6.5 through 8.5 standard units and not more than 0.2 standard units outside of the natural background range. There shall be no change from natural background conditions that would impair any use assigned to this Class.	7.0 - 8.5	No such classification.	The normal range shall not be extended by more than one-tenth (0.1) of a pH unit.	SA, SA(b): 6.5 - 8.5 but not more than 0.2 units outside of the normally occurring range.	No such classification.
SA	Class SA: Temperature	For any time of year, there are two upper limiting temperatures for a location (based on existing important sensitive species found there at that time): (1) One limit consists of a maximum temperature for short exposures that is time dependent and is given by a species-specific equation; (2) the second value is a limit on the weekly average temperature (see Gold Book for more information).	There shall be no changes from natural conditions that would impair any existing or designated uses assigned to this class and, in no case exceed 83 degrees F, or in any case raise the temperature of the receiving water more than 4 degrees F. During the period including July, August, and September, the temperature of the receiving water shall not be raised more than 1.5 degrees F unless it can be shown that spawning and growth of indigenous organisms will not be significantly affected. The allowable temperature increase resulting from discharges in the estuarine segments of the Housatonic, Connecticut and Thames Rivers shall be consistent with the criteria for the non-tidal segments.	a. Shall not exceed 85°F (29.4°C) nor a maximum daily mean of 80°F (26.7°C), and the rise in temperature due to a discharge shall not exceed 1.5°F (0.8°C); b. there shall be no change from natural background that would impair any uses assigned to this class including those conditions necessary to protect normal species diversity, successful migration, reproductive functions or growth of aquatic organisms; c. alternative effluent limitations established in connection with a variance for a thermal discharge issued under 33 U.S.C. § 1251 (FWPCA, § 316(a)) and 314 CMR 3.00 are in compliance with 314 CMR 4.00. As required by 33 U.S.C. § 1251 (FWPCA, § 316(a)) and 314 CMR 3.00, for permit and variance renewal, the applicant must demonstrate that alternative effluent limitations continue to comply with the variance standard for thermal discharges; and d. in the case of a cooling water intake structure (CWIS) discharge issued under 33 U.S.C. § 1251 (FWPCA, § 316(b)), the Department has the authority under 33 U.S.C. § 1251 (FWPCA § 401), M.G.L. c. 21, §§ 26 through 53 and 314 CMR 3.00 to condition the CWIS to assure compliance of the withdrawal activity with 314 CMR 4.00, including, but not limited to, compliance with narrative and numerical criteria and protection of existing and designated uses.	N/A	No such classification.	All thermal discharges to the waters of the State shall assure the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in and on the body of water. The natural seasonal cycle shall be retained. Annual spring and fall temperature changes shall be gradual. Large day-to-day temperature fluctuations due to heat of artificial origin shall be avoided. Development or growth of nuisance organisms shall not occur in contravention of water quality standards. Discharges which would lower receiving water temperature shall not cause a violation of water quality standards and 6 NYCRR 704.3. For the protection of the aquatic biota from severe temperature changes, routine shut down of an entire thermal discharge at any site shall not be scheduled during the period from December through March. Additional special criteria for different types of waters are provided in Section 704.	SA, SA(b): Activities shall not increase the temperature except where the increase will not exceed the recommended limit on the most sensitive receiving water use and in no case shall an activity cause the temperature to exceed 83 degrees F nor raise the normal temperature more than 1.6 degrees F. 16 June through September and not more than 4 degrees F from October through 16 June. All measurements shall be made at the boundary of such mixing zones as is found to be reasonable by the Director.	No such classification.
SA	Class SA: Silt or Sand Deposits	N/A	None other than of natural origin except as may result from normal agricultural, road maintenance, construction activity, dredging activity or discharge of dredged or fill materials provided all reasonable controls or Best Management Practices are used in such activities and all designated uses are protected and maintained.	N/A	N/A	No such classification.	N/A	SA, SA(b): N/A	No such classification.

Class*	Parameter**	EPA Recommended Criteria†	CT	MA	ME*	NH	NY*	RI	VT
SA	Class SA: Chemical Constituents	Criteria are provided for a number of chemical constituents classified as priority and non-priority pollutants. See www.epa.gov/waterscience/criteria/wqcriteria.html for specific chemicals.	Refer to Table 3 of this section and sections 22a-426-4(a)(5), 22a-426-4(a)(9)(b), 22a-426-4(a)(11), 22a-426-4(i), 22a-426-4(m), 22a-426-9(a)(3), 22a-426-9(a)(4) and 22a-426-9(a)(5) of the Regulations of Connecticut State Agencies.	All surface waters shall be free from pollutants in concentrations or combinations that are toxic to humans, aquatic life or wildlife. For pollutants not otherwise listed in 314 CMR 4.00, the National Recommended Water Quality Criteria: 2002, EPA 822-R-02-047, November 2002 published by EPA pursuant to Section 304(a) of the Federal Water Pollution Control Act, are the allowable receiving water concentrations for the affected waters, unless the Department either establishes a site specific criterion or determines that naturally occurring background concentrations are higher. Where the Department determines that naturally occurring background conditions are higher, those concentrations shall be the allowable receiving water concentrations. The Department shall use the water quality criteria for the protection of aquatic life expressed in terms of the dissolved fraction. The EPA recommended criteria based on total recoverable metals shall be converted to dissolved metals using EPA's published conversion factors. Permit limits will be written in terms of total recoverable metals. Translation from dissolved metals criteria to total recoverable metals permit limits will be based on EPA's conversion factors or other methods approved by the Department. The Department may establish site specific criteria for toxic pollutants based on site specific considerations.	Except as naturally occurs, surface waters must be free of pollutants in concentrations which impart toxicity and cause those waters to be unsuitable for the existing and designated uses of the water body. Except as naturally occur, levels of toxic pollutants in surface waters must not exceed federal water quality criteria as established by USEPA, pursuant to Section 304(a) of the Clean Water Act, or alternative criteria established by the state and listed in Chapter 584 Surface Water Quality Criteria for Toxic Pollutants.	No such classification.	None in amounts that will adversely affect the taste, color, odor or impair the waters for their best use. See 6 NYCRR 703.5, Table 1 of the Regulation and DOW TOGS 1.1.1 for criteria and guidance values for specific substances.	SA, SA(b): a. None in concentrations or combinations that could be harmful to humans or fish and wildlife for the most sensitive and governing water class use, or unfavorably alter the biota, or which would make the waters unsafe or unsuitable for fish and wildlife or their propagation, impair the palatability of same, or impair the waters for any other existing or designated use. None in such concentrations that would exceed the Water Quality Criteria and Guidelines as found in Appendix B. b. The ambient concentration of a pollutant in a water body shall not exceed the RI DEM Ambient Water Quality Criteria & Guidelines (Appendix B) for the protection of aquatic organisms from acute or chronic effects, unless the criteria or guideline is modified by the Director based on results of bioassay tests conducted in accordance with the terms and conditions provided in the RIDEM Site Specific Aquatic Life Water Quality Criteria Development Policy.	No such classification.
SA	Class SA: Phosphorus	For protection of aquatic life: 0.1 µg/L continuous concentration.	The loading of nutrients, principally phosphorus and nitrogen, to any surface water body shall not exceed that which supports maintenance of attainment of designated uses.	Unless naturally occurring, all surface waters shall be free from nutrients in concentrations that would cause or contribute to impairment of existing or designated uses and shall not exceed the site specific criteria developed in a TMDL or as otherwise established by the Department pursuant to 314 CMR 4.00. Any existing point source discharge containing nutrients in concentrations that would cause or contribute to cultural eutrophication, including the excessive growth of aquatic plants or algae, in any surface water shall be provided with the most appropriate treatment as determined by the Department, including, where necessary, highest and best practical treatment (HBPT) for POTWs and BAT for non POTWs, to remove such nutrients to ensure protection of existing and designated uses. Human activities that result in the nonpoint source discharge of nutrients to any surface water may be required to be provided with cost effective and reasonable best management practices for nonpoint source control.	N/A	No such classification.	None in amounts that will result in growth of algae, weeds and slimes that will impair the waters for their best usage.	SA, SA(b): Nutrients: None in such concentration that would impair any usages specifically assigned to said Class, or cause undesirable or nuisance aquatic species associated with cultural eutrophication. Shall not exceed site-specific limits if deemed necessary by the Director to prevent or minimize accelerated or cultural eutrophication. Total phosphorus, nitrate and ammonia may be assigned site-specific permit limits based on reasonable Best Available Technologies. Where waters have low tidal flushing rates, applicable treatment to prevent or minimize accelerated or cultural eutrophication may be required for regulated nonpoint source activities.	No such classification.
SA	Class SA: Nitrate	For protection of human health: 10,000 µg/L for consumption of water and organisms.	N/A	Unless naturally occurring, all surface waters shall be free from nutrients in concentrations that would cause or contribute to impairment of existing or designated uses and shall not exceed the site specific criteria developed in a TMDL or as otherwise established by the Department pursuant to 314 CMR 4.00. Any existing point source discharge containing nutrients in concentrations that would cause or contribute to cultural eutrophication, including the excessive growth of aquatic plants or algae, in any surface water shall be provided with the most appropriate treatment as determined by the Department, including, where necessary, highest and best practical treatment (HBPT) for POTWs and BAT for non POTWs, to remove such nutrients to ensure protection of existing and designated uses. Human activities that result in the nonpoint source discharge of nutrients to any surface water may be required to be provided with cost effective and reasonable best management practices for nonpoint source control.	For protection of human health: 10,000 µg/L for consumption of water and organisms.	No such classification.	None in amounts that will result in growth of algae, weeds and slimes that will impair the waters for their best use.	SA, SA(b): Nitrates and ammonia may be assigned site-specific permit limits based on reasonable Best Available Technologies.	No such classification.
SA	Class SA: Phenol	For protection of human health: 860,000 µg/L for consumption of organisms	For protection of human health: 10,000 µg/L for consumption of water and organisms; 860,000 µg/L for consumption of organisms only	N/A	For protection of human health: 21,000 µg/L for consumption of water and organisms; 93,000 µg/L for consumption of organisms only	No such classification.	N/A	SA, SA(b): For protection of human health: 1700 mg/L for consumption of organisms.	No such classification.
SA	Class SA: Substances Potentially Toxic	Criteria are provided for a number of chemical constituents classified as priority and non-priority pollutants. See www.epa.gov/waterscience/criteria/wqcriteria.html for specific chemicals.	Surface waters and sediments shall be free from chemical constituents in concentrations or combinations which will or can reasonably be expected to: result in acute or chronic toxicity to aquatic organisms or otherwise impair the biological integrity of aquatic or marine ecosystems outside of any dredged material disposal area or areas designated by the Commissioner for disposal or placement of fill materials or any zone of influence allowed by the Commissioner, or bioaccumulate or bioconcentrate in tissues of fish, shellfish and other aquatic organisms at levels which will impair the health of aquatic organisms or wildlife or result in unacceptable tastes, odors or health risks to human consumers of aquatic organisms or wildlife unless such sediments are capped with material suitable for unconfined, open water disposal as an appropriate means of ensuring consistency with this standard as approved by the Commissioner in writing. In determining consistency with this Standard, the Commissioner shall at a minimum consider the numeric criteria listed in Table 3 of section 22a-426-9 of the Regulations of Connecticut State Agencies and any other information he or she deems relevant.	All surface waters shall be free from pollutants in concentrations or combinations that are toxic to humans, aquatic life or wildlife. For pollutants not otherwise listed in 314 CMR 4.00, the National Recommended Water Quality Criteria: 2002, EPA 822-R-02-047, November 2002 published by EPA pursuant to Section 304(a) of the Federal Water Pollution Control Act, are the allowable receiving water concentrations for the affected waters, unless the Department either establishes a site specific criterion or determines that naturally occurring background conditions are higher, those concentrations shall be the allowable receiving water concentrations. The Department shall use the water quality criteria for the protection of aquatic life expressed in terms of the dissolved fraction. The EPA recommended criteria based on total recoverable metals shall be converted to dissolved metals using EPA's published conversion factors. Permit limits will be written in terms of total recoverable metals. Translation from dissolved metals criteria to total recoverable metals permit limits will be based on EPA's conversion factors or other methods approved by the Department. The Department may establish site specific criteria for toxic pollutants based on site specific considerations.	Except as naturally occurs, surface waters must be free of pollutants in concentrations which impart toxicity and cause those waters to be unsuitable for the existing and designated uses of the water body. Except as naturally occur, levels of toxic pollutants in surface waters must not exceed federal water quality criteria as established by USEPA, pursuant to Section 304(a) of the Clean Water Act, or alternative criteria established by the state and listed in Chapter 584 Surface Water Quality Criteria for Toxic Pollutants.	No such classification.	None in amounts that will adversely affect the taste, color, odor or impair the waters for their best use. See 6 NYCRR 703.5, Table 1 of the Regulation for specific standards.	SA, SA(b): Criteria for specific substances are listed in Table 1 in Appendix B of the Regulation. To protect aquatic life, the one hour average concentration of a pollutant should not exceed the acute criteria more than once every three years on the average. An exclusion to this rule are the pesticides and PCBs acute criteria, which are considered instantaneous values. The four day average concentration of a pollutant should not exceed the chronic criteria more than once every three years on the average. These aquatic life criteria shall be achieved in all waters, except mixing zones, regardless of the waters' classification.	No such classification.
SA	Class SA: Radioactivity	N/A	Discharge of radioactive materials in concentrations or combinations which would be harmful to human, animal or aquatic life shall not be allowed. Applicable criteria can be found in Title 10 Part 20 of the Code of Federal Regulations.	All surface waters shall be free from radioactive substances in concentrations or combinations that would be harmful to human, animal or aquatic life exceeding the recommended limits for consumption by humans; or exceed Massachusetts Drinking Water Regulations as set forth in 310 CMR 22.09.	Discharge of pollutants to waters of the state that imparts radioactivity is not allowed.	No such classification.	N/A	SA, SA(b): The level of radioactive materials in all waters shall not be in concentrations or combinations which will likely be harmful to humans, fish and wildlife, or result in concentrations in organisms producing undesirable conditions.	No such classification.
SA	Class SA: Gross Beta	N/A	N/A	N/A	N/A	No such classification.	N/A	SA, SA(b):	No such classification.
SA	Class SA: Radium 226	N/A	N/A	N/A	N/A	No such classification.	N/A	SA, SA(b):	No such classification.
SA	Class SA: Strontium 90	N/A	N/A	N/A	N/A	No such classification.	N/A	SA, SA(b):	No such classification.
SA	Class SA: Mercury	For protection of aquatic life: 1.8µg/l for acute exposure and 0.94µg/l for chronic exposure (both total values) For protection of human health: 0.05µg/l for water and fish ingestion, 0.05µg/l for fish consumption only (both total values).	For protection of aquatic life: 1.8µg/l for acute exposure and 0.94µg/l for chronic exposure (both total values) For protection of human health: 0.05µg/l for water and fish ingestion, 0.05µg/l for fish consumption only (both total values).	For protection of aquatic life: 1.8µg/l for acute exposure and 0.94µg/l for chronic exposure.	For protection of aquatic life: 2.1µg/l for acute exposure and 1.1µg/l for chronic exposure.	No such classification.	Health (Fish Consumption): 0.0007µg/l in dissolved form Wildlife: 0.002µg/l in dissolved form.	For protection of aquatic life: 1.8µg/l for acute exposure and 0.94µg/l for chronic exposure. For protection of human health: 0.14µg/l for consumption of water and aquatic organisms, 0.15µg/l for consumption of aquatic organisms only.	No such classification.
SA	Class SA: Methylmercury	Fish tissue residue criterion for human health: 0.3mg/kg in the edible portion of the fish.	N/A	Fish tissue residue criterion for human health: 0.3mg/kg in the edible portion of the fish.	Fish tissue residue criterion for human health: 0.2mg/kg in the edible portion of the fish.	No such classification.	N/A	N/A	No such classification.

Class*	Parameter**	EPA Recommended Criteria†	CT	MA	ME*	NH	NY*	RI	VT
SA	Class SA: Mixing Zones	Allowable mixing zone characteristics should be established to ensure that: 1) mixing zones do not impair the integrity of the waterbody as a whole, 2) there is no lethality to organisms passing through the mixing zones, and 3) there are no significant health risks, considering likely pathways of exposure.	The Commissioner may, on a case-by-case basis, establish zones of influence when permitting discharges to surface waters under Section 22a-430 and 22a-133(k) of the Connecticut General Statutes in order to allocate a portion of the receiving surface waters for mixing and assimilation of the discharge. In establishing a zone of influence the Commissioner shall consider without limitation: See 22a-426-4(f) for additional details.	In applying 314 CMR 4.00 the Department may recognize a limited area or volume of a waterbody as a mixing zone for the initial dilution of a discharge. Waters within a mixing zone may fail to meet specific water quality criteria provided the following conditions are met: a) Mixing zones shall be limited to an area or volume as small as feasible. There shall be no lethality to organisms passing through the mixing zone as determined by the Department. The location, design and operation of the discharge shall minimize the impacts on aquatic life and other existing and designated uses within and beyond the mixing zone. b) Mixing zones shall not interfere with the migration or free movement of fish or other aquatic life. There shall be safe and adequate passage for swimming and drifting organisms with no deleterious effects on their populations. c) Mixing zones shall not create nuisance conditions, accumulate pollutants in sediments or biota in toxic amounts or otherwise interfere with the existing or designated uses of surface waters.	N/A	No such classification.	Non-Thermal Mixing Zones: The presence of a mixing zone in a receiving water is accepted as a normal and expected consequence of a wastewater discharge. Within mixing zones, water quality standards for pollutants are expected to be exceeded, potentially impairing habitat usability for fish and benthic communities. Detailed guidelines can be found in TCGS 1.3.1 Thermal Mixing Zones: The department shall specify definable, numerical limits for all mixing zones. Conditions in the mixing zone shall not be lethal in contravention of water quality standards to aquatic biota which may enter the zone. The location of mixing zones for thermal discharges shall not interfere with spawning areas, nursery areas, and fish migration routes. More details regarding thermal discharges and mixing zones can be found in 6 NYCRR Part 704.	SA, SA(b): All Mixing Zones: At a minimum, all mixing zones must: - Meet the criteria for aesthetics, in accordance with rule 6.1.D.1); - Be limited to an area or volume that will prevent interference with the existing and designated uses in the associated waterbody segment and beyond; - Allow an appropriate zone of passage for migrating fish and other organisms, prohibitive lethality to organisms passing through the mixing zone, and protect for spawning and nursery habitat; and - Not allow substances to accumulate in sediments, fish and wildlife or food chains such that known or predicted safe exposure levels for the health of humans or fish and wildlife will be exceeded. Non-Thermal Mixing Zones: In the case of non-thermal discharges, in applying these standards the Director may recognize, where appropriate, a limited acute and/or chronic mixing zone(s) on a case-by-case basis. The location, size and shape of these zones shall provide for the maximum protection of fish and wildlife. Thermal Mixing Zones: In the case of thermal discharges into tidal rivers, fresh water streams or estuaries, where thermal mixing zones are allowed by the Director, the mixing zone will be limited to no more than one quarter (1/4) of the cross sectional area and/or volume of river flow, stream or estuary, leaving at least three quarters (3/4) free as a zone of passage. In wide estuaries and oceans, the limits of mixing zones will be established by the Director.	No such classification.
SB	Class SB: Aesthetics	All waters free from substances attributable to wastewater or other discharges that: settle to form objectionable deposits; float as debris, scum, oil, or other matter to form nuisances; produce objectionable color, odor, taste, or turbidity; injure or are toxic or produce adverse physiological responses in humans, animals or plants; and produce undesirable or nuisance aquatic life.	Good to excellent.	All surface waters shall be free from pollutants in concentrations or combinations that settle to form objectionable deposits; float as debris, scum or other matter to form nuisances; produce objectionable odor, color, taste or turbidity, or produce undesirable or nuisance species.	N/A	No such classification.	No taste-, color-, and odor-producing, toxic, or other deleterious substances in amounts that will adversely affect the taste, color or odor thereof, or impair the waters for their best usages. See 6 NYCRR 703.5, Table 1 in the Regulation for standards for specific substances.	SB, SB(a), SB1, SB1(a): All waters shall be free from pollutants in concentrations or combinations that: settle to form deposits that are unsightly, putrescent, or odorous; float as debris, oil, grease, scum or other floating material attributable to wastes; produce odor or taste or change the color or physical, chemical or biological conditions; or result in the dominance of species of fish and wildlife. To such a degree as to create a nuisance or interfere with the existing or designated uses.	No such classification.
SB	Class SB: Aquatic Life	N/A	Sustainable, diverse biological communities of indigenous taxa shall be present. Moderate changes, from natural conditionism in the structure of the biological communities, and minimal changes in ecosystem function may be evident; however, water quality shall be sufficient to sustain a healthy, diverse biological community	N/A	Discharges to Class SB waters may not cause adverse impact to estuarine and marine life in that the receiving waters shall be of sufficient quality to support all estuarine and marine species indigenous to the receiving water without detrimental changes in the resident biological community. There may be no new discharge to Class SB waters that would cause closure of open shellfish areas by the Department of Marine Resources. For the purpose of allowing the discharge of aquatic pesticides approved by the department for the control of mosquito-borne diseases in the interest of public health and safety, the department may find that the discharged effluent will not cause adverse impact to estuarine and marine life as long as the materials and methods used provide protection for nontarget species. When the department issues a license for the discharge of aquatic pesticides authorized under this paragraph, the department shall notify the municipality in which the application is licensed to occur and post the notice on the department's publicly accessible website.	No such classification.	See 6 NYCRR 703.5, Table 1 for standards for specific substances.	SB, SB(a), SB1, SB1(a): At a minimum, all waters shall be free of pollutants in concentrations or combinations of from anthropogenic activities subject to these regulations that: adversely affect the composition of fish and wildlife; adversely affect the physical, chemical, or biological integrity of the habitat; interfere with the propagation of fish and wildlife; or adversely alter the life cycle functions, uses, processes and activities of fish and wildlife.	No such classification.
SB	Class SB: Dissolved Oxygen (DO)	The recommended criteria apply to both continuous (persistent) and cyclic (diel, tidal, or episodic) hypoxia. If the DO exceeds the chronic protective value for growth (4.8 mg/L), the site does not meet objectives for protection. If the DO is below the limit for juvenile and adult survival (2.3 mg/L), the site does not meet objectives for protection. When the DO is between these values, the site requires evaluation of duration and intensity of hypoxia to determine suitability of habitat for the larval recruitment objectives.	Acute: Not less than 3.0 mg/L. Chronic: Not less than 4.8 mg/L with cumulative periods of dissolved oxygen in the 3.0–4.8 mg/L range as detailed in Note 1 of this table	Shall not be less than 5.0 mg/L. Seasonal and daily variations that are necessary to protect existing and designated uses shall be maintained. Where natural background conditions are lower, DO shall not be less than natural background.	The dissolved oxygen content of Class SB waters must be not less than 85% of saturation.	No such classification.	Chronic: Shall not be less than a daily average of 4.8 mg/L. The DO concentration may fall below 4.8 mg/L for a limited number of days, as defined by a formula given in 6 NYCRR Part 703.3. Acute: Shall not be less than 3.0 mg/L at any time.	SB, SB(a), SB1, SB1(a): For surface waters above a seasonal pycnocline: not less than an instantaneous value of 4.8 mg/L, more than once every three years, except as naturally occurs. For waters below the seasonal pycnocline: Aquatic Life Uses are considered to be protected if conditions do not fail to meet protective thresholds, as described in Table 3 of the Surface Water Quality Regulations, more than once every three years. For waters without a seasonal pycnocline: DO concentrations above 4.8 mg/L shall be considered protective of Aquatic Life Uses. When instantaneous DO values fall below 4.8 mg/L, the waters shall not be: 1. Less than 3.0 mg/L for more than 24 consecutive hours during the recruitment season; nor 2. Less than 1.4 mg/L for more than 1 hour more than twice during the recruitment season; nor 3. Shall they exceed the cumulative DO exposure presented in Table 3.A.	No such classification.
SB	Class SB: Sludge Deposits, Solid Refuse, Floating Solids, Oil, Grease and Scum	Oil and Grease - For aquatic life: (1) 0.01 of the lowest continuous flow 96-hour C50 to several important freshwater or marine species, each having a demonstrated high susceptibility to oils and petrochemicals, (2) Levels of oils or petrochemicals in the sediment which cause deleterious effects to the biota should not be allowed, (3) Surface waters shall be virtually free from floating non-petroleum oils of vegetable or animal origin, as well as petroleum derived oils.	None except for small amounts that may result from discharge from grease waste treatment facility providing appropriate treatment and none exceeding levels necessary to protect and maintain all designated uses.	These water shall be free from floating, suspended and settleable solids in concentrations or combinations that would impair any use assigned to this class, that would cause aesthetically objectionable conditions, or that would impair the benthic biota or degrade the chemical composition of the bottom. These waters shall be free from oil, grease and petrochemicals that produce a visible film on the surface of the water, impart an oily taste to the water or an oily or other undesirable taste to the edible portions of aquatic life, coat the banks or bottom of the water course, or are deleterious or become toxic to aquatic life.	All surface waters of the State shall be free of settled substances which alter the physical or chemical nature of bottom material and of floating substances, except as naturally occur, which impair the characteristics and designated uses ascribed to their class.	No such classification.	No residue attributable to sewage, industrial wastes or other wastes, nor visible oil film or globules of grease.	SB, SB(a), SB1, SB1(a): None allowable.	No such classification.
SB	Class SB: Color and Turbidity	All waters free from substances attributable to wastewater or other discharges that produce objectionable color, odor, taste, or turbidity. Color: Waters shall be virtually free from substances producing objectionable color for aesthetic purposes; the source of supply should not exceed 75 color units for domestic water supplies; increased color should not reduce the depth of the compensation point for photosynthetic activity by more than 10% from seasonally established norm for aquatic life.	Color: None resulting in obvious discoloration of the surface water outside of any designated zone of influence. Turbidity: None other than of natural origin except as may result from normal agricultural, road maintenance, or construction activity, or discharge from a waste treatment facility providing appropriate treatment, dredging activity or discharge of dredged or fill materials provided all reasonable controls and Best Management Practices are used to control turbidity and none exceeding levels necessary to protect and maintain all designated uses.	These waters shall be free from color and turbidity in concentrations or combinations that are aesthetically objectionable or would impair any use assigned to this class.	Discharge of pollutants to waters of the State that imparts color, taste, turbidity, toxicity, radioactivity or other properties that cause those waters to be unsuitable for the designated uses and characteristics ascribed to their class are not allowed.	No such classification.	Color: No substances in amounts that will adversely affect the color. Turbidity: No increase that will cause a substantial visible contrast to natural conditions.	SB, SB(a), SB1, SB1(a): None in such concentrations that would impair any usages specifically assigned to this class. Turbidity not to exceed 10 NTU over background.	No such classification.
SB									

Class*	Parameter**	EPA Recommended Criteria*	CT	MA	ME*	NH	NY*	RI	VT
SB	Class SB: Bacteria	Based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period), the geometric mean of the enterococci densities should not exceed 35 per 100 ml, no sample should exceed 35 per 100 ml and single sample maximum 104/100 ml. For all other recreational uses, Enterococci geometric mean less than 35/100 ml and single sample maximum 104/100 ml. For all other recreational uses, Enterococci geometric mean less than 35/100 ml and single sample maximum 104/100 ml. For all other recreational uses, Enterococci geometric mean less than 35/100 ml and single sample maximum 104/100 ml. For all other recreational uses, Enterococci geometric mean less than 35/100 ml and single sample maximum 104/100 ml.	For commercial harvesting of shellfish: Fecal coliform geometric mean less than 68/100 ml and 90% of samples less than 260/100 ml. For designated swimming areas: Enterococci geometric mean less than 35/100 ml and single sample maximum 104/100 ml. For all other recreational uses: Enterococci geometric mean less than 35/100 ml and single sample maximum 104/100 ml.	a. Waters designated for shellfishing shall not exceed a fecal coliform median or geometric mean MPN of 88 organisms per 100 ml, nor shall more than 10% of the samples exceed an MPN of 260 organisms per 100 ml or an instantaneous level of 54 per 100 milliliters. In determining human and domestic animal origin, the department shall assess licensed and unlicensed sources using available diagnostic procedures. The numbers of total coliform bacteria or other specified indicator organisms in samples representative of the waters in shellfish harvesting areas may not exceed the criteria recommended under the National Shellfish Sanitation Program, United States Food and Drug Administration.	Between May 15th and September 30th, the numbers of enterococcus bacteria of human and domestic animal origin in these waters may not exceed a geometric mean of 8 per 100 milliliters or an instantaneous level of 54 per 100 milliliters. In determining human and domestic animal origin, the department shall assess licensed and unlicensed sources using available diagnostic procedures. The numbers of total coliform bacteria or other specified indicator organisms in samples representative of the waters in shellfish harvesting areas may not exceed the criteria recommended under the National Shellfish Sanitation Program, United States Food and Drug Administration.	No such classification.	Total Coliforms: The monthly median value and more than 20 percent of the samples, from a minimum of five examinations, shall not exceed 2,400/100 ml and 5,000/100 ml, respectively. Fecal Coliforms: The monthly geometric mean, from a minimum of five examinations, shall not exceed 200/100 ml.	SB, SB(a), SBI, SBI(a): Primary Contact Recreational/Swimming Criteria (Fecal Coliform Bacteria): Not to exceed a geometric mean value of 50 MPN/100 ml and not more than 10% of the total samples taken shall exceed 400 MPN/100 ml, applied only when adequate enterococci data are not available. Primary Contact Recreational/Swimming Criteria (Enterococci): Geometric Mean Density: 35 colonies/100 ml Single Sample Maximum: 104/100 ml * Criteria for determining beach swimming advisories at designated beaches as evaluated by HEALTH.	No such classification.
SB	Class SB: Taste and Odor	Materials should not be present in concentrations that individually or in combination produce undesirable flavors which are detectable by organoleptic tests performed on the edible portions of aquatic organisms.	As naturally occurs. None that would impair any use specifically assigned to this Class.	None in such concentrations or combinations that are aesthetically objectionable, that would impair any use assigned to this class, or that would cause tainting or undesirable flavors in the edible portions of aquatic life.	Discharge of pollutants to waters of the State that imparts color, taste, turbidity, toxicity, radioactivity or other properties that cause those waters to be unsuitable for the designated uses and characteristics ascribed to their class are not allowed.	No such classification.	No substances in amounts that will adversely affect the taste or odor.	SB, SB(a), SBI, SBI(a): None in such concentrations that would impair any usages specifically assigned to this class nor cause taste or odor in edible portions of fish or shellfish.	No such classification.
SB	Class SB: pH	For protection of aquatic life: 6.5-8.5 continuous concentration. For protection of human health: 6.9 for consumption of water and organisms.	6.8 - 8.5	Shall be in the range of 6.5 through 8.5 standard units and not more than 0.2 units outside of the natural background range. There shall be no change from natural background conditions that would impair any use assigned to this Class.	7.0 - 8.5	No such classification.	The normal range shall not be extended by more than one-tenth (0.1) of a pH unit.	SB, SB(a), SBI, SBI(a): 6.5 - 8.5 but not more than 0.2 units outside of the normally occurring range.	No such classification.
SB	Class SB: Temperature	For any time of year, there are two upper limiting temperatures for a location (based on the important sensitive species found there at that time): (1) One limit consisting of a maximum temperature for short exposures that is time dependent and is given by a species-specific equation; (2) the second value is a limit on the weekly average temperature (see Gold Book for more information).	There shall be no changes from natural conditions that would impair any existing or designated uses assigned to this class and, in no case exceed 83 degrees F, or in any case raise the temperature of the receiving water more than 4 degrees F. During the period including July, August, and September, the temperatures of the receiving water shall not be raised more than 1.5 degree F unless it can be shown that spawning and growth of indigenous organisms will not be significantly affected. The allowable temperature increase resulting from the discharges in the estuarine segments of the Housatonic, Connecticut, and Thames Rivers shall be consistent with the criteria for the non-tidal segments.	a. Shall not exceed 85°F (29.4°C) nor a maximum daily mean of 80°F (26.7°C), and the rise in temperature due to a discharge shall not exceed 1.5°F (0.8°C) during the summer months (July through September) nor 4°F (2.2°C) during the winter months (October through June); b. there shall be no changes from natural background that would impair any uses assigned to this class including those conditions necessary to protect natural species diversity, successful migration, reproductive functions or growth of aquatic organisms; c. alternative effluent limitations established in connection with a variance for a thermal discharge issued under 33 U.S.C. § 1251 (FWPCA, § 316(a)) and 314 CMR 3.00 are in compliance with 314 CMR 4.00. As required by 33 U.S.C. § 1251 (FWPCA, § 316(a)) and 314 CMR 3.00, for permit and variance renewal, the applicant must demonstrate that alternative effluent limitations continue to comply with the variance standard for thermal discharges; and d. in the case of a cooling water intake structure (CWIS) regulated by EPA under 33 U.S.C. § 1251 (FWPCA § 316(b)), the Department has the authority under 33 U.S.C. § 1251 (FWPCA § 401), M.G.L. c. 21, §§ 2B through 5B and 314 CMR 3.00 to condition the CWIS to assure compliance of the withdrawal activity with 314 CMR 4.00, including, but not limited to, compliance with narrative and numerical criteria and protection of existing and designated uses.	N/A	No such classification.	All thermal discharges to the waters of the State shall assure the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in and on the body of water. The natural seasonal cycle shall be retained. Annual spring and fall temperature changes shall be gradual. Large day-to-day temperature fluctuations due to heat of artificial origin shall be avoided. Development or growth of nuisance organisms shall not occur in contravention of water quality standards. Discharges which would lower receiving water temperature shall not cause a violation of water quality standards and 6 NYCRR 703.5. For the protection of the aquatic biota from severe temperature changes, routine shut down of an entire thermal discharge at any site shall not be scheduled during the period from December through March. Additional special criteria for different types of waters are provided in Section 704.	SB, SB(a), SBI, SBI(a): Activities shall not increase the temperature except where the increase will not exceed the recommended limit on the most sensitive receiving water use and in no case shall an activity cause the temperature to exceed 83 degrees F nor raise the normal temperature more than 1.6 degrees F, 16 June through September and not more than 4 degrees F from October through 16 June. All measurements shall be made at the boundary of such mixing zones as is found to be reasonable by the Director.	No such classification.
SB	Class SB: Silt or Sand Deposits	N/A	None other than of natural origin except as may result from normal agricultural, road maintenance, construction activity, dredging activity or discharge of dredged or fill materials provided all reasonable controls or Best Management Practices are used in such activities and all designated uses are protected and maintained.	N/A	N/A	No such classification.	N/A	SB, SB(a), SBI, SBI(a): N/A	No such classification.
SB	Class SB: Chemical Constituents	Criteria are provided for a number of chemical constituents classified as priority and non-priority pollutants. See www.epa.gov/waterscience/criteria/wqcrteria.html for specific chemicals.	Refer to Table 3 of this section and sections 22a-426-4(a)(5), 22a-426-4(a)(9)(B), 22a-426-4(a)(11), 22a-426-4(i), 22a-426-4(m), 22a-426-9(a)(3), 22a-426-9(a)(4) and 22a-426-9(a)(5) of the Regulations Connecticut State Agencies.	All surface waters shall be free from pollutants in concentrations or combinations that are toxic to humans, aquatic life or wildlife. For pollutants not otherwise listed in 314 CMR 4.00, the <i>National Recommended Water Quality Criteria: 2002, EPA 622-R-02-047, November 2002</i> , published by EPA pursuant to Section 304(a) of the Federal Water Pollution Control Act, are the allowable receiving water concentrations for the affected waters, unless the Department either establishes a site specific criterion or determines that naturally occurring background concentrations are higher. Where the Department determines that naturally occurring background conditions are higher, those concentrations shall be the allowable receiving water concentrations. The Department shall use the water quality criteria for the protection of aquatic life expressed in terms of the dissolved fraction. The EPA recommended criteria based on total recoverable metals shall be converted to dissolved metals using EPA's published conversion factors. Permit limits will be written in terms of total recoverable metals. Translation from dissolved metals criteria to total recoverable metals permit limits will be based on EPA's conversion factors or other methods approved by the Department. The Department may establish site specific criteria for toxic pollutants based on site specific considerations.	Except as naturally occurs, surface waters must be free of pollutants in concentrations that impart toxicity and cause those waters to be unsuitable for the existing and designated uses of the water body. Except as naturally occur, levels of toxic pollutants in surface waters must not exceed federal water quality criteria as established by USEPA, pursuant to Section 304(a) of the Clean Water Act, or alternative criteria established by the state and listed in Chapter 584 Surface Water Quality Criteria for Toxic Pollutants.	No such classification.	None in amounts that will adversely affect the taste, color, odor or impair the waters for their best use. See 6 NYCRR 703.5, Table 1 of the Regulation and DOW TOSCS 1.1, 1 for criteria and guidance values for specific substances.	SB, SB(a), SBI, SBI(a): a. None in concentrations or combinations that could be harmful to humans or fish and wildlife or governing water class use, or unfavorably alter the biota, or which would make the waters unsafe or unsuitable for fish and wildlife or their propagation, impair the palatability of same, or impair waters for any other existing or designated use. None in such concentrations that would exceed the Water Quality Criteria and Guidelines as found in Appendix B. b. The ambient concentration of a pollutant in a water body shall not exceed the Ambient Water Quality Criteria and Guidelines, (Appendix B) for the protection of aquatic organisms from acute or chronic effects, unless the criteria or guidelines are modified by the Director based on results of bioassay tests conducted in accordance with the terms and conditions provided in the RIDESA Site Specific Aquatic Life Water Quality Criteria Development Policy.	No such classification.
SB	Class SB: Phosphorus	For protection of aquatic life: 0.1 µg/L continuous concentration.	The loading of nutrients, principally phosphorus and nitrogen, to any surface water body shall not exceed that which supports maintenance of attainment of designated uses.	Unless naturally occurring, all surface waters shall be free from nutrients in concentrations that would cause or contribute to impairment of existing or designated uses and shall not exceed the site specific criteria developed in a TMDL, or as otherwise established by the Department pursuant to 314 CMR 4.00. Any existing point source discharge containing nutrients in concentrations that would cause or contribute to cultural eutrophication, including the excessive growth of aquatic plants or algae, in any surface water shall be provided with the most appropriate treatment as determined by the Department, including, where necessary, highest and best practical treatment (HBPT) for POTWs and BAT for non POTWs, to remove such nutrients to ensure protection of existing and designated uses. Human activities that result in the nonpoint source discharge of nutrients to any surface water may be required to be provided with cost effective and reasonable best management practices for nonpoint source control.	N/A	No such classification.	None in amounts that will result in growth of algae, weeds and slimes that will impair the waters for their best usage.	SB, SB(a), SBI, SBI(a): Nutrients: None in such concentration that would impair any usages specifically assigned to said Class, or cause undesirable or nuisance aquatic species associated with cultural eutrophication. Shall not exceed site-specific limits if deemed necessary by the Director to prevent or minimize accelerated or cultural eutrophication. Total phosphorus, nitrate and ammonia may be assigned site-specific permit limits based on reasonable Best Available Technologies. Where waters have low tidal flushing rates, applicable treatment to prevent or minimize accelerated or cultural eutrophication may be required for regulated nonpoint source activities.	No such classification.

Class*	Parameter**	EPA Recommended Criteria*	MA	ME*	NH	NY*	RI	VT	
SB	Class SB: Nitrate	For protection of human health: 10,000 µg/L for consumption of water and organisms.	N/A	Unless naturally occurring, all surface waters shall be free from nutrients in concentrations that would cause or contribute to impairment of existing or designated uses and shall not exceed the site specific criteria developed in a TMDL or as otherwise established by the Department pursuant to 314 CMR 4.00. Any existing point source discharge containing nutrients in concentrations that would cause or contribute to cultural eutrophication, including the excessive growth of aquatic plants or algae, in any surface water shall be provided with the most appropriate treatment as determined by the Department, including, where necessary, highest and best practical treatment (HBPT) for POTWs and BAT for non POTWs, to remove such nutrients to ensure protection of existing and designated uses. Human activities that result in the nonpoint source discharge of nutrients to any surface water may be required to be provided with cost effective and reasonable best management practices for nonpoint source control.	For protection of human health: 10,000 µg/L for consumption of water and organisms.	No such classification.	None in amounts that will result in growth of algae, weeds and slimes that will impair the waters for their best use.	SB, SB(a), SB1, SB1(a): Nitrates and ammonia may be assigned site-specific permit limits based on reasonable Best Available Technologies.	No such classification.
SB	Class SB: Phenol	For protection of human health: 860,000 µg/L for consumption of organisms	For protection of human health: 10,000 µg/L for consumption of water and organisms; 860,000 µg/L for consumption of organisms only	N/A	For protection of human health: 21,000 µg/L for consumption of water and organisms; 93,000 µg/L for consumption of organisms only	No such classification.	N/A	SB, SB(a), SB1, SB1(a): For protection of human health: 1700 mg/L for consumption of organisms.	No such classification.
SB	Class SB: Substances Potentially Toxic	Criteria are provided for a number of chemical constituents classified as priority and non-priority pollutants. See www.epa.gov/waterscience/criteria/wqcriteria.html for specific chemicals.	Surface waters and sediments shall be free from chemical constituents in concentrations or combinations which will or can reasonably be expected to: result in acute or chronic toxicity to aquatic organisms or otherwise impair the biological integrity of aquatic or marine ecosystems outside of any dredged material disposal area or areas designated by the Commissioner for disposal or placement of fill materials or any zone of influence allowed by the Commissioner, or bioaccumulate or bioaccumulate in tissues of fish, shellfish and other aquatic organisms at levels which will impair the health of aquatic organisms or wildlife or result in unacceptable tastes, odors or health risks to human consumers of aquatic organisms or wildlife unless such sediments are capped with material suitable for unconfined, open water disposal as an appropriate means of ensuring consistency with this standard as approved by the Commissioner in writing. In determining consistency with this Standard, the Commissioner shall at a minimum consider the numeric criteria listed in Table 3 of section 22a-426-9 of the Regulations of Connecticut State Agencies and any other information he or she deems relevant.	All surface waters shall be free from pollutants in concentrations or combinations that are toxic to humans, aquatic life or wildlife. For pollutants not otherwise listed in 314 CMR 4.00, the National Recommended Water Quality Criteria: 2002, EPA 822-R-02-047, November 2002 published by EPA pursuant to Section 304(a) of the Federal Water Pollution Control Act, are the allowable receiving water concentrations for the affected waters, unless the Department either establishes a site specific criterion or determines that naturally occurring background concentrations are higher. Where the Department determines that naturally occurring background conditions are higher, those concentrations shall be the allowable receiving water concentrations. The Department shall use the water quality criteria for the protection of aquatic life expressed in terms of the dissolved fraction. The EPA recommended criteria based on total recoverable metals shall be converted to dissolved metals using EPA's published conversion factors. Permit limits will be written in terms of total recoverable metals. Transition from dissolved metals criteria to total recoverable metals permit limits will be based on EPA's conversion factors or other methods approved by the Department. The Department may establish site specific criteria for toxic pollutants based on site specific considerations.	Except as naturally occurs, surface waters must be free of pollutants in concentrations which impart toxicity and cause those waters to be unsuitable for the existing and designated uses of the water body. Except as naturally occur, levels of toxic pollutants in surface waters must not exceed federal water quality criteria as established by USEPA, pursuant to Section 304(a) of the Clean Water Act, or alternative criteria established by the state and listed in Chapter 584 Surface Water Quality Criteria for Toxic Pollutants.	No such classification.	None in amounts that will adversely affect the taste, color, odor thereof or impair the waters for their best use. See 6 NYCRR 703.5, Table 1 of the Regulation for specific standards.	SB, SB(a), SB1, SB1(a): Criteria for specific substances are listed in Table 1 in Appendix B of the Regulation. To protect aquatic life, the one hour average concentration of a pollutant should not exceed the acute criteria more than once every three years on the average. An exclusion to this rule are the pesticides and PCBs acute criteria, which are considered instantaneous values. The four day average concentration of a pollutant should not exceed the chronic criteria more than once every three years on the average. These aquatic life criteria shall be achieved in all waters, except mixing zones, regardless of the waters' classification.	No such classification.
SB	Class SB: Radioactivity	N/A	Discharge of radioactive materials in concentrations or combinations which would be harmful to human, animal or aquatic life shall not be allowed. Applicable criteria can be found in Title 10 Part 20 of the Code of Federal Regulations.	All surface waters shall be free from radioactive substances in concentrations or combinations that would be harmful to human, animal or aquatic life or the most sensitive designated use; result in radionuclides in aquatic life exceeding the recommended limits for consumption by humans; or exceed Massachusetts Drinking Water Regulations as set forth in 310 CMR 22.09.	Discharge of pollutants to waters of the state that imparts radioactivity is not allowed.	No such classification.	N/A	SB, SB(a), SB1, SB1(a): The level of radioactive materials in all waters shall not be in concentrations or combinations which will likely be harmful to humans, fish and wildlife, or result in concentrations in organisms producing undesirable conditions.	No such classification.
SB	Class SB: Gross Beta	N/A	N/A	N/A	N/A	No such classification.	N/A	SB, SB(a), SB1, SB1(a): N/A	No such classification.
SB	Class SB: Radium 226	N/A	N/A	N/A	N/A	No such classification.	N/A	SB, SB(a), SB1, SB1(a): N/A	No such classification.
SB	Class SB: Strontium 90	N/A	N/A	N/A	N/A	No such classification.	N/A	SB, SB(a), SB1, SB1(a): N/A	No such classification.
SB	Class SB: Mercury	For protection of aquatic life: 1.8µg/l for acute exposure and 0.94µg/l for chronic exposure (both total values) For protection of human health: 0.05µg/l for water and fish ingestion, 0.051 µg/l for fish consumption only (both total values).	For protection of aquatic life: 1.8µg/l for acute exposure and 0.94µg/l for chronic exposure.	For protection of aquatic life: 2.1µg/l for acute exposure and 1.1µg/l for chronic exposure.	For protection of aquatic life: 2.1µg/l for acute exposure and 1.1µg/l for chronic exposure.	No such classification.	Health (Fish Consumption): 0.0007µg/l in dissolved form Wildlife: 0.0026µg/l in dissolved form.	For protection of aquatic life: 1.8µg/l for acute exposure and 0.94µg/l for chronic exposure. For protection of human health: 0.14µg/l for consumption of water and aquatic organisms, 0.15µg/l for consumption of aquatic organisms only.	No such classification.
SB	Class SB: Methylmercury	Fish tissue residue criterion for human health: 0.3mg/kg in the edible portion of the fish.	N/A	Fish tissue residue criterion for human health: 0.3mg/kg in the edible portion of the fish.	Fish tissue residue criterion for human health: 0.2mg/kg in the edible portion of the fish.	No such classification.	N/A	N/A	No such classification.
SB	Class SB: Mixing Zones	Allowable mixing zone characteristics should be established to ensure that: 1) mixing zones do not impair the integrity of the waterbody as a whole, 2) there is no lethality to organisms passing through the mixing zones, and 3) there are no significant health risks, considering likely pathways of exposure.	The Commissioner may, on a case-by-case basis, establish zones of influence when permitting discharges to surface waters under Section 22a-430 and 22a-133(b) of the Connecticut General Statutes in order to allocate a portion of the receiving surface waters for mixing and assimilation of the discharge. In establishing a zone of influence the Commissioner shall consider without limitation: See 22a-426-4(i) for additional details.	In applying 314 CMR 4.00 the Department may recognize a limited area or volume of a waterbody as a mixing zone for the initial dilution of a discharge. Waters within a mixing zone may fail to meet specific water quality criteria provided the following conditions are met: a) Mixing zones shall be limited to an area or volume as small as feasible. There shall be no lethality to organism passing through the mixing zone as determined by the Department. The location, design and operation of the discharge shall minimize the impacts on aquatic life and other existing and designated uses within and beyond the mixing zone. b) Mixing zones shall not interfere with the migration or free movement of fish or other aquatic life. There shall be safe and adequate passage for swimming and drifting organisms with no deleterious effects on their populations. c) Mixing zones shall not create nuisance conditions, accumulate pollutants in sediments or biota in toxic amounts or otherwise interfere with the existing or designated uses of surface waters.	N/A	No such classification.	Non-Thermal Mixing Zones: The presence of a mixing zone in a receiving water is accepted as a normal and expected consequence of a wastewater discharge. Within mixing zones, water quality standards for pollutants are expected to be exceeded, potentially impairing habitat usability for fish and benthic communities. Detailed guidelines can be found in TOGS 1.3.1 Thermal Mixing Zones: The department shall specify definable, numerical limits for all mixing zones. Conditions in the mixing zone shall not be lethal in continuation of water quality standards to aquatic biota which may enter the zone. The location of mixing zones for thermal discharges shall not interfere with spawning areas, nursery areas, and fish migration routes. More details regarding thermal discharges can be found in 6 NYCRR Part 704.	SB, SB(a), SB1, SB1(a): All Mixing Zones: At a minimum, all mixing zones must: - Meet the criteria for aesthetics, in accordance with rule 8.D.(1); - Be limited to an area or volume that will prevent interference with the existing and designated uses in the associated waterbody segment and beyond; - Allow an appropriate zone of passage for migrating fish and other organisms; prohibit lethality to organisms passing through the mixing zone, and protect for spawning and nursery habitat; and - Not allow substances to accumulate in sediments, fish and wildlife or food chains such that known or predicted safe exposure levels for the health of humans or fish and wildlife will be exceeded. Non-Thermal Mixing Zones: In the case of non-thermal discharges, in applying these standards the Director may recognize, where appropriate, a limited acute and/or chronic mixing zone(s) on a case-by-case basis. The location, size and shape of these zones shall provide for the maximum protection of fish and wildlife. Thermal Mixing Zones: In the case of thermal discharges into tidal rivers, fresh water streams or estuaries, where thermal mixing zones are allowed by the Director, the mixing zone will be limited to no more than one quarter (1/4) of the cross sectional area and/or volume of river flow, stream or estuary, leaving at least three quarters (3/4) free as a zone of passage. In wide estuaries and oceans, the limits of mixing zones will be established by the Director.	No such classification.

Class*	Parameter**	EPA Recommended Criteria†	CT	MA	ME*	NH	NY*	RI	VT
SC	Class SC: Aesthetics	All waters free from substances attributable to wastewater or other discharges that settle to form objectionable deposits; float as debris, oil, or other matter to form nuisances; produce objectionable color, odor, taste, or turbidity; injure or are toxic or produce adverse physiological responses in humans, animals or plants; and produce undesirable or nuisance aquatic life.	No such classification.	All surface waters shall be free from pollutants in concentrations or combinations that settle to form objectionable deposits; float as debris, scum or other matter to form nuisances; produce objectionable odor, color, taste or turbidity; or produce undesirable or nuisance species. Class A waters shall have excellent aesthetic value.	N/A	No such classification.	No taste-, color-, and odor-producing, toxic, or other deleterious substances in amounts that will adversely affect the taste, color or odor thereof, or impair the waters for their best uses. See 6 NYCRR 703.5, Table 1 in the Regulation for standards for specific substances.	All waters shall be free from pollutants in concentrations or combinations that settle to form deposits that are unightly, putrescent, or odorous; float as debris, oil, grease, scum or other floating material attributable to wastes; produce odor or taste or change the color or physical, chemical or biological conditions; or result in the dominance of species of fish and wildlife. To such a degree as to create a nuisance or interfere with the existing or designated uses.	No such classification.
SC	Class SC: Aquatic Life	N/A	No such classification.	N/A	Discharges to Class SC waters may cause some changes to estuarine and marine life provided that the receiving waters are of sufficient quality to support all species of fish indigenous to the receiving waters and maintain the structure and function of the resident biological community	No such classification.	See 6 NYCRR 703.5, Table 1 for standards for specific substances.	At a minimum, all waters shall be free of pollutants in concentrations or combinations or from anthropogenic activities subject to these regulations that: adversely affect the composition of fish and wildlife; adversely affect the physical, chemical, or biological integrity of the habitat; interfere with the propagation of fish and wildlife; or adversely affect the life cycle functions, uses, processes and activities of fish and wildlife.	No such classification.
SC	Class SC: Dissolved Oxygen (DO)	The recommended criteria apply to both continuous (peristert) and cyclic (diel, tidal, or episodic) hypoxia. If the DO exceeds the chronic protective value for growth (4.8 mg/L), the site meets objectives for protection. If the DO is below the limit for juvenile and adult survival (2.3 mg/L), the site does not meet objectives for protection. When the DO is between these values, the site requires evaluation of duration and intensity of hypoxia to determine suitability of habitat for the larval recruitment objectives.	No such classification.	Shall not be less than 5.0 mg/L at least 16 hours of any 24-hour period and not less than 4.0 mg/L at any time. Where natural background conditions are lower, DO shall not be less than natural background. Natural seasonal and daily variations that are necessary to protect existing and designated uses shall be maintained.	The dissolved oxygen content of Class SC waters must be not less than 70% of saturation.	No such classification.	Chronic: Shall not be less than a daily average of 4.8 mg/L. The DO concentration may fall below 4.8 mg/L for a limited number of days, as defined by a formula given in 6 NYCRR Part 703.3. Acute: Shall not be less than 3.0 mg/L at any time.	For surface waters above a seasonal pycnocline: not less than an instantaneous value of 4.8 mg/L more than once every three years, except as naturally occurs. For waters below the seasonal pycnocline: Aquatic Life Uses are considered to be protected if conditions do not fail to meet protective thresholds, as described in Table 3 of the Surface Water Quality Regulations, more than once every three years. For waters without a seasonal pycnocline: DO concentrations above 4.8 mg/L shall be considered protective of Aquatic Life Uses. When instantaneous DO values fall below 4.8 mg/L, the waters shall not be: 1. Less than 3.0 mg/L for more than 24 consecutive hours during the recruitment season; nor 2. Less than 1.4 mg/L for more than 1 hour more than twice during the recruitment season; nor 3. Shall they exceed the cumulative DO exposure presented in Table 3.A.	No such classification.
SC	Class SC: Sludge Deposits, Solid Refuse, Floating Solids, Oil, Grease and Scum	Oil and Grease - For aquatic life: (1) 0.01 of the lowest continuous flow 96-hour LC50 to several important freshwater or marine species, each having a demonstrated high susceptibility to oils and petrochemicals; (2) Levels of oils or petrochemicals in this sediment which cause deleterious effects to the biota should not be allowed; (3) Surface waters shall be virtually free from floating non-petroleum oils of vegetable or animal origin, as well as petroleum derived oils.	No such classification.	These waters shall be free from floating, suspended and settleable solids in concentrations or combinations that would impair any use assigned to this class, that would cause aesthetically objectionable conditions, or that would impair the benthic biota or degrade the chemical composition of the bottom. These waters shall be free from oil, grease and petrochemicals that produce a visible film on the surface of the water, impart an oily taste to the edible portions of aquatic life, coat the banks or bottom of the water course, or are deleterious or become toxic to aquatic life.	All surface waters of the State shall be free of settled substances which alter the physical or chemical nature of bottom material and of floating substances, except as naturally occur, which impair the characteristics and designated uses ascribed to their class.	No such classification.	No residue attributable to sewage, industrial wastes or other wastes, nor visible oil film or globules of grease.	None in such amounts that would impair any usages specifically assigned to this class.	No such classification.
SC	Class SC: Color and Turbidity	All waters free from substances attributable to wastewater or other discharges that produce objectionable color, odor, taste, or turbidity. Color: Waters shall be virtually free from substances producing objectionable color for aesthetic purposes; the source of supply should not exceed 75 color units for domestic water supplies; increased color should not reduce the depth of the compensation point for photosynthetic activity by more than 10% from seasonally established norm for aquatic life.	No such classification.	These waters shall be free from color and turbidity in concentrations or combinations that are aesthetically objectionable or would impair any use assigned to this class.	Discharge of pollutants to waters of the state that imparts color or turbidity is not allowed.	No such classification.	Color: No substances in amounts that will adversely affect the color. Turbidity: No increase that will cause a substantial visible contrast to natural conditions.	None in such concentrations that would impair any usages specifically assigned to this class. Turbidity not to exceed 10 NTU over background.	No such classification.
SC	Class SC: Bacteria	Based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period), the geometric mean of the enterococci densities should not exceed 35 per 100 ml; no sample should exceed a one sided confidence limit using the following as guidance: designated bathing beach 75% C.L., moderate use for bathing 82% C.L.; light use for bathing 90% C.L.; infrequent use for bathing 95% C.L. based on a site-specific log standard deviation, or if site data are insufficient to establish a log standard deviation, then using 0.7 as the log standard deviation.	No such classification.	The geometric mean of all enterococci samples taken within the most recent six months shall not exceed 175 colonies per 100 ml, typically based on the five most recent samples, and 10% of such samples shall not exceed 350 enterococci colonies per 100 ml. This criterion may be applied on a seasonal basis at the discretion of the Department.	Between May 15th and September 30th, the numbers of enterococci bacteria of human and domestic animal origin in these waters may not exceed a geometric mean of 14 per 100 milliliters or an instantaneous level of 94 per 100 milliliters. In determining human and domestic animal origin, the department shall assess licensed and unlicensed sources using available diagnostic procedures. The numbers of total coliform bacteria or other specified indicator organisms in samples representative of the waters in restricted shellfish harvesting areas may not exceed the criteria recommended under the National Shellfish Sanitation Program, United States Food and Drug Administration.	No such classification.	Total Coliforms: The monthly median value and more than 20 percent of the samples, from a minimum of five examinations, shall not exceed 2,400/100 ml and 5,000/100 ml, respectively. Fecal Coliform: The monthly geometric mean, from a minimum of five examinations, shall not exceed 200/100 ml.	None in such concentrations that would impair any usages specifically assigned to this class.	No such classification.
SC	Class SC: Taste and Odor	Materials should not be present in concentrations that individually or in combination produce undesirable flavors which are detectable by organoleptic tests performed on the edible portions of aquatic organisms.	No such classification.	None in such concentrations or combinations that are aesthetically objectionable, that would impair any use assigned to this Class, or that would cause tainting or undesirable flavors in the edible portions of aquatic life.	Discharge of pollutants to waters of the State that imparts color, taste, turbidity, toxicity, radioactivity or other properties that cause those waters to be unsuitable for the designated uses and characteristics ascribed to their class are not allowed.	No such classification.	No substances in amounts that will adversely affect the taste or odor.	None in such concentrations that would impair any usages specifically assigned to this class nor cause taste or odor in edible portions of fish or shellfish.	No such classification.
SC	Class SC: pH	For protection of aquatic life: 6.5-8.5 continuous concentration. For protection of human health: 5-9 for consumption of water and organisms.	No such classification.	Shall be in the range of 6.5 through 9.0 standard units and not more than 0.5 standard units outside of the natural background range. There shall be no change from natural background conditions that would impair any use assigned to this Class.	7.0 - 8.5	No such classification.	The normal range shall not be extended by more than one-tenth (0.1) of a pH unit.	6.5 - 8.5 but not more than 0.2 units outside of the normally occurring range.	No such classification.
SC	Class SC: Temperature	For any time of year, there are two upper limiting temperatures for a location (based on the important sensitive species found there at that time): (1) One limit consists of a maximum temperature for short exposures that is time dependent and is given by a species-specific equation; (2) the second value is a limit on the weekly average temperature (see Gold Book for more information).	No such classification.	a. Shall not exceed 85°F (29.4°C) nor shall the rise due to a discharge exceed 5°F (2.8°C); b. there shall be no change from natural background conditions that would impair any use assigned to this class, including those conditions necessary to protect normal species diversity, successful migration, reproductive functions or growth of aquatic organisms; c. alternative effluent limitations established in connection with a variance for a thermal discharge issued under 33 U.S.C. § 1251 (FWPCA, § 316(a)) and 314 CMR 3.00 are in compliance with 314 CMR 4.00. As required by 33 U.S.C. § 1251 (FWPCA, § 316(a)) and 314 CMR 3.00, for permit and variance renewal, the applicant must demonstrate that alternative effluent limitations continue to comply with the variance standard for thermal discharges; and d. in the case of a cooling water intake structure (CWIS) regulated by EPA under 33 U.S.C. § 1251 (FWPCA § 316(b)), the Department has the authority under 33 U.S.C. § 1251 (FWPCA § 401), M.G.L. c. 21, §§ 26 through 53 and 314 CMR 3.00 to condition the CWIS to assure compliance of the withdrawal activity with 314 CMR 4.00, including, but not limited to, compliance with narrative and numerical criteria and protection of existing and designated uses.	N/A	No such classification.	All thermal discharges to the waters of the State shall assure the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in and on the body of water. The natural seasonal cycle shall be retained. Annual spring and fall temperature changes shall be gradual. Large day-to-day temperature fluctuations due to heat of artificial origin shall be avoided. Development or growth of nuisance organisms shall not occur in conjunction of water quality standards. Discharges which would lower receiving water temperature shall not cause a violation of water quality standards and 6 NYCRR 704.3. For the protection of the aquatic biota from severe temperature changes, routine shut down of an entire thermal discharge at any site shall not be scheduled during the period from December through March. Additional special criteria for different types of waters are provided in Section 704.	Activities shall not increase the temperature except where the increase will not exceed the recommended limit on the most sensitive receiving water use and in no case shall an activity cause the temperature to exceed 83 degrees F nor raise the normal temperature more than 1.6 degrees F. 16 June through September and not more than 4 degrees F from October through 16 June. All measurements shall be made at the boundary of such mixing zones as is found to be reasonable by the Director.	No such classification.
SC	Class SC: Silt or Sand Deposits	N/A	No such classification.	N/A	N/A	No such classification.	N/A	N/A	No such classification.

Interstate Water Quality Standards Matrix

Class*	Parameter**	EPA Recommended Criteria*	CT	MA	ME*	NH	NY*	RI	VT
SC	Class SC: Chemical Constituents	Criteria are provided for a number of chemical constituents classified as priority and non-priority pollutants. See www.epa.gov/waterscience/criteria/wqcriteria.html for specific chemicals.	No such classification.	All surface waters shall be free from pollutants in concentrations or combinations that are toxic to humans, aquatic life or wildlife. For pollutants not otherwise listed in 314 CMR 4.00, the <i>National Recommended Water Quality Criteria: 2002, EPA 822-R-02-047, November 2002</i> published by EPA pursuant to Section 304(a) of the Federal Water Pollution Control Act, are the allowable receiving water concentrations for the affected waters, unless the Department either establishes a site specific criterion or determines that naturally occurring background concentrations are higher. Where the Department determines that naturally occurring background conditions are higher, those concentrations shall be the allowable receiving water concentrations. The Department shall use the water quality criteria for the protection of aquatic life expressed in terms of the dissolved fraction. The EPA recommended criteria based on total recoverable metals shall be converted to dissolved metals using EPA's published conversion factors. Permit limits will be written in terms of total recoverable metals. Transition from dissolved metals criteria to total recoverable metals permit limits will be based on EPA's conversion factors or other methods approved by the Department. The Department may establish site specific criteria for toxic pollutants based on site specific considerations.	Except as naturally occurs, surface waters must be free of pollutants in concentrations which impart toxicity and cause those waters to be unsuitable for the existing and designated uses of the water body. Except as naturally occur, levels of toxic pollutants in surface waters must not exceed federal water quality criteria as established by USEPA, pursuant to Section 304(a) of the Clean Water Act, or alternative criteria established by the state and listed in Chapter 584 Surface Water Quality Criteria for Toxic Pollutants.	No such classification.	None in amounts that will adversely affect the taste, color, odor or impair the waters for their best use. See 6 NYCRR 703.5, Table 1 of the Regulation and DOW TOGS 1.1.1 for criteria and guidance values for specific substances.	a. None in concentrations or combinations that could be harmful to humans or fish and wildlife for the most sensitive and governing water class use, or unfavorably alter the biota, or which would make the waters unsafe or unsuitable for fish and wildlife or their propagation, impair the palatability of same, or impair the waters for any other existing or designated use. None in such concentrations that would exceed the Water Quality Criteria and Guidelines as found in Appendix B. b. The ambient concentration of a pollutant in a water body shall not exceed the RI DEM Ambient Water Quality Criteria & Guidelines (Appendix B) for the protection of aquatic organisms from acute or chronic effects, unless the criteria or guideline is modified by the Director based on results of bioassay tests conducted in accordance with the terms and conditions provided in the RIDEM Site Specific Aquatic Life Water Quality Criteria Development Policy.	No such classification.
SC	Class SC: Phosphorus	For protection of aquatic life: 0.1 µg/L continuous concentration.	No such classification.	Unless naturally occurring, all surface waters shall be free from nutrients in concentrations that would cause or contribute to impairment of existing or designated uses and shall not exceed the site specific criteria developed in a TMDL or as otherwise established by the Department pursuant to 314 CMR 4.00. Any existing point source discharge containing nutrients in concentrations that would cause or contribute to cultural eutrophication, including the excessive growth of aquatic plants or algae, in any surface water shall be provided with the most appropriate treatment as determined by the Department, including, where necessary, highest and best practical treatment (HBPT) for POTWs and BAT for non POTWs, to remove such nutrients to ensure protection of existing and designated uses. Human activities that result in the nonpoint source discharge of nutrients to any surface water may be required to be provided with cost effective and reasonable best management practices for nonpoint source control.	N/A	No such classification.	None in amounts that will result in growth of algae, weeds and slimes that will impair the waters for their best usage.	Nutrients: None in such concentration that would impair any usages specifically assigned to said Class, or cause undesirable or nuisance aquatic species associated with cultural eutrophication. Shall not exceed site-specific limits if deemed necessary by the Director to prevent or minimize accelerated or cultural eutrophication. Total phosphorus, nitrates and ammonia may be assigned site-specific permit limits based on reasonable Best Available Technologies. Where waters have low tidal flushing rates, applicable treatment to prevent or minimize accelerated or cultural eutrophication may be required for regulated nonpoint source activities.	No such classification.
SC	Class SC: Nitrate	For protection of human health: 10,000 µg/L for consumption of water and organisms.	No such classification.	Unless naturally occurring, all surface waters shall be free from nutrients in concentrations that would cause or contribute to impairment of existing or designated uses and shall not exceed the site specific criteria developed in a TMDL or as otherwise established by the Department pursuant to 314 CMR 4.00. Any existing point source discharge containing nutrients in concentrations that would cause or contribute to cultural eutrophication, including the excessive growth of aquatic plants or algae, in any surface water shall be provided with the most appropriate treatment as determined by the Department, including, where necessary, highest and best practical treatment (HBPT) for POTWs and BAT for non POTWs, to remove such nutrients to ensure protection of existing and designated uses. Human activities that result in the nonpoint source discharge of nutrients to any surface water may be required to be provided with cost effective and reasonable best management practices for nonpoint source control.	For protection of human health: 10,000 µg/L for consumption of water and organisms.	No such classification.	None in amounts that will result in growth of algae, weeds and slimes that will impair the waters for their best use.	Nitrates and ammonia may be assigned site-specific permit limits based on reasonable Best Available Technologies.	No such classification.
SC	Class SC: Phenol	For protection of human health: 860,000 µg/L for consumption of organisms	No such classification.	N/A	For protection of human health: 21,000 µg/L for consumption of water and organisms; 93,000 µg/L for consumption of organisms only.	No such classification.	N/A	For protection of human health: 1700 mg/L for consumption of organisms.	No such classification.
SC	Class SC: Substances Potentially Toxic	Criteria are provided for a number of chemical constituents classified as priority and non-priority pollutants. See www.epa.gov/waterscience/criteria/wqcriteria.html for specific chemicals.	No such classification.	All surface waters shall be free from pollutants in concentrations or combinations that are toxic to humans, aquatic life or wildlife. For pollutants not otherwise listed in 314 CMR 4.00, the <i>National Recommended Water Quality Criteria: 2002, EPA 822-R-02-047, November 2002</i> published by EPA pursuant to Section 304(a) of the Federal Water Pollution Control Act, are the allowable receiving water concentrations for the affected waters, unless the Department either establishes a site specific criterion or determines that naturally occurring background concentrations are higher. Where the Department determines that naturally occurring background conditions are higher, those concentrations shall be the allowable receiving water concentrations. The Department shall use the water quality criteria for the protection of aquatic life expressed in terms of the dissolved fraction. The EPA recommended criteria based on total recoverable metals shall be converted to dissolved metals using EPA's published conversion factors. Permit limits will be written in terms of total recoverable metals. Transition from dissolved metals criteria to total recoverable metals permit limits will be based on EPA's conversion factors or other methods approved by the Department. The Department may establish site specific criteria for toxic pollutants based on site specific considerations.	Except as naturally occurs, surface waters must be free of pollutants in concentrations which impart toxicity and cause those waters to be unsuitable for the existing and designated uses of the water body. Except as naturally occur, levels of toxic pollutants in surface waters must not exceed federal water quality criteria as established by USEPA, pursuant to Section 304(a) of the Clean Water Act, or alternative criteria established by the state and listed in Chapter 584 Surface Water Quality Criteria for Toxic Pollutants.	No such classification.	None in amounts that will adversely affect the taste, color, odor thereof or impair the waters for their best use. See 6 NYCRR 703.5, Table 1 of the Regulation for specific standards.	Criteria for specific substances are listed in Table 1 in Appendix B of the Regulation. To protect aquatic life, the one-hour average concentration of a pollutant should not exceed the acute criteria more than once every three years on the average. An exclusion to this rule are the pesticides and PCBs acute criteria, which are considered instantaneous values. The four day average concentration of a pollutant should not exceed the chronic criteria more than once every three years on the average. These aquatic life criteria shall be achieved in all waters, except mixing zones, regardless of the waters' classification.	No such classification.
SC	Class SC: Radioactivity	N/A	No such classification.	All surface waters shall be free from radioactive substances in concentrations or combinations that would be harmful to human, animal or aquatic life or the most sensitive designated use, result in radionuclides in aquatic life exceeding the recommended limits for consumption by humans; or exceed Massachusetts Drinking Water Regulations as set forth in 310 CMR 22.09.	Discharge of pollutants to waters of the State that imparts color, taste, turbidity, toxicity, radioactivity or other properties that cause those waters to be unsuitable for the designated uses and characteristics ascribed to their class are not allowed.	No such classification.	N/A	The level of radioactive materials in all waters shall not be in concentrations or combinations which will likely be harmful to humans, fish and wildlife, or result in concentrations in organisms producing undesirable conditions.	No such classification.
SC	Class SC: Mercury	For protection of aquatic life: 1.8µg/l for acute exposure and 0.94µg/l for chronic exposure.	No such classification.	For protection of aquatic life: 1.8µg/l for acute exposure and 0.94µg/l for chronic exposure.	For protection of aquatic life: 2.1µg/l for acute exposure and 1.1µg/l for chronic exposure.	No such classification.	Health (Fish Consumption): 0.0007µg/l in dissolved form Wildlife: 0.0028µg/l in dissolved form.	For protection of aquatic life: 1.8µg/l for acute exposure and 0.94µg/l for chronic exposure. For protection of human health: 0.14µg/l for consumption of water and aquatic organisms; 0.15µg/l for consumption of aquatic organisms only.	No such classification.
SC	Class SC: Methylmercury	Fish tissue residue criterion for human health: 0.3mg/kg in the edible portion of the fish.	No such classification.	Fish tissue residue criterion for human health: 0.3mg/kg in the edible portion of the fish.	Fish tissue residue criterion for human health: 0.2mg/kg in the edible portion of the fish.	No such classification.	N/A	N/A	No such classification.

Class*	Parameter**	EPA Recommended Criteria*	CT	MA	ME*	NH	NY*	RI	VT	
	Class SC: Mixing Zones	Allowable mixing zone characteristics should be established to ensure that: 1) mixing zones do not impair the integrity of the waterbody as a whole, 2) there is no lethality to organisms passing through the mixing zones, and 3) there are no significant health concerns considering likely pathways of exposure.	No such classification.	In applying 314 CMR 4.00 the Department may recognize a limited area or volume of a waterbody as a mixing zone for the initial dilution of a discharge. Waters within a mixing zone may fail to meet specific water quality criteria provided the following conditions are met: a) Mixing zones shall be limited to an area or volume as small as feasible. There shall be no lethality to organisms passing through the mixing zone as determined by the Department. The location, design and operation of the discharge shall minimize the impacts on aquatic life and other existing and designated uses within and beyond the mixing zone. b) Mixing zones shall not interfere with the migration or free movement of fish or other aquatic life. There shall be safe and adequate passage for swimming and drifting organisms with no deleterious effects on their populations. c) Mixing zones shall not create nuisance conditions, accumulate pollutants in sediments or biota in toxic amounts or otherwise interfere with the existing or designated uses of surface waters.	N/A	No such classification.	No such classification.	Non-Thermal Mixing Zones: The presence of a mixing zone in a receiving water is accepted as a normal and expected consequence of a wastewater discharge. Within mixing zones, water quality standards for pollutants are expected to be exceeded, potentially impairing habitat usability for fish and benthic communities. Detailed guidelines can be found in TQGS 1.3.1 Thermal Mixing Zones: the department shall specify definable, numerical limits for all mixing zones. Conditions in the mixing zone shall not be lethal in contravention of water quality standards to aquatic biota which may enter the zone. The location of mixing zones for thermal discharges shall not interfere with spawning areas, nursery areas, and fish migration routes. More details regarding thermal discharges and mixing zones can be found in 6 NYCRR Part 704.	All Mixing Zones: At a minimum, all mixing zones must: - Meet the criteria for aesthetics, in accordance with rule 6.D.(1); - Be limited to an area or volume that will prevent interference with the existing and designated uses in the associated waterbody segment and beyond; - Allow an appropriate zone of passage for migrating fish and other organisms, prohibit lethality to organisms passing through the mixing zone, and protect for spawning and nursery habitat; and - Not allow substances to accumulate in sediments, fish and wildlife or food chains such that known or predicted safe exposure levels for the health of humans or fish and wildlife will be exceeded. Non-Thermal Mixing Zones: In the case of non-thermal discharges, in applying these standards the Director may recognize, where appropriate, a limited acute and/or chronic mixing zone(s) on a case-by-case basis. The locations, size and shape of these zones shall provide for the maximum protection of fish and wildlife. Thermal Mixing Zones: In the case of thermal discharges into tidal rivers, fresh water streams or estuaries, where thermal mixing zones are allowed by the Director, the mixing zone will be limited to no more than one quarter (1/4) of the cross sectional area and/or volume of river flow, stream or estuary, leaving at least three quarters (3/4) free as a zone of passage. In wide estuaries and oceans, the limits of mixing zones will be established by the Director.	No such classification.
SC	Class SD: Aesthetics	All waters free from substances attributable to wastewater or other discharges that settle to form objectionable deposits; float as debris, scum, oil, or other matter to form nuisances; produce objectionable color, odor, taste, or turbidity; injure or are toxic or produce adverse physiological responses in humans, animals or plants; and produce undesirable or nuisance aquatic life.	No such classification.	No such classification.	No such classification.	No such classification.	No taste-, color-, and odor-producing, toxic, or other deleterious substances in amounts that will adversely affect the taste, color or odor thereof, or impair the waters for their best uses. See 6 NYCRR 703.5, Table 1 in the Regulation for standards for specific substances.	No such classification.	No such classification.	
SD	Class SD: Aquatic Life	N/A	No such classification.	No such classification.	No such classification.	No such classification.	See 6 NYCRR 703.5, Table 1 for standards for specific substances.	No such classification.	No such classification.	
SD	Class SD: Dissolved Oxygen (DO)	The recommended criteria apply to both continuous (persistent) and cyclic (diel, tidal, or episodic) hypoxia. If the DO exceeds the chronic protective value for growth (4.8 mg/L), the site meets objectives for protection. If the DO is below the limit for juvenile and adult survival (2.3 mg/L), the site does not meet objectives for protection. When the DO is between these values, the site requires evaluation of duration and intensity of hypoxia to determine suitability of habitat for the larval recruitment objective.	No such classification.	No such classification.	No such classification.	No such classification.	Shall not be less than 3.0 mg/L at any time.	No such classification.	No such classification.	
SD	Class SD: Sludge Deposits, Solid Refuse, Floating Solids, Oil, Grease and Scum	Oil and Grease - For aquatic life: (1) 0.01 of the lowest continuous flow 96-hour LC50 to several important freshwater or marine species, each having a demonstrated high susceptibility to oils and petrochemicals, (2) Levels of oils or petrochemicals in the sediment which cause deleterious effects to the biota should not be allowed, (3) Surface waters shall be virtually free from floating non-petroleum oils of vegetable or animal origin, as well as petroleum derived oils.	No such classification.	No such classification.	No such classification.	No such classification.	No residue attributable to sewage, industrial wastes or other wastes, nor visible oil film or globules of grease.	No such classification.	No such classification.	
SD	Class SD: Color and Turbidity	All waters free from substances attributable to wastewater or other discharges that produce objectionable color, odor, taste, or turbidity. Color: Waters shall be virtually free from substances producing objectionable color for aesthetic purposes; the source of supply should not exceed 75 color units for domestic water supplies; increased color should not reduce the depth of the compensation point for photosynthetic activity by more than 10% from seasonally established norm for aquatic life.	No such classification.	No such classification.	No such classification.	No such classification.	Color: No substances in amounts that will adversely affect the color. Turbidity: No increase that will cause a substantial visible contrast to natural conditions.	No such classification.	No such classification.	
SD	Class SD: Bacteria	Based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period), the geometric mean of the enterococci densities should not exceed 35 per 100 ml; no sample should exceed a one sided confidence limit using the following as guidance: designated bathing beach 75% C.L.; moderate use for bathing 82% C.L.; light use for bathing 90% C.L.; infrequent use for bathing 95% C.L. based on a site-specific log standard deviation, or if site data are insufficient to establish a log standard deviation, then using 0.7 as the log standard deviation.	No such classification.	No such classification.	No such classification.	No such classification.	N/A	No such classification.	No such classification.	
SD	Class SD: Taste and Odor	Materials should not be present in concentrations that individually or in combination produce undesirable flavors which are detectable by organoleptic tests performed on the edible portions of aquatic organisms.	No such classification.	No such classification.	No such classification.	No such classification.	No substances in amounts that will adversely affect the taste or odor.	No such classification.	No such classification.	
SD	Class SD: pH	For protection of aquatic life: 6.5-8.5 continuous concentration. For protection of human health: 5-9 for consumption of water and organisms.	No such classification.	No such classification.	No such classification.	No such classification.	The normal range shall not be extended by more than one-tenth (0.1) of a pH unit.	No such classification.	No such classification.	

Class*	Parameter**	EPA Recommended Criteria†	CT	MA	ME*	NH	NY*	RI	VT
SD	Class SD: Temperature	For any time of year, there are two upper limiting temperatures for a location (based on the important sensitive species found there at that time): (1) One limit consists of a maximum temperature for short exposures that is time dependent and is given by a species-specific equation; (2) the second value is a limit on the weekly average temperature (see Gold Book for more information).	No such classification.	No such classification.	No such classification.	No such classification.	All thermal discharges to the waters of the State shall assure the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in and on the body of water. The natural seasonal cycle shall be retained. Annual spring and fall temperature changes shall be gradual. Large day-to-day temperature fluctuations due to heat of artificial origin shall be avoided. Development or growth of nuisance organisms shall not occur in contravention of water quality standards. Discharges which would lower receiving water temperature shall not cause a violation of water quality standards and 6 NYCRR 704.3. For the protection of the aquatic biota from severe temperature changes, routine shut down of an entire thermal discharge at any site shall not be scheduled during the period from December through March. Additional special criteria for different types of waters are provided in Section 704.	No such classification.	No such classification.
SD	Class SD: Chemical Constituents	Criteria are provided for a number of chemical constituents classified as priority and non-priority pollutants. See www.epa.gov/waterscience/criteria/wqcriteria.html for specific chemicals.	No such classification.	No such classification.	No such classification.	No such classification.	None in amounts that will adversely affect the taste, color, odor or impair the waters for their best use. See 6 NYCRR 703.5, Table 1 of the Regulation and DOW TOGS 1.1.1 for criteria and guidance values for specific substances.	No such classification.	No such classification.
SD	Class SD: Phosphorus	For protection of aquatic life: 0.1 µg/L, continuous concentration.	No such classification.	No such classification.	No such classification.	No such classification.	None in amounts that will result in growth of algae, weeds and slimes that will impair the waters for their best use.	No such classification.	No such classification.
SD	Class SD: Nitrate	For protection of human health: 10,000 µg/L for consumption of water and organisms.	No such classification.	No such classification.	No such classification.	No such classification.	None in amounts that will result in growth of algae, weeds and slimes that will impair the waters for their best use.	No such classification.	No such classification.
SD	Class SD: Phenol	For protection of human health: 860,000 µg/L for consumption of organisms.	No such classification.	No such classification.	No such classification.	No such classification.	N/A	No such classification.	No such classification.
SD	Class SD: Substances Potentially Toxic	Criteria are provided for a number of chemical constituents classified as priority and non-priority pollutants. See www.epa.gov/waterscience/criteria/wqcriteria.html for specific chemicals.	No such classification.	No such classification.	No such classification.	No such classification.	None in amounts that will adversely affect the taste, color, odor thereof or impair the waters for their best use. See 6 NYCRR 703.5, Table 1 of the Regulation for specific standards.	No such classification.	No such classification.
SD	Class SD: Mercury	No such classification.	No such classification.	No such classification.	No such classification.	No such classification.	Health (Fish Consumption): 0.0007µg/l in dissolved form Wildlife: 0.0026µg/l in dissolved form.	No such classification.	No such classification.
SD	Class SD: Methylmercury	No such classification.	No such classification.	No such classification.	No such classification.	No such classification.	N/A	No such classification.	No such classification.
SD	Class SD: Mixing Zones	Allowable mixing zone characteristics should be established to ensure that: 1) mixing zones do not impair the integrity of the waterbody as a whole, 2) there is no lethality to organisms passing through the mixing zones, and 3) there are no significant health risks, considering likely pathways of exposure.	No such classification.	No such classification.	No such classification.	No such classification.	Non-Thermal Mixing Zones: The presence of a mixing zone in a receiving water is accepted as a normal and expected consequence of a wastewater discharge. Within mixing zones, water quality standards for pollutants are expected to be exceeded, potentially impairing habitat usability for fish and benthic communities. Detailed guidelines can be found in TOGS 1.3.1 Thermal Mixing Zones: The department shall specify definable, numerical limits for all mixing zones. Conditions in the mixing zone shall not be lethal in contravention of water quality standards to aquatic biota which may enter the zone. The location of mixing zones for thermal discharges shall not interfere with spawning areas, nursery areas, and fish migration routes. More details regarding thermal discharges and mixing zones can be found in 6 NYCRR Part 704.	No such classification.	No such classification.