STATE WATER CONTROL BOARD

Water Quality Standards (9 VAC 25-260)

FINAL DRAFT (March 2003) NOT EFFECTIVE

PART I

SURFACE WATER STANDARDS WITH GENERAL, STATEWIDE APPLICATION

9 VAC 25-260-5. Definitions.

The following words and terms when used in this chapter shall have the following meanings unless the context clearly indicates otherwise:

"Board" means State Water Control Board.

"Criteria" means elements of the board's water quality standards, expressed as constituent concentrations, levels, or narrative statements, representing a quality of water that supports a particular use. When criteria are met, water quality will generally protect the designated use.

"Designated uses" means those uses specified in water quality standards for each water body or segment whether or not they are being attained.

"Drifting organisms" means planktonic organisms that are [~~dependant~~ dependent] on the current of the water for movement.

"Existing uses" means those uses actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards.

"Mixing zone" means a limited area or volume of water where initial dilution of a discharge takes place and where numeric water quality criteria can be exceeded but [designated uses in the water body on the whole are maintained and] lethality is prevented.

"Passing organisms" means free swimming organisms that move with a mean velocity at least equal to the ambient current in any direction.

“Primary Contact Recreation” means any water-based form of recreation, the practice of which has a high probability for total body immersion or ingestion of water (examples include but are not limited to swimming, water skiing, canoeing and kayaking).

“Secondary contact recreation” means a water-based form of recreation, the practice of which has a low probability for total body immersion or ingestion of waters (examples include but are not limited to wading, boating and fishing).

"Swamp waters" means waters with naturally occurring low pH and low dissolved oxygen caused by: (i) low flow velocity that prevents mixing and reaeration of stagnant, shallow waters and (ii) decomposition of vegetation that lowers dissolved oxygen concentrations and causes tannic acids to color the water and lower the pH.

"Use attainability analysis" means a structured scientific assessment of the factors affecting the attainment of the use which may include physical, chemical, biological, and economic factors as described in 9 VAC 25-260-10 G.

"Water quality standards" means provisions of state or federal law which consist of a designated use or uses for the waters of the Commonwealth and water quality criteria for such waters based upon such uses. Water quality standards are to protect the public health or welfare, enhance the quality of water and serve the purposes of the State Water Control Law (э 62.1-44.2 et seq. of the Code of Virginia) and the federal Clean Water Act (33 USC э 1251 et seq.).

9 VAC 25-260-10. Designation of uses.

A. All State waters, including wetlands, are designated for the following uses: recreational uses, e.g., swimming and boating; the propagation and growth of a balanced, indigenous population of aquatic life, including game fish, which might reasonably be expected to inhabit them; wildlife; and the production of edible and marketable natural resources, e.g., fish and shellfish.

B. In designating uses of a water body and the appropriate criteria for those uses, the board shall take into consideration the water quality standards of downstream waters and shall ensure that its water quality standards provide for the attainment and maintenance of the water quality standards of downstream waters.

C. The board may adopt subcategories of a use and set the appropriate criteria to reflect varying needs of such subcategories of uses, for instance, to differentiate between cold water (trout streams) and warm water fisheries.

D. At a minimum, uses are deemed attainable if they can be achieved by the imposition of effluent limits required under ϶϶ 301(b) and 306 of the Clean Water Act and cost-effective and reasonable best management practices for nonpoint source control.

E. Prior to adding or removing any use, or establishing subcategories of a use, the board shall provide notice and an opportunity for a public hearing under the Administrative Process Act (϶ ~~9-6.14:1~~ 2.2-4000 et seq. of the Code of Virginia).

F. The board may adopt seasonal uses as an alternative to reclassifying a water body or segment thereof to uses requiring less stringent water quality criteria. If seasonal uses are adopted, water quality criteria should be adjusted to reflect the seasonal uses; however, such criteria shall not preclude the attainment and maintenance of a more protective use in another season.

G. The board may remove a designated use which is not an existing use, or establish subcategories of a use, if the board can demonstrate that attaining the designated use is not feasible because:

1. Naturally occurring pollutant concentrations prevent the attainment of the use;

2. Natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating state water conservation requirements to enable uses to be met;

3. Human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place;

4. Dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or to operate such modification in a way that would result in the attainment of the use;

5. Physical conditions related to the natural features of the water body, such as the lack of a proper substrate, cover, flow, depth, pools, riffles, and the like, unrelated to water quality, preclude attainment of aquatic life protection uses; or

6. Controls more stringent than those required by ээ 301(b) and 306 of the Clean Water Act would result in substantial and widespread economic and social impact.

H. The board may not remove designated uses if:

1. They are existing uses, unless a use requiring more stringent criteria is added; or

2. Such uses will be attained by implementing effluent limits required under ээ 301(b) and 306 of

the Clean Water Act and by implementing cost-effective and reasonable best management practices for nonpoint source control.

I. Where existing water quality standards specify designated uses less than those which are presently being attained, the board shall revise its standards to reflect the uses actually being attained.

J. The board must conduct a use attainability analysis whenever:

1. The board designates or has designated uses that do not include the uses specified in э 101(a)(2) of the Clean Water Act, or

2. The board wishes to remove a designated use that is specified in э 101(a)(2) of the Clean Water Act or to adopt subcategories of uses specified in э 101(a)(2) of the Clean Water Act which require less stringent criteria.

K. The board is not required to conduct a use attainability analysis under this chapter whenever designating uses which include those specified in subsection A of this section.

9 VAC 25-260-20. General criteria.

A. ~~All~~ State waters, including wetlands, shall be free from substances attributable to sewage, industrial waste, or other waste in concentrations, amounts, or combinations which contravene established standards or interfere directly or indirectly with designated uses of such water or which are inimical or harmful to human, animal, plant, or aquatic life.

Specific substances to be controlled include, but are not limited to: floating debris, oil, scum, and other floating materials; toxic substances (including those which bioaccumulate); substances that produce color, tastes, turbidity, odors, or settle to form sludge deposits; and substances which nourish undesirable or nuisance aquatic plant life. Effluents which tend to raise the temperature of the receiving water will also be controlled. Conditions within mixing zones established according to 9 VAC 25-260-20.B do not violate the provisions of this subsection.

B. ~~1.~~ The board ~~shall~~ may use mixing zone concepts in evaluating limitations for Virginia Pollutant Discharge Elimination System permits. ~~limits for acute and chronic standards in 9 VAC 25-260-140 B. No mixing zone established by the board shall:~~

1. Mixing zones evaluated or established by the board in freshwater shall not:

a. Prevent movement of [or cause lethality to] passing [~~or~~ and] drifting aquatic organisms through the water body in question;

b. [~~Cause~~]~~acute~~ [~~lethality to passing or drifting aquatic organisms;~~

~~c.] Be used for, or considered as, a substitute for minimum treatment technology required by the Clean Water Act and other applicable state and federal laws;~~

~~d~~ Constitute more than one half of the width of the receiving watercourse nor constitute more than one third of the area of any cross section of the receiving watercourse;

~~e.~~ [~~d~~ c].Extend downstream at any time a distance more than five times the width of the receiving watercourse at the point of discharge.

2. [~~New or expanded mixing zones evaluated or established by the board for freshwater effluents greater than 0.5 MGD discharged to saltwater shall not:~~ Mixing zones evaluated or

established by the board in [~~saltwater~~ open ocean, estuarine and transition zone waters (see 9 VAC 25-260-140 C)] shall not:

a. Prevent movement of [or cause lethality to] passing [and drifting] aquatic organisms through the water body in question;

b. [~~Cause lethality to passing aquatic organisms;~~

~~c. Be discharged without the installation of a subsurface diffuser;~~

~~d. Result in exceedance of applicable criteria beyond the zone of initial mixing which is the area where mixing of ambient water and effluent is driven by the jet effect and/or momentum of the effluent. Beyond this zone the mixing is driven by ambient turbulence.~~

~~3. Mixing zones evaluated or established by the board for effluents discharged to saltwater that do not meet the criteria in 9 VAC 25-260-20.B.2 shall not:~~

~~a. Prevent movement of passing aquatic organisms through the water body in question;~~

~~b.Cause lethality to passing aquatic organisms;~~

~~c.~~] Extend more than 5 times [in any direction] the average depth along a line extending 1/3 of the way across the receiving water from the discharge point to the opposite shore.

[3. A subsurface diffuser shall be required for any new or expanded freshwater discharge greater than or equal to 0.5 MGD to open ocean, estuarine and transition zone waters (see 9 VAC 25-260-140 C) and the acute and chronic criteria shall be met at the edge of the zone of initial mixing. The zone of initial mixing is the area where mixing of ambient water and effluent is driven by the jet effect and/or momentum of the effluent. Beyond this zone the mixing is driven by ambient turbulence.

4 . Mixing zones shall not be allowed by the board for effluents discharged to wetlands, swamps,

marshes, lakes or ponds.

~~2.~~ 5. An allocated impact zone may be allowed within a mixing zone. This zone is the area of initial dilution of the effluent with the receiving water where the concentration of the effluent will be its greatest in the water column. Mixing within these allocated impact zones shall be as quick as practical and shall be sized to prevent lethality to passing [~~or~~ and] drifting aquatic organisms. The acute aquatic life criteria are not [required to be] attained in the allocated impact zone.

~~3.~~ 6. Mixing zones shall be ~~determined~~ evaluated or established such that acute ~~standards~~ criteria are met outside the allocated impact zone and [chronic] [~~all other~~]~~standards~~ criteria are met at the edge of the mixing zone ~~(see 9 VAC 25-260-140 A and B)~~.

~~E.~~ 7. No mixing zone shall be used for, or considered as, a substitute for minimum treatment technology required by the Clean Water Act and other applicable state and federal laws;

8. The board shall not approve a mixing zone that violates the federal Endangered Species Act of 1973 (16 USCA §§ 1531-1543) or the Virginia Endangered Species Act (Title 29.1 §§ 563-568).

~~4.~~ 9. The board may waive the requirements of subdivisions ~~1 d and e~~ B 1.[~~d and e~~ b and c], B.[~~3.c~~ 2.b, B.3] and B.4 of this subsection [on a case by case basis] if:

a.The board determines [~~on a case-by-case basis~~] that a complete mix assumption is appropriate; or

b.A discharger provides an acceptable demonstration of:

(1) Information defining the actual boundaries of the mixing zone in question; and

(2) Information and data ~~proving~~ demonstrating no violation of subdivisions ~~1 a, b and c~~ B.1.a [~~and b~~], [~~B.3.a and b~~ ,2.a] [and] B.7 [~~and B.8~~] of this subsection by the mixing zone in question.

~~5.~~ 10.The size of a thermal mixing zone shall be determined on a case-by-case basis. This determination shall be based upon a sound rationale and be supported by substantial biological, chemical, physical, and engineering evidence and analysis. Any such determination shall show to the board's satisfaction that no adverse changes in the protection and propagation of balanced indigenous populations of fish, aquatic life, and wildlife may reasonably be expected to occur. A satisfactory showing made in conformance with э 316(a) of the Clean Water Act shall be deemed as compliance with the requirements of this [~~subdivision~~ section].

~~6.~~ 11. Notwithstanding the above, no new or expanded mixing zone shall:

a. Be allowed in waters listed in 9 VAC 25-260-30 A 3 c;

b. Be allowed in waters defined in 9 VAC 25-260-30 A 2 for new or increased discharges unless the requirements outlined in 9 VAC 25-260-30 A 2 are satisfied.

~~7. All mixing zones shall be implemented in accordance with the provisions of subsection A (General standard) of this section.~~

9 VAC 25-260-30. Antidegradation policy.

A. All surface waters of the Commonwealth shall be provided one of the following three levels, or tiers, of antidegradation protection. This antidegradation policy shall be applied whenever any ~~board-regulated~~ activity is proposed that has the potential to affect existing surface water quality.

1. As a minimum, existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.

2. Where the quality of the waters exceed water quality standards, that quality shall be maintained and protected unless the board finds, after full satisfaction of the intergovernmental

coordination and public participation provisions of the Commonwealth's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located~~ provided that the board has the power to authorize any project or development~~. In allowing such degradation or lower water quality, the board shall [~~ensure~~ assure] water quality adequate to protect existing uses fully. Further, the board shall [~~ensure~~ assure] that there shall be achieved the highest statutory and regulatory requirements applicable to all new or ~~increased~~ existing point source discharges of effluent and all cost-effective and reasonable best management practices for nonpoint source control ~~which are under the jurisdiction of the board~~.

3. Surface waters, or portions of these, which provide exceptional environmental settings and exceptional aquatic communities or exceptional recreational opportunities may be designated and protected as described in subdivisions 3 a, b and c of this subsection.

a. Designation procedures.

(1) Designations shall be adopted in accordance with the provisions of the Administrative Process Act (§ 9-6.14:1 et seq. of the Code of Virginia) and the board's public participation uidelines.

(2) Upon receiving a nomination of a waterway or segment of a waterway for designation as an exceptional state water pursuant to the board's antidegradation policy, as required by 40 CFR 131.12, the board shall notify each locality in which the waterway or segment lies and shall make a good faith effort to provide notice to impacted riparian property owners. The written notice shall include, at a minimum: (i) a description of the location of the waterway or segment; (ii) the procedures and criteria for designation as well as the impact of the

designation; (iii) the name of the person making the nomination; and (iv) the name of a contact person at the Department of Environmental Quality who is knowledgeable about the nomination and the waterway or segment. Notice to property owners shall be based on names and addresses taken from local tax rolls. Such names and addresses shall be provided by the Commissioners of the Revenue or the tax assessor's office of the affected jurisdiction upon request by the board. After receipt of the notice of the nomination, localities shall be provided 60 days to comment on the consistency of the nomination with the locality's comprehensive plan. The comment period established by subdivision 3 a (2) of this subsection shall in no way impact a locality's ability to comment during any additional comment periods established by the board.

b. Implementation procedures.

(1) The quality of waters designated in subdivision 3 c of this subsection shall be maintained and protected to prevent permanent or long-term degradation or impairment.

(2) No new, additional, or increased discharge of sewage, industrial wastes or other pollution into waters designated in subdivision 3 c of this subsection shall be allowed.

(3) ~~Nonpermitted~~ Activities causing temporary sources of pollution~~, which are under the jurisdiction of the board,~~ may be allowed in waters designated in subdivision 3 c of this subsection even if degradation may be expected to temporarily occur ~~as long as~~ provided that after a minimal period of time the waters are returned or restored to conditions equal to or better than those existing just prior to the temporary source of pollution.

c. Surface waters designated under this subdivision are as follows:

(1) (Reserved.)

(2) (Reserved.)

(3) (Reserved.)

(4) North Creek in Botetourt County from the first bridge above the United States Forest Service North Creek Camping Area to its headwaters.

B. Any determinations concerning thermal discharge limitations made under э 316(a) of the Clean Water Act will be considered to be in compliance with the antidegradation policy.

9 VAC 25-260-40. Stream flow.

Man-made alterations in stream flow shall not contravene designated uses including protection of the propagation and growth of aquatic life.

9 VAC 25-260-50. Numerical criteria for dissolved oxygen, pH, and maximum temperature.***

CLASS	DESCRIPTION OF WATERS	DISSOLVED OXYGEN (mg/L)****		pH	Maximum Temp. (ºC)
		Min.	Daily Avg.		
I	Open Ocean	5.0	--	6.0-9.0	--
II	Estuarine Waters (Tidal Water-Coastal Zone to Fall Line)	4.0	5.0	6.0-9.0	--
III	Nontidal Waters (Coastal and Piedmont Zones)	4.0	5.0	6.0-9.0	32
IV	Mountainous Zones Waters	4.0	5.0	6.0-9.0	31
V	Stockable Trout Waters	5.0	6.0	6.0-9.0	21
VI	Natural Trout Waters	6.0	7.0	6.0-9.0	20
VII	~~Wetlands~~ Swamp Waters	*	*	4.3-9.0*	**

*This classification recognizes that the natural quality of these waters may fall outside of the ranges for D.O. and pH set forth above as water quality criteria; therefore, on a case-by-case basis, criteria for specific ~~wetlands~~ Class VII waters can be developed which reflect the natural quality of the waterbody. Virginia Pollutant Discharge Elimination System limitations in Class VII waters shall meet pH of 6.0 - 9.0.

**Maximum temperature will be the same as that for Classes I through VI waters as appropriate.

***The water quality criteria in ~~9 VAC 25-260-50~~ this section do not apply below the lowest flow averaged (arithmetic mean) over a period of seven consecutive days that can be statistically expected to occur once every 10 climatic years (a climatic year begins April 1 and ends March 31.

****See 9 VAC 25-260-55 for implementation of these criteria in waters naturally low in dissolved oxygen.

9 VAC 25-260-55. Implementation procedure for dissolved oxygen criteria in waters naturally low in dissolved oxygen.

A. The board shall implement this procedure when assessing dissolved oxygen data in preparation of Clean Water Act §§ 305(b) and 303(d) reports in accordance with § 62.1-44.19.5 of the Water Quality Monitoring Information and Restoration Act. The board recognizes that dissolved oxygen concentrations may seasonally fall below the criteria established in 9 VAC 25-260-50 due to nonanthropogenic sources and physical and chemical processes resulting from:

1. Density stratification and depth in Class II waters that prevent mixing and reaeration of the deep waters,

2. Temperature stratification and depth in lakes and reservoirs in Class III, IV, V and VI

waters that prevent mixing and reaeraton of the deep waters, or

3. Minimal flow velocity and decomposition of vegetation that prevent mixing and reaeration of stagnant, shallow waters.

B. In preparation of the Clean Water Act §§ 305(b) and 303(d) reports the board shall list waters as naturally impaired in accordance with § 62.1-44.19:5 C of the Code of Virginia when the board determines that the low dissolved oxygen concentrations result from nonanthropogenic sources and the physical and chemical processes described in subsection A of this section. The board shall make this determination based upon an evaluation of aquatic life, habitat (including anadromous fish spawning areas), monitoring data, computer modeling results or other accepted scientific principles. The board shall also conduct a watershed assessment to document anthropogenic sources that individually or cumulatively cause low dissolved oxygen concentrations including locating and identifying all point and nonpoint sources of pollution and identifying any man-made activities (such as water withdrawals) that cause low flow conditions and result in low dissolved oxygen levels.

C. The proposed determinations in subsection B of this section shall be subject to public comment on draft 303(d) reports.

D. The final determinations in subsection B of this section shall be made available to the public in final 303(d) reports.

E. Following a determination made under subsection B of this section, the board shall initiate a rulemaking to set site-specific criteria that reflect the natural quality of that water body or segment.

9 VAC 25-260-60 Rise Above Natural Temperature

Any rise above natural temperature shall not exceed 3°C except in the case of Class VI waters (natural trout waters), where it shall not exceed 1°C. However, the Board can, on a case-by- case basis, impose a more stringent limit on the rise above natural temperature. Natural temperature is defined as that temperature of a body of water (measured as the arithmetic average over one hour) due solely to natural conditions without the influence of any point-source discharge.

9 VAC 25-260-70. Maximum hourly temperature change.

The maximum hourly temperature change shall not exceed 2EC, except in the case of Class VI waters (natural trout waters) where it shall not exceed 0.5EC. These criteria shall apply beyond the boundaries of mixing zones and are in addition to temperature changes caused by natural conditions.

9 VAC 25-260-80. Thermal discharges into lakes and impoundments.

In lakes and impoundments receiving thermal discharges, the temperature of the epilimnion, or surface water when there is no stratification, shall not be raised more than 3EC above that which existed before the addition of heat of artificial origin. The board may, on a case-by-case basis, impose a more stringent limit on temperature rise. The increase shall be based on the monthly average of the maximum daily temperature. The temperature of releases from these lakes and impoundments shall be consistent with standards established for the receiving waters. When an applicant for a permit proposes either a discharge of heated effluent into the hypolimnion or the pumping of water from the hypolimnion for return back into the same body of water, such practice shall not be approved unless a special study shows that the practice will not produce adverse effects.

9 VAC 25-260-90. Site-specific temperature requirements.

A. The temperature limits set forth in 9 VAC 25-260-50 through 9 VAC 25-260-80 may be superseded in certain locations by Site-Specific Temperature Criteria or in the case where a thermal variance demonstration is performed in accordance with э 316(a) of the Clean Water Act. The protocol for development of site-specific temperature requirements is found in subsection A of this section. Information regarding э 316(a) demonstrations is found in subsection B of this section.

B. Protocol for Developing Site-Specific Temperature Criteria. For any specified time of year there shall be two upper limiting temperatures for a location based on temperature requirements of important sensitive species found at the location at that time. These limiting temperatures are:

1. A maximum weekly average temperature that:

a. In the warmer months is determined by adding to the physiological optimum temperature (usually the optimum for growth) for the most sensitive important species (and appropriate life stage) that normally is found at that location and time; a factor calculated as one third of the difference between the ultimate upper incipient lethal temperature and the optimum temperature for that species;

b. In the cooler months is an elevated temperature that would still ensure that important species would survive if the temperature suddenly dropped to the normal ambient temperature;

c. During reproduction seasons meets specific site requirements for successful migration, spawning, egg incubation, fry rearing, and other reproductive functions of important species; and

d. At a specific site is found necessary to preserve normal species diversity or prevent undesirable growths of nuisance organisms.

2. A time-dependent maximum temperature for short exposures.

Baseline thermal conditions shall be measured at a site where there is no unnatural thermal addition from any source, which site is in reasonable proximity to the thermal discharge (within five miles), and which has similar hydrography to that of the receiving waters at the point of discharge.

Criteria development should be in accordance with Water Quality Criteria 1972: A Report of the Committee on Water Quality Criteria and Quality Criteria for Water, U.S. Environmental Protection Agency.

C. э 316(a) Determinations. A successful demonstration accepted by the board concerning thermal discharge limits carried out under э 316(a) of the Clean Water Act shall constitute compliance with the temperature requirements of these standards. A successful demonstration must assure the protection and propagation of a balanced indigenous population of aquatic species and wildlife in or on the water into which the discharge is made. When making a determination concerning thermal discharge limits under э 316(a) of the Clean Water Act, the board shall provide notice and opportunity for a public hearing.

9 VAC 25-260-100 Deleted.

9 VAC 25-260-110. Halogen ban.

A. Chlorine or other halogen compounds[1] shall not be used for disinfection purposes or other treatment purposes including biocide applications for any treatment facility with a permitted flow of 20,000 gallons per day or more discharging to waters containing endangered or threatened species listed in subsection C of this section or to waters listed as i and ii in the River Basin Section Tables,

---

[1] Bromine, bromine chloride, hypochlorite and chlorine dioxide.

9 VAC 25-260-390 except for dischargers who intermittently chlorinate. Dischargers of less than 20,000 gallons per day shall dechlorinate to the requirements of the numerical chlorine criteria in 9 VAC 25-260-140 B or to a nondetectable chlorine residual. Dischargers who intermittently chlorinate (not more than two hours in any eight-hour period) shall be required to install equipment or employ procedures, or both, to ensure dechlorination to a chlorine residual that meets the numerical chlorine criteria in 9 VAC 25-260-140 B, and to apply effective best management practices for chlorine. Dischargers who intermittently chlorinate shall, in order to address a possible malfunction of the dechlorination system, either have storage sufficient to contain the chlorinated water until it can be dechlorinated prior to discharge or have an online redundant and operational back-up dechlorination system.

B. Variance to this requirement shall not be made unless it has been affirmatively demonstrated that the existing uses of the water will be maintained and that either a change is justifiable to provide necessary economic or social development or the degree of waste treatment necessary to preserve the existing quality cannot be economically or socially justified.

C. TENNESSEE AND BIG SANDY RIVER BASINS

CLINCH RIVER SUBBASIN

Powell River from river mile 136 (south of Jonesville) downstream to the Tennessee/Virginia line (river mile 115.8Xtotal 20.2 miles).

Endangered Species:

Appalachian monkeyface pearly	*Quadrula sparsa*

mussel

Birdwing pearly mussel	*Conradilla caelata*
Cumberland monkeyface pearly mussel	*Quadrula intermedia*
Dromedary pearly mussel	*Dromus dromas*
Fine-rayed pigtoe pearly mussel	*Fusconaia cuneolus*
Shiny pigtoe pearly mussel	*Fusconaia edgariana*

Threatened Species:

Slender chub	*Hybopsis cahni*
Yellowfin madtom	*Noturus flavipinnis*

Clinch River from river mile 323 (Richlands) downstream to the Tennessee/Virginia line (river mile 202.1).

Endangered Species:

Appalachian monkeyface pearly mussel	*Quadrula sparsa*

Birdwing pearly mussel	*Conradilla caelata*
Fine-rayed pigtoe pearly mussel	*Fusconaia cuneolus*
Green blossom pearly mussel	*Dysnomia torulosa gubernaculum*
Pink mucket pearly mussel	*Lampsilis orbiculata*
Shiny pigtoe pearly mussel	*Fusconaia edgariana*

Clinch River from the Scott/Russell County line (at Bangor - river mile 244.2) downstream to the Tennessee boundary (river mile 202.1).

Threatened Species:

Slender chub	*Hybopsis cahni*

Copper Creek from 2 miles above its confluence with the Clinch River (river mile 211.6).

Endangered Species:

Fine-rayed pigtoe pearly mussel	*Fusconaia cuneolus*
Shiny pigtoe pearly mussel	*Fusconaia edgariana*

Copper Creek from Dickensville (river mile 56) in Russell County downstream to its confluence with the Clinch River.

Threatened Species:

Yellowfin madtom	*Noturus flavipinnis*

HOLSTON RIVER SUBBASIN

North Fork Holston River from river mile 93.3 (near Broadford) downstream to the Smyth/Washington County line (river mile 82.1).

Endangered Species:

Shiny pigtoe pearly mussel	*Fusconaia edgariana*

North Fork Holston River from the Smyth/Washington County line (river mile 82.1) to the Tennessee/Virginia boundary (river mile 5).

Threatened Species:

Spotfin chub	*Hybopsis monacha*

Middle Fork Holston River from river mile 43 (in Marion) downstream to river mile 18.4.

Endangered Species:

Tan riffle shell mussel	*Dysnomia walkeri*

Middle Fork Holston River from river mile 6.5 to river mile 3.2 near Osceola.

Threatened Species:

Spotfin chub	*Hybopsis monacha*

9 VAC 25-260-120. (Repealed.)

9 VAC 25-260-130. (Repealed.)

9 VAC 25-260-140. Criteria for surface water.

A. Instream water quality conditions shall not be acutely[2] or chronically[3] toxic except as allowed in 9 VAC 25-260-20 B (mixing zones). The following are definitions of acute and chronic toxicity conditions:

"Acute toxicity" means an adverse effect that usually occurs shortly after exposure to a pollutant. Lethality to an organism is the usual measure of acute toxicity. Where death is not easily detected, immobilization is considered equivalent to death.

"Chronic toxicity" means an adverse effect that is irreversible or progressive or occurs because the rate of injury is greater than the rate of repair during prolonged exposure to a pollutant. This includes low level, long-term effects such as reduction in growth or reproduction.

B. The following table is a list of numerical water quality criteria for specific parameters.

[~~1. For those waters with multiple designated beneficial uses, the most stringent criteria in the following table shall apply.~~

~~2.~~] When information has become available from the Environmental Protection Agency to calculate additional aquatic life or human health criteria not contained in the table, the board may employ these values in establishing effluent limitations or other limitations pursuant to 9 VAC 25-260-20 A necessary to protect designated uses until the board has completed the regulatory standards adoption process.

Table of Parameters~~[8,10]~~ [6]

	~~AQUATIC LIFE~~				~~HUMAN HEALTH~~	
	~~FRESHWATER~~		~~SALTWATER~~			
	~~ACUTE~~[2]	~~CHRONIC~~[3]	~~ACUTE~~[2]	~~CHRONIC~~[3]	~~PUBLIC WATER SUPPLIES~~[4]	~~ALL OTHER SURFACE WATERS~~[5]
~~SUBSTANCE~~[4]	~~µg/l~~	~~µg/l~~	~~µg/l~~	~~µg/l~~	~~µg/l~~	~~µg/l~~
~~Acenaphthene~~					~~1,200~~	~~2,700~~
~~Aldrin~~ ~~[6]~~	~~3.0~~	~~0.3~~	~~1.3~~	~~0.13~~	~~0.0013~~	~~0.0014~~
~~Ammonia~~	~~See Table 1~~	~~See Table 2~~	~~See Tables 3 and 4~~			
~~Anthracene~~					~~9,600~~	~~110,000~~
~~Antimony~~					~~14~~	~~4,300~~
~~Arsenic~~					~~50~~	
~~Arsenic III~~~~[1]~~	~~360~~	~~190~~	~~69~~	~~36~~		
~~Barium~~					~~2,000~~	
~~Benzene~~ ~~[6]~~					~~12~~	~~710~~
~~Benzo(a) anthracene~~ ~~[6]~~					~~0.044~~	~~0.49~~
~~Benzo(b) fluoranthene~~ ~~[6]~~					~~0.044~~	~~0.49~~
~~Benzo(k) fluoranthene~~ ~~[6]~~					~~0.044~~	~~0.49~~
~~Benzo(a)pyrene~~ ~~[6]~~					~~0.044~~	~~0.49~~
~~Bromoform~~ ~~[6]~~					~~44~~	~~3,600~~
~~Butyl benzyl phthalate~~					~~3,000~~	~~5,200~~

~~Cadmium~~[1]	~~3.9 (See Note 9)~~	~~1.1 (See Note 9)~~	~~43~~	~~9.3~~		
~~Carbon Tetrachloride~~ [6]					~~2.5~~	~~45~~
~~Chlordane~~ [6]	~~2.4~~	~~0.0043~~	~~0.09~~	~~0.0040~~	~~0.0058~~	~~0.0059~~
~~Chloride~~	~~860,000~~	~~230,000~~			~~250,000**~~	
~~Chlorine Total Residual~~	~~19~~	~~11~~				
~~Chlorine Produced Oxidant~~			~~13~~	~~7.5~~		
~~Chlorodibromomethane~~					~~690~~	~~57,000~~
~~Chloroform~~ [6]					~~57~~	~~4,700~~
~~2-Chlorophenol~~					~~120~~	~~400~~
~~Chlorpyrifos~~	~~0.083~~	~~0.041~~	~~0.011~~	~~0.0056~~		
~~Chromium III~~[1]	~~1700 (See Note 9)~~	~~210 (See Note 9)~~				
~~Chromium VI~~[1]	~~16~~	~~11~~	~~1,100~~	~~50~~		
~~Chrysene~~ [6]					~~0.044~~	~~0.49~~
~~Copper~~[1]	~~18 (See Note 9)~~	~~12 (See Note 9)~~	~~5.9~~	~~3.8~~	~~1,300~~	
~~Cyanide~~	~~22~~	~~5.2~~	~~1.0~~	~~1.0~~	~~700~~	~~215,000~~
~~DDD~~ [6]					~~0.0083~~	~~0.0084~~
~~DDE~~ [6]					~~0.0059~~	~~0.0059~~
~~DDT~~ [6]	~~1.1~~	~~0.0010~~	~~0.13~~	~~0.0010~~	~~0.0059~~	~~0.0059~~
~~Demeton~~		~~0.1~~		~~0.1~~		
~~Dibenz(a,h) anthracene~~ [6]					~~0.044~~	~~0.49~~
~~Dibutyl phthalate~~					~~2,700~~	~~12,000~~
~~Dichloromethane~~ [6]					~~47~~	~~16,000~~
~~1,2-Dichlorobenzene~~					~~2,700~~	~~17,000~~
~~1,3-Dichlorobenzene~~					~~400~~	~~2,600~~
~~1,4-Dichlorobenzene~~					~~400~~	~~2,600~~
~~Dichlorobromomethane~~ [6]					~~5.6~~	~~460~~
~~1,2-Dichloroethane~~ [6]					~~3.8~~	~~990~~
~~1,1-Dichloroethylene~~					~~310~~	~~17,000~~
~~2,4 Dichlorophenol~~					~~93~~	~~790~~
~~2,4-dichlorophenoxy acetic acid (2,4-D)~~					~~71~~	
~~Dieldrin~~ [6]	~~2.5~~	~~0.0019~~	~~0.71~~	~~0.0019~~	~~0.0014~~	~~0.0014~~
~~Diethyl phthalate~~					~~23,000~~	~~120,000~~
~~Di-2-Ethylhexyl Phthalate~~ [6]					~~18~~	~~59~~
~~2,4 Dimethylphenol~~					~~540~~	~~2,300~~
~~2,4-Dinitrotoluene~~ [6]					~~1.1~~	~~91~~

~~Dioxin See 9 VAC 25-260-150~~

~~Dissolved Oxygen See 9 VAC 25-260-50~~

~~Endosulfan~~	~~0.22~~	~~0.056~~	~~0.034~~	~~0.0087~~	~~110~~	~~240~~
~~Endrin~~	~~0.18~~	~~0.0023~~	~~0.037~~	~~0.0023~~	~~0.76~~	~~0.81~~
~~Ethylbenzene~~					~~3,100~~	~~29,000~~
~~Fecal Coliform See Part II (9 VAC 25-260-160 et seq.) of this chapter~~						
~~Fluoranthene~~					~~300~~	~~370~~
~~Fluorene~~					~~1,300~~	~~14,000~~
~~Foaming agents (measured as methylene blue active substances)~~					~~500**~~	
~~Guthion~~		~~0.01~~		~~0.01~~		
~~Heptachlor~~ [6]	~~0.52~~	~~0.0038~~	~~0.053~~	~~0.0036~~	~~0.0021~~	~~0.0021~~
~~Hexachlorocyclohexane~~	~~2.0~~	~~0.080~~	~~0.16~~	~~0.01~~	~~7~~	~~25~~
~~(Lindane)~~						
~~Hydrogen Sulfide~~		~~2.0~~		~~2.0~~		
~~Indeno(1,2,3-cd)pyrene~~ [6]					~~0.044~~	~~0.49~~
~~Iron~~					~~300**~~	
~~Isophorone~~					~~6,900~~	~~490,000~~
~~Kepone~~		~~zero~~		~~zero~~		
~~Lead~~ [1]	~~120 (See Note 9)~~	~~14 (See Note 9)~~	~~240~~	~~9.3~~	~~15~~	
~~Malathion~~		~~0.1~~		~~0.1~~		
~~Manganese~~					~~50**~~	
~~Mercury~~ [1,6,7]	~~2.4~~	~~0.012~~	~~2.1~~	~~0.025~~	~~0.052~~	~~0.053~~
~~Methoxyclor~~		~~0.03~~		~~0.03~~	~~40~~	
~~Mirex~~		~~zero~~		~~zero~~		
~~Monochlorobenzene~~					~~680~~	~~21,000~~
~~Nickel~~ [1]	~~180 (See Note 9)~~	~~20 (See Note 9)~~	~~75~~	~~8.3~~	~~610~~	~~4,600~~
~~Nitrate (as N)~~					~~10,000~~	
~~Nitrobenzene~~					~~17~~	~~1,900~~
~~Parathion~~	~~0.065~~	~~0.013~~				
~~PCB-1242~~ [6]		~~0.014~~		~~0.030~~	~~0.00044~~	~~0.00045~~
~~PCB-1254~~ [6]		~~0.014~~		~~0.030~~	~~0.00044~~	~~0.00045~~
~~PCB-1221~~ [6]		~~0.014~~		~~0.030~~	~~0.00044~~	~~0.00045~~
~~PCB-1232~~ [6]		~~0.014~~		~~0.030~~	~~0.00044~~	~~0.00045~~
~~PCB-1248~~ [6]		~~0.014~~		~~0.030~~	~~0.00044~~	~~0.00045~~

~~PCB-1260~~ [6]		~~0.014~~		~~0.030~~	~~0.00044~~	~~0.00045~~
~~PCB-1016~~ [6]		~~0.014~~		~~0.030~~	~~0.00044~~	~~0.00045~~
~~Pentachlorophenol~~ [6]	~~$e^{(1.005(pH)-4.830)}$~~	~~$e^{(1.005(pH)-5.290)}$~~	~~13~~	~~7.9~~	~~2.8~~	~~82~~
~~pH See 9 VAC 25-260-50~~						
~~Phenol~~					~~21,000~~	~~4,600,000~~
~~Phosphorus (Elemental)~~				~~0.10~~		
~~Pyrene~~					~~960~~	~~11,000~~
~~Radionuclides~~						
~~Gross Alpha Particle Activity~~					~~15 pCi/l~~	~~15 pCi/l~~
~~Beta Particle and Photon Activity (formerly manmade radionuclides)~~					~~4 mrem~~	~~4 mrem~~
~~Strontium-90~~					~~8 pCi/l~~	~~8 pCi/l~~
~~Tritium~~					~~20,000pCi/l~~	~~20,000pCi/l~~
~~Selenium~~[1]	~~20~~	~~5.0~~	~~300~~	~~71~~	~~170~~	~~11,000~~
~~Silver~~[1]	~~4.1 (See Note 9)~~		~~2.3~~			
~~Sulfate~~					~~250,000**~~	
~~Temperature See 9 VAC 25-260-50~~						
~~Tetrachloroethylene~~					~~320~~	~~3,500~~
~~Toluene~~					~~6,800~~	~~200,000~~
~~Total dissolved solids~~					~~500,000**~~	
~~Toxaphene~~[6, 6]	~~0.73~~	~~0.0002~~	~~0.21~~	~~0.0002~~	~~0.0073~~	~~0.0075~~
~~1,2,4 Trichlorobenzene~~					~~260~~	~~950~~
~~Trichloroethylene~~ [6]					~~27~~	~~810~~
~~2,4,6-Trichlorophenol~~ [6]					~~21~~	~~65~~
~~2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)~~					~~50~~	
~~Tributyltin~~	~~0.46~~	~~0.026~~	~~0.36~~	~~0.001~~		
~~Vinyl Chloride~~ [6]					~~20~~	~~5,300~~
~~Zinc~~[1]	~~120 (See Note 9)~~	~~110 (See Note 9)~~	~~95~~	~~86~~	~~5,000**~~	

~~NOTES:~~

~~* = Hardness as calcium carbonate mg/l $CaCO_3$. The minimum hardness allowed for use in this equation shall not be less than 25 mg/l, as calcium carbonate, even if the actual ambient hardness is less than 25 mg/l as calcium carbonate. The maximum hardness value for use in this equation shall not exceed 400 mg/l as calcium carbonate, even if the actual ambient hardness is greater than 400 mg/l as calcium carbonate.~~

~~[**] = To maintain acceptable taste, odor or aesthetic quality of drinking water.~~

~~[c] = Known or suspected carcinogen, human health standards are for a risk level of 10^{-5}.~~

~~[1] = All metals shall be measured as dissolved. All aquatic life criteria for metals apply to the biologically available form of the metal. Metals measured as dissolved shall be considered to be biologically available, or, because local receiving water characteristics may otherwise affect the biological availability of the metal, the biologically available equivalent measurement of the metal can be further defined by determining a Water Effect Ratio (WER) and multiplying the numerical value shown in 9 VAC 25-260-140 B by the WER. Refer to 9 VAC 25-260-140 F.~~

~~[2] = One hour average concentration not to be exceeded more than once every three years on the average.~~

~~[3] = Four day average concentration not to be exceeded more than once every three years on the average except for ammonia. Ammonia is a 30 day average not to be exceeded more than once every three years on the average.~~

~~[4] = Unless otherwise noted, these criteria have been calculated to protect human health from toxic effects through drinking water and fish consumption.~~

~~[5] = Unless otherwise noted, these criteria have been calculated to protect human health from toxic effects through fish consumption.~~

~~[6] = Chronic aquatic life values have been calculated to protect wildlife from harmful effects through ingestion of contaminated tissue. However, the criteria will also protect aquatic life from toxic effects.~~

~~[7] = Chronic aquatic life criteria applies to methyl mercury. This criteria will protect the marketability of natural resources, e.g., fish and shellfish.~~

~~[8] = See 9 VAC 25-260-310 for additional standards or effluent limits which are site-specific.~~

~~[9] = Freshwater aquatic life criteria for these metals are expressed as a function of total hardness as $CaCO_3$ (mg/l), and as a function of the pollutant's water effect ratio (WER) as defined in 9 VAC 25-260-140 F. The equations are provided in the matrix below. To maintain consistency when using these equations to calculate criteria, intermediate calculations should be rounded to four significant digits and the final criterion's value should be rounded to two significant digits. Values displayed above in the table are examples and correspond to a total hardness of 100 mg/l and a water effect ratio of 1.0.~~

~~Acute criterion=WER exp{m_A[ln(hardness*)]+b_A}~~

~~Chronic criterion=WER exp{m_C[ln(hardness*)]+b_C}~~

	~~m_A~~	~~b_A~~	~~m_C~~	~~b_C~~
~~Cadmium~~	~~1.128~~	~~-3.828~~	~~0.7852~~	~~-3.490~~
~~Chromium (III)~~	~~0.8190~~	~~3.688~~	~~0.8190~~	~~1.561~~
~~Copper~~	~~0.9422~~	~~-1.464~~	~~0.8545~~	~~-1.465~~
~~Lead~~	~~1.273~~	~~-1.084~~	~~1.273~~	~~-3.259~~
~~Nickel~~	~~0.8460~~	~~1.312~~	~~0.8460~~	~~-0.8840~~
~~Silver~~	~~1.72~~	~~-6.52~~	~~.....~~	~~.....~~
~~Zinc~~	~~0.8473~~	~~0.8604~~	~~0.8473~~	~~0.7614~~

~~Note: The term "exp" represents the base e exponential function.~~

PARAMETER CAS Number	USE DESIGNATION AQUATIC LIFE FRESHWATER Acute[1]	 Chronic[2]	 SALTWATER Acute[1]	 Chronic[2]	 HUMAN HEALTH Public Water Supply[3]	 All Other Surface Waters[4]
Acenapthene (µg/l)					1,200	2,700
Acrolein (µg/l) 107028 [~~Known or suspected carcinogen; human health criteria at risk level 10^{-5}.~~]					320	780
Acrylonitrile (µg/l) 107131 Known or suspected carcinogen; human health criteria at risk level 10^{-5}.					0.59	6.6
Aldrin (µg/l) 309002 Known or suspected carcinogen; human health criteria at risk level 10^{-5}.	3.0	[~~0.3~~]	1.3	[~~0.13~~]	0.0013	0.0014
Ammonia (µg/l) 766-41-7 Chronic criterion is a 30-day average concentration not to be exceeded more than once every three (3) years on the average.	Table 1	Table 2	Table 3	Table 4		
Anthracene (µg/l) 120127					9,600	110,000

PARAMETER CAS Number	USE DESIGNATION					
	AQUATIC LIFE				HUMAN HEALTH	
	FRESHWATER		SALTWATER			
	Acute[1]	Chronic[2]	Acute[1]	Chronic[2]	Public Water Supply[3]	All Other Surface Waters[4]
Antimony (µg/l) 7440360					14	4,300
Arsenic (µg/l) [5] 7440382	340	150	69	36	10	
Barium (µg/l) 7440393					2,000	
Benzene (µg/l) 71432 Known or suspected carcinogen; human health criteria at risk level 10^{-5}					12	710
Benzidine (µg/l) 92875 Known or suspected carcinogen; human health criteria at risk level 10^{-5}					0.0012	0.0054
Benzo (a) anthracene (µg/l) 56553 Known or suspected carcinogen; human health criteria at risk level 10^{-5}					0.044	0.49

PARAMETER CAS Number	**USE DESIGNATION**					
	AQUATIC LIFE				**HUMAN HEALTH**	
	FRESHWATER		**SALTWATER**		**Public Water Supply** [3]	**All Other Surface Waters**[4]
	Acute[1]	Chronic[2]	Acute[1]	Chronic[2]		
Benzo (b) fluoranthene (µg/l) 205992 Known or suspected carcinogen; human health criteria at risk level 10^{-5}					0.044	0.49
Benzo (k) fluoranthene (µg/l) 207089 Known or suspected carcinogen; human health criteria at risk level 10^{-5}					0.044	0.49
Benzo (a) pyrene (µg/l) 50328 Known or suspected carcinogen;human health criteria at risk level 10^{-5}					0.044	0.49
Bis2-Chloroethyl Ether 111444 Known or suspected carcinogen;human health criteria at risk level 10^{-5}					0.31	14
Bis2-Chloroisopropyl Ether (µg/l) 39638329					1,400	170,000

PARAMETER CAS Number	**USE DESIGNATION**					
	AQUATIC LIFE				**HUMAN HEALTH**	
	FRESHWATER		**SALTWATER**		**Public Water Supply**[3]	**All Other Surface Waters**[4]
	Acute[1]	Chronic[2]	Acute[1]	Chronic[2]		
Bromoform (µg/l) 75252 Known or suspected carcinogen; human health criteria at risk level 10^{-5}.					44	3,600
Butyl benzyl phthalate (µg/l) 85687					3,000	5,200

PARAMETER CAS Number	USE DESIGNATION					
	AQUATIC LIFE				HUMAN HEALTH	
	FRESHWATER		SALTWATER		Public Water Supply[3]	All Other Surface Waters[4]
	Acute[1]	Chronic[2]	Acute[1]	Chronic[2]		
Cadmium (μg/l)[5] 7440439	[~~2.0~~ 3.9] WER = 1 $CaCO_3$ =	[~~.25~~ 1.1] WER = 1 $CaCO_3$ = 100	40 WER=1	8.8 WER=1	5	

PARAMETER CAS Number	**USE DESIGNATION**					
	AQUATIC LIFE				**HUMAN HEALTH**	
	FRESHWATER		**SALTWATER**		**Public Water Supply**[3]	**All Other Surface Waters**[4]
	Acute[1]	Chronic[2]	Acute[1]	Chronic[2]		
Carbon tetrachloride (µg/l) 56235 Known or suspected carcinogen; human health criteria at risk level 10^{-5}.					2.5	44
Chlordane (µg/l) 57749 Known or suspected carcinogen; human health criteria at risk level 10^{-5}.	2.4	0.0043	0.09	0.0040	0.021	0.022
Chloride (µg/l) 16887006 Human Health criterion to maintain acceptable taste and aesthetic quality and applies at the drinking water intake.	860,000	230,000			250,000	
Chlorine, Total Residual (µg/l) 7782505 In DGIF class [i and] ii trout waters (9 VAC 25-260 subsections 390-540) or waters with threatened or endangered species are subject to the halogen ban (subsection 110).	19 See 9 VAC 25-260-110	11 See 9 VAC 25-260-110				
Chlorine Produced Oxidant (µg/l) 7782505			13	7.5		
Chlorobenzene (µg/l) 108907					680	21,000

PARAMETER CAS Number	USE DESIGNATION					
	AQUATIC LIFE				HUMAN HEALTH	
	FRESHWATER		SALTWATER		Public Water Supply[3]	All Other Surface Waters[4]
	Acute[1]	Chronic[2]	Acute[1]	Chronic[2]		
Chlorodibromomethane (µg/l) 124481 Known or suspected carcinogen; human health criteria at risk level 10^{-5}.					4.1	340
Chloroform (µg/l) 67663 Known or suspected carcinogen; however, non-carcinogen calculation used and is protective of carcinogenic effects. Use 30Q5 as default design flow (see footnote 6).					350	29,000
2-Chloronaphthalene (µg/l) 91587					1,700	4,300
2-Chlorophenol (µg/l) 95578					120	400
Chlorpyrifos (µg/l) 2921882	0.083	0.041	0.011	0.0056		

PARAMETER CAS Number	**USE DESIGNATION**					
	AQUATIC LIFE				**HUMAN HEALTH**	
	FRESHWATER		**SALTWATER**		**Public Water Supply**[3]	**All Other Surface Waters**[4]
	Acute[1]	Chronic[2]	Acute[1]	Chronic[2]		
Chromium III (µg/l)[5] 16065831 Freshwater values are a function of total hardness as calcium carbonate ($CaCO_3$) mg/l and the WER. The minimum hardness allowed for use in the equation below shall be 25 and the maximum hardness shall be 400 even when the actual ambient hardness is less than 25 or greater than 400. **Freshwater acute criterion (µg/l)** $WER\left[e^{\{0.8190[\ln(hardness)]+3.7256\}}\right](CF_a)$ **Freshwater chronic criterion (µg/l)** $WER\left[e^{\{0.8190[\ln(hardness)]+0.6848\}}\right](CF_c)$ WER = [Water Effect Ratio =] 1 unless shown otherwise under 9 VAC 25-260-140.F and listed in 9 VAC 25-260-310 e = natural antilogarithm ln=natural logarithm CF_a= 0.316 CF_c=0.860	570 (WER=1; $CaCO_3$= 100)	74 (WER=1; $CaCO_3$ = 100)			100 (total Cr)	

PARAMETER CAS Number	USE DESIGNATION					
	AQUATIC LIFE				HUMAN HEALTH	
	FRESHWATER		SALTWATER		Public Water Supply[3]	All Other Surface Waters[4]
	Acute[1]	Chronic[2]	Acute[1]	Chronic[2]		
Chromium VI (µg/l)[5] 18540299	16	11	1,100	50		
Chrysene (µg/l) 218019 Known or suspected carcinogen; human health criteria at risk level 10^{-5}.					0.044	0.49

PARAMETER CAS Number	USE DESIGNATION					
	AQUATIC LIFE				HUMAN HEALTH	
	FRESHWATER		SALTWATER		Public Water Supply[3]	All Other Surface Waters[4]
	Acute[1]	Chronic[2]	Acute[1]	Chronic[2]		
Copper (µg/l)[5] 7440508 Freshwater values are a function of total hardness as calcium carbonate ($CaCO_3$) mg/l and the WER. The minimum hardness allowed for use in the equation below shall be 25 and the maximum hardness shall be 400 even when the actual ambient hardness is less than 25 or greater than 400. **Freshwater acute criterion (µg/l)** $WER\left[e^{\{0.9422[\ln(hardness)]-1.700\}}\right](CF_a)$ **Freshwater chronic criterion (µg/l)** $WER\left[e^{\{0.8545[\ln(hardness)]-1.702\}}\right](CF_c)$ WER = [Water Effect Ratio =] 1 unless shown otherwise under 9 VAC 25-260-140.F and listed in 9 VAC 25-260-310. e = natural antilogarithm ln=natural logarithm CF_a = 0.960 CF_c = 0.960 [Acute saltwater criterion is a 24-hour average not to be exceeded more than once every three years on the average.]	13 WER=1 $CaCO_3$=100	9[.0] WER=1 $CaCO_3$= 100	9.3 WER=1	6.0 WER=1	1,300	

PARAMETER CAS Number	USE DESIGNATION					
	AQUATIC LIFE				HUMAN HEALTH	
	FRESHWATER		SALTWATER		Public Water Supply[3]	All Other Surface Waters[4]
	Acute[1]	Chronic[2]	Acute[1]	Chronic[2]		
Cyanide (µg/l) 57125	22	5.2	1.0	1.0	700	220,000
DDD (µg/l) 72548 Known or suspected carcinogen; human health criteria at risk level 10^{-5}.					0.0083	0.0084
DDE (µg/l) 72559 Known or suspected carcinogen; human health criteria at risk level 10^{-5}.					0.0059	0.0059
DDT (µg/l) 50293 Known or suspected carcinogen; human health criteria at risk level 10^{-5}.	1.1	0.0010	0.13	0.0010	0.0059	0.0059
Demeton (µg/l) 8065483		0.1		0.1		

PARAMETER CAS Number	USE DESIGNATION					
	AQUATIC LIFE				HUMAN HEALTH	
	FRESHWATER		SALTWATER		Public Water Supply[3]	All Other Surface Waters[4]
	Acute[1]	Chronic[2]	Acute[1]	Chronic[2]		
Dibenz(a, h) anthracene (μg/l) 53703 Known or suspected carcinogen; human health criteria at risk level 10^{-5}.					0.044	0.49
Dibutyl phthalate (μg/l) 84742					2,700	12,000
Dichloromethane (μg/l) 75092 Known or suspected carcinogen; human health criteria at risk level 10^{-5} Synonym = Methylene Chloride					47	16,000
1,2–Dichlorobenzene (μg/l) 95501					2,700	17,000
1,3– Dichlorobenzene (μg/l) 541731					400	2,600
1,4 Dichlorobenzene (μg/l) 106467					400	2,600
3,3 Dichlorobenzidine 91941 Known or suspected carcinogen; human health criteria at risk level 10^{-5}.					0.4	0.77

PARAMETER CAS Number	USE DESIGNATION					
	AQUATIC LIFE				HUMAN HEALTH	
	FRESHWATER		SALTWATER		Public Water Supply[3]	All Other Surface Waters[4]
	Acute[1]	Chronic[2]	Acute[1]	Chronic[2]		
Dichlorobromomethane (µg/l) 75274 Known or suspected carcinogen; human health criteria at risk level 10^{-5}.					5.6	460
1,2 Dichloroethane (µg/l) 107062 Known or suspected carcinogen; human health criteria at risk level 10^{-5}.					3.8	990
1,1 Dichloroethylene (µg/l) 75354 [~~Known or suspected carcinogen; human health criteria at risk level 10~~$^{-5}$]					[~~0.57~~ 310]	[~~32~~17,000]
1,2-trans-dichloroethylene (µg/l) 156605					700	140,000
2,4 Dichlorophenol (µg/l) 120832					93	790
2,4 Dichlorophenoxy acetic acid (2,4-D) (µg/l) 94757					[~~71~~ 100]	

PARAMETER CAS Number	USE DESIGNATION AQUATIC LIFE FRESHWATER Acute[1]	Chronic[2]	SALTWATER Acute[1]	Chronic[2]	HUMAN HEALTH Public Water Supply[3]	All Other Surface Waters[4]
1,2-Dichloropropane (µg/l) 78875 Known or suspected carcinogen; human health criteria at risk level 10^{-5}.					5.2	390
1,3-Dichloropropene (µg/l) 542756					10	1,700
Dieldrin (µg/l) 60571 Known or suspected carcinogen; human health criteria at risk level 10^{-5}.	0.24	0.056	0.71	0.0019	0.0014	0.0014
Diethyl Phthalate (µg/l) 84662					23,000	120,000
Di-2-Ethylhexyl Phthalate (µg/l) 117817 Known or suspected carcinogen; human health criteria at risk level 10^{-5}. Synonym = Bis2-Ethylhexyl Phthalate.					18	59
2,4 Dimethylphenol (µg/l) 105679					540	2,300
Dimethyl Phthalate (µg/l) 131113					313,000	2,900,000

PARAMETER CAS Number	USE DESIGNATION AQUATIC LIFE FRESHWATER Acute[1]	 Chronic[2]	 SALTWATER Acute[1]	 Chronic[2]	 HUMAN HEALTH Public Water Supply[3]	 All Other Surface Waters[4]
Di-n-Butyl Phthalate (µg/l) 84742					2,700	12,000
2,4 Dinitrophenol (µg/l) 51285					70	14,000
2-Methyl-4,6-Dinitrophenol (µg/l) 534521					13.4	765
2,4 Dinitrotoluene (µg/l) 121142 Known or suspected carcinogen; human health criteria at risk level 10^{-5}					1.1	91
Dioxin (2, 3, 7, 8-tetrachlorodibenzo-p-dioxin) (ppq) 1746016 Criteria are based on a risk level of 10^{-5} and potency of 1.75 x 10^{-4} (mg/kg–day)$^{-1}$ To calculate an average effluent permit limit, use mean annual stream flow.					1.2	1.2
1,2-Diphenylhydrazine (µg/l) 122667 Known or suspected carcinogen; human health criteria at risk level 10^{-5}					0.40	5.4

PARAMETER CAS Number	USE DESIGNATION					
	AQUATIC LIFE				HUMAN HEALTH	
	FRESHWATER		SALTWATER		Public Water Supply[3]	All Other Surface Waters[4]
	Acute[1]	Chronic[2]	Acute[1]	Chronic[2]		
Dissolved Oxygen (mg/l) See § 9 VAC 25-260-50 and 55						
Alpha-Endosulfan (µg/l) 959988	0.22	0.056	0.034	0.0087	110	240
Beta-Endosulfan (µg/l) 33213659	0.22	0.056	0.034	0.0087	110	240
Endosulfan Sulfate (µg/l) 1031078					110	240
Endrin (µg/l) 72208	0.086	0.036	0.037	0.0023	0.76	0.81
Endrin Aldehyde (µg/l) 7421934					0.76	0.81
Ethylbenzene (µg/l) 100414					3,100	29,000
Fecal Coliform (see §§ 9 VAC 25-260-160 and 170)						
Fluoranthene (µg/l) 206440					300	370
Fluorene (µg/l) 86737					1,300	14,000

PARAMETER CAS Number	USE DESIGNATION					
	AQUATIC LIFE				HUMAN HEALTH	
	FRESHWATER		SALTWATER		Public Water Supply[3]	All Other Surface Waters[4]
	Acute[1]	Chronic[2]	Acute[1]	Chronic[2]		
Foaming Agents (μg/l) Criterion measured as methylene blue active substances. Criterion to maintain acceptable taste, odor, or aesthetic quality of drinking water and applies at the drinking water intake.					500	
Guthion (μg/l) 86500		0.01		0.01		
Heptachlor (μg/l) 76448 Known or suspected carcinogen; human health criteria at risk level 10^{-5}.	0.52	0.0038	0.053	0.0036	0.0021	0.0021
Heptachlor Epoxide (μg/l) 1024573 Known or suspected carcinogen; human health criteria at risk level 10^{-5}.	0.52	0.0038	0.053	0.0036	0.0010	0.0011
Hexachlorobenzene (μg/l) 118741 Known or suspected carcinogen; human health criteria at risk level 10^{-5}.					0.0075	0.0077

PARAMETER CAS Number	USE DESIGNATION AQUATIC LIFE FRESHWATER Acute[1]	 Chronic[2]	 SALTWATER Acute[1]	 Chronic[2]	 HUMAN HEALTH Public Water Supply[3]	 All Other Surface Waters[4]
Hexachlorobutadiene (µg/l) 87683 Known or suspected carcinogen; human health criteria at risk level 10^{-5}.					4.4	500
Hexachlorocyclohexane **Alpha-BHC (µg/l)** 319846 Known or suspected carcinogen; human health criteria at risk level 10^{-5}.					0.039	0.13
Hexachlorocyclohexane **Beta-BHC (µg/l)** 319857 Known or suspected carcinogen; human health criteria at risk level 10^{-5}.					0.14	0.46
Hexachlorocyclohexane (µg/l) (Lindane) **Gamma-BHC** 58899 Known or suspected carcinogen; human health criteria at risk level 10^{-5}.	0.95		0.16		0.19	0.63
Hexachlorocyclopentadiene (µg/l) 77474					240	17,000

PARAMETER CAS Number	USE DESIGNATION					
	AQUATIC LIFE				HUMAN HEALTH	
	FRESHWATER		SALTWATER		Public Water Supply[3]	All Other Surface Waters[4]
	Acute[1]	Chronic[2]	Acute[1]	Chronic[2]		
Hexachloroethane (µg/l) 67721 Known or suspected carcinogen; human health criteria at risk level 10^{-5}.					19	89
Hydrogen sulfide (µg/l) 7783064		2.0		2.0		
Indeno (1,2,3,-cd) pyrene (µg/l) 193395 Known or suspected carcinogen; human health criteria at risk level 10^{-5}.					0.044	0.49
Iron (µg/l) 7439896 Criterion to maintain acceptable taste, odor or aesthetic quality of drinking water and applies at the drinking water intake.					300	
Isophorone (µg/l) 78591 Known or suspected carcinogen; human health criteria at risk level 10^{-5}.					360	26,000
Kepone (µg/l) 143500		zero		zero		

PARAMETER CAS Number	USE DESIGNATION AQUATIC LIFE FRESHWATER Acute[1]	 Chronic[2]	 SALTWATER Acute[1]	 Chronic[2]	 HUMAN HEALTH Public Water Supply[3]	 All Other Surface Waters[4]
Lead (μg/l)[5] 7439921 Freshwater values are a function of total hardness as calcium carbonate ($CaCO_3$) mg/l and the water effect ratio. The minimum hardness allowed for use in the equation below shall be 25 and the maximum hardness shall be 400 even when the actual ambient hardness is less than 25 or greater than 400. **Freshwater acute criterion (μg/l)** WER $[e^{\{1.273[\ln(\text{hardness})]-1.084\}}]$ **Freshwater chronic criterion (μg/l)** WER $[e^{\{1.273[\ln(\text{hardness})]-3.259\}}]$ WER = [Water Effect Ratio =]1 unless shown otherwise under 9 VAC 25-260-140.F and listed in 9 VAC 25-260-310 e = natural antilogarithm ln = natural logarithm	120 WER = 1 $CaCO_3$ = 100	14 WER =1 $CaCO_3$= 100	240 WER=1	9.3 WER=1	15	
Malathion (μg/l) 121755		0.1		0.1		

PARAMETER CAS Number	USE DESIGNATION					
	AQUATIC LIFE				HUMAN HEALTH	
	FRESHWATER		SALTWATER			
	Acute[1]	Chronic[2]	Acute[1]	Chronic[2]	Public Water Supply[3]	All Other Surface Waters[4]
Manganese (µg/l) 7439965 Criterion to maintain acceptable taste, odor or aesthetic quality of drinking water and applies at the drinking water intake.					50	
Mercury (µg/l) [5] 7439976	1.4	0.77	1.8	0.94	0.050	0.051
Methyl Bromide (µg/l) 74839					48	4,000
Methoxychlor (µg/l) 72435		0.03		0.03	[~~40~~ 100]	
Mirex (µg/l) 2385855		zero		zero		
Monochlorobenzene (µg/l) 108907					680	21,000

PARAMETER CAS Number	USE DESIGNATION					
	AQUATIC LIFE				HUMAN HEALTH	
	FRESHWATER		SALTWATER			
	Acute[1]	Chronic[2]	Acute[1]	Chronic[2]	Public Water Supply[3]	All Other Surface Waters[4]
Nickel (µg/L)[5] 744002 Freshwater values are a function of total hardness as calcium carbonate ($CaCO_3$) mg/l and the WER. The minimum hardness allowed for use in the equation below shall be 25 and the maximum hardness shall be 400 even when the actual ambient hardness is less than 25 or greater than 400. **Freshwater acute criterion (µg/l)** $WER\left[e^{\{0.8460[\ln(hardness)] + 1.312\}}\right](CF_a)$ **Freshwater chronic criterion (µg/l)** $WER\left[e^{\{0.8460[\ln(hardness)] - 0.8840\}}\right](CF_c)$ WER =[Water Effect Ratio =]1 unless shown otherwise under 9 VAC 25-260-140.F and listed in 9 VAC 25-250-310 e = natural antilogarithm ln = natural logarithm $(CF_a) = 0.998$ $(CF_c) = 0.997$	180 WER =1 $CaCO_3$ = 100	20 WER = 1 $CaCO_3$ = 100	74 WER=1	8.2 WER=1	610	4,600

PARAMETER CAS Number	**USE DESIGNATION**					
	AQUATIC LIFE				**HUMAN HEALTH**	
	FRESHWATER		**SALTWATER**			
	Acute[1]	Chronic[2]	Acute[1]	Chronic[2]	**Public Water Supply** [3]	**All Other Surface Waters**[4]
Nitrate as N (µg/l) 14797558					10,000	
Nitrobenzene (µg/l) 98953					17	1,900
N-Nitrosodimethylamine (µg/l) 62759 Known or suspected carcinogen; human health criteria at risk level $10^{-5.}$					0.0069	81
N-Nitrosodiphenylamine (µg/l) 86306 Known or suspected carcinogen; human health criteria at risk level $10^{-5.}$					50	160
N-Nitrosodi-n-propylamine (µg/l) 621647 Known or suspected carcinogen; human health criteria at risk level $10^{-5.}$					0.05	14
Parathion (µg/l) 56382	0.065	0.013				

PARAMETER CAS Number	**USE DESIGNATION**					
	AQUATIC LIFE				**HUMAN HEALTH**	
	FRESHWATER		**SALTWATER**		**Public Water Supply**[3]	**All Other Surface Waters**[4]
	Acute[1]	Chronic[2]	Acute[1]	Chronic[2]		
PCB 1260 (µg/l) 11096825		0.014		0.030		
PCB 1254 (µg/l) 11097691		0.014		0.030		
PCB 1248 (µg/l) 12672296		0.014		0.030		
PCB 1242 (µg/l) 53469219		0.014		0.030		
PCB 1232 (µg/l) 11141165		0.014		0.030		
PCB 1221 (µg/l) 11104282		0.014		0.030		
PCB 1016 (µg/l) 12674112		0.014		0.030		
PCB Total (µg/l) 1336363 Known or suspected carcinogen; human health criteria at risk level 10^{-5}					0.0017	0.0017

PARAMETER CAS Number	USE DESIGNATION					
	AQUATIC LIFE				HUMAN HEALTH	
	FRESHWATER		SALTWATER		Public Water Supply[3]	All Other Surface Waters[4]
	Acute[1]	Chronic[2]	Acute[1]	Chronic[2]		
Pentachlorophenol (µg/l) 87865 Known or suspected carcinogen; human health criteria risk level at 10^{-5} **[Freshwater acute criterion (µg/l)** $e^{(1.005(pH)-4.869)}$ **Freshwater chronic criterion (µg/l)** $e^{(1.005(pH)-5.134)}$]	[e~~(1.005 (pH) -4.869)~~ 8.7 pH = 7.0	[e~~(1.005 (pH) -5.134)~~ 6.7 pH = 7.0]	13	7.9	2.8	82
pH See § 9VAC25-260-50						
Phenol (µg/l) 108952					21,000	4,600,000
Phosphorus (Elemental µg/l) 7723140				0.10		
Pyrene (µg/l) 129000					960	11,000

PARAMETER CAS Number	USE DESIGNATION AQUATIC LIFE FRESHWATER Acute[1]	Chronic[2]	SALTWATER Acute[1]	Chronic[2]	HUMAN HEALTH Public Water Supply[3]	All Other Surface Waters[4]
Radionuclides **Gross Alpha Particle Activity (pCi/L)** **Beta Particle & Photon Activity (mrem/yr)** (formerly man-made radio nuclides) **Strontium 90 (pCi/L)** **Tritium (pCi/L)**					15 4 8 20,000	15 4 8 20,000
Selenium (µg/l)[5] 7782492 WER shall not be used for freshwater acute and chronic criteria.	20	5.0	300 WER=1	71 WER=1	170	11,000

PARAMETER CAS Number	USE DESIGNATION AQUATIC LIFE FRESHWATER Acute[1]	Chronic[2]	SALTWATER Acute[1]	Chronic[2]	HUMAN HEALTH Public Water Supply[3]	All Other Surface Waters[4]
Silver (µg/l)[5] 7440224 Freshwater values are a function of total hardness as calcium carbonate ($CaCO_3$) mg/l and the WER. The minimum hardness allowed for use in the equation below shall be 25 and the maximum hardness shall be 400 even when the actual ambient hardness is less than 25 or greater than 400. **Freshwater acute criterion (µg/l)** WER $[e^{\{1.72[\ln(\text{hardness})]-6.52\}}]$ (CF_a) WER = [Water Effect Ratio =]1 unless shown otherwise under 9 VAC 25-260-140.F and listed in 9 VAC 25-260-310 e = natural antilogarithm ln=natural logarithm $(CF_a) = 0.85$	3.4 WER=1; $CaCO_3$= 100		2.0 WER=1			
Sulfate (µg/l) Criterion to maintain acceptable taste, odor or aesthetic quality of drinking water and applies at the drinking water intake.					250,000	

PARAMETER CAS Number	**USE DESIGNATION**					
	AQUATIC LIFE				**HUMAN HEALTH**	
	FRESHWATER		**SALTWATER**		**Public Water Supply**[3]	**All Other Surface Waters**[4]
	Acute[1]	Chronic[2]	Acute[1]	Chronic[2]		
Temperature See § 9 VAC 25-260-50						
1,1,2,2-Tetrachloroethane (µg/l) 79345 [Known or suspected carcinogen; human health criteria at risk level 10^{-5}]					1.7	110
Tetrachloroethylene (µg/l) 127184 [Known or suspected carcinogen; human health criteria at risk level 10^{-5}]					8.0	89
[~~Toluene (µg/l)~~ ~~108883~~ **Thallium (µg/l)** 7440280					~~6,800~~ 1.7	~~200,000~~ 6.3]
[~~Thallium (µg/l)~~ ~~7440280~~ **Toluene (µg/l)** 108883					~~1.7~~ 6,800	~~6.3~~ 200,000]

PARAMETER CAS Number	**USE DESIGNATION**					
	AQUATIC LIFE				**HUMAN HEALTH**	
	FRESHWATER		**SALTWATER**		**Public Water Supply**[3]	**All Other Surface Waters**[4]
	Acute[1]	Chronic[2]	Acute[1]	Chronic[2]		
Total Dissolved Solids (µg/l) Criterion to maintain acceptable taste, odor or aesthetic quality of drinking water and applies at the drinking water intake.					500,000	
Toxaphene (µg/l) 8001352 The chronic aquatic life criteria have been calculated to also protect wildlife from harmful effects through ingestion of contaminated tissue. Known or suspected carcinogen; human health criteria at risk level 10^{-5}.	0.73	0.0002	0.21	0.0002	0.0073	0.0075
Tributyltin (µg/l) 60105	0.46	0.063	[~~0.37~~ 0.38]	0.001		
1, 2, 4 Trichlorobenzene (µg/l) 120821					260	940
1,1,2-Trichloroethane (µg/l) 79005 Known or suspected carcinogen; human health criteria at risk level 10^{-5}.					6.0	420

PARAMETER CAS Number	USE DESIGNATION					
	AQUATIC LIFE				HUMAN HEALTH	
	FRESHWATER		SALTWATER		Public Water Supply[3]	All Other Surface Waters[4]
	Acute[1]	Chronic[2]	Acute[1]	Chronic[2]		
Trichloroethylene (µg/l) 79016 Known or suspected carcinogen; human health criteria at risk level 10^{-5}.					27	810
2, 4, 6 –Trichlorophenol 88062 Known or suspected carcinogen; human health criteria at risk level 10^{-5}.					21	65
2–(2, 4, 5 –Trichlorophenoxy propionic acid (Silvex) (µg/l)					50	
Vinyl Chloride (µg/l) 75014 Known or suspected carcinogen; human health criteria at risk level 10^{-5}.					0.23	61

PARAMETER CAS Number	USE DESIGNATION					
	AQUATIC LIFE				HUMAN HEALTH	
	FRESHWATER		SALTWATER		Public Water Supply [3]	All Other Surface Waters[4]
	Acute[1]	Chronic[2]	Acute[1]	Chronic[2]		
Zinc (μg/l)[5] Freshwater values are a function of total hardness as calcium carbonate ($CaCO_3$) mg/l and the WER. The minimum hardness allowed for use in the equation below shall be 25 and the maximum, hardness shall be 400 even when the actual ambient hardness is less than 25 or greater than 400 . **Freshwater acute criterion (μg/l)** WER $[e^{\{0.8473[\text{In(hardness)}]+0.884\}}]$ (CF_a) **Freshwater chronic criterion (μg/l)** WER $[e^{\{0.8473[\text{In(hardness)}]+0.884\}}]$ (CF_c) WER =[Water Effect Ratio =]1 unless shown otherwise under 9 VAC 25-260-140.F and listed in 9 VAC 25-260-310 e = base e exponential function. ln = log normal function CF_a = 0.978 CF_c = 0.986 [~~Human health criterion for public water supply maintains acceptable taste, odor or aesthetic quality of drinking water and applies at the drinking water intake.~~]	120 WER=1 $CaCO_3$= 100	120 WER=1 $CaCO_3$= 100	90 WER=1	81 WER=1	[~~5,000~~ 9,100]	69,000

1 One hour average concentration not to be exceeded more than once every 3 years on the average, unless otherwise noted.

[2] Four-day average concentration not to be exceeded more than once every 3 years on the average, unless otherwise noted.

[3] Criteria have been calculated to protect human health from toxic effects through drinking water and fish consumption, unless otherwise noted and apply in segments designated as PWS in 9 VAC 25-260-390-540.

[4] Criteria have been calculated to protect human health from toxic effects through fish consumption, unless otherwise noted and apply in all other surface waters not designated as PWS in 9 VAC 25-260-390-540.

[5] Acute and chronic saltwater and freshwater aquatic life criteria apply to the biologically available form of the metal and apply as a function of the pollutant's water effect ratio (WER) as defined in 9 VAC 25-260-140 F (WER X criterion). Metals measured as dissolved shall be considered to be biologically available, or, because local receiving water characteristics may otherwise affect the biological availability of the metal, the biologically available equivalent measurement of the metal can be further defined by determining a Water Effect Ratio (WER) and multiplying the numerical value shown in 9 VAC 25-260-140 B by the WER. Refer to 9 VAC 25-260-140 F. Values displayed above in the table are examples and correspond to a WER of 1.0. Metals criteria have been adjusted to convert the total recoverable fraction to dissolved fraction using a conversion factor. Criteria that change with hardness have the conversion factor listed in the table above.

[~~10~~6] = The flows listed below are default design flows for calculating steady state waste load allocations unless statistically valid methods are employed which demonstrate compliance with the duration and return frequency of the water quality criteria.

Aquatic Life:

Acute criteria	1Q10
Chronic criteria	7Q10

Human Health:

Non-carcinogens	30Q5
Carcinogens	Harmonic mean (An exception to this is for the carcinogen dioxin. The applicable stream flow for dioxin is ~~listed in 9 VAC 25-260-150 B~~ the mean annual stream flow).

The following are defined for this section:

"1Q10" means the lowest flow averaged over a period of one day which on a statistical basis can be expected to occur once every 10 climatic years.

"7Q10" means the lowest flow averaged over a period of seven consecutive days that can be statistically expected to occur once every 10 climatic years.

"30Q5" means the lowest flow averaged over a period of 30 consecutive days that can be statistically expected to occur once every five climatic years.

"Averaged" means an arithmetic mean.

"Climatic year" means a year beginning on April 1 and ending on March 31.

TABLE 1***

Acute Ammonia Criteria for Freshwater

Total Ammonia (mg/liter)****

Temperature (EC)

pH	0C	5C	10C	15C	20C	25C	30C
6.50	35	33	31	30	29	29	29
6.75	32	30	28	27	27	26	26
7.00	28	26	25	24	23	23	23
7.25	23	22	20	19.7	19.2	19.0	19
7.50	17.4	16.3	15.5	14.9	14.6	14.5	14.5
7.75	12.2	11.4	10.9	10.5	10.3	10.2	10.3
8.00	8.0	7.5	7.1	6.9	6.8	6.8	7.0
8.25	4.5	4.2	4.1	4.0	3.9	4.0	4.1
8.50	2.6	2.4	2.3	2.3	2.3	2.4	2.6
8.75	1.47	1.40	1.37	1.38	1.42	1.52	1.66
9.00	0.86	0.83	0.83	0.86	0.91	1.01	1.16

TABLE 2***

Chronic Ammonia Criteria for Freshwater

Total Ammonia (mg/liter)****

Temperature (EC)

pH	0C	5C	10C	15C	20C	25C	30C
6.50	3.02	2.82	2.66	2.59	2.53	2.5	2.5
6.75	3.02	2.82	2.66	2.59	2.53	2.5	2.5
7.00	3.02	2.82	2.66	2.59	2.53	2.5	2.5
7.25	3.02	2.82	2.66	2.59	2.53	2.5	2.5
7.50	3.02	2.82	2.66	2.59	2.53	2.5	2.5
7.75	2.80	2.60	2.47	2.38	2.35	2.3	2.4
8.00	1.82	1.71	1.62	1.57	1.55	1.56	1.59
8.25	1.03	0.97	0.93	0.91	0.90	0.91	0.95
8.50	0.58	0.55	0.53	0.53	0.53	0.55	0.58
8.75	0.34	0.32	0.31	0.31	0.32	0.35	0.38
9.00	0.20	0.19	0.19	0.20	0.21	0.23	0.27

TABLE 3

Acute Ammonia Criteria for Saltwater

Total Ammonia (mg/liter)****

Salinity = 10 g/kg

Temperature (EC)

pH	0C	5C	10C	15C	20C	25C	30C	35C
7.0	270	191	131	92	62	44	29	21
7.2	175	121	83	58	40	27	19	13
7.4	110	77	52	35	25	17	12	8.3
7.6	69	48	33	23	16	11	7.7	5.6
7.8	44	31	21	15	10	7.1	5.0	3.5
8.0	27	19	13	9.4	6.4	4.6	3.1	2.3
8.2	18	12	8.5	5.8	4.2	2.9	2.1	1.5
8.4	11	7.9	5.4	3.7	2.7	1.9	1.4	1.0
8.6	7.3	5.0	3.5	2.5	1.8	1.3	0.98	0.75
8.8	4.6	3.3	2.3	1.7	1.2	0.92	0.71	0.56
9.0	2.9	2.1	1.5	1.1	0.85	0.67	0.52	0.44

Acute Ammonia Criteria for Saltwater

Total Ammonia (mg/l)****

Salinity = 20 g/kg

Temperature (EC)

pH	0C	5C	10C	15C	20C	25C	30C	35C
7.0	291	200	137	96	64	44	31	21
7.2	183	125	87	60	42	29	20	14
7.4	116	79	54	37	27	18	12	8.7
7.6	73	50	35	23	17	11	7.9	5.6
7.8	46	31	23	15	11	7.5	5.2	3.5
8.0	29	20	14	9.8	6.7	4.8	3.3	2.3
8.2	19	13	8.9	6.2	4.4	3.1	2.1	1.6
8.4	12	8.1	5.6	4.0	2.9	2.0	1.5	1.1
8.6	7.5	5.2	3.7	2.7	1.9	1.4	1.0	0.77
8.8	4.8	3.3	2.5	1.7	1.3	0.94	0.73	0.56
9.0	3.1	2.3	1.6	1.2	0.87	0.69	0.54	0.44

Acute Ammonia Criteria for Saltwater

Total Ammonia (mg/l)****

Salinity = 30 g/kg

Temperature (EC)

pH	0C	5C	10C	15C	20C	25C	30C	35C
7.0	312	208	148	102	71	48	33	23
7.2	196	135	94	64	44	31	21	15
7.4	125	85	58	40	27	19	13	9.4
7.6	79	54	37	25	21	12	8.5	6.0
7.8	50	33	23	16	11	7.9	5.4	3.7
8.0	31	21	15	10	7.3	5.0	3.5	2.5
8.2	20	14	9.6	6.7	4.6	3.3	2.3	1.7
8.4	12.7	8.7	6.0	4.2	2.9	2.1	1.6	1.1
8.6	8.1	5.6	4.0	2.7	2.0	1.4	1.1	0.81
8.8	5.2	3.5	2.5	1.8	1.3	1.0	0.75	0.58
9.0	3.3	2.3	1.7	1.2	0.94	0.71	0.56	0.46

TABLE 4

Chronic Ammonia Criteria for Saltwater

Total Ammonia (mg/l)****

Salinity = 10 g/kg

Temperature (EC)

pH	0C	5C	10C	15C	20C	25C	30C	35C
7.0	41	29	20	14	9.4	6.6	4.4	3.1
7.2	26	18	12	8.7	5.9	4.1	2.8	2.0
7.4	17	12	7.8	5.3	3.7	2.6	1.8	1.2
7.6	10	7.2	5.0	3.4	2.4	1.7	1.2	0.84
7.8	6.6	4.7	3.1	2.2	1.5	1.1	0.75	0.53
8.0	4.1	2.9	2.0	1.4	0.97	0.69	0.47	0.34
8.2	2.7	1.8	1.3	0.87	0.62	0.44	0.31	0.23
8.4	1.7	1.2	0.81	0.56	0.41	0.29	0.21	0.16
8.6	1.1	0.75	0.53	0.37	0.27	0.20	0.15	0.11
8.8	0.69	0.50	0.34	0.25	0.18	0.14	0.11	0.08
9.0	0.44	0.31	0.23	0.17	0.13	0.10	0.08	0.07

Chronic Ammonia Criteria for Saltwater

Total Ammonia (mg/l)****

Salinity = 20 g/kg

Temperature (EC)

pH	0C	5C	10C	15C	20C	25C	30C	35C
7.0	44	30	21	14	9.7	6.6	4.7	3.1
7.2	27	19	13	9.0	6.2	4.4	3.0	2.1
7.4	18	12	8.1	5.6	4.1	2.7	1.9	1.3
7.6	11	7.5	5.3	3.4	2.5	1.7	1.2	0.84
7.8	6.9	4.7	3.4	2.3	1.6	1.1	0.78	0.53
8.0	4.4	3.0	2.1	1.5	1.0	0.72	0.50	0.34
8.2	2.8	1.9	1.3	0.94	0.66	0.47	0.31	0.24
8.4	1.8	1.2	0.84	0.59	0.44	0.30	0.22	0.16
8.6	1.1	0.78	0.56	0.41	0.28	0.20	0.15	0.12
8.8	0.72	0.50	0.37	0.26	0.19	0.14	0.11	0.08
9.0	0.47	0.34	0.24	0.18	0.13	0.10	0.08	0.07

Chronic Ammonia Criteria for Saltwater

Total Ammonia (mg/l)****

Salinity = 30 g/kg

Temperature (EC)

pH	0C	5C	10C	15C	20C	25C	30C	35C
7.0	47	31	22	15	11	7.2	5.0	3.4
7.2	29	20	14	9.7	6.6	4.7	3.1	2.2
7.4	19	13	8.7	5.9	4.1	2.9	2.0	1.4
7.6	12	8.1	5.6	3.7	3.1	1.8	1.3	0.90
7.8	7.5	5.0	3.4	2.4	1.7	1.2	0.81	0.56
8.0	4.7	3.1	2.2	1.6	1.1	0.75	0.53	0.37
8.2	3.0	2.1	1.4	1.0	0.69	0.50	0.34	0.25
8.4	1.9	1.3	0.90	0.62	0.44	0.31	0.23	0.17
8.6	1.2	0.84	0.59	0.41	0.30	0.22	0.16	0.12
8.8	0.78	0.53	0.37	0.27	0.20	0.15	0.11	0.09
9.0	0.50	0.34	0.26	0.19	0.14	0.11	0.08	0.07

*** To calculate total ammonia values at different pH's and temperature values than listed in Tables 1 and 2 use the following formulas:

Formulas Used In The Calculation of Acute Criteria Values for Ammonia In Freshwater

The one-hour average concentration of ammonia (in mg/l as un-ionized NH3) can be calculated by using the following formulas.

0.52/FT/FPH/2 = acute criteria concentration

where; FT = final temperature

$= 10^{0.03(20-T)}$

FPH = final pH

= 1; 8.0 < pH < 9.0

$= (1 + 10^{7.4-pH})/1.25$; 6.5 < pH < 8.0

Conversions from un-ionized to total ammonia should be performed using the following formulas;

Total ammonia criteria = calculated un-ionized ammonia criteria divided by fraction of un-ionized ammonia

Where:

Fraction of un-ionized ammonia $= 1/(10^{pKa-pH} + 1)$

pKa = 0.09018 + (2729.92/(273.2 + temperature EC)).

Formulas Used In the Calculation of Chronic Criteria Values for Ammonia In Freshwater

The 30-day average concentration of ammonia (in mg/l as un-ionized NH3) can be calculated by using the following formulas.

0.80/FT/FPH/RATIO = chronic criteria concentration

where;

FT = final temperature

$= 10^{0.03(20-T)}$

FPH = final pH

$= 1; 8.0 < pH < 9.0$

$= (1 + 10^{7.4-pH})/1.25; 6.5 < pH < 8.0$

RATIO = 13.5; 7.7 < pH < 9.0

$= 20.25 \times (10^{7.7-pH})/(1 + 10^{7.4-pH}); 6.5 < pH < 7.7$

Conversions from un-ionized to total ammonia should be performed using the following formulas:

Total ammonia criteria = calculated un-ionized ammonia criteria divided by fraction of un-ionized ammonia

Where:

Fraction of un-ionized ammonia = $1/(10^{pKa-pH} + 1)$

Where pka = 0.09018 + (2729.92/(273.2 + temperature EC)).

**** To convert these values to mg/liter N, multiply by 0.822.

C. Application of freshwater and saltwater numerical criteria.

The numerical water quality criteria listed in subsection B of this section (excluding dissolved oxygen, pH, temperature) shall be applied according to the following classes of waters (see 9 VAC 25-260-50) and boundary designations:

CLASS OF WATERS	NUMERICAL CRITERIA
I and II (Estuarine Waters)	Saltwater criteria apply
II (Transition Zone)	More stringent of either the freshwater or saltwater criteria apply
II (Tidal Freshwater), III, IV, V, ~~and~~ VI and VII	Freshwater criteria apply

The following describes the boundary designations for Class II, (estuarine, transition zone and tidal freshwater waters) by river basin:

1. Rappahannock Basin.

Tidal freshwater is from the fall line of the Rappahannock River to Buoy 37 near Tappahannock, Virginia, including all tidal tributaries that enter the tidal freshwater Rappahannock River.

Transition zone is from Buoy 37 to Buoy 11 near Morattico, Virginia, including all tidal tributaries that enter the transition zone of the Rappahannock River.

Estuarine waters are from Buoy 11 to the mouth of the Rappahannock River (Buoy 6), including all tidal tributaries that enter the estuarine waters of the Rappahannock River.

2. York Basin.

Tidal freshwater is from the fall line of the Mattaponi River to Clifton, Virginia, and from the fall line of the Pamunkey River to Sweet Hall Landing, Virginia, including all tidal tributaries that enter the tidal freshwaters of the Mattaponi and Pamunkey Rivers.

Transition zone of the Mattaponi River is from Clifton, Virginia to the York River and the transition zone of the Pamunkey River is from Sweet Hall Landing, Virginia, to the York River. The transition zone for the York River is from West Point, Virginia, to Buoy 13 near Poropotank Bay. All tidal tributaries that enter the transition zones of the Mattaponi, Pamunkey, and York Rivers are themselves in the transition zone.

Estuarine waters are from Buoy 13 to the mouth of the York River (Tue Marsh Light) including all tidal tributaries that enter the estuarine waters of the York River.

3. James Basin.

Tidal Freshwater is from the fall line of the James River to the confluence of the Chickahominy River (Buoy 70), including all tidal tributaries that enter the tidal freshwater James River.

Transition zone is from Buoy 70 to Buoy 47 near Jamestown Island including all tidal tributaries that enter the transition zone of the James River.

Estuarine waters are from Buoy 47 to the mouth of the James River (Buoy 25) including all tidal tributaries that enter the estuarine waters of the James River.

4. Potomac Basin.

Tidal Freshwater includes all tidal tributaries that enter the Potomac River from its fall line to Buoy 43 near Quantico, Virginia.

Transition zone includes all tidal tributaries that enter the Potomac River from Buoy 43 to Buoy 33 near Dahlgren, Virginia.

Estuarine waters includes all tidal tributaries that enter the Potomac River from Buoy 33 to the mouth of the Potomac River (Buoy 44B).

5. Chesapeake Bay, Atlantic Ocean, and small coastal basins.

Estuarine waters include the Atlantic Ocean tidal tributaries, and the Chesapeake Bay and its small coastal basins from the Virginia state line to the mouth of the bay (a line from Cape Henry drawn through Buoys 3 and 8 to Fishermans Island), and its tidal tributaries, excluding the Potomac tributaries and those tributaries listed above.

6. Chowan River Basin.

Tidal freshwater includes the Northwest River and its tidal tributaries from the Virginia-North Carolina state line to the free flowing portion, the Blackwater River and its tidal tributaries from the Virginia-North Carolina state line to the end of tidal waters at approximately state route 611 at river mile 20.90, the Nottoway River and its tidal tributaries from the Virginia-North Carolina state line to the end of tidal waters at approximately Route 674, and the North Landing River and its tidal tributaries from the Virginia-North Carolina state line to the Great Bridge Lock.

Transition zone includes Back Bay and its tributaries in the City of Virginia Beach to the Virginia-North Carolina state line.

D. Site-specific modifications to numerical water quality criteria.

1. The board may consider site-specific modifications to numerical water quality criteria in subsection B of this section where the applicant or permittee demonstrates that the alternate numerical water quality criteria are sufficient to protect all designated uses (see 9 VAC 25-260-10) of that particular surface water segment or body.

2. Any demonstration for site-specific human health criteria shall be restricted to a reevaluation of the bioconcentration or bioaccumulation properties of the pollutant. The exceptions to this restriction are for site-specific criteria for taste, odor, and aesthetic compounds noted by double asterisks in subsection B of this section and nitrates.

3. Site-specific temperature requirements are found in 9 VAC 25-260-90.

4. Procedures for promulgation and review of site-specific modifications to numerical water quality criteria resulting from subdivisions 1 and 2 of this subsection.

a. Proposals describing the details of the site-specific study shall be submitted to the board's staff for approval prior to commencing the study.

b. Any site-specific modification shall be promulgated as a regulation in accordance with the Administrative Process Act. All site-specific modifications shall be listed in 9 VAC 25-260-310 (Special standards and requirements).

E. Variances to water quality standards.

1. A variance from numeric criteria may be granted to a discharger if it can be demonstrated that one or more of the conditions in 9 VAC 25-260-10 G limit the attainment of one or more specific ~~water quality criteria~~ designated uses.

a. Variances shall apply only to the discharger to whom they are granted and shall be reevaluated and either continued, modified or revoked at the time of permit issuance. At that time the permittee shall make a showing that the conditions for granting the variance still apply.

b. Variances shall be described in the public notice published for the permit. The decision to approve a variance shall be subject to the public participation requirements of the Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation, 9 VAC 25-31~~-10 et seq.~~ (Permit Regulation).

c. Variances shall not prevent the maintenance and protection of existing uses or exempt the discharger or regulated activity from compliance with other appropriate technology or water quality-based limits or best management practices.

d. Variances granted under this section shall not apply to new discharges.

e. Variances shall be submitted by the department's Division of Scientific Research or its successors to the Environmental Protection Agency for review and approval/disapproval.

f. A list of variances granted shall be maintained by the department's Division of Scientific Research or its successors.

2. None of the variances in subsection E of this section shall apply to the halogen ban section (9 VAC 25-260-110) or temperature criteria in 9 VAC 25-260-50 if superseded by ϶ 316(a) of the Clean Water Act requirements. No variances in subsection E of this section shall apply to the

criteria that are designed to protect human health from carcinogenic and noncarcinogenic toxic effects (subsection B of this section) with the exception of the metals, and the taste, odor, and aesthetic compounds noted by double asterisks and nitrates, listed in subsection B of this section.

F. Water effect ratio.

1. A water effects ratio (WER) shall be determined by measuring the effect of receiving water (as it is or will be affected by any discharges) on the bioavailability or toxicity of a metal by using standard test organisms and a metal to conduct toxicity tests simultaneously in receiving water and laboratory water. The ratio of toxicities of the metal(s) in the two waters is the WER (toxicity in receiving water divided by toxicity in laboratory water = WER). Once an acceptable WER for a metal is established, the numerical value for the metal in subsection B of this section is multiplied by the WER to produce an instream concentration that will protect designated uses. This instream concentration shall be utilized in permitting decisions.

2. The WER shall be assigned a value of 1.0 unless the applicant or permittee demonstrates to the department's satisfaction in a permit proceeding that another value is appropriate, or unless available data allow the department to compute a WER for the receiving waters. The applicant or permittee is responsible for proposing and conducting the study to develop a WER. The study may require multiple testing over several seasons. The applicant or permittee shall obtain the department's Division of Scientific Research or its successor approval of the study protocol and the final WER.

3. The Permit Regulation at 9 VAC 25-31-230 C requires that permit limits for metals be expressed as total recoverable measurements. To that end, the study used to establish the

WER may be based on total recoverable measurements of the metals.

4. The Environmental Protection Agency views the WER in any particular case as a site-specific criterion. Therefore, the department's Division of Scientific Research or its successor shall submit the results of the study to the Environmental Protection Agency for review and approval/disapproval within 30 days of the receipt of certification from the state's Office of the Attorney General. Nonetheless, the WER is established in a permit proceeding, shall be described in the public notice associated with the permit proceeding, and applies only to the applicant or permittee in that proceeding. The department's action to approve or disapprove a WER is a case decision, not an amendment to the present regulation.

The decision to approve or disapprove a WER shall be subject to the public participation requirements of the Permit Regulation, 9 VAC 25-31-260 et seq. A list of final WERs will be maintained by the department's Division of Scientific Research or its successor.

5. A WER shall not be used for the freshwater and saltwater chronic mercury criteria or the freshwater acute and chronic selenium criteria.

9 VAC 25-260-150. ~~Dioxin surface water quality standard.~~

~~A. Dioxin (2,3,7,8-tetrachlorodibenzo-p-dioxin). For the protection of human health from the toxic properties of dioxin ingested through water and contaminated aquatic organisms, the ambient concentration of all surface waters shall not exceed 1.2 parts per quadrillion (ppq) based upon a risk level of 10^{-5} and a potency of 1.75 x 10^{4} (mg/kg-day)$^{-1}$.~~

~~B. The applicability of the standard in calculating an average effluent limit is based on a mean annual stream flow.~~

~~B. Variances to Water Quality Criteria in subsection A of this section. The board may consider site-~~

~~specific modifications to the numerical criterion in subsection A of this section where the applicant demonstrates that the alternative numerical water quality criterion is sufficient to protect human health. Any demonstration provided to the board for review shall utilize the previously referenced risk level and potency as its basis.~~

Note: Moved to 9 VAC 25-260-140 B, Table of Parameters.

PART II

STANDARDS WITH MORE SPECIFIC APPLICATION

9 VAC 25-260-160. Fecal coliform bacteria; shellfish waters.

In all open ocean or estuarine waters capable of propagating shellfish or in specific areas where public or leased private shellfish beds are present, and including those waters on which condemnation or restriction classifications are established by the State Department of Health, the following criteria for fecal coliform bacteria shall apply:

The geometric mean fecal coliform value for a sampling station shall not exceed an MPN (most probable number) of 14 per 100 milliliters. The 90^{th} percentile shall not exceed an MPN of 43 for a 5-tube, 3-dilution test or 49 for a 3-tube, 3-dilution test.

9 VAC 25-260-170. Fecal coliform bacteria; other waters.

9 VAC 25-260-170. Bacteria ; other waters.

A. In surface waters, except shellfish waters and certain waters identified in subsection[s] B and C of this section, the following criteria shall apply to protect primary contact recreational uses:

1. Fecal coliform bacteria shall not exceed a geometric mean of 200 fecal coliform bacteria per 100 ml of water for two or more samples over a calendar month nor shall more than 10% of the total samples taken during any calendar month exceed 400 fecal coliform bacteria per 100 ml of water. This criterion shall not apply for a sampling station after the bacterial indicators described in subdivision 2 of this subsection have a minimum of 12 data points or after June 30, 2008, whichever comes first.

2. *E. coli* and enterococci bacteria per 100 ml of water shall not exceed the following:

	Geometric Mean[1]	Single Sample Maximum[2]
Fresh water[3]		
E.coli	126	235
Saltwater and Transition Zone[3]		
enterococci	35	104

[1] For two or more samples taken during any calendar month.

[2] No single sample maximum for enterococci and *E. coli* shall exceed a 75% upper one-sided

confidence limit based on a site-specific log standard deviation. If site data are insufficient to establish a site-specific log standard deviation, then 0.4 shall be used as the log standard deviation in freshwater and 0.7 shall be as the log standard deviation in saltwater and transition zone. Values shown are based on a log standard deviation of 0.4 in freshwater and 0.7 in saltwater.

[3] See 9 VAC 25-260-140 C for freshwater and transition zone delineation.

B. Notwithstanding the above, all sewage discharges shall be disinfected to achieve the applicable bacteria concentrations in subsection A 2 of this section prior to discharge.

However, the board, with the advice of the State Department of Health, may determine that reduced or no disinfection of a discharge is appropriate on a seasonal or year-round basis. In making such a determination, the board shall consider the designated uses of these waters and the seasonal nature of those uses. Such determinations will be made during the process of approving, issuing, or reissuing the discharge permit and shall be in conformance with a board approved site-specific use-attainability analysis performed by the permittee. When making a case-by-case determination concerning the appropriate level of disinfection for sewage discharges into these waters, the board shall provide a 45-day public notice period and opportunity for a public hearing.

<u>C. Surface waters, or portions of these, may be designated in accordance with 9 VAC 25-260-10 to protect secondary contact recreation.</u>

1. <u>Sewage discharges to secondary contact recreational waters shall meet the requirements of the disinfection policy set forth in subsection B of this section.</u>
2. <u>In surface waters, except shellfish waters, designated for secondary contact recreation</u>

under this subsection, the following bacteria criteria per 100 ml of water shall apply:

	Geometric Mean[1]	Single Sample Maximum[2]
Fresh[~~and Transition Zone Waters~~water][3]		
[~~enterococci~~	~~165~~	~~307~~]
E.coli	630	1173
Saltwater [and Transition Zone[3]]		
enterococci	175	519

[1] Calendar month average for two or more samples.

[2] No single sample maximum for enterococci and *E. coli* in secondary contact waters shall exceed a 75% upper one-sided confidence limit based on a site-specific log standard deviation. If site data are insufficient to establish a site-specific log standard deviation, then 0.4 shall be the log standard deviation in fresh and transition zone waters and 0.7 shall be the log standard deviation in saltwater. Values shown are based on a log standard deviation of 0.4 in freshwater and 0.7 in saltwater.

[3] See subsection 9 VAC 25-260-140 C for fresh[water] and transition zone [~~waters~~] delineation.

3. Surface waters designated under this subsection are as follows:

a. (Reserved)

b. (Reserved)

c. (Reserved)

9 VAC 25-260-180 (Deleted)

PART III - Deleted

PART IV

GROUNDWATER STANDARDS (Deleted and moved to 9 VAC 25-280-10 et seq)

~~9 VAC 25-260-190 General Requirements~~

~~Except where otherwise specified, groundwater quality standards shall apply statewide and shall apply to all groundwater occurring at and below the uppermost seasonal limits of the water table. In order to prevent the entry of pollutants into groundwater occurring in any aquifer, a soil zone or alternate protective measure or device sufficient to preserve and protect present and anticipated uses of groundwater shall be maintained at all times. Zones for mixing wastes with groundwater may be allowed, upon request, but shall be determined on a case-by-case basis and shall be kept as small as possible. It is recognized that natural groundwater quality varies from area to area. Virginia is divided into four Physiographic Provinces, namely the Coastal Plain, Piedmont and Blue Ridge, Valley and Ridge, and Cumberland Plateau. See Figure 1. Accordingly, the Board has established certain groundwater standards specific to each individual Physiographic Province.~~

~~9 VAC 25-260-200 Anti-degradation Policy for Groundwater~~

~~If the concentration of any constituent in groundwater is less than the limit set forth by groundwater standards, the natural quality for the constituent shall be maintained; natural quality shall also be maintained for all constituents, including temperature, not set forth in groundwater standards. If the concentration of any constituent in groundwater exceeds the limit in the standard for that constituent, no addition of that constituent to the naturally occurring concentration shall be made. Variance to this policy shall not be made unless it has been affirmatively demonstrated that a change is justifiable to provide necessary economic or social development, that the degree of waste treatment necessary to preserve the existing quality cannot be economically or socially justified, and that the present and anticipated uses of such water will be preserved and protected.~~

~~9 VAC 25-260-210 Groundwater Standards Applicable Statewide~~

~~CONSTITUENT~~	~~CONCENTRATION~~	
~~Sodium~~	~~270~~	~~mg/l~~
~~Foaming Agents as methylene blue active substances~~	~~0.05~~	~~mg/l~~
~~Petroleum hydrocarbons~~	~~1~~	~~mg/l~~
~~Arsenic~~	~~0.05~~	~~mg/l~~
~~Barium~~	~~1.0~~	~~mg/l~~
~~Cadmium~~	~~0.0004~~	~~mg/l~~
~~Chromium~~	~~0.05~~	~~mg/l~~
~~Copper~~	~~1.0~~	~~mg/l~~
~~Cyanide~~	~~0.005~~	~~mg/l~~
~~Lead~~	~~0.05~~	~~mg/l~~
~~Mercury~~	~~0.00005~~	~~mg/l~~
~~Phenols~~	~~0.001~~	~~mg/l~~
~~Selenium~~	~~0.01~~	~~mg/l~~

~~Silver~~	~~None~~	
~~Zinc~~	~~0.05~~	~~mg/l~~
~~Chlorinated Hydrocarbon Insecticides~~		
~~Aldrin/Dieldrin~~	~~0.003~~	~~ug/l~~
~~Chlordane~~	~~0.01~~	~~ug/l~~
~~DDT~~	~~0.001~~	~~ug/l~~
~~Endrin~~	~~0.004~~	~~ug/l~~
~~Heptachlor~~	~~0.001~~	~~ug/l~~
~~Heptachlor Epoxide~~	~~0.001~~	~~ug/l~~
~~Kepone~~	~~None~~	
~~Lindane~~	~~0.01~~	~~ug/l~~
~~Methoxychlor~~	~~0.03~~	~~ug/l~~
~~Mirex~~	~~None~~	
~~Toxaphene~~	~~None~~	
~~Chlorophenoxy Herbicides~~		
~~2,4-D~~	~~0.1~~	~~mg/l~~
~~Silvex~~	~~0.01~~	~~mg/l~~
~~Radioactivity~~		

~~Total Radium (Ra-226 & Ra-228)~~	~~5~~	~~pCi/1~~
~~Radium 226~~	~~3~~	~~pCi/1~~
~~Gross Beta Activity*~~	~~50~~	~~pCi/1~~
~~Gross Alpha Activity~~	~~15~~	~~pCi/1~~
~~(excluding Radon & Uranium)~~		
~~Tritium~~	~~20,000~~	~~pCi/l~~
~~Strontium-90~~	~~8~~	~~pCi/l~~
~~Manmade Radioactivity - Total Dose Equiv.**~~	~~4~~	~~mrem/yr~~

~~pCi/l = picoCurie per liter mrem/yr = millirems per year~~

~~*The gross beta value shall be used as a screening value only. If exceeded the water must be analyzed to determine the presence and quantity of radionuclides to determine compliance with the tritium, strontium, and manmade radioactivity standards.~~

~~**Combination of all sources should not exceed total dose equivalent of 4 mrem/year.~~

~~9 VAC 25-260-220 Groundwater Standards Applicable by Physiographic Province~~

~~CONSTITUENT CONCENTRATION~~

	~~Coastal Plain~~	~~Piedmont & Blue Ridge~~	~~Valley & Ridge~~	~~Cumberland Plateau~~
~~pH~~	~~6.5-9~~	~~5.5-8.5~~	~~6-9~~	~~5-8.5~~
~~Ammonia Nitrogen~~	~~0.025 mg/l~~	~~0.025 mg/l~~	~~0.025 mg/l~~	~~0.025 mg/l~~
~~Nitrite Nitrogen~~	~~0.025 mg/l~~	~~0.025 mg/l~~	~~0.025 mg/l~~	~~0.025 mg/l~~
~~Nitrate Nitrogen~~	~~5 mg/l~~	~~5 mg/l~~	~~5 mg/l~~	~~0.5 mg/l~~

PART V

WATER QUALITY CRITERIA FOR GROUNDWATER **(Deleted and moved to 9 VAC 25-280-10 et seq)**

~~9 VAC 25-260-230. General requirements.~~

~~These groundwater quality criteria apply primarily to groundwater constituents that occur naturally. Since natural groundwater quality can vary greatly from area to area for these constituents, enforceable standards were not adopted. These criteria are intended to provide guidance in preventing groundwater pollution. Groundwater criteria are not mandatory.~~

~~9 VAC 25-260-240 Groundwater Criteria~~

~~CONSTITUENT (mg/l)~~	~~GROUNDWATER CRITERIA BY PHYSIOGRAPHIC PROVINCE***~~			
	~~Coastal Plain~~	~~Piedmont & Blue Ridge~~	~~Valley & Ridge~~	~~Cumberland Plateau~~
~~Alkalinity~~	~~30-500~~	~~10-200~~	~~30-500~~	~~30-200~~
~~Total Diss. Solids~~	~~1000~~	~~250~~	~~500~~	~~500~~
~~Chloride~~	~~50*~~	~~25~~	~~25~~	~~25~~
~~Sulfate~~	~~50~~	~~25~~	~~100~~	~~150~~
~~Total Organic Carbon~~	~~10~~	~~10~~	~~10~~	~~10~~
~~Color units~~	~~15~~	~~15~~	~~15~~	~~15~~

~~Iron~~	~~0.3~~	~~0.3~~	~~0.3~~	~~0.01-10~~
~~Manganese~~	~~0.05~~	~~0.05~~	~~0.05~~	~~0.01-0.5~~
~~Sodium~~	~~100*~~	~~25~~	~~25~~	~~100~~
~~Fluoride~~	~~1.4**~~	~~1.4~~	~~1.4~~	~~1.4~~
~~Hardness~~	~~120~~	~~120~~	~~300~~	~~180~~

~~* It is recognized that naturally occurring concentrations will exceed this limit in the eastern part of the Coastal Plain, especially toward the shoreline and with increased depth.~~

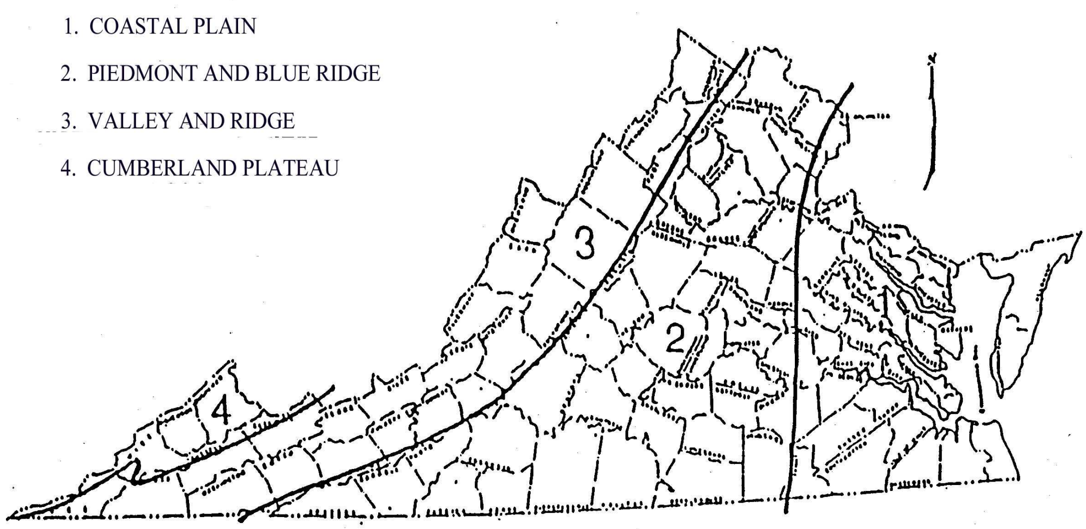
~~** Except within the cretaceous aquifer: concentration up to 5 mg/l and higher.~~

~~*** See Figure 1, for delineation of physiographic provinces.~~

~~Figure 1~~

GROUNDWATER QUALITY STANDARDS

PHYSIOGRAPHIC PROVINCES



PART VI

PROCEDURAL REQUIREMENTS

9 VAC 25-260-250. Procedural requirements for variances due to natural conditions, temperature and э 316(a) thermal variances.

A. The standards in this chapter notwithstanding, as a result of natural conditions, water quality may from time to time vary from established limits as a result of natural conditions.

B. When the maximum temperature of stockable trout waters exceeds, solely due to natural conditions, the maximum allowable temperature criterion specified in 9 VAC 25-260-50, the board, on a case-by-case basis, may grant a variance to the maximum temperature criterion and will use the naturally occurring maximum temperature in setting effluent limits in permits. The public notice for any permit proposed to be issued or reissued by the board will contain reference to any proposed granting of such a variance.

C. Variances under э 316(a) of the Clean Water Act and under subsection B of this section are site-specific case decisions that do not require a standards amendment.

9 VAC 25-260-260. Modification, amendment, and cancellation of standards.

A. Under the authority of э 62.1-44.15(3)(b) of the State Water Control Law, the board reserves the right at any time to modify, amend, or cancel any of the rules, policies, or standards set forth here. Such modification, amendment, or cancellation shall be consistent with requirements of э 303 of the Clean Water Act, as amended, and regulations promulgated under it.

B. Within three years after December 10, 1997, the department shall perform an analysis on this chapter and provide the board with a report on the results. The analysis shall include (i) the purpose and need for the chapter; (ii) alternatives which would achieve the stated purpose of this chapter in a less burdensome and less intrusive manner; (iii) an assessment of the effectiveness of this chapter; (iv) the results of a review of current state and federal statutory and regulatory requirements, including identification and justification of requirements of this chapter which are more stringent than federal requirements; and (v) the results of a review as to whether this chapter is clearly written and easily understandable by affected entities.

Upon review of the department's analysis, the board shall confirm the need to (i) continue this chapter without amendment; (ii) repeal this chapter; or (iii) amend this chapter. If the board's decision is to repeal or amend this chapter, the board shall authorize the department to initiate the applicable regulatory process to carry out the decision of the board.

9 VAC 25-260-270. Shellfish buffer zones; public hearing.

Before acting on any proposal for a project that, while not contravening established numeric criteria for shellfish waters, would result in condemnation by the State Health Department of shellfish beds, the board shall convene a public hearing to determine the socio-economic effect of the proposal. Such proposals include discharge of treated waste or proposals to otherwise alter the biological, chemical or physical properties of state waters. If the Marine Resources Commission or the Virginia Institute of Marine Science certify that the project would have no effect on the shellfish use now and in the foreseeable future, the board may dispense with such hearing.

When the board finds that the proposed project will result in shellfish bed condemnation and if the condemnation will violate the general standard, it shall disapprove the proposal.

9 VAC 25-260-280 Analytical Procedures

Analytical testing should be done in accordance with accepted procedures in 40 CFR 136, as amended or other Board/EPA recognized and approved methods.

9 VAC 25-260-290 Tidal Water Sampling

Samples for determining compliance with standards established for estuarine or open ocean waters shall be collected at slack before flood tide or slack before ebb tide.

9 VAC 25-260-300 Classification of Tributary Streams

Any tributary stream which is not named in a specific section description[~~, or otherwise~~ in Part IX (River Basin Section Tables], shall carry the same classification and standards of quality assigned to the stream or section to which it is tributary, except in the case of trout streams. Streams classified as trout waters are specifically named.

PART VII.

SPECIAL STANDARDS AND SCENIC RIVERS LISTINGS.

9 VAC 25-260-310. Special standards and requirements.

The special standards are shown in small letters to correspond to lettering in the basin tables. The special standards are as follows:

a. Shellfish waters. In all open ocean or estuarine waters capable of propagating shellfish or in specific areas where public or leased private shellfish beds are present, including those waters on which condemnation or restriction classifications are established by the State Department of Health, the following criteria for fecal coliform bacteria will apply:

The geometric mean fecal coliform value for a sampling station shall not exceed an MPN (most probable number) of 14 per 100 milliliters. The 90^{th} percentile shall not exceed an MPN of 43 for a 5-tube, 3-dilution test or 49 for a 3-tube, 3-dilution test.

The shellfish area is not to be so contaminated by radionuclides, pesticides, herbicides, or fecal material that the consumption of shellfish might be hazardous.

b. Policy for the Potomac Embayments. At its meeting on September 12, 1996, the board adopted a policy (9 VAC 25-415 Policy for the Potomac Embayments) to control point source discharges of conventional pollutants into the Virginia embayment waters of the Potomac River, and their tributaries, from the fall line at Chain Bridge in Arlington County to the Route 301 bridge in King George County. The policy sets effluent limits for BOD_5, total suspended solids, phosphorus, and ammonia, to protect the water quality of these high profile waterbodies.

c. Cancelled.

d. ~~Aquia Creek. No proposal resulting in the discharge of treated wastes to Aquia Creek will be approved unless the following is provided:~~

~~(1) At least 100 days' storage to allow complete elimination of discharges during the low-flow summer months; or~~

~~(2) Other treatment, based on sound engineering concepts (preferably with experimental data to show their feasibility), for nutrient removal prior to discharge~~Cancelled.

e. Cancelled.

f. Cancelled.

g. Occoquan watershed policy. At its meeting on July 26, 1971 (Minute 10), the board adopted a comprehensive pollution abatement and water quality management policy for the Occoquan watershed. The policy set stringent treatment and discharge requirements in order to improve and protect water quality, particularly since the waters are an important water supply for Northern Virginia. Following a public hearing on November 20, 1980, the board, at its December 10-12, 1980, meeting, adopted as of February 1, 1981, revisions to this policy (Minute 20). These revisions became effective March 4, 1981. Additional amendments were made following a public hearing on August 22, 1990, and adopted by the board at its September 24, 1990, meeting (Minute 24) and became effective on December 5, 1990. Copies are available upon request from the Department of Environmental Quality.

h. Cancelled.

i. Cancelled.

j. Cancelled.

k. Cancelled.

l. Cancelled.

m. The following effluent ~~standards~~ limitations apply to [~~treated~~] wastewater treatment facilities in the entire Chickahominy watershed above Walker's Dam [(this excludes effluents consisting solely of stormwater)]:

CONSTITUENT	CONCENTRATION
1. Biochemical Oxygen demand 5-day at 20	6.0 mg/l monthly average, with not more than 5% of individual samples to

		exceed 8.0 mg/l
2.	Settleable Solids	Not to exceed 0.1 ml/l
3.	Suspended Solids	5.0 mg/l monthly average, with not more than 5% of individual samples to exceed 7.5 mg/l
4.	Ammonia Nitrogen	Not to exceed 2.0 mg/l as N
5.	Total Phosphorus	Not to exceed 0.1 mg/l monthly average for all discharges with the exception of Tyson Foods, Inc. which shall meet 0.3 mg/l monthly average and 0.5 mg/l daily maximum.

6. Other Physical and Chemical Constituents	Other physical or chemical constituents not specifically mentioned will be covered by additional specifications as conditions detrimental to the stream arise. The specific mention of items 1 through 5 does not necessarily mean that the addition of other physical or chemical constituents will be condoned.

n. No sewage discharges, regardless of degree of treatment, should be allowed into the James River between Bosher and Williams Island Dams.

o. The concentration and total amount of impurities in Tuckahoe Creek and its tributaries of sewage origin shall be limited to those amounts from sewage, industrial wastes, and other wastes which are now present in the stream from natural sources and from existing discharges in the watershed.

p. Cancelled.

q. ~~Rappahannock River Basin.~~

~~The following effluent standards (adopted in Minute 17 from the proceedings of the board at its meeting on September 17-18, 1972) apply to all waste discharges to the Rappahannock River Basin above the proposed Salem Church Dam in accordance with subdivisions (1) and (2) below:~~

~~CONSTITUENT~~	~~FINAL EFFLUENT REQUIREMENTS (WEEKLY AVERAGE)~~
~~BOD - mg/l~~	~~1~~
~~COD - mg/l~~	~~10~~
~~Suspended solids - mg/l~~	~~0 (unmeasurable)~~
~~MBAS - mg/l~~	~~0.1~~
~~Turbidity (Jackson Units)~~	~~0.4~~
~~Fecal Coliform Bacteria per 100 ml sample~~	~~Less than 2~~
~~Nitrogen - mg/l~~	~~1~~
~~Phosphorus - mg/l~~	~~0.1~~

~~(1) After the date of Congressional authorization for actual construction of the dam has been given, all new proposals shall comply fully with the adopted standards of the paragraph above and all existing owners shall immediately commence the necessary planning, financing and design to ensure that facilities are completed prior to final completion of the construction of the dam; and~~

~~(2) Any new proposals for waste discharges to the area encompassed by the standards shall provide such conventional treatment that in the opinion of the State Department of Health, the staff and the board, satisfactory advanced waste treatment units can readily be added when funds for construction of the Salem Church Dam have been authorized.~~ Cancelled.

r. Cancelled.

s. Chlorides not to exceed 40 mg/l at any time.

t. Cancelled.

u. Maximum temperature for the New River Basin from West Virginia state line upstream to the Giles - Montgomery County line:

The maximum temperature shall be 27EC (81EF) unless caused by natural conditions; the maximum rise above natural temperatures shall not exceed 2.8EC (5EF).

This maximum temperature limit of 81EF was established in the 1970 water quality standards amendments so that Virginia temperature criteria for the New River would be consistent with those of West Virginia, since the stream flows into that state.

v. The maximum temperature of the New River and its tributaries (except trout waters) from the Montgomery-Giles County line upstream to the Virginia-North Carolina state line shall be 29EC (84EF).

w. Cancelled.

x. Clinch River from the confluence of Dumps Creek at river mile 268 at Carbo downstream to river mile 255.4. The special water quality criteria for copper (measured as total recoverable) in this section of the Clinch River are 12.4 Φg/l for protection from chronic effects and 19.5 Φg/l for protection from acute effects. These site-specific criteria are needed to provide protection to several endangered species of freshwater mussels.

{y. Proposed in Nov. 5, 2001 Issue Virginia Register of Regulations}

z. A site specific dissolved copper aquatic life criterion of 16.3 Φg/l for protection from acute effects and 10.5Φg/l for protection from chronic effects applies in the following area:

Little Creek to the Route 60 (Shore Drive) bridge including Little Channel, Desert Cove, Fishermans Cove and Little Creek Cove.

Hampton Roads Harbor including the waters within the boundary lines formed by I-664 (Monitor-Merrimac Bridge Tunnel) and I-64 (Hampton Roads Bridge Tunnel), Willoughby Bay and the Elizabeth River and its tidal tributaries.

This criterion reflects the acute and chronic copper aquatic life criterion for saltwater in 9 VAC 25-260-140.B X a water effect ratio. The water effect ratio was derived in accordance with 9 VAC 25-260-140.F

9 VAC 25-260-320. Scenic rivers.

The following section recognizes waters which the General Assembly has determined to be of special ecological or recreational significance to the state. The designation of a scenic river and the significance of this designation are the subject of the Scenic Rivers Act (э 10.1-400 et seq. of the Code of Virginia) and are listed here for informational purposes only.

POTOMAC RIVER BASIN

POTOMAC RIVER SUBBASIN

Goose Creek from its confluence with the Potomac River upstream to the Fauquier-Loudoun County line (7+ miles).

Catoctin Creek in Loudoun County from its confluence with the Potomac River upstream to the Town of Waterford (16+ miles).

SHENANDOAH RIVER SUBBASIN

The Shenandoah River in Clarke County from the Warren-Clarke County line to Lockes Landing (14+ miles).

JAMES RIVER BASIN

The Saint Marys River in Augusta County within the George Washington National Forest. (6+ miles).

Rivanna River from its confluence with the James River upstream to the base of the dam at the Woolen Mills in the City of Charlottesville to the junction of the Rivanna with the James River (37+ miles).

Appomattox River from the Route 36 bridge crossing in the City of Petersburg upstream to the abutment dam located about 1.3 miles below Lake Chesdin (5+ miles).

The James River from Orleans Street extended in the City of Richmond westward to the 1970 corporate limits of the city (8+ miles).

The Upper James River from a point two miles below Eagle Rock to the Route 630 bridge in Springwood (14+/- miles).

Chickahominy River from Route 360 to the junction of the Hanover/Henrico/New Kent County line in Hanover County (10.2+ miles).

The Moormans River in Albemarle County, from the foot of the dam of the Charlottesville water supply reservoir to the junction with the Mechums River below Route 601 (13+ miles).

Rockfish River from the Route 693 bridge in Schuyler to its confluence with the James River (9.75+ miles).

Lower James River, from an unnamed tributary to the James River approximately 1.2 miles east of

Trees Point in Charles City County (northside) and Upper Chippokes Creek (southside) to Grices Run (northside) and Lawnes Creek (southside) (25+ miles).

RAPPAHANNOCK RIVER BASIN

Rappahannock River in Rappahannock, Culpeper, Fauquier, Stafford, and Spotsylvania Counties and the City of Fredericksburg from its headwaters near Chester Gap to the Ferry Farm-Mayfield Bridge (86+/- miles).

ROANOKE RIVER BASIN

ROANOKE RIVER SUBBASIN

Roanoke (Staunton) River from ~~the Route 501 bridge in Brookneal~~ State Route 360 upstream to ~~the~~ State Route 761 ~~bridge in~~ at the Long Island Bridge (~~11+~~ 40.5 +/- miles).

CHOWAN AND DISMAL SWAMP BASIN

CHOWAN RIVER SUBBASIN

Nottoway River in Sussex County from the Route 40 bridge at Stony Creek to the Southampton County line (33+ miles).

North Meherrin River in Lunenburg County from the Route 712 bridge to the confluence with the Meherrin River (7.5 miles).

ALBEMARLE SOUND SUBBASIN

The North Landing River from the North Carolina line to the bridge at Route 165, Pocaty River from its junction with North Landing River to the Blackwater Road Bridge, West Neck Creek from the junction with the North Landing River to Indian River Road Bridge, and Blackwater Creek from the junction with the North Landing River to its confluence, approximately 4.2 miles, of an unnamed tributary 1.75+/- miles west of Blackwater Road (26+ miles).

TENNESSEE AND BIG SANDY RIVER BASINS

CLINCH RIVER SUBBASIN

Guest River from a point 100 feet downstream of the Route 72 Bridge to the junction with the Clinch River in Scott and Wise County (6.5+ miles).

PART VIII

NUTRIENT ENRICHED WATERS

9 VAC 25-260-330 Purpose.

The Board recognizes that nutrients are contributing to undesirable growths of aquatic plant life in surface waters of the Commonwealth. This standard establishes a designation of "nutrient enriched waters". Designations of surface waters of the Commonwealth as "nutrient enriched waters" are determined by the Board based upon an evaluation of the historical water quality data for one or more of the following indicators of nutrient enrichment: chlorophyll "a" concentrations, dissolved oxygen fluctuations, and concentrations of total phosphorus.

9 VAC 25-260-340 ~~Authority.~~ (Repealed.)

~~This standard is adopted under the authority of ››62.1-44.15(3) and 62.1-44.15(10) of the Code of Virginia.~~

9 VAC 25-260-350. Designation of nutrient enriched waters.

A. The following state waters are hereby designated as "nutrient enriched waters":

1. Smith Mountain Lake and all tributaries* of the impoundment upstream to their headwaters;

2. Lake Chesdin from its dam upstream to where the Route 360 bridge (Goodes Bridge) crosses the Appomattox River, including all tributaries to their headwaters that enter between the dam and the Route 360 bridge;

3. South Fork Rivanna Reservoir and all tributaries of the impoundment upstream to their headwaters;

4. New River and its tributaries, except Peak Creek above Interstate 81, from Claytor Dam upstream to Big Reed Island Creek (Claytor Lake).

5. Peak Creek from its headwaters to its mouth (confluence with Claytor Lake), including all tributaries to their headwaters;

6. Aquia Creek from its headwaters to the state line;

7. Fourmile Run from its headwaters to the state line;

8. Hunting Creek from its headwaters to the state line;

9. Little Hunting Creek from its headwaters to the state line;

10. Gunston Cove from its headwaters to the state line;

11. Belmont and Occoquan Bays from their headwaters to the state line;

12. Potomac Creek from its headwaters to the state line;

13. Neabsco Creek from its headwaters to the state line;

14. Williams Creek from its headwaters to its confluence with Lower Upper Machodoc Creek;

* When the word "tributaries" is used in this standard, it does not refer to the mainstem of the water body that has been named.

15. Tidal freshwater Rappahannock River from the fall line to Buoy 44, near Leedstown, Virginia, including all tributaries to their headwaters that enter the tidal freshwater Rappahannock River;

16. Estuarine portion of the Rappahannock River from Buoy 44, near Leedstown, Virginia, to the mouth of the Rappahannock River (Buoy 6), including all tributaries to their headwaters that enter the estuarine portion of the Rappahannock River;

17. Estuarine portion of the Mattaponi River from Clifton, Virginia, and estuarine portion of the Pamunkey River from Sweet Hall Landing, Virginia to West Point, Virginia, and the York River from West Point, Virginia, to the mouth of the York River (Tue Marsh Light) including all tributaries to their headwaters that enter the estuarine portions of the Mattaponi River, the Pamunkey River and the York River;

18. Tidal freshwater James River from the fall line to the confluence of the Chickahominy River (Buoy 70) including all tributaries to a distance five river miles above their fall lines that enter the tidal freshwater James River;

19. Estuarine portion of the James River from its confluence with the Chickahominy River (Buoy 70) to the mouth of the James River (Buoy 25), including all tributaries to their headwaters;

20. Chesapeake Bay and its small coastal basins from the Virginia state line to the mouth of the Bay (a line from Cape Henry drawn through Buoys 3 and 8 to Fishermans Island), and its tidal tributaries, excluding the Potomac tributaries, those tributaries listed above, and the Mattaponi River upstream of Clifton, Virginia, and the Pamunkey River upstream of Sweet Hall Landing, Virginia; and

21. Tidal freshwater Blackwater River from the Norfolk and Western railway bridge at Burdette, Virginia, and tidal freshwater Nottoway River from the Norfolk and Western railway bridge at

Courtland, Virginia, to the state line, including all tributaries to their headwaters that enter the tidal freshwater portions of the Blackwater River and the Nottoway River.

22. Stony Creek from its confluence with the North Fork Shenandoah River to its headwaters including all named and unnamed tributaries to their headwaters.

B. Whenever any water body is designated as "nutrient enriched waters,≅ the board shall modify the VPDES permits of point source dischargers into the "nutrient enriched waters" as provided in the board's Policy for Nutrient Enriched Waters (9 VAC 25-40-10 et seq.).

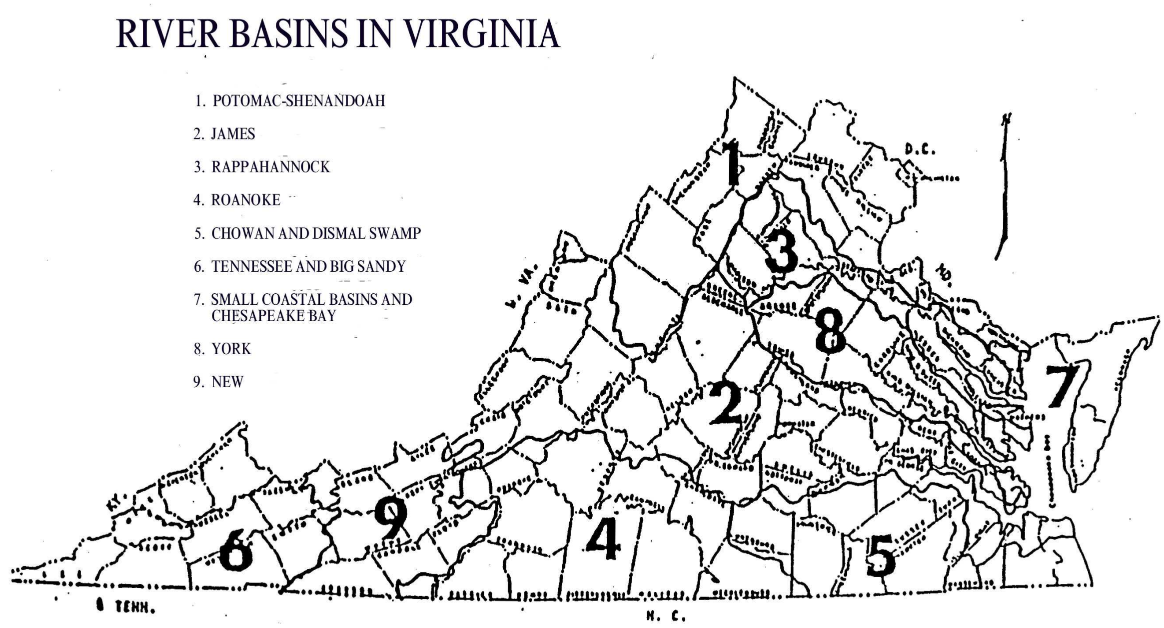
PART IX

RIVER BASIN SECTION TABLES

9 VAC 25-260-360. Section number and description columns.

A. Basin descriptions. The tables that follow divide the state's surface waters into nine river basins, some with subbasins: Potomac River Basin (Potomac and Shenandoah Subbasins), James River Basin, Rappahannock River Basin, Roanoke River Basin (Roanoke and Yadkin Subbasins), Chowan and Dismal Swamp Basin (Chowan and Albemarle Sound Subbasins), Tennessee and Big Sandy Basins (Big Sandy, Clinch and Holston Subbasins), Chesapeake Bay, Atlantic Ocean and Small Coastal Basin, York River Basin and New River Basin. (See Figure 2.)

Figure 2


RIVER BASINS IN VIRGINIA
1. POTOMAC-SHENANDOAH
2. JAMES
3. RAPPAHANNOCK
4. ROANOKE
5. CHOWAN AND DISMAL SWAMP
6. TENNESSEE AND BIG SANDY
7. SMALL COASTAL BASINS AND CHESAPEAKE BAY
8. YORK
9. NEW
D.C.
W. VA.
MD.
TENN.
N. C.
1
2
3
4
5
6
7
8
9

Each basin is further divided into sections. Each section is assigned a class, represented by Roman Numerals I through VII, based on its geographic location or, in the case of trout waters, on its use. Descriptions of these classes are found in 9 VAC 25-260-50.

B. Potomac water supplies (raw water intakes). The Leesburg and County of Fairfax intakes in the Potomac are in Maryland waters and the board cannot adopt the public water supply criteria in 9 VAC 25-260-140 B to apply at the raw water intake points. However, applications to discharge into, or otherwise alter the physical, chemical, or biological properties of Virginia waters within an area five miles upstream of the intake will be reviewed on a case-by-case basis to ensure that they will protect the water supply. Basin sections where this would be applicable are shown with an asterisk (*) in the basin and section description columns.

9 VAC 25-260-370. Classification column.

A. DO, pH and temperature criteria.

The classification column defines the class of waters to which the basin section belongs in accordance with the class descriptions given in 9 VAC 25-260-50. 9 VAC 25-260-50 defines the state's seven classes (I through VII) and the dissolved oxygen (DO), pH and maximum temperature that apply to each class. By finding the class of waters for a basin section in the classification column and referring to 9 VAC 25-260-50, the DO, pH and maximum temperature criteria can be found for each basin section.

B. DGIF trout waters.

The Department of Game and Inland Fisheries (DGIF) has established a classification system for trout waters based on aesthetics, productivity, resident fish population and stream structure.

Classes i through iv rate wild trout habitat; Classes v through vii rate cold water habitat not suitable for wild trout but adequate for year-round hold-over of stocked trout. The DGIF classification system is included in this publication with the board's trout water classes (Class V - Stockable trout waters and Class VI - Natural trout waters) in the class column of the River Basin Section Tables 9 VAC 25-260-390 et seq.

DGIF trout water classifications which are not consistent with board classifications for stockable trout waters or natural trout waters are shown with a double asterisk (**) in the class column of the River Basin Section Tables 9 VAC 25-260-390 et seq. These trout waters have been identified for reevaluation by the DGIF. Those trout waters which have no DGIF classification are shown with a triple asterisk (***). The DGIF classes are described below. Inclusion of these DGIF classes provides additional information about specific streams for permit writers and other interested persons. Trout waters classified as classes i or ii by the DGIF are also recognized in 9 VAC 25-260-110.

DGIF STREAM CLASS DESCRIPTIONS.

Wild natural trout streams.

Class i. Stream of outstanding natural beauty possessing wilderness or at least remote characteristics, an abundance of large deep pools, and excellent fish cover. Substrate is variable with an abundance of coarse gravel and rubble. Stream contains a good population of wild trout or has the potential for such. Would be considered an exceptional wild trout stream.

Class ii. Stream contains a good wild trout population or the potential for one but is lacking in aesthetic quality, productivity, and/or in some structural characteristic. Stream maintains good water quality and temperature, maintains at least a fair summer flow, and adjacent land is not extensively developed. Stream would be considered a good wild trout stream and would represent a major portion of Virginia's wild trout waters.

Class iii. Stream which contains a fair population of wild trout with carrying capacity depressed by natural factors or more commonly man-related landuse practices. Land use activities may result in heavy siltation of the stream, destruction of banks and fish cover, water quality degradation, increased water temperature, etc. Most streams would be considered to be in the active state of degradation or recovery from degradation. Alteration in landuse practices would generally improve carrying capacity of the stream.

Class iv. Stream which contains an adequately reproducing wild trout population but has severely reduced summer flow characteristics. Fish are trapped in isolated pools where they are highly susceptible to predators and fishermen. Such streams could quickly be over-exploited and, therefore, provide difficult management problems.

Stockable trout streams.

Class v. Stream does not contain an adequately reproducing wild trout population nor does it have the potential for such. However, water quality is adequate, water temperature is good, and invertebrate productivity is exceptional. Pools are abundant with good size and depth and fish cover is excellent. Stream would be good for stocked trout but may offer more potential for a fingerling stocking program.

Class vi. Stream does not contain a significant number of trout nor a significant population of warmwater gamefish. Water quality is adequate and water temperature good for summer carryover of stocked trout. Summer flow remains fair and adjacent land is not extensively developed. All streams in this class would be considered good trout stocking water.

Class vii. Stream does not contain a significant number of trout nor a significant population of warmwater gamefish. Water quality and temperature are adequate for trout survival but productivity is marginal as are structural characteristics. Streams in this class could be included in a stocking program but they would be considered marginal and generally would not be recommended for stocking.

Class viii. Stream does not contain a significant number of trout nor a significant population of warmwater gamefish. Water quality and temperature are adequate for trout but summer flows are very poor (less than 30% of channel). Streams in this class can provide good trout fishing during spring and early summer but would not be recommended for summer or fall stocking.

Other. Remaining streams would be considered unsuitable for any type of trout fishery. Streams would be considered unsuitable under any of the following conditions:

(a) summer temperatures unsuitable for trout survival;

(b) stream contains a significant population of warmwater gamefish;

(c) insufficient flow; or

(d) intolerable water quality.

9 VAC 25-260-380. Special standards column.

A. Bacteria criteria.

All surface waters have criteria for fecal coliform bacteria. The bacteria criteria for shellfish waters are set forth in 9 VAC 25-260-160; the criteria applying to all other surface waters are found in 9 VAC 25-260-170. The letter "a" in the special standards column next to a river basin section indicates that there are shellfish waters somewhere within that section and the bacteria criteria for shellfish waters applies to those shellfish waters. (It should be noted that even though the column contains the letter "a" the entire section may not be shellfish waters.)

B. Natural variation.

In some cases natural water quality does not fall within the criteria set by these standards. (For example streams in some areas of the state may naturally exceed the usual pH range of 6.0 to 9.0.) In these instances the board may have set more appropriate criteria that reflect natural quality, and this special limit is shown in the special standards column.

C. Additional requirements.

In other cases the basic water quality parameters of DO, pH, temperature, and bacteria have not been sufficient to protect water quality in certain areas, and effluent limits or treatment requirements have been established for these areas. This fact is also indicated in the special standards column. If the applicable standard was too long to print in its entirety in that column, the column contains only a lower case letter, and the standard itself will be found in the special standards 9 VAC 25-260-310 under that letter.

D. Other special standards or designations.

1. Public water supplies (PWS).

Sections that are public water supplies are indicated in the special standards column with a

PWS. This designation indicates that additional criteria are applicable in this section. ~~(~~See 9 VAC 25-260-140 B for applicable criteria.~~)~~ Taste and odor criteria to maintain acceptable taste, odor or aesthetic quality of drinking water apply at the drinking water intake.

2. Nutrient enriched waters (NEW).

If a section contains a waterbody that has been designated as nutrient enriched in 9 VAC 25-260-350, the special standards column indicates this with the letters "NEW-" followed by a number. The appropriate waterway can be found listed in 9 VAC 25-260-350. The entire section is not necessarily nutrient enriched, only that portion specifically listed in 9 VAC 25-260-350.

[3. If a section contains a waterbody that has been assigned a special standard (indicated by lower case letters in the special standards column), the appropriate waterway can be found listed in 9 VAC 25-260-310. The special standard does not necessarily apply to the entire section, only that portion specifically listed in 9 VAC 25-260-310.]

9 VAC 25-260-390. Potomac River Basin.

Potomac River Subbasin

SEC.	CLASS	SP. STDS.	SECTION DESCRIPTION
1	II	a	Tidal tributaries of the Potomac River from Smith Point to Upper Machodoc Creek (Baber Point).
1a	III		All free flowing portions of tributaries to the Potomac River from Smith Point to the Route 301 Bridge in King George County unless otherwise designated in this chapter.
1b	III	b,NEW-12	All free flowing portions of tributaries to the Potomac River from the Route 301 Bridge in King George County to, and including, Potomac Creek, unless otherwise designated in this chapter.

1c	III	PWS,b,NEW-12	Potomac Creek and its tributaries from the Stafford County water supply dam (Able Lake Reservoir) to their headwaters.
2	II	a,NEW-14	Tidal Upper Machodoc Creek and the tidal portions of its tributaries.
2a	III	NEW-14	Free flowing portions of Upper Machodoc Creek and its tributaries.
3	II	b,NEW-12	Tidal portions of the tributaries to the Potomac River from the Route 301 Bridge in King George County to Marlboro Point.
4	II	b,d,NEW-6	Tidal portions of the tributaries to the Potomac River from Marlboro Point to Brent Point (to include Aquia Creek and its tributaries).

4a	III	b,d,NEW-6	Free flowing portions of tributaries to the Potomac River in Section 4 up to the Aquia Sanitary District Water Impoundment.
4b	III	PWS,b,d,NEW-6	Aquia Creek from the Aquia Sanitary District Water Impoundment, and other tributaries into the impoundment, including Beaverdam Run and the Lunga Reservoir upstream to their headwaters.
5	II	b	Tidal portions of tributaries to the Potomac River from Brent Point to Shipping Point, including tidal portions of Chopawamsic Creek and its tidal tributaries.
5a	III	b	Free flowing portions of Chopawamsic Creek and its tributaries to Quantico Marine Base water supply dam.

5b	III	PWS,b	Chopawamsic Creek and its tributaries above the Quantico Marine Base water supply intakes at the Gray and Breckenridge Reservoirs to their headwaters.
6	II	b,NEW-7,8,9,10,11,13	Tidal portions of tributaries to the Potomac River from Shipping Point to Chain Bridge.
7	III	b,NEW-7,8,9,10,11,13	Free flowing portions of tributaries to the Potomac River from Shipping Point to Chain Bridge, unless otherwise designated in this chapter.
7a	III	g	Occoquan River and its tributaries to their headwaters above Fairfax County Water Authority's water supply impoundment, unless otherwise designated in this chapter.
7b	III	PWS,g	The impounded waters of Occoquan River above the water supply dam of the Fairfax

			County Water Authority to backwater of the impoundment on Bull Run and Occoquan River, and the tributaries of Occoquan above the dam to ~~a~~ points 5 miles above the dam.
7c	III	PWS,g	Broad Run and its tributaries above the water supply dam of the City of Manassas upstream to ~~a~~ points 5 miles above the dam.
7d	~~III~~	~~PWS,g~~	~~The impounded waters of Lake Jackson, Broad Run, and Cedar Run.~~ (Deleted)
7e	III	PWS,g	Cedar Run and its tributaries from the Town of Warrenton's raw water intake ~~(just upstream of Route 672)~~ to ~~a~~ points 5 miles upstream ~~of the proposed multiple purpose structure near Airlie~~ (Fauquier County).

7f	III	PWS,g	The Quantico Marine Base Camp Upshur and its tributaries' raw water intake on Cedar Run (located approximately 0.2 mile above its confluence with Lucky Run) to ~~a~~ points 5 miles upstream.
7g	III	PWS,g	The proposed impounded waters of Licking Run above the multiple purpose impoundment structure in Licking Run near Midland (Fauquier County) upstream to ~~a~~ points 5 miles above the proposed impoundment.
7h	III	PWS,g	The proposed impounded waters of Cedar Run above the proposed multiple purpose impoundment structure on the main stem of Cedar Run near Auburn (Fauquier County), to ~~a~~ points 5 miles above the impoundment.
8	III	PWS	Tributaries to the Potomac River in Virginia between Chain Bridge and the Monacacy

			River from their confluence with the Potomac upstream 5 miles, to include Goose Creek to the City of Fairfax's raw water intake, unless otherwise designated in this chapter.
8a	VI	PWS	Big Spring Creek and its tributaries in Loudoun County, from its confluence with the Potomac River upstream to their headwaters. (The temperature standard for natural trout water may be exceeded in the area above Big Spring and Little Spring at Routes 15 and 740 due to natural conditions). This section was given a PWS designation due to the Town of Leesburg's intake on the Potomac as referenced in Section 8b below.
	iii		Big Spring Creek from its confluence with the Potomac River upstream to Big Spring.

8b	III	PWS	Those portions of Virginia tributaries into the Potomac River that are within a 5 mile distance upstream of the Town of Leesburg's intake on the Potomac River, unless otherwise designated in this chapter.*
8c	III	PWS	Those portions of Virginia tributaries into the Potomac River that are within a 5 mile distance upstream of the County of Fairfax's intake on the Potomac River.*
9	III		Broad Run, Sugarland Run, Difficult Run, Tuscarora Creek, Sycoline Creek, and other streams tributary to streams in Section 8 from a point 5 miles above their confluence with the Potomac River to their headwaters, unless otherwise designated in this chapter.
9a	III	PWS	All the impounded water of Goose Creek from the City of Fairfax's water supply dam upstream to backwater, and its tributaries above the dam to ~~a~~ points 5 miles above the

			dam.
9b	III	PWS	The Town of Round Hill's (inactive-early 1980's) raw water intake at the Round Hill Reservoir, and including the two spring impoundments located northwest of the town on the eastern slope of the Blue Ridge Mountains.
9c	III	PWS	Unnamed tributary to Goose Creek, from Camp Highroad's (inactive - late 1980's) raw water intake (Loudoun County) located in an old quarry (at latitude 39E02'02"; longitude 77E40'49") to its headwaters.
9d	III	PWS	Sleeter Lake (Loudoun County).

10	III		Tributaries of the Potomac River from the Monacacy River to the West Virginia-Virginia state line in Loudoun County, from their confluence with the Potomac River upstream to their headwaters, unless otherwise designated in this chapter.
10a	III	PWS	North Fork Catoctin Creek from Purcellville's raw water intake to its headwaters.
10b	III		South Fork Catoctin Creek and its tributaries from its confluence with the North Fork Catoctin Creek to its headwaters.
11	IV	pH-6.5-9.5	Tributaries of the Potomac River in Frederick and Clarke Counties, Virginia, unless otherwise designated in this chapter.
	V	pH-6.5-9.5	**Stockable Trout Waters in Section 11**

***		Back Creek (upper) from Rock Enon 4 miles upstream.
***		Back Creek (lower) from Route 600 to the mouth of Hogue Creek - 2 miles.
***		Hogue Creek from Route 679 upstream 6 miles to the Forks below Route 612.
vi		Opequon Creek (in Frederick County) from its confluence with Hoge Run upstream to the point at which Route 620 first crosses the stream.
vi		Turkey Run (Frederick County) from its confluence with Opequon Creek 3.6 miles upstream.
VI	pH-6.5-9.5	**Natural Trout Waters in Section 11**

	ii		Bear Garden Run from its confluence with Sleepy Creek 3.1 miles upstream.
	iii		Redbud Run from its confluence with Opequon Creek 4.4 miles upstream.
11a	IV	pH-6.5-9.5	Hot Run and its tributaries from its confluence with Opequon Creek to its headwaters.
	V	pH-6.5-9.5	**Stockable Trout Waters in Section 11a**
	vi		Clearbrook Run from its confluence with Hot Run 2.1 miles upstream.
12	IV	pH-6.5-9.5	South Branch Potomac River and its tributaries, such as Strait Creek, and the North Fork River and its tributaries from the Virginia-West Virginia state line to their headwaters.

V	**Stockable Trout Waters in Section 12**
vi	Frank Run from its confluence with the South Branch Potomac River 0.8 mile upstream.
vii	South Branch Potomac River (in Highland County) from 69.2 miles above its confluence with the Potomac River 4.9 miles upstream.
~~vi~~	~~Strait Creek (Highland County) from its confluence with the South Branch Potomac River 3.9 miles upstream.~~
VI	**Natural Trout Waters in Section 12**
ii	Blights Run from its confluence with Laurel Fork (Highland County) upstream including all named and unnamed tributaries.

ii	Buck Run (Highland County) from its confluence with Laurel Fork upstream including all named and unnamed tributaries.
ii	Collins Run from its confluence with Laurel Fork upstream including all named and unnamed tributaries.
ii	Laurel Fork (Highland County) from 1.9 miles above its confluence with the North Fork South Branch Potomac River upstream including all named and unnamed tributaries.
iii	Laurel Run (Highland County) from its confluence with Strait Creek upstream including all named and unnamed tributaries.
ii	Locust Spring Run from its confluence with Laurel Fork upstream including all named and unnamed tributaries.
ii	Lost Run from its confluence with Laurel Fork

	upstream including all named and unnamed tributaries.
ii	Mullenax Run from its confluence with Laurel Fork upstream including all named and unnamed tributaries.
ii	Newman Run from its confluence with Laurel Fork upstream including all named and unnamed tributaries.
ii	Slabcamp Run from its confluence with Laurel Fork upstream including all named and unnamed tributaries.
iii	Strait Creek (Highland County) from its confluence with the South Branch Potomac River upstream to the confluence of West Strait Creek.

9VAC 25-260-400. Potomac River Basin.

Shenandoah River Subbasin

SEC.	CLASS	SP. STDS.	SECTION DESCRIPTION
1	IV	pH-6.5-9.5	Shenandoah River and its tributaries in Clarke County, Virginia, from the Virginia-West Virginia state line to Lockes Landing, unless otherwise designated in this chapter.
1a	IV	PWS pH-6.5-9.5	Shenandoah River and its tributaries from river mile 24.66 (latitude 39E16'19"; longitude 77E54'33") approximately 0.7 mile downstream of the confluence of the Shenandoah River and Dog Run to 5 miles above Berryville's raw water intake (latitude 39E05'56"; longitude 77E58'31"), unless otherwise designated in this chapter.
	V	pH-6.5-9.5	**Stockable Trout Waters in Section 1a**
	vi		Chapel Run (Clarke County) from its confluence with the Shenandoah River 5.7 miles upstream.

	vi		Spout Run (Clarke County) from its confluence with the Shenandoah River (in the vicinity of the Ebenezer Church at Route 604) to its headwaters.
1b			(Deleted)
1c	IV	pH-6.5-9.5	Shenandoah River and its tributaries from a point 5 miles above Berryville's raw water intake to the confluence of the North and South Forks of the Shenandoah River.
	VI	pH-6.5-9.5	**Natural Trout Waters in Section 1c**
	iii		Page Brook from its confluence with Spout Run, 1 mile upstream.

	***		Roseville Run (Clarke County) from its confluence with Spout Run upstream including all named and unnamed tributaries.
	iii		Spout Run (Clarke County) from its confluence with the Shenandoah River (in the vicinity of Calmes Neck at Rts 651 and 621), 3.9 miles upstream.
	***		Westbrook Run (Clarke County) from its confluence with Spout Run upstream including all named and unnamed tributaries.
1d	[~~IV~~]	[~~PWS~~]	[~~The South Fork Shenandoah River and its tributaries from the Town of Front Royal's raw water intake (at the State Route 619 bridge at Front Royal) to a point~~s ~~5 miles upstream~~.Moved to section 2b.]

2	IV	pH-6.5-9.5	South Fork Shenandoah River ~~and its tributaries~~ from its confluence with the North Fork Shenandoah River, upstream to a point 5 miles above the Town of Shenandoah's raw water intake <u>and its tributaries to their headwaters in this section</u>, unless otherwise designated in this chapter.
	V	pH-6.5-9.5	**Stockable Trout Waters in Section 2**
	vi		Flint Run from its confluence with the South Fork Shenandoah River 4 miles upstream.
	***		Gooney Run from the mouth to its confluence with Broad Run above Browntown (in the vicinity of Route 632).
	***		Hawksbill Creek from Route 675 in Luray to 1 mile above Route 631.

VI	pH-6.5-9.5	**Natural Trout Waters in Section 2**
iii		Browns Run from its confluence with Big Run upstream including all named and unnamed tributaries.
ii		Cub Run (Page County) from Pitt Spring Run upstream including all named and unnamed tributaries.
***		Cub Run from its mouth to Pitt Spring Run.
ii		Fultz Run from the Park boundary (river mile 1.8) upstream including all named and unnamed tributaries.
ii		Gooney Run (in Warren County) from 6.6 miles above its confluence with the South Fork Shenandoah River 3.9 miles upstream.

ii	Hawksbill Creek in the vicinity of Pine Grove at Route 624 (river mile 17.7) 1.5 miles upstream.
ii	Jeremys Run from the National Park boundary upstream including all named and unnamed tributaries.
ii	Lands Run from its confluence with Gooney Run upstream including all named and unnamed tributaries.
i	Little Hawksbill Creek from Route 626 upstream including all named and unnamed tributaries.
ii	Morgan Run (Page County) from its confluence with Cub Run upstream including all named and unnamed tributaries.

	ii		Overall Run from its confluence with the South Fork Shenandoah River 4.8 miles upstream including all named and unnamed tributaries.
	ii		Pass Run (Page County) from its confluence with Hawksbill Creek upstream including all named and unnamed tributaries.
	ii		Pitt Spring Run from its confluence with Cub Run upstream including all named and unnamed tributaries.
	ii		Roaring Run from its confluence with Cub Run upstream including all named and unnamed tributaries.
2a	IV	PWS pH-6.5-9.5	Happy Creek <u>and Sloan Creek</u> from Front Royal's raw water intake to its headwaters.

2b	[IV]	[PWS]	[~~(Deleted)~~ The South Fork Shenandoah River and its tributaries from the Town of Front Royal's raw water intake (at the State Route 619 bridge at Front Royal) to points 5 miles upstream.]
2c			(Deleted)
2d			(Deleted)
	V	pH-6.5-9.5	**Stockable Trout Waters in Section 2d**
	vii		Bear Lithia Spring from its confluence with the South Fork Shenandoah River 0.8 mile upstream.
	VI	pH-6.5-9.5	**Natural Trout Waters in Section 2d**
	ii		Big Creek (Page County) from its confluence with the East Branch Naked Creek upstream including all named and unnamed tributaries.

ii	Big Ugly Run from its confluence with the South Branch Naked Creek upstream including all named and unnamed tributaries.
ii	Boone Run from 4.6 miles above its confluence with the South Fork Shenandoah River (in the vicinity of Route 637) upstream including all named and unnamed tributaries.
i	East Branch Naked Creek from its confluence with Naked Creek at Route 759 upstream including all named and unnamed tributaries.
ii	Little Creek (Page County) from its confluence with Big Creek upstream including all named and unnamed tributaries.
ii	South Branch Naked Creek from 1.7 miles above its confluence with Naked Creek (in the vicinity of Route 607) upstream including all

			named and unnamed tributaries.
	iv		Stony Run (Page County) from 1.6 miles above its confluence with Naked Creek upstream including all named and unnamed tributaries.
	ii		West Branch Naked Creek from 2.1 miles above its confluence with Naked Creek upstream including all named and unnamed tributaries.
3	IV	pH-6.5-9.5	South Fork Shenandoah River ~~and its tributaries~~ from 5 miles above the Town of Shenandoah's raw water intake to its confluence with the North and South Rivers and its tributaries to their headwaters in this section, and the South River and its tributaries from its confluence with the South Fork Shenandoah River to their headwaters, unless otherwise designated in this chapter.

V	pH-6.5-9.5	**Stockable Trout Waters in Section 3**
vi		Hawksbill Creek (Rockingham County) from 0.8 mile above its confluence with the South Fork Shenandoah River 6.6 miles upstream.
vi		Mills Creek (Augusta County) from 1.8 miles above its confluence with Back Creek 2 miles upstream.
vi		North Fork Back Creek (Augusta County) from its confluence with Back Creek 2.6 miles upstream, unless otherwise designated in this chapter.
VI	pH-6.5-9.5	**Natural Trout Waters in Section 3**
i		Bearwallow Run from its confluence with Onemile Run upstream including all named

	and unnamed tributaries.
ii	Big Run (Rockingham County) from 3.3 miles above its confluence with the South Fork Shenandoah River upstream including all named and unnamed tributaries.
iii	Cold Spring Branch (Augusta County) from Sengers Mountain Lake (Rhema Lake) upstream including all named and unnamed tributaries.
iv	Cool Springs Hollow (Augusta County) from Route 612 upstream including all named and unnamed tributaries.
ii	Deep Run (Rockingham County) from 1.8 miles above its confluence with the South Fork Shenandoah River upstream including all named and unnamed tributaries.

ii	East Fork Back Creek from its confluence with the South Fork Back Creek upstream including all named and unnamed tributaries.
ii	Gap Run from 1.7 miles above its confluence with the South Fork Shenandoah River upstream including all named and unnamed tributaries.
iii	Inch Branch (Augusta County) from the dam upstream including all named and unnamed tributaries.
ii	Johns Run (Augusta County) from its confluence with the South River upstream including all named and unnamed tributaries.
iv	Jones Hollow (Augusta County) from 1.1 miles above its confluence with the South River upstream including all named and

	unnamed tributaries.
ii	Kennedy Creek from its confluence with the South River upstream including all named and unnamed tributaries.
iv	Lee Run from 0.6 mile above its confluence with Elk Run 3.3 miles upstream.
iii	Loves Run (Augusta County) from 2.7 miles above its confluence with the South River upstream including all named and unnamed tributaries.
ii	Lower Lewis Run (Rockingham County) from 1.7 miles above its confluence with the South Fork Shenandoah River upstream including all named and unnamed tributaries.

ii	Madison Run (Rockingham County) from 2.9 miles above its confluence with the South Fork Shenandoah River upstream including all named and unnamed tributaries.
ii	Meadow Run (Augusta County) from its confluence with the South River upstream including all named and unnamed tributaries.
ii	North Fork Back Creek (Augusta County) from river mile 2.6 (in the vicinity of its confluence with Williams Creek) upstream including all named and unnamed tributaries.
i	Onemile Run (Rockingham County) from 1.5 miles above its confluence with the South Fork Shenandoah River upstream including all named and unnamed tributaries.
<u>iv</u>	<u>Orebank Creek from its confluence with Back Creek upstream including all named and</u>

	unnamed tributaries.
ii	Paine Run (Augusta County) from 1.7 miles above its confluence with the South River upstream including all named and unnamed tributaries.
ii	Robinson Hollow (Augusta County) from the dam upstream including all named and unnamed tributaries.
ii	Rocky Mountain Run from its confluence with Big Run upstream including all named and unnamed tributaries.
iv	Sawmill Run from 2.5 miles above its confluence with the South River upstream including all named and unnamed tributaries.

ii	South Fork Back Creek from its confluence with Back Creek at Route 814 (river mile 2.1) upstream including all named and unnamed tributaries.
ii	Stony Run (Augusta County) from 3.5 miles above its confluence with the South River upstream including all named and unnamed tributaries.
iii	Stony Run (Rockingham County) from 4.1 miles above its confluence with the South Fork Shenandoah River upstream including all named and unnamed tributaries.
iii	Toms Branch (Augusta County) from 1.1 miles above its confluence with Back Creek upstream including all named and unnamed tributaries.

	i		Twomile Run from 1.4 miles above its confluence with the South Fork Shenandoah River upstream including all named and unnamed tributaries.
	iv		Upper Lewis Run from 0.5 mile above its confluence with Lower Lewis Run upstream including all named and unnamed tributaries.
	iv		West Swift Run (Rockingham County) from the Route 33 crossing upstream including all named and unnamed tributaries.
	ii		Whiteoak Run from its confluence with Madison Run upstream including all named and unnamed tributaries.
3a	IV	pH-6.5-9.5	South River from the dam above Waynesboro (all waters of the impoundment).

3b	IV	PWS, pH-6.5-9.5	Coles Run and Mills Creek from South River Sanitary District's raw water intake to their headwaters.
	VI	PWS, pH-6.5-9.5	**Natural Trout Waters in Section 3b**
	ii		Coles Run (Augusta County) from 3.9 miles above its confluence with the South River Sanitary District's raw water intake (Coles Run Dam) upstream including all named and unnamed tributaries.
	ii		Mills Creek (Augusta County) from the South River Sanitary District's raw water intake (river mile 3.8) upstream including all named and unnamed tributaries.
3c	IV	pH-6.5-9.5	A tributary to Coles Run from Stuarts Draft raw water intake approximately one-half mile south of Stuarts Draft and just off Route 610,

			to its headwaters.
4	IV	pH-6.5-9.5	Middle River and its tributaries from the confluence with the North River upstream to its headwaters, unless otherwise designated in this chapter.
	V	pH-6.5-9.5	**Stockable Trout Waters in Section 4**
	v		Barterbrook Branch from its confluence with Christians Creek 2.8 miles upstream.
	<u>***</u>		<u>East Dry Branch from its confluence with the Buffalo Branch to its confluence with Mountain Run.</u>
	vi		Folly Mills Creek from 2.4 miles above its confluence with Christians Creek (in the vicinity of Route 81) 4.5 miles upstream.
	<u>VI</u>		<u>**Natural Trout Waters in Section 4**</u>

	iv		Buffalo Branch from Route 703 upstream including all named and unnamed tributaries.
	ii		Cabin Mill Run (Augusta County) from the Camp Shenandoah Boy Scout Lake upstream including all named and unnamed tributaries.
	iv		East Dry Branch (Augusta County) from the confluence of Mountain Run upstream including all named and unnamed tributaries.
	iv		Jennings Branch (Augusta County) from the confluence of White Oak Draft upstream including all named and unnamed tributaries.
4a	IV	PWS, pH-6.5-9.5	Middle River and its tributaries from Staunton's raw water intake at Gardner Spring to ~~a~~ points 5 miles upstream.
	~~V~~		~~**Stockable Trout Waters in Section 4a**~~
	~~***~~		~~East Dry Branch from its confluence with Buffalo Branch to its headwaters.~~

	~~VI~~	~~pH-6.5-9.5~~	~~**Natural Trout Waters in Section 4a**~~
	~~iv~~		~~Buffalo Branch (Augusta County) from Route 703 upstream including all named and unnamed tributaries.~~
5	IV	pH-6.5-9.5	North River and its tributaries from its confluence with the South River upstream to its headwaters, unless otherwise designated in this chapter.
	V	pH-6.5-9.5	**Stockable Trout Waters in Section 5**
	v		Beaver Creek (Rockingham County) from its confluence with Briery Branch to its headwaters.

v		Naked Creek (Augusta County) from 3.7 miles above its confluence with the North River at Route 696, 2 miles upstream.
VI	pH-6.5-9.5	**Natural Trout Waters in Section 5**
iv		Big Run (Augusta County) from 0.9 mile above its confluence with Little River upstream including all named and unnamed tributaries.
ii		Black Run (Rockingham County) from its mouth upstream including all named and unnamed tributaries.
iii		Briery Branch (Rockingham County) from river mile 6.9 upstream including all named and unnamed tributaries.

iv	Gum Run from its mouth upstream including all named and unnamed tributaries.
iii	Hone Quarry Run from its confluence with Briery Branch upstream including all named and unnamed tributaries.
iv	Little River from its confluence with the North River at Route 718 upstream including all named and unnamed tributaries.
iv	Maple Spring Run from its mouth upstream including all named and unnamed tributaries.
iv	Mines Run from its confluence with Briery Branch upstream including all named and unnamed tributaries.

	iv		Rocky Run (which is tributary to Briery Branch in Rockingham County) from its mouth upstream including all named and unnamed tributaries.
	iii		Rocky Run (which is tributary to Dry River in Rockingham County) from its mouth upstream including all named and unnamed tributaries.
	ii		Union Springs Run from 3 miles above its confluence with Beaver Creek upstream including all named and unnamed tributaries.
	iv		Wolf Run (Augusta County) from its confluence with Briery Branch upstream including all named and unnamed tributaries.
5a	IV	PWS, pH-6.5-9.5	Silver Lake

5b	IV	PWS, pH-6.5-9.5	North River and its tributaries from Harrisonburg's raw water intake at Bridgewater to ~~a~~ points 5 miles above Bridgewater's raw water intake to include Dry River and Muddy Creek.
	V	PWS, pH-6.5-9.5	**Stockable Trout Waters in Section 5b**
	v		Mossy Creek from its confluence with the North River 7.1 miles upstream.
	v		Spring Creek (Rockingham County) from its confluence with the North River 2 miles upstream.
5c	IV	PWS, pH-6.5-9.5	Dry River in Rockingham County from Harrisonburg's raw water intake (approximately 11.7 miles above its confluence with the North River) to a point 5 miles upstream, unless otherwise designated in this chapter.

V	PWS, pH-6.5-9.5	**Stockable Trout Waters in Section 5c**
viii		Raccoon Run (Rockingham County) from its confluence with Dry River to its headwaters.
VI	PWS, pH-6.5-9.5	**Natural Trout Waters in Section 5c**
iv		Dry River (Rockingham County) from Harrisonburg's raw water intake (approximately 11.7 miles above its confluence with the North River) to a point 5 miles upstream.
iv		Dry Run (Rockingham County) from its confluence with Dry River upstream including all named and unnamed tributaries.
iv		Hopkins Hollow from its confluence with Peach Run upstream including all named and

			unnamed tributaries.
	iv		Kephart Run from its confluence with Dry River upstream including all named and unnamed tributaries.
5d	VI	pH-6.5-9.5	Dry River and its tributaries from 5 miles above Harrisonburg's raw water intake to its headwaters.
	VI	pH-6.5-9.5	**Natural Trout Waters in Section 5d**
	iv		Dry River (Rockingham County) from 5 miles above Harrisonburg's raw water intake upstream including all named and unnamed tributaries.
	ii		Laurel Run (Rockingham County) from its confluence with Dry River upstream including all named and unnamed tributaries.

	ii		Little Laurel Run from its confluence with Dry River upstream including all named and unnamed tributaries.
	ii		Low Place Run from its confluence with Dry River upstream including all named and unnamed tributaries.
	iv		Miller Spring Run from its confluence with Dry River upstream including all named and unnamed tributaries.
	iii		Sand Run from its confluence with Dry River upstream including all named and unnamed tributaries.
	iv		Skidmore Fork from its confluence with Dry River upstream including all named and unnamed tributaries.
5e	VI	PWS, pH-6.5-9.5	North River from Staunton Dam to its headwaters.

	VI		**Natural Trout Waters in Section 5e**
	iv		North River from Elkhorn Dam upstream including all named and unnamed tributaries.
6	IV	pH-6.5-9.5	North Fork Shenandoah River from its confluence with the Shenandoah River to its headwaters, unless otherwise designated in this chapter.
	V	pH-6.5-9.5	**Stockable Trout Waters in Section 6**
	vi		Bear Run from its confluence with Foltz Creek to its headwaters.
	vi		Bull Run (Shenandoah County) from its confluence with Foltz Creek to its headwaters.
	vi		Falls Run from its confluence with Stony Creek to its headwaters.

vi	Foltz Creek from its confluence with Stony Creek to its headwaters.
vi	Little Passage Creek from its confluence with Passage Creek to the Strasburg Reservoir Dam.
***	Mill Creek from Mount Jackson to Route 720 - 3.5 miles.
vi	Mountain Run from its mouth at Passage Creek to its headwaters.
***	Passage Creek from the U.S. Forest Service line (in the vicinity of Blue Hole and Buzzard Rock) 4 miles upstream.
vi	Passage Creek from 29.6 miles above its confluence with the North Fork Shenandoah

		River to its headwaters.
vi		Peters Mill Run from the mouth to its headwaters.
***		Shoemaker River from 612 at Hebron Church to its junction with Route 817 at the Shoemaker's confluence with Slate Lick Branch.
[v		Stony Creek from its confluence with the North Fork Shenandoah River to Route 682.]
***		Stony Creek from Route [~~685~~ 682]above Edinburg upstream to Basye.
VI	pH-6.5-9.5	**Natural Trout Waters in Section 6**
ii		Anderson Run (Shenandoah County) from 1.1 miles above its confluence with Stony Creek upstream including all named and unnamed tributaries.

iv	Beech Lick Run from its confluence with the German River upstream including all named and unnamed tributaries.
iii	Bible Run from its confluence with Little Dry River upstream including all named and unnamed tributaries.
ii	Camp Rader Run from its confluence with the German River upstream including all named and unnamed tributaries.
iv	Carr Run from its confluence with Little Dry River upstream including all named and unnamed tributaries.
iv	Clay Lick Hollow from its confluence with Carr Run upstream including all named and unnamed tributaries.

iv	Gate Run from its confluence with Little Dry River upstream including all named and unnamed tributaries.
iv	German River (Rockingham County) from its confluence with the North Fork Shenandoah River (at Route 820) upstream including all named and unnamed tributaries.
ii	Laurel Run (Shenandoah County) from its confluence with Stony Creek upstream including all named and unnamed tributaries.
ii	Little Stony Creek from its confluence with Stony Creek upstream including all named and unnamed tributaries.

iv	Marshall Run (Rockingham County) from 1.2 miles above its confluence with the North Fork Shenandoah River upstream including all named and unnamed tributaries.
iii	Mine Run (Shenandoah County) from its confluence with Passage Creek upstream including all named and unnamed tributaries.
ii	Poplar Run (Shenandoah County) from its confluence with Little Stony Creek upstream including all named and unnamed tributaries.
iv	Rattlesnake Run (Rockingham County) from its confluence with Spruce Run upstream including all named and unnamed tributaries.
iv	Root Run from its confluence with Marshall Run upstream including all named and unnamed tributaries.

iv	Seventy Buck Lick Run from its confluence with Carr Run upstream including all named and unnamed tributaries.
iv	Sirks Run (Spring Run) from 1.3 miles above its confluence with Crab Run upstream including all named and unnamed tributaries.
iv	Spruce Run (Rockingham County) from its confluence with Capon Run upstream including all named and unnamed tributaries.
[~~v~~	~~Stony Creek from its confluence with the North Fork Shenandoah River to Route 682.~~]
iv	Sumac Run from its confluence with the German River upstream including all named and unnamed tributaries.

6a	IV	PWS, pH-6.5-9.5	Little Passage Creek from the Strasburg Reservoir Dam upstream to its headwaters, unless otherwise designated in this chapter.
	V	PWS, pH-6.5-9.5	**Stockable Trout Waters in Section 6a**
	vi		Little Passage Creek from the Strasburg Reservoir Dam upstream to its headwaters.
6b	IV	PWS, pH-6.5-9.5	North Fork Shenandoah River and its tributaries from the Winchester raw water intake to ~~a~~ points 5 miles upstream (to include Cedar Creek and its tributaries to their headwaters).
	V	PWS, pH-6.5-9.5	**Stockable Trout Waters in Section 6b**
	***		Cedar Creek (Shenandoah County) from

		Route 55 (river mile 23.56) to the U.S. Forest Service Boundary (river mile 32.0) - approximately 7 miles.
v	PWS, pH-6.5-9.5	Meadow Brook (Frederick County) from its confluence with Cedar Creek 5 miles upstream.
VI	PWS, pH-6.5-9.5	**Natural Trout Waters in Section 6b**
iii		Cedar Creek (Shenandoah County) from the U.S. Forest Service boundary (river mile 32.0) near Route 600 upstream including all named and unnamed tributaries.
ii		Duck Run from its confluence with Cedar Creek upstream including all named and unnamed tributaries.

			Paddy Run (Frederick County) from the mouth upstream including all named and unnamed tributaries.
	***		(Paddy Run (Frederick County) from its mouth (0.0) to river mile 1.8.)
	vi**		(Paddy Run (Frederick County) from river mile 1.8 to 8.1-6.3 miles.)
	iii		Sulphur Springs Gap (Shenandoah County) from its confluence with Cedar Creek 1.9 miles upstream.
6c	IV	PWS, pH-6.5-9.5	North Fork Shenandoah River and its tributaries from Strasburg's raw water intake to points 5 miles upstream.
6d	IV	PWS, pH-6.5-9.5	North Fork Shenandoah River and its

			tributaries from Woodstock's raw water intake (approximately 1/4 mile upstream of State Route 609 bridge near Woodstock) to ~~a~~ points 5 miles upstream.
6e	IV	PWS, pH-6.5-9.5	Smith Creek and its tributaries from New Market's raw water intake to its headwaters.
			Natural Trout Waters in Section 6e
	iv		Mountain Run (Fridley Branch, Rockingham County) from Route 722 upstream including all named and unnamed tributaries.
6f	IV	PWS, pH-6.5-9.5	North Fork Shenandoah River and its tributaries from the Food Processors Water Coop, Inc. dam at Timberville and the Town of Broadway's intakes on Linville Creek and the North Fork Shenandoah to points 5 miles upstream.

6g	IV	pH-6.5-9.5	Shoemaker River and its tributaries from Slate Lick Run, and including Slate Lick Run, to its headwaters.
	V	pH-6.5-9.5	**Stockable Trout Waters in Section 6g**
	***		Slate Lick Run from its confluence with the Shoemaker River upstream to the 1500 foot elevation.
	VI	pH-6.5-9.5	**Natural Trout Waters in Section 6g**
	iv		Long Run (Rockingham County) from its confluence with the Shoemaker River upstream including all named and unnamed tributaries.
	iv		Slate Lick Run from the 1500 foot elevation upstream upstream including all named and unnamed tributaries.
6h	IV	PWS, pH-6.5-9.5	Unnamed tributary of North Fork Shenandoah River (on the western slope of Short Mountain

			opposite Mt. Jackson) from the Town of Mt. Jackson's (inactive mid-1992) raw water intake (north and east dams) to its headwaters .
6i	IV	PWS, pH-6.5-9.5	Little Sulfur Creek, Dan's Hollow and Horns Gully (tributaries of the North Fork Shenandoah River on the western slope of Short Mountain opposite Mt. Jackson) which served as a water supply for the Town of Edinburg until March 31, 1992, from the Edinburg intakes upstream to their headwaters.
6j			(Deleted)

9 VAC 25-260-410. James River Basin (Lower).

SEC.	CLASS	SP. STDS.	SECTION DESCRIPTION
1	II	a,z,NEW-19	James River and its tidal tributaries from Old Point Comfort - Fort Wool to ~~Barrets Point (Buoy 64)~~ the end of tidal waters (fall line, Mayo's bridge[, 14th Street], Richmond), except prohibited or spoil areas, unless otherwise designated in this chapter.
1a	III	NEW-19	Free flowing or non-tidal portions of streams in Section 1, unless otherwise designated in this chapter.
1b	II	a,z,NEW-19	Eastern [and Western] Branch[es] of the Elizabeth River and tidal portions of [~~its~~ their] tributaries from [~~its~~ their] confluence with the Elizabeth River to the end of tidal waters.
1c	III	NEW-19	Free flowing portions of the Eastern Branch of the Elizabeth River and its tributaries.
1d	II	a,z,NEW-19	Southern Branch of the Elizabeth River from its

			confluence with the Elizabeth River to the lock at Great Bridge.
1e	III	NEW-19	Free flowing portions of the Western Branch of the Elizabeth River and of the Southern Branch of the Elizabeth River from their confluence with the Elizabeth River to the lock at Great Bridge.
1f	II	a,NEW-19	Nansemond River and its tributaries from its confluence with the James River to Suffolk (dam at Lake Meade), unless otherwise designated in this chapter.

1g	III	NEW-19	Shingle Creek from its confluence with the Nansemond River to its headwaters in the Dismal Swamp.
1h	III	PWS,NEW-19	Lake Prince, Lake Burnt Mills and Western Branch impoundments for Norfolk raw wate supply and Lake Kilby - Cahoon Pond, Lake Meade and Lake Speight impoundments for Portsmouth raw water supply and including all tributaries to these impoundments.
1i	III	NEW-19	Free flowing portions of the Pagan River and its free flowing tributaries.
1j			(Deleted)
1k	III	PWS,NEW-19.	Skiffes Creek Reservoir (Newport News water impoundment).
1l	III	PWS,NEW-19	The Lone Star lakes and impoundments in the City of Suffolk, Chuckatuck Creek watershed which

			serve as a water source for the City of Suffolk.
1m	III	PWS,NEW-19	The Lee Hall Reservoir system, near Skiffes Creek and the Warwick River, in the City of Newport News.
1n	III	PWS,NEW-19	Chuckatuck Creek and its tributaries from Suffolk=s raw water intake (at Godwin=s Millpond) to ~~a~~ points 5 miles upstream.
1o	II	PWS, NEW-18	James River from City Point (Hopewell) to a point 5 miles above American Tobacco Company's raw water intake.
1p	III	PWS, NEW-18	Free flowing tributaries to section 1o.
[~~2~~	~~II~~	~~NEW-18~~	~~Appomattox River and its tidal tributaries from its confluence with the James River to the end of tidal waters.~~

~~2a~~	~~II~~	~~PWS, NEW-18~~	~~Appomattox River and its tidal tributaries from its mouth to 5 miles upstream of the Virginia-American Water Company's raw water intake.~~
~~2b~~	~~III~~	~~PWS, NEW-18~~	~~Free flowing tributaries to section 2a.~~
~~2c~~	~~III~~	~~NEW-2~~	~~Appomattox River from the head of tidal waters, and free flowing tributaries to the Appomattox River, to their headwaters, unless otherwise designated in this chapter.~~
~~2d~~	~~III~~		~~Swift Creek and its tributaries from the dam at Pocahontas State Park upstream to Chesterfield County's raw water impoundment dam.~~
~~2e~~	~~III~~	~~PWS~~	~~Swift Creek and its tributaries from Chesterfield County's raw water impoundment dam to points 5 miles upstream.~~

~~2f~~	~~III~~	~~PWS,NEW-2~~	~~Appomattox River and its tributaries from Appomattox River Water Authority's raw water intake located at the dam at Lake Chesdin to the headwaters of the lake.~~
~~2g~~	~~III~~	~~PWS~~	~~The Appomattox River and its tributaries from Farmville's raw water intake (approximately 2.5 miles above the Route 15/45 bridge) to points 5 miles upstream.~~]
[~~3~~ 2]	III	NEW-18,19	Free flowing tributaries of the James River from Buoy 64 to Brandon and free flowing tributaries of the Chickahominy River to Walkers Dam, unless otherwise designated in this chapter.
[~~3a~~ 2a]	III	PWS,NEW-18	Diascund Creek and its tributaries from Newport News' raw water intake dam to its headwaters.
[~~3b~~ 2b]	III	PWS,NEW-18	Little Creek Reservoir and its tributaries from the City of Newport News impoundment dam to 5 miles upstream of the raw water intake.

[~~4~~ 3]	III	m,NEW-18	Chickahominy River and its tributaries from Walkers Dam to Bottoms Bridge (Route 60 bridge), unless otherwise designated in this chapter.
[~~4a~~ 3a]	III	PWS,m, NEW-18	Chickahominy River from Walkers Dam to a point 5 miles upstream.
[~~5~~ 4]	III	m	Chickahominy River and its tributaries, unless otherwise designated in this chapter, from Bottoms Bridge (Route 60 bridge) to its headwaters.

[**9 VAC 25-260-415. Appomattox River Basin.**

SEC.	CLASS	SP. STDS.	SECTION DESCRIPTION
5	II	NEW-18	Appomattox River and its tidal tributaries from its confluence with the James River to the end of tidal waters.
5a	II	PWS, NEW-18	Appomattox River and its tidal tributaries from its mouth to 5 miles upstream of the Virginia-American Water Company's raw water intake.
5b	III	PWS, NEW-18	Free flowing tributaries to section 2a.
5c	III	NEW-2	Appomattox River from the head of tidal waters, and free flowing tributaries to the Appomattox River, to their headwaters, unless otherwise designated in this chapter.
5d	III		Swift Creek and its tributaries from the dam at Pocahontas State Park upstream to Chesterfield County's raw water impoundment dam.

5e	III	PWS	Swift Creek and its tributaries from Chesterfield County's raw water impoundment dam to points 5 miles upstream.
5f	III	PWS,NEW-2	Appomattox River and its tributaries from Appomattox River Water Authority's raw water intake located at the dam at Lake Chesdin to the headwaters of the lake.
5g	III	PWS	The Appomattox River and its tributaries from Farmville's raw water intake (approximately 2.5 miles above the Route 15/45 bridge) to points 5 miles upstream.]

9 VAC 25-260-420. James River Basin (Middle).

SEC.	CLASS	SP. STDS.	SECTION DESCRIPTION
~~2~~6	~~II~~III	~~NEW-18,19~~	James River and its ~~tidal~~ tributaries from ~~Buoy 64 near Barrets Point upstream to~~ the fall line at Richmond [(Mayo's Bridge, 14th Street)]~~, to include the Chickahominy River and its tidal tributaries from the mouth upstream to Walkers Dam and the Appomattox River and its tidal tributaries from the mouth upstream to the head of tidal waters (approximately at the Route 1/301 Bridge across the Appomattox),~~ to the Rockfish River unless otherwise designated in this chapter.
~~2a~~	~~II~~	~~PWS,NEW-18~~	~~James River from City Point to a point 5 miles above American Tobacco Company's raw water intake and the Appomattox River and its tidal tributaries from its mouth to 5 miles upstream of Virginia-American Water Company's raw water intake.~~

~~2b~~	~~III~~	~~PWS,NEW-18~~	~~Free flowing tributaries to Section 2a.~~
~~3~~	~~III~~	~~NEW-18,19~~	~~Free flowing tributaries of the James River from Buoy 64 to Brandon and free flowing tributaries of the Chickahominy River to Walkers Dam, unless otherwise designated in this chapter.~~
~~3a~~	~~III~~	~~PWS,NEW-18~~	~~Diascund Creek and its tributaries from Newport News' raw water intake dam to its headwaters.~~
~~3b~~	~~III~~	~~PWS,NEW-18~~	~~Little Creek Reservoir and its tributaries from the City of Newport News impoundment dam to 5 miles upstream of the raw water intake.~~
~~4~~	~~III~~	~~m,NEW-18~~	~~Chickahominy River and its tributaries from Walkers Dam to Bottoms Bridge (Route 60 bridge), unless otherwise designated in this chapter.~~

~~4a~~	~~III~~	~~PWS,m,NEW-18~~	~~Chickahominy River from Walkers Dam to a point 5 miles upstream.~~
~~5~~	~~III~~	~~m~~	~~Chickahominy River and its tributaries, unless otherwise designated in this chapter, from Bottoms Bridge (Route 60 bridge) to its headwaters.~~
~~6~~	~~III~~	~~NEW-2~~	~~Appomattox River from the head of tidal waters, and free flowing tributaries to the Appomattox River, to their headwaters, unless otherwise designated in this chapter.~~
~~6a~~			~~(Deleted)~~
~~6b~~	~~III~~		~~Swift Creek and its tributaries from the dam at Pocahontas State Park upstream to Chesterfield County's raw water impoundment dam.~~

~~6c~~	~~III~~	~~PWS~~	~~Swift Creek and its tributaries from Chesterfield County's raw water impoundment dam to a points 5 miles upstream.~~
~~6d~~			~~(Deleted)~~
~~6e~~	~~III~~	~~PWS,NEW-2~~	~~Appomattox River and its tributaries from Appomattox River Water Authority's raw water intake located at the dam at Lake Chesdin to the headwaters of the lake.~~
~~6f~~			~~(Deleted)~~
~~6g~~	~~III~~	~~PWS~~	~~The Appomattox River and its tributaries from Farmville's raw water intake (approximately 2.5 miles above the Route 15/45 bridge) to a points 5 miles upstream.~~
7	III	[NEW-18]	Free flowing tributaries to the James River from Brandon to the fall line at Richmond,

		unless otherwise designated in this chapter.
7a		(Deleted)
8	III	James River and its tributaries from the low water dam above 14th Street Bridge to Richmond's raw water intake at Williams Island Dam.

9	III	PWS,n	James River and its tributaries, unless otherwise designated in this chapter, from Richmond's raw water intake at Douglasdale Road, inclusive of the Williams Island Dam intake, the Henrico County raw water intake (at latitude 37E33'32"; longitude 77E37'16") and the Benedictine Society's raw water intake (latitude 37E34'33"; longitude 77E40'39") to river mile 127.26 (at latitude 37E35'24"; longitude 77E42'33") near public landing site~~, inclusive of Henrico County's raw water intake (at latitude 37E33'32"; longitude 77E37'16") and St. John's Hospital's raw water intake (at latitude 37E34'33"; longitude 77E40'39")~~.
9a	III	PWS,o	Tuckahoe Creek and its tributaries from its confluence with the James River to its headwaters.
10	III	NEW-3	James River and its tributaries from a point at

	latitude 37°40'32"; longitude 77°54'09" to, and including the Rockfish River, unless otherwise designated in this chapter.
V	**Stockable Trout Waters in Section 10**
vii	Lynch River from the upper Route 810 crossing near the intersection of Route 628 2.9 miles upstream (to Ivy Creek).
***	Rockfish Creek from its confluence with the South Fork Rockfish River to its headwaters.
VI	**Natural Trout Waters in Section 10**
ii	Doyles River from 6.4 miles above its confluence with Moormans River above Browns Cove at Route 629 including all named and unnamed tributaries.

iii	Fork Hollow from its confluence with Ivy Creek upstream including all named and unnamed tributaries.
iii	Ivy Creek (Greene County) from its confluence with the Lynch River upstream including all named and unnamed tributaries.
ii	Jones Falls Run from its confluence with Doyles River upstream including all named and unnamed tributaries.
ii	Little Stony Creek (Nelson County) from its confluence with Stony Creek upstream including all named and unnamed tributaries.
iv	Mill Creek (Nelson County) from its confluence with Goodwin Creek upstream including all named and unnamed tributaries.

ii	Mutton Hollow from its confluence with Swift Run upstream including all named and unnamed tributaries.
iv	Pauls Creek (Nelson County) from 1.3 miles above its confluence with the North Fork Rockfish River upstream including all named and unnamed tributaries.
iv	Rodes Creek from its confluence with Goodwin Creek upstream including all named and unnamed tributaries.
ii	South Fork Rockfish River from 8 miles above its confluence with the Rockfish River upstream including all named and unnamed tributaries.
ii	Spruce Creek (Nelson County) from 1.5 miles above its confluence with the South Fork Rockfish River upstream including all named and unnamed tributaries.

	ii		Stony Creek (Nelson County) from 1 mile above its confluence with the South Fork Rockfish River upstream including all named and unnamed tributaries.
	ii		Swift Run from 14.5 miles above its confluence with the North Fork Rivanna River upstream including all named and unnamed tributaries.
10a	III	PWS	James River at river mile 127.26 near the public landing site and its tributaries from, and including, Little River to 5 miles above State Farm's raw water intake, including Beaverdam and Courthouse Creeks, to their headwaters.
10b	~~III~~	~~PWS~~	~~Deep Creek and its tributaries from St. Emma's Military Academy's raw water intake to a point 5 miles upstream.~~(Deleted)
10c	III		Willis River and its tributaries within

			Cumberland State Forest.
10d	III	PWS	Johnson Creek above the Schuyler (Nelson County Service Authority) raw water intake to its headwaters.
10e	III	PWS	Totier Creek and its tributaries from the Scottsville (Rivanna Water and Sewer Authority) raw water intake to their headwaters (including the Reservoir).
10f	III		Powell Creek and its tributaries from its confluence with the Rivanna River upstream to their headwaters.
10g	III	PWS,NEW-3	Beaver Creek and its tributaries from the Crozet (Rivanna Water and Sewer Authority) raw water intake upstream to their headwaters (including the reservoir).

10h	III	PWS,NEW-3	Mechums River and its tributaries from the Rivanna Water and Sewer Authority's raw water intake to ~~a~~ points 5 miles upstream.
10i	III	PWS,NEW-3	Moormans River and its tributaries from the Rivanna Water and Sewer Authority's raw water intake to ~~a~~ points 5 miles upstream (including Sugar Hollow Reservoir).
	VI		**Natural Trout Waters in Section 10i**
	ii		North Fork Moormans River from its confluence with Moormans River upstream including all named and unnamed tributaries.
	ii		Pond Ridge Branch from its confluence with the North Fork Moormans River upstream including all named and unnamed tributaries.
	iii		South Fork Moormans River from its confluence with Moormans River upstream including all named and unnamed tributaries.

10j	III	PWS,NEW-3	South Fork Rivanna River and its tributaries to their headwaters; except Ivy Creek, from the Rivanna Water and Sewer Authority's South Fork Rivanna River Dam to ~~the~~ its confluence ~~of the South Fork Rivanna River and~~ with the Moormans River, and Ivy Creek to a point 5 miles above the dam.
10k	III	PWS	James River and its tributaries from Fork Union Sanitary District's raw water intake (just below the Route 15 bridge) to ~~a~~ points 5 miles upstream, including the Slate River to a point 5 miles above the intake.
10l	III		Lake Monticello in Fluvanna County.
10m	III	PWS	Rivanna River and its tributaries from the raw water intake for Lake Monticello (about 2.76 miles above the Route 600 bridge in Fluvanna County) to ~~a~~ points 5 miles upstream.

10n	III	PWS	Ragged Mountain Reservoir (intake for the Rivanna Water and Sewer Authority) including its tributaries to their headwaters.
10o	III	PWS	The North Fork Rivanna River and its tributaries from the Rivanna Water and Sewer Authority's raw water intake (approximately 1/4 mile upstream of the U.S. Route 29 bridge north of Charlottesville) to ~~a~~ points 5 miles upstream.
10p	III	PWS	Troublesome Creek in Buckingham County from Buckingham County's raw water intake point at a flood control dam south of the Route 631 bridge to a point 5 miles upstream.
10q	III	PWS	Allen Creek and its tributaries from the Wintergreen Mountain Village's primary raw water intake at Lake Monocan at latitude 37E54'15"; longitude 78E52'10" to a point upstream at latitude 37E53'59"; longitude

			78E53'14".
10r	III	PWS	Stony Creek from the diversion structure at latitude 37E54'00"; longitude 78E53'47" to its headwaters inclusive of the Stony Creek raw water intake just upstream of the Peggy's Pinch booster pump station.
10s	III	PWS	Mechunk Creek and its tributaries from the Department of Corrections raw water intake (at the US Route 250 bridge 37E58'57.6", 78E18'48.1") to points 5 miles upstream.

11	III	James River and its tributaries from, but not including, the Rockfish River to[~~, but not including, the Maury River~~ Balcony Falls], unless otherwise designated in this chapter.
	V	**Stockable Trout Waters in Section 11**
	vi	Dancing Creek from the junction of Routes 610 and 641 to its headwaters.
	vi	North Fork Buffalo River from its confluence with the Buffalo River 1.8 miles upstream.
	vi	Pedlar River from the confluence of Enchanted Creek to Lynchburg's raw water intake.
	vi	Terrapin Creek from its confluence with Otter Creek to its headwaters.

***	Tye River from Tyro upstream to its confluence with the South and North Fork Tye Rivers.
VI	**Natural Trout Waters in Section 11**
ii	Big Branch from its confluence with the Pedlar River upstream including all named and unnamed tributaries.
ii	Bluff Creek from its confluence with Enchanted Creek upstream including all named and unnamed tributaries.
ii	Browns Creek from its confluence with the Pedlar River upstream including all named and unnamed tributaries.

ii	Campbell Creek (Nelson County) from its confluence with the Tye River upstream including all named and unnamed tributaries.
ii	Cove Creek from its confluence with the North Fork Buffalo River upstream including all named and unnamed tributaries.
ii	Coxs Creek from its confluence with the Tye River upstream including all named and unnamed tributaries.
ii	Crabtree Creek (Nelson County) from its confluence with the South Fork Tye River upstream including all named and unnamed tributaries.
ii	Crawleys Creek from its confluence with the Piney River upstream including all named and unnamed tributaries.

ii	Cub Creek (Nelson County) from 1.4 miles above its confluence with the Tye River (in the vicinity of Route 699), upstream including all named and unnamed tributaries.
ii	Davis Mill Creek from its confluence with the Pedlar River upstream including all named and unnamed tributaries.
ii	Durham Run from its confluence with the North Fork Tye River upstream including all named and unnamed tributaries.
ii	Elk Pond Branch from its confluence with the North Fork Piney River upstream including all named and unnamed tributaries.

ii	Enchanted Creek from its confluence with the Pedlar River upstream upstream including all named and unnamed tributaries.
ii	Georges Creek from its confluence with the Little Piney River upstream including all named and unnamed tributaries.
ii	Greasy Spring Branch from its confluence with the South Fork Piney River upstream including all named and unnamed tributaries.
ii	Harpers Creek from its confluence with the Tye River upstream including all named and unnamed tributaries.
ii	King Creek from its confluence with the Little Piney River upstream including all named and unnamed tributaries.

ii	Lady Slipper Run from its confluence with the Pedlar River upstream including all named and unnamed tributaries.
ii	Little Cove Creek from its confluence with the North Fork Buffalo River upstream including all named and unnamed tributaries.
iii	Little Irish Creek from its confluence with the Pedlar River upstream including all named and unnamed tributaries.
ii	Little Piney River from its confluence with the Piney River upstream including all named and unnamed tributaries.
i	Louisa Spring Branch from its confluence with the North Fork Piney River 1.6 miles upstream.

ii	Maidenhead Branch from its confluence with the South Fork Tye River upstream including all named and unnamed tributaries.
ii	Meadow Creek (Nelson County) from its confluence with the South Fork Tye River upstream including all named and unnamed tributaries.
ii	Mill Creek (Nelson County) from its confluence with the North Fork Tye River upstream including all named and unnamed tributaries.
ii	Mill Creek (Nelson County) from its confluence with the South Fork Tye River upstream including all named and unnamed tributaries.
ii	Nicholson Run from its confluence with Lady

	Slipper Run upstream including all named and unnamed tributaries.
ii	North Fork Buffalo River from 1.8 miles above its confluence with the Buffalo River upstream including all named and unnamed tributaries.
i	North Fork Piney River from its confluence with the Piney River upstream including all named and unnamed tributaries.
iii	North Fork Thrashers Creek from its confluence with Thrashers Creek upstream including all named and unnamed tributaries.
	North Fork Tye River from its confluence with the Tye River upstream including all named and unnamed tributaries.

iii	(North Fork Tye River from its confluence with the Tye River 1.6 miles upstream.)
ii	(North Fork Tye River from 1.6 miles above its confluence with the Tye River 8.3 miles upstream.)
iii	Pedlar River from 5 miles above Lynchburg's raw water intake upstream including all named and unnamed tributaries.
ii	Piney River from river mile 13.3 upstream including all named and unnamed tributaries.
ii	Pompey Creek from its confluence with the Little Piney River upstream including all named and unnamed tributaries.
ii	Reed Creek from the junction of Routes 764

	and 638 upstream including all named and unnamed tributaries.
ii	Rocky Branch from its confluence with the North Fork Buffalo River upstream including all named and unnamed tributaries.
ii	Rocky Run (Nelson County) from 1.6 miles above its confluence with the Tye River upstream including all named and unnamed tributaries.
i	Shoe Creek (Nelson County) from its confluence with Piney River upstream including all named and unnamed tributaries.
iii	Silver Creek from its confluence with the Tye River upstream including all named and unnamed tributaries.

ii	South Fork Piney River from its confluence with the Piney River upstream including all named and unnamed tributaries.
ii	South Fork Tye River from its confluence with the Tye River upstream including all named and unnamed tributaries.
ii	Statons Creek from its confluence with the Pedlar River upstream including all named and unnamed tributaries.
iii	Wheelers Run from its confluence with the Pedlar River upstream including all named and unnamed tributaries.
ii	White Rock Creek (Nelson County) from its confluence with the North Fork Tye River upstream including all named and unnamed tributaries.

	ii		Wiggins Branch from its confluence with Statons Creek upstream including all named and unnamed tributaries.
11a	III	PWS	Unnamed tributary to Williams Creek from Sweet Briar College's (inactive) raw water intake to its headwaters.
11b	III	PWS	Buffalo River and its tributaries from Amherst's raw water intake to ~~a~~ points 5 miles upstream.
11c	[III]	[PWS]	~~(Deleted)~~Black Creek and its tributaries from the Nelson County Service Authority intake at latitude 37E42'41.64"; longitude 78E57'10.09" (approximately 1000 feet downstream of the Route 56 bridge) upstream to their headwaters (including the reservoir).

11d	III		James River and its tributaries from a point 0.25 mile above the confluence of the Tye River to Six Mile Bridge.
11e	III		James River and its tributaries, excluding Blackwater Creek, from Six Mile Bridge to the Business Route 29 Bridge in Lynchburg.
11f			(Deleted)
11g	III	PWS	James River and its tributaries from the Business Route 29 bridge in Lynchburg to Reusens Dam to include the City of Lynchburg's alternate raw water intake at the Route 29 bridge and the Amherst County Service Authority's intake on Harris and Graham Creeks.

11h	III	PWS	James River and its tributaries, excluding the Pedlar River, from Reusens Dam to Coleman Dam, including the Eagle Eyrie raw water intake on an unnamed tributary to Judith Creek 1.0 mile from the confluence with Judith Creek, to its headwaters, and also the City of Lynchburg's raw water intake on the James River at Abert.
11i	III	PWS	Pedlar River and its tributaries from Lynchburg's raw water intake to ~~a~~ points 5 miles upstream.
	V		**Stockable Trout Waters in Section 11i**
	vi		Pedlar River from Lynchburg's raw water intake to a point 5 miles upstream.
	VI		**Natural Trout Waters in Section lli**

	ii	Brown Mountain Creek from its confluence with the Pedlar River upstream including all named and unnamed tributaries.
	iii	Roberts Creek from its confluence with the Pedlar River upstream including all named and unnamed tributaries.
11j	III	James River and its tributaries from the Owens-Illinois raw water intake near Big Island to[~~, but not including, the Maury River~~Balcony Falls].
	V	**Stockable Trout Waters in Section 11j**
	vi	Battery Creek from its confluence with the James River to its headwaters.
	vi	Cashaw Creek from its confluence with the

	James River to its headwaters.
vi	Otter Creek from its confluence with the James River to a point 4.9 miles upstream.
vi	Rocky Row Run from its confluence with the James River to its headwaters.
VI	**Natural Trout Waters in Section 11j**
iii	Falling Rock Creek from its confluence with Peters Creek upstream including all named and unnamed tributaries.
ii	Hunting Creek from a point 3.7 miles from its confluence with the James River upstream including all named and unnamed tributaries.
iii	Otter Creek from 4.9 miles above its confluence with the James River upstream including all named and unnamed tributaries.

ii	Peters Creek from a point 0.2 mile above its confluence with the James River upstream including all named and unnamed tributaries.
11k	(Deleted)

9 VAC 25-260-430. James River Basin (Upper).

SEC.	CLASS	SP. STDS.	SECTION DESCRIPTION
12	IV		James River and its tributaries from [~~the Maury River~~ Balcony Falls] to their headwaters, unless otherwise designated in this chapter. (The Maury River and its tributaries [between it's confluence with the James upstream to it's headwaters (the confluence of the Calfpasture and Little Calfpasture Rivers)] to their headwaters have a special pH standard of 6.5-9.5 due to natural conditions).
	V		**Stockable Trout Waters in Section 12**
	vi	[~~pH-6.5-9.5~~]	Alum Creek from its confluence with Brattons Creek 1.7 miles upstream.
	vi		Back Creek (Highland County) from 37.1 miles above its confluence with the Jackson River 3.2 miles upstream.

vi		Back Run from its confluence with the James River 2.1 miles upstream.
vi		Borden Creek from its confluence with Catawba Creek to a point 1.7 miles upstream.
v	pH-6.5-9.5	Buffalo Creek (Rockbridge County) from the confluence with Colliers Creek 3 miles upstream.
v		Bullpasture River from the junction of the Cowpasture River and Route 678 to its headwaters.
vi		Cowpasture River (Highland County) from 75.4 miles above its confluence with the James River 2.7 miles upstream.
vi		Craig Creek from the confluence of Muddy

	Branch to its headwaters.
vi	Crush Run from its confluence with Catawba Creek to a point 2.8 miles upstream.
vi	Elk Creek from its mouth to 0.6 mile upstream.
vi	Elk Creek from 1.9 miles above its confluence with the James River 1.2 miles upstream.
vi	Ellis Run from its confluence with Back Creek in Botetourt County to a point 1.6 miles upstream.
v	Falling Spring Creek from its confluence with the Jackson River to its headwaters.

	~~Jackson River from 5 miles above the City of Covington's raw water intake to the Gathright Dam.~~
v	Jackson River from 1.8 miles above Route 39 (river mile 65.4) 12.2 miles upstream.
vi	Jackson River from 77.6 miles above its confluence with the James River to river mile 85.4.
***	Jackson River from river mile 89.2 to headwaters.
vi	Jennings Creek from the Norfolk and Western Railroad to the confluence of Yellowstone Branch.
viii	Jerrys Run from its confluence with Dunlap

		Creek to ~~its junction with Routes 60 and 782.~~ the C&O Railroad crossing.
***		Johns Creek (Craig County) from the junction of Routes 632 and 658 to Eliber Springs Branch.
vi		Lees Creek from its confluence with Catawba Creek to a point 2 miles upstream.
vi		McFalls Creek from its confluence with Jennings Creek to its headwaters.
vi	[~~pH-6.5-9.5~~]	Mill Creek (Bath County) from 2.2 miles above its confluence with the Calfpasture River to its headwaters.
vi		Mill Creek from its confluence with Craig Creek to a point 2.1 miles upstream (Craig County).

vi		Miller Branch from its confluence with Tygers Creek to its headwaters.
vi	pH-6.5-9.5	North Buffalo Creek from its confluence with Buffalo Creek 2.8 miles upstream.
viii		Pads Creek from river mile 2.2 - 8.2 (6 miles), unless otherwise designated in this chapter.
vi		Pheasanty Run (Spring Run) from its confluence with the Cowpasture River 0.7 mile upstream.
v		Potts Creek from the junction of Route 614 upstream to Boiling Spring.
***		Potts Creek from the Craig County line to its headwaters.

v	Roaring Run from Route 615 to its headwaters.
vi	South Fork Pads Creek from its confluence with Pads Creek approximately to its headwaters.
vi	Spreading Spring Branch from its confluence with the James River to the intersection of Routes 635 and 630.
v	Sweet Springs Creek from its confluence with Dunlap Creek to the West Virginia state line.
vi	Trout Creek and all of its tributaries (except Pickles Branch) from its confluence with Craig Creek to their headwaters (including the tributaries' headwaters).
vii	Tygers Creek from its confluence with Dunlap Creek to its headwaters.

VI	**Natural Trout Waters in Section 12**
iv	Als Run from its confluence with Jerrys Run upstream including all named and unnamed tributaries.
ii	Back Creek from its confluence with the James River near Buchanan upstream including all named and unnamed tributaries.
ii	Barbours Creek from its confluence with Craig Creek upstream including all named and unnamed tributaries.
ii	Barney Run from its confluence with Mare Run upstream including all named and unnamed tributaries.
ii	Bear Hole Run from its confluence with Dry

		Run upstream including all named and unnamed tributaries.
ii		Bear Loop Branch from its confluence with Wilson Creek upstream including all named and unnamed tributaries.
ii		Beaver Run (Bath County) from its confluence with Back Creek upstream including all named and unnamed tributaries.
ii	pH-6.5-9.5	Bennetts Run (Rockbridge County) from its confluence with the Maury River upstream including all named and unnamed tributaries.
iv		Benson Run from its confluence with the Cowpasture River upstream including all named and unnamed tributaries.

iii		Biggs Run from its confluence with Craig Creek upstream including all named and unnamed tributaries.
ii		Big Laurel Branch from its confluence with Johns Creek upstream including all named and unnamed tributaries.
ii		Big Lick Run from its confluence with Little Back Creek upstream including all named and unnamed tributaries.
iii		Big Run from its confluence with Little Back Creek upstream including all named and unnamed tributaries.
iv	[~~pH-6.5-9.5~~]	Black Run (Augusta County) from its confluence with Smith Creek upstream including all named and unnamed tributaries.

ii		Blue Spring Run from its confluence with Potts Creek upstream including all named and unnamed tributaries.
iii		Blue Suck Branch from its confluence with Simpson Creek upstream including all named and unnamed tributaries.
iii		Bolar Run from its confluence with the Jackson River to Bolar Spring.
ii	[~~pH-6.5-9.5~~]	Brattons Run from the confluence of Alum Creek upstream including all named and unnamed tributaries.
***		Broad Run from its junction with Routes 311 and 618 upstream including all named and unnamed tributaries.

ii	Cascades Creek from its confluence with Cedar Creek (Bath County) upstream including all named and unnamed tributaries.
ii	Castle Run from its confluence with the Jackson River upstream including all named and unnamed tributaries.
ii	Cast Steel Run from its confluence with Potts Creek upstream including all named and unnamed tributaries.
***	Cedar Creek from its confluence with the Jackson River to its confluence with Hot Springs Run.
ii	Cedar Creek (Rockbridge County) from 6.4 miles above its confluence with the James River upstream including all named and unnamed tributaries.

ii		Chestnut Run from its confluence with Jennings Creek upstream including all named and unnamed tributaries.
iii		Christleys Run from its confluence with Kempers Run upstream including all named and unnamed tributaries.
ii	[~~pH-6.5-9.5~~]	Clayton Mill Creek from its confluence with the Calfpasture River upstream including all named and unnamed tributaries.
ii		Cornelius Creek from its confluence with North Creek upstream including all named and unnamed tributaries.
ii		Cove Branch from its confluence with Barbours Creek upstream including all named and unnamed tributaries.

ii	Cowardin Run from its confluence with Rowan Run upstream including all named and unnamed tributaries.
ii	Crab Run from its confluence with the Bullpasture River upstream including all named and unnamed tributaries.
ii	Crow Run from its confluence with Dunlap Creek upstream including all named and unnamed tributaries.
ii	Cub Run (Bath County) from its confluence with Dry Run upstream including all named and unnamed tributaries.
iv	Davidson Run (Rockbridge County) from Route 501 upstream including all named and unnamed tributaries.

ii	Davis Run from Route 678 upstream including all named and unnamed tributaries.
iii	Downey Branch from its confluence with Blue Suck Branch upstream including all named and unnamed tributaries.
<u>iv</u>	<u>Dry Run (Allegheny County) from the Covington City limits upstream including all named and unnamed tributaries.</u>
ii	Dry Run (Bath County) from 1.5 miles above its confluence with the Cowpasture River upstream including all named and unnamed tributaries.
<u>ii</u>	<u>Duffs Run from its confluence with the Bullpasture River upstream 1.0 miles.</u>

ii		East Fork Elk Creek from 0.8 mile above its confluence with Elk Creek upstream including all named and unnamed tributaries.
ii		Eliber Springs Branch from its confluence with Johns Creek upstream including all named and unnamed tributaries.
ii		Ewin Run from its confluence with Potts Creek to the West Virginia state line.
ii		Falling Springs Creek from its confluence with the Jackson River to Route 220.
ii		Fallingwater Creek from its confluence with Jennings Creek upstream including all named and unnamed tributaries.
iv	[~~pH-6.5-9.5~~]	Ferrol Creek from its confluence with the Little

		Calfpasture River upstream including all named and unnamed tributaries.
ii		Ford Run (Bath County) from its confluence with Back Creek upstream including all named and unnamed tributaries.
***	[~~pH-6.5-9.5~~]	Fridleys Branch from its confluence with the Calfpasture River upstream including all named and unnamed tributaries.
iii		Furnace Branch from its confluence with Craig Creek upstream including all named and unnamed tributaries.
ii		Glover Run from its confluence with Allen Run upstream including all named and unnamed tributaries.

ii	[~~pH-6.5-9.5~~]	Gochenour Branch from its confluence with Brattons Run upstream including all named and unnamed tributaries.
ii		Grannys Creek from its confluence with Johns Creek upstream including all named and unnamed tributaries.
***		Guys Run (Bath County) from its confluence with the Cowpasture River upstream including all named and unnamed tributaries.
ii	[~~pH-6.5-9.5~~]	Guys Run (Rockbridge County) from its confluence with the Calfpasture River (at Camp Virginia, Route 39) upstream including all named and unnamed tributaries.
iii		Hays Creek from its confluence with Potts Creek upstream including all named and unnamed tributaries.

ii	Hidden Valley Spring from its confluence with the Jackson River 1.1 miles upstream.
ii	Hipes Branch from its confluence with Craig Creek upstream including all named and unnamed tributaries.
iv	Hite Hollow (Augusta County) from 0.8 miles above its mouth upstream including all named and unnamed tributaries.
***	Hypes Creek from Route 696 upstream including all named and unnamed tributaries.
iii	Indian Draft from its confluence with the Jackson River upstream including all named and unnamed tributaries.

ii		Jackson River from 5 miles above the City of Covington's raw water intake to the Gathright Dam.
ii		Jackson River from river mile 85.4 to river mile 89.2.
ii		Jennings Creek from the confluence of Yellowstone Branch upstream including all named and unnamed tributaries.
iv	[~~pH-6.5-9.5~~]	Jerkemtight Branch from its confluence with the Calfpasture River upstream including all named and unnamed tributaries.
iv ***		Jerrys Run (Allegheny County) from ~~its junction with Routes 60 and 782~~ the C&O railroad upstream including all named and unnamed tributaries.

iv	[~~pH-6.5-9.5~~]	Jerrys Run (Augusta County) from its confluence with Ramseys Draft upstream including all named and unnamed tributaries.
ii		Johns Creek from the confluence of Eliber Springs Branch upstream including all named and unnamed tributaries.
ii		Jordan Run (Bath County) from its confluence with Thompson Creek upstream including all named and unnamed tributaries.
ii		Karnes Creek from a point 1.4 miles upstream of its confluence with the Jackson River upstream including all named and unnamed tributaries.

ii		Kelly Run (Bath County) from its confluence with the Jackson River upstream including all named and unnamed tributaries.
ii	~~[pH-6.5-9.5]~~	Kelso Spring Branch from its confluence with the Little Calfpasture River 1.3 miles upstream.
ii		Laurel Run (Bath County) from its confluence with Dry Run upstream including all named and unnamed tributaries.
iv	~~[pH-6.5-9.5]~~	Left Prong Ramseys Draft from its confluence with Ramseys Draft upstream including all named and unnamed tributaries.
ii		Left Prong Wilson Creek from its confluence with Wilson Creek upstream including all named and unnamed tributaries.

ii		Lick Block Run from its confluence with the Left Prong Wilson Creek upstream including all named and unnamed tributaries.
***		Lick Branch from its confluence with Craig Creek upstream including all named and unnamed tributaries.
ii		Lick Run (Bath County) from 3.3 miles above its confluence with Stuart Run 3.3 miles upstream.
ii		Little Back Creek (Bath County) from Route 600 upstream including all named and unnamed tributaries.
iv	[~~pH-6.5-9.5~~]	Little Calfpasture River from 17.2 miles above its confluence with the Maury River upstream including all named and unnamed tributaries.

ii		Little Crow Run from its confluence with Crow Run upstream including all named and unnamed tributaries.
ii		Little Mill Creek (Bath County) from its confluence with Mill Creek upstream including all named and unnamed tributaries.
ii		Little Wilson Creek (from 1 mile above its confluence with Mill Creek) upstream including all named and unnamed tributaries.
ii		Long Spring Run from its confluence with Little Back Creek upstream including all named and unnamed tributaries.
iii	pH-6.5-9.5	Lowry Run from 0.2 mile above its confluence with the Maury River upstream including all named and unnamed tributaries.

ii	Madison Creek from Route 682 upstream including all named and unnamed tributaries.
ii	Mare Run from its junction with Route 39 at Bath Alum upstream including all named and unnamed tributaries.
ii	Meadow Creek from its confluence with Craig Creek upstream including all named and unnamed tributaries.
iii	Middle Creek from its confluence with Jennings Creek upstream including all named and unnamed tributaries.
ii	Mill Branch from its confluence with Potts Creek upstream including all named and unnamed tributaries.

i	Mill Creek (Bath County) from its confluence with the Cowpasture River 3.2 miles upstream.
iii	Mill Creek from Rebecca Furnace upstream including all named and unnamed tributaries.
ii	Mill Creek from its confluence with Craig Creek near Webbs Mill in Craig County upstream including all named and unnamed tributaries.
ii	Mill Creek (Bath County) from its confluence with the Jackson River (Lake Moomaw) upstream including all named and unnamed tributaries.
ii	Mill Run (Highland County) from its confluence with the Bullpasture River 0.5 mile

	upstream.
ii	Muddy Run (Bath County) from its confluence with the Jackson River upstream including all named and unnamed tributaries.
ii	Nelse Branch from its confluence with Mill Branch upstream including all named and unnamed tributaries.
ii	North Branch Simpson Creek from its confluence with Simpson Creek upstream including all named and unnamed tributaries.
ii	North Creek from its confluence with Jennings Creek upstream including all named and unnamed tributaries.

ii		Paint Bank Branch from its confluence with Potts Creek upstream including all named and unnamed tributaries.
ii		Panther Run from its confluence with Mare Run upstream including all named and unnamed tributaries.
ii		Paxton Branch from its confluence with Johns Creek upstream including all named and unnamed tributaries.
iii	pH-6.5-9.5	Pedlar Gap Run from 1 mile above its confluence with the Maury River upstream including all named and unnamed tributaries.
ii		Pickles Branch (a tributary to Trout Creek) from its mouth upstream including all named and unnamed tributaries.

ii	[~~pH-6.5-9.5~~]	Piney Branch (Rockbridge County) from its confluence with Guys Run upstream including all named and unnamed tributaries.
iii	pH-6.5-9.5	Poplar Cove Run from its confluence with Lowry Run upstream including all named and unnamed tributaries.
iii		Porters Mill Creek from its confluence with Mill Creek upstream including all named and unnamed tributaries.
ii		Pounding Mill Creek from its confluence with the Jackson River upstream including all named and unnamed tributaries.
ii		Purgatory Creek from its confluence with the James River upstream including all named and unnamed tributaries.

iv	[~~pH-6.5-9.5~~]	Ramseys Draft from its confluence with the Calfpasture River upstream including all named and unnamed tributaries.
ii	pH-6.5-9.5	Reservoir Hollow from 0.7 mile above its confluence with Indian Gap Run upstream including all named and unnamed tributaries.
iv	[~~pH-6.5-9.5~~]	Right Prong Ramseys Draft from its confluence with Ramseys Draft upstream including all named and unnamed tributaries.
ii	[~~pH-6.5-9.5~~]	Rocky Creek from its confluence with Ramseys Draft upstream including all named and unnamed tributaries.
ii		Rocky Run (Bath County) from its confluence with the Jackson River

	upstream including all named and unnamed tributaries.
ii	Rowan Run from its confluence with the Jackson River to the confluence with Cowardin Run.
ii	Sawmill Run (Bath County) from its confluence with Back Creek upstream including all named and unnamed tributaries.
ii	Shawvers Run from its confluence with Potts Creek upstream including all named and unnamed tributaries.
ii	Simpson Creek from the junction of Route 776 and U. S. Route 60 upstream including all named and unnamed tributaries.

ii		Sinking Creek from Route 697 upstream including all named and unnamed tributaries.
iii		Smith Branch from its confluence with Mill Creek upstream including all named and unnamed tributaries.
iii		Smith Creek (Alleghany-Clifton Forge City) from Interstate 64, 2.4 miles upstream.
ii		Snake Run from its confluence with Dunlap Creek upstream including all named and unnamed tributaries.
ii	pH-6.5-9.5	South Buffalo Creek from its confluence with Buffalo Creek upstream including all named and unnamed tributaries.
ii		Spring Branch (Bath County) from its

		confluence with Mill Creek 0.8 mile upstream.
ii		Spring Run (Bath County) from its confluence with Back Creek upstream including all named and unnamed tributaries.
iv	[~~pH-6.5-9.5~~]	Still Run from its confluence with the Calfpasture River upstream including all named and unnamed tributaries.
iii		Stony Run from its confluence with Craig Creek upstream including all named and unnamed tributaries.
ii		Stony Run (Highland County) from its confluence with the Jackson River upstream including all named and unnamed tributaries.

ii		Sugar Run (Allegheny County) from its confluence with Potts Creek upstream 0.75 miles.
iii		Thompson Creek from the Route 39 crossing upstream to the confluence of Mares and Jordan Runs.
ii		Trout Run from its confluence with Sinking Creek upstream including all named and unnamed tributaries.
ii	[~~pH-6.5-9.5~~]	Unnamed tributary to Brattons Run 0.7 mile above the confluence of Gochenour Branch from its mouth upstream including all named and unnamed tributaries.
ii		Valley Branch from its confluence with Potts Creek upstream including all named and unnamed tributaries.

	ii		Vinegar Run From its confluence with the Jackson River upstream 0.4 miles.
	iii		Wildcat Hollow from its confluence with Little Back Creek upstream including all named and unnamed tributaries.
	ii		Wilson Creek (Bath County) within Douthat State Park Lake upstream including all named and unnamed tributaries.
12a	IV	pH-6.5-9.5	Maury River and its tributaries, unless otherwise designated in this chapter, from U.S. Route 60 bridge [upstream]to its [~~confluence with the Little Calfpasture River~~ headwaters (the confluence of the Calfpasture and Little Calfpasture Rivers)].
	V	pH-6.5-9.5	**Stockable Trout Waters in Section 12a**

***		Hays Creek from its confluence with the Maury River to Brownsburg (9.5 miles).
***		Irish Creek from its confluence with the South River to river mile 8.9.
v		Marlbrook Creek from its confluence with the South River 2.2 miles upstream.
VI	pH-6.5-9.5	**Natural Trout Waters in Section 12a**
iv		Big Bend Creek from its confluence with Irish Creek upstream including all named and unnamed tributaries.
ii		Big Marys Creek from its confluence with the South River upstream including all named and unnamed tributaries.

ii	Chimney Branch from its confluence with Saint Marys River upstream including all named and unnamed tributaries.
ii	Hogback Creek from its confluence with Saint Marys River upstream including all named and unnamed tributaries.
iii	Irish Creek from river mile 8.9 upstream including all named and unnamed tributaries.
i	Laurel Run from its confluence with the Maury River upstream including all named and unnamed tributaries.
ii	Little Marys Creek from its confluence with the South River upstream including all named and unnamed tributaries.

***	Mill Creek from its confluence with the Maury River at Lexington upstream including all named and unnamed tributaries.
ii	Mine Bank Creek from its confluence with Saint Marys River upstream including all named and unnamed tributaries.
ii	Nettle Creek from its confluence with Irish Creek upstream including all named and unnamed tributaries.
ii	Nettle Spring Branch from its confluence with Nettle Creek upstream including all named and unnamed tributaries.
~~ii~~	~~North Fork Spy Run from its confluence with Spy Run upstream including all named and unnamed tributaries.~~

iii	Otts Creek from its confluence with Hayes Creek upstream to Route 726.
iv	Rock Branch from its confluence with Irish Creek upstream including all named and unnamed tributaries.
	Saint Marys River from its confluence with the South River upstream including all named and unnamed tributaries.
ii	(Saint Marys River from its confluence with the South River 3.6 miles upstream.)
i	(Saint Marys River from 3.6 miles above its confluence with the South River upstream including all named and unnamed tributaries.)

	ii		Spy Run from its confluence with the South River upstream including all named and unnamed tributaries.
	ii		Sugartree Branch from its confluence with Saint Marys River upstream including all named and unnamed tributaries.
	ii		Wigwam Creek from its confluence with Nettle Creek upstream including all named and unnamed tributaries.
12b	IV	PWS, pH-6.5-9.5	Maury River and its tributaries from Lexington's raw water intake to ~~a~~ points 5 miles upstream.
12c	IV	PWS	Black Run from Craigsville's raw water intake to its headwaters.

12d	IV	PWS	Moores Creek located on Brushy Mountain.
12e	IV		Cowpasture River from the Alleghany-Botetourt County line upstream to U.S. Route 60 bridge.
12f	IV	PWS	Smith Creek and Clifton Forge Reservoir from Clifton Forge's raw water intake to their headwaters.
	VI	PWS	**Natural Trout Waters in Section 12f**
	ii		Piney Branch from its confluence with Smith Creek upstream including all named and unnamed tributaries.

	ii		Smith Creek (Alleghany County) from 4 miles north of Clifton Forge near Route 606 (at the stream gage upstream of the filtration plant) upstream including all named and unnamed tributaries.
12g	IV	PWS	Mill Branch and its tributaries located on Horse Mountain.
12h	IV	PWS	Potts Creek and its tributaries from Hercules, Inc.'s raw water intake to ~~a~~ points 5 miles upstream.
12i	IV	PWS	Dunlap Creek and its tributaries from the Covington Boys Home raw water intake to ~~a~~ points 5 miles upstream.
12j	IV	PWS	Jackson River and its tributaries from Covington's raw water intake to ~~a~~ points 5 miles upstream.

	~~V~~VI		**~~Stockable~~ Natural Trout Waters in Section 12j**
	ii		Jackson River from Covington's raw water intake to a point 5 miles upstream.
12k	IV	PWS	Roaring Run above Clearwater Park's raw water intake to its headwaters.
12l	IV	PWS	Catawba Creek and its tributaries from the City of Roanoke's raw water intake 0.1 mile upstream from its confluence with Buchanan Branch to ~~a~~ points 5 miles upstream.

12m	IV	PWS	Unnamed tributary to Catawba Creek from the Catawba State Hospital's raw water intake (approximately 1,000 feet north of the Hospital's main building), upstream to its headwaters.

9 VAC 25-260-440. Rappahannock River Basin.

SEC.	CLASS	SP. STDS.	SECTION DESCRIPTION
1	II	a,NEW-15,16	Rappahannock River and the tidal portions of its tributaries from Stingray and Windmill Points to Route 1 Alternate Bridge at Fredericksburg.
1a	II	NEW-16	Hoskins Creek from the confluence with the Rappahannock River to its tidal headwaters.
2	III	NEW-15,16	Free flowing tributaries of the Rappahannock from Stingray and Windmill Points upstream to Blandfield Point, unless otherwise designated in this chapter.
3	III	~~q~~	The Rappahannock River from the Route 1 Alternate Bridge at Fredericksburg upstream to the low dam water intake at Waterloo (Fauquier County).

3a	III	[PWS]	The Rappahannock River and its tributaries from Spotsylvania County's raw water intake near Golin Run at 38E18'35.4638" latitude and 77E32'03.448" longitude to points 5 miles upstream (excluding Motts Run and tributaries which is in section 4c).
~~3a~~3b	III	PWS~~,q~~	The ~~main stem of the~~ Rappahannock River and its tributaries from the low dam water intake at Waterloo, Fauquier County, to ~~the headwaters of the Rappahannock River~~ points 5 miles upstream.
4	III	~~q,~~ NEW-15	Free flowing tributaries of the Rappahannock from Blandfield Point to its headwaters, unless otherwise designated in this chapter.
	V	~~q~~	**Stockable Trout Waters in Section 4**
	***		Hughes River (Madison County) from Route

		231 upstream to the upper crossing of Route 707 near the confluence of Rocky Run.
***		Robinson River from Route 231 to river mile 26.7.
***		Rose River from its confluence with the Robinson River 2.6 miles upstream.
***		South River from 5 miles above its confluence with the Rapidan River 3.9 miles upstream.
VI	~~q~~	**Natural Trout Waters in Section 4**
ii		Berry Hollow from its confluence with the Robinson River upstream including all named and unnamed tributaries.
ii		Bolton Branch from 1.7 miles above its confluence with Hittles Mill Stream upstream including all named and unnamed tributaries.

ii	Broad Hollow Run from its confluence with Hazel River upstream including all named and unnamed tributaries.
i	Brokenback Run from its confluence with the Hughes River upstream including all named and unnamed tributaries.
i	Bush Mountain Stream from its confluence with the Conway River upstream including all named and unnamed tributaries.
i	Cedar Run (Madison County) from 0.8 mile above its confluence with the Robinson River upstream including all named and unnamed tributaries.
i	Conway River (Greene County) from the Town of Fletcher upstream including all named and unnamed tributaries.

ii	Dark Hollow from its confluence with the Rose River upstream including all named and unnamed tributaries.
i	Devils Ditch from its confluence with the Conway River upstream including all named and unnamed tributaries.
iii	Entry Run from its confluence with the South River upstream including all named and unnamed tributaries.
iii	Garth Run from 1.9 miles above its confluence with the Rapidan River at the Route 665 crossing upstream including all named and unnamed tributaries.
ii	Hannah Run from its confluence with the Hughes River upstream including all named and unnamed tributaries.

ii	Hazel River (Rappahannock County) from ~~38.6 miles above its confluence with the Rappahannock River~~ the Route 707 bridge upstream including all named and unnamed tributaries.
ii	Hogcamp Branch from its confluence with the Rose River upstream including all named and unnamed tributaries.
i	Hughes River (Madison County) from the upper crossing of Route 707 near the confluence of Rocky Run upstream including all named and unnamed tributaries.
iii	Indian Run (Rappahannock County) from 3.4 miles above its confluence with the ~~Jordan River~~ Hittles Mill Stream upstream including all named and unnamed tributaries.
ii	Jordan River (Rappahannock County) from

	10.9 miles above its confluence with the Rappahannock River upstream including all named and unnamed tributaries.
iii	Kinsey Run from its confluence with the Rapidan River upstream including all named and unnamed tributaries.
ii	Laurel Prong from its confluence with the Rapidan River upstream including all named and unnamed tributaries.
ii	Mill Prong from its confluence with the Rapidan River upstream including all named and unnamed tributaries.
ii	Negro Run (Madison County) from its confluence with the Robinson River upstream including all named and unnamed tributaries.

ii	North Fork Thornton River from 3.2 miles above its confluence with the Thornton River upstream including all named and unnamed tributaries.
ii	Piney River (Rappahannock County) from 0.8 mile above its confluence with the North Fork Thornton River upstream including all named and unnamed tributaries.
ii	Pocosin Hollow from its confluence with the Conway River upstream including all named and unnamed tributaries.
ii	Ragged Run from 0.6 mile above its confluence with Popham Run upstream including all named and unnamed tributaries.
i	Rapidan River from Graves Mill (Route 615) upstream including all named and unnamed tributaries.

ii	Robinson River (Madison County) from river mile 26.7 to river mile 29.7.
i	Robinson River (Madison County) from river mile 29.7 upstream including all named and unnamed tributaries.
i	Rose River from river mile 2.6 upstream including all named and unnamed tributaries.
iv	Rush River (Rappahannock County) from the confluence of Big Devil Stairs (approximate river mile 10.2) upstream including all named and unnamed tributaries.
ii	Sams Run from its confluence with the Hazel River upstream including all named and unnamed tributaries.

ii	South River from 8.9 miles above its confluence with the Rapidan River upstream including all named and unnamed tributaries.
ii	Sprucepine Branch from its confluence with Bearwallow Creek upstream including all named and unnamed tributaries.
i	Staunton River (Madison County) from its confluence with the Rapidan River upstream including all named and unnamed tributaries.
ii	Strother Run from its confluence with the Rose River upstream including all named and unnamed tributaries.
iii	Thornton River (Rappahannock County) from 25.7 miles above its confluence with the Hazel River upstream including all named and unnamed tributaries.

	ii		Wilson Run from its confluence with the Staunton River upstream including all named and unnamed tributaries.
4a			(Deleted)
4b	III	PWS~~,q~~	The Rappahannock River and its tributaries, to include the VEPCO Canal, from Fredericksburg's (inactive May 2000) raw water intake to ~~a~~ points 5 miles upstream.
4c	III	PWS~~,q~~	Motts Run and its tributaries.
4d	III	~~q~~	Horsepen Run and its tributaries.
4e	III	PWS~~,q~~	Hunting Run and its tributaries.
4f	III	~~q~~	Wilderness Run and its tributaries.
4g	III	~~q~~	Deep Run and its tributaries.

4h			(Deleted)
4i	III	PWS~~,g~~	Mountain Run and its tributaries from Culpeper's raw water intake to ~~its headwaters~~ points 5 miles upstream.
4j	~~VI~~ III	PWS~~,g~~	White Oak Run and it tributaries from the Town of Madison's raw water intake ~~upstream~~ to ~~its headwaters~~ points 5 miles upstream.
4k	III	PWS~~,g~~	Rapidan River and its tributaries from Orange's raw water intake ~~upstream~~ to points 5 miles upstream.
4l	III	PWS~~,g~~	Rapidan River and its tributaries from the Rapidan Service Authority's raw water intake (just upstream of the Route 29 bridge) upstream to ~~a~~ points 5 miles above the intake.
4m	III	PWS~~,g~~	Rapidan River and its tributaries from the Wilderness Shores raw water intake

(38E22'30", 77E44'50", Orange County - Rapidan Service Authority) to ~~a~~ points 5 miles upstream.

9 VAC 25-260-450. Roanoke River Basin.

Roanoke River Subbasin

SEC.	CLASS	SP. STDS.	SECTION DESCRIPTION
1	III	PWS	Lake Gaston and the John Kerr Reservoir in Virginia and their tributaries in Virginia, unless otherwise designated in this chapter (not including the Roanoke or the Dan Rivers). The ~~Baskerville Correctional Unit's~~ Roanoke River Service Authority's water supply intake is in this section.
1a	III	s	Dockery Creek and its tributaries to their headwaters.
2	III		Dan River and its tributaries from the John Kerr Reservoir to the Virginia-North Carolina state line just east of the Pittsylvania-Halifax County line, unless otherwise designated in this chapter.
2a	III	PWS	Dan River from South Boston's raw water intake upstream to Paces (below Route 658

			bridge).
2b	III	PWS	Banister River and its tributaries from Burlington Industries' inactive raw water intake (about 2000 feet downstream of Route 360) inclusive of the Town of Halifax intake at the Banister Lake dam upstream to the Pittsylvania/Halifax County Line (designation for main stem and tributaries ends at the County line).
2c	~~III~~		~~Banister River and its tributaries from the Pittsylvania/Halifax County Line upstream to a point below its confluence with Bearskin Creek (at latitude 36E46'15"; longitude 79E27'08") just east of Route 703, unless otherwise designated in this chapter.~~ (Deleted)
2d	III	PWS	Cherrystone Creek from Chatham's raw water intake upstream to its headwaters.

2e	III	PWS	Georges Creek from Gretna's raw water intake upstream to its headwaters.
2f	III	PWS	Banister River and its tributaries from point below its confluence with Bearskin Creek (at latitude 36E46'15"; longitude 79E27'08") just east of Route 703, upstream to their headwaters.
2g	III	PWS	Whitethorn Creek and its tributaries from its confluence with Georges Creek upstream to their headwaters.
3	III		Dan River and its tributaries from the Virginia-North Carolina state line just east of the Pittsylvania-Halifax County line upstream to the state line just east of Draper, N. C., unless otherwise designated in this chapter.
3a	III	PWS	Dan River from the Schoolfield Dam including the City of Danville's main water intake

			located just upstream of the Schoolfield Dam, upstream to the Virginia-North Carolina state line.
3b	IV	PWS	Cascade Creek and its tributaries.
3c	IV	PWS	Smith River and its tributaries from the Virginia-North Carolina state line to, but not including, Home Creek.
3d	VI	PWS	Smith River from DuPont's (inactive) raw water intake upstream to the Philpott Dam, unless otherwise designated in this chapter.
	VI	PWS	**Natural Trout Waters in Section 3d**
	ii		Smith River from DuPont's (inactive) raw water intake upstream to the Philpott Dam, unless otherwise designated in this chapter.

3e	IV	Philpott Reservoir, Fairystone Lake and their tributaries.
	V	**Stockable Trout Waters in Section 3e**
	v	Otter Creek from its confluence with Rennet Bag Creek (Philpott Reservoir) to its headwaters.
	v	Smith River (Philpott Reservoir portion) from the Philpott Dam (river mile 46.80) to river mile 61.14, just above the confluence with Small Creek.
	v	Rennet Bag Creek from its confluence with the Smith River to the confluence of Long Branch Creek.
	VI	**Natural Trout Waters in Section 3e**

	ii		Brogan Branch from its confluence with Rennet Bag Creek upstream including all named and unnamed tributaries.
	ii		Rennet Bag Creek from the confluence of Long Branch Creek upstream including all named and unnamed tributaries.
	ii		Roaring Run from its confluence with Rennet Bag Creek upstream including all named and unnamed tributaries.
3f	IV	PWS	North Mayo River and South Mayo River and their tributaries from the Virginia-North Carolina state line to ~~a~~ points 5 miles upstream.

3g	IV	Interstate streams in the Dan River watershed above the point where the Dan crosses the Virginia-North Carolina state line just east of Draper, N. C., (including the Mayo and the Smith watersheds), unless otherwise designated in this chapter.
	V	**Stockable Trout Waters in Section 3g**
	vi	Dan River from the Virginia-North Carolina state line upstream to the Pinnacles Power House.
	***	Little Dan River from its confluence with the Dan River 7.8 miles upstream.
	v	Smith River from river mile 61.14 (just below the confluence of Small Creek), to Route 704 (river mile 69.20).

VI	**Natural Trout Waters in Section 3g**
ii	Dan River from Pinnacles Power House to Townes Dam.
ii	Dan River from headwaters of Townes Reservoir to Talbott Dam.
iii	Little Dan River from 7.8 miles above its confluence with the Dan River upstream including all named and unnamed tributaries.
i	North Prong of the North Fork Smith River from its confluence with the North Fork Smith River upstream including all named and unnamed tributaries.
ii	North Fork Smith River from its confluence with the Smith River upstream including all named and unnamed tributaries.

	iii		Smith River from Route 704 (river mile 69.20) to Route 8 (river mile 77.55).
	ii		Smith River from Route 8 (approximate river mile 77.55) upstream including all named and unnamed tributaries.
	ii		South Mayo River from river mile 38.8 upstream including all named and unnamed tributaries.
3h	IV	PWS	South Mayo River and its tributaries from the Town of Stuart's raw water intake 0.4 mile upstream of its confluence with the North Fork ~~South~~ Mayo River to ~~a~~ points 5 miles upstream.
	VI		**Natural Trout Waters in Section 3h**
	iii		Brushy Fork from its confluence with the

			South Mayo River upstream including all named and unnamed tributaries.
	iii		Lily Cove Branch from its confluence with Rye Cove Creek upstream including all named and unnamed tributaries.
	iii		Rye Cove Creek from its confluence with the South Mayo River upstream including all named and unnamed tributaries.
	iii		South Mayo River from river mile 33.8 upstream including all named and unnamed tributaries.
3i	IV	PWS	Hale Creek and its tributaries from the Fairy Stone State Park's raw water intake 1.7 miles from its confluence with Fairy Stone Lake upstream to its headwaters.

3j	VI	PWS	Smith River and its tributaries from the Henry County Public Service Authority's raw water intake about 0.2 mile upstream of its confluence with Town Creek to points 5 miles upstream.
4	III		Intrastate tributaries to the Dan River above the Virginia-North Carolina state line just east of Draper, North Carolina, to their headwaters, unless otherwise designated in this chapter.
	V		**Stockable Trout Waters in Section 4**
	vi		Browns Dan River from the intersection of Routes 647 and 646 to its headwaters.
	vi		Little Spencer Creek from its confluence with Spencer Creek to its headwaters.
	vi		Poorhouse Creek from its confluence with North Fork South Mayo River upstream to

	Route 817.
***	Rock Castle Creek from its confluence with the Smith River upstream to Route 40.
VI	**Natural Trout Waters in Section 4**
ii	Barnard Creek from its confluence with the Dan River upstream including all named and unnamed tributaries.
ii	Big Cherry Creek from its confluence with Ivy Creek upstream including all named and unnamed tributaries.
iii	Camp Branch from its confluence with Ivy Creek upstream including all named and unnamed tributaries.

iii	Haunted Branch from its confluence with Barnard Creek upstream including all named and unnamed tributaries.
ii	Hookers Creek from its confluence with the Little Dan River upstream including all named and unnamed tributaries.
iii	Ivy Creek from Coleman's Mill Pond upstream to Route 58 (approximately 2.5 miles).
iii	Ivy Creek from its confluence with the Dan River upstream including all named and unnamed tributaries.
iii	Little Ivy Creek from its confluence with Ivy Creek upstream including all named and unnamed tributaries.
iii	Little Rock Castle Creek from its confluence with Rock Castle Creek upstream including all

	named and unnamed tributaries.
ii	Maple Swamp Branch from its confluence with Round Meadow Creek upstream including all named and unnamed tributaries.
iii	Mayberry Creek from its confluence with Round Meadow Creek upstream including all named and unnamed tributaries.
ii	Mill Creek from its confluence with the Dan River upstream including all named and unnamed tributaries.
iii	North Fork South Mayo River from its confluence with the South Mayo River upstream including all named and unnamed tributaries.

vi**	Patrick Springs Branch from its confluence with Laurel Branch upstream including all named and unnamed tributaries.
iii	Polebridge Creek from Route 692 upstream including all named and unnamed tributaries.
ii	Poorhouse Creek from Route 817 upstream including all named and unnamed tributaries.
ii	Rhody Creek from its confluence with the South Mayo River upstream including all named and unnamed tributaries.
iii	Rich Creek from Route 58 upstream including all named and unnamed tributaries.
ii	Roaring Creek from its confluence with the Dan River upstream including all named and unnamed tributaries.

i	Rock Castle Creek from Route 40 upstream including all named and unnamed tributaries.
iii	Round Meadow Creek from its confluence with the Dan River upstream including all named and unnamed tributaries.
ii	Sawpit Branch from its confluence with Round Meadow Creek upstream including all named and unnamed tributaries.
ii	Shooting Creek from its confluence with the Smith River upstream including all named and unnamed tributaries.
vi**	Spencer Creek from Route 692 upstream including all named and unnamed tributaries.
iii	Squall Creek from its confluence with the Dan River upstream including all named and unnamed tributaries.

	ii		Tuggle Creek from its confluence with the Dan River upstream including all named and unnamed tributaries.
	ii		Widgeon Creek from its confluence with the Smith River upstream including all named and unnamed tributaries.
4a	III	PWS	Intrastate tributaries (includes Beaver Creek, Little Beaver Creek, and Jones Creek, for the City of Martinsville) to the Smith River from DuPont's (inactive) raw water intake to ~~a~~ points 5 miles upstream from Fieldcrest Cannon's raw water intake.
4b	III	PWS	Marrowbone Creek and its tributaries from the Henry County Public Service Authority's raw water intake (about 1/4 mile upstream from Route 220) to their headwaters.
4c		PWS	Leatherwood Creek and its tributaries from

	III		the Henry County Public Service Authority's raw water intake 8 miles upstream of its confluence with the Smith River to ~~a~~ points 5 miles upstream.
5	IV	PWS	Roanoke Staunton River from the headwaters of the John Kerr Reservoir to Leesville Dam unless otherwise designated in this chapter.
5a	III	PWS	Tributaries to the Roanoke Staunton River from the headwaters of the John Kerr Reservoir to Leesville Dam, unless otherwise designated in this chapter.
	V		**Stockable Trout Waters in Section 5a**
	vi		Day Creek from Route 741 to its headwaters.
	VI		**Natural Trout Waters in Section 5a**

	iii		Gunstock Creek from its confluence with Overstreet Creek upstream including all named and unnamed tributaries.
	ii		Overstreet Creek from its confluence with North Otter Creek upstream including all named and unnamed tributaries.
5b	III	PWS	Spring Creek from Keysville's raw water intake upstream to its headwaters.
5c	III	PWS	Falling River and its tributaries from a point just upstream from State Route 40 (the raw water source for ~~the Bibb Company/Brookneal Plant~~ Dan River, Inc.) to ~~a~~ points 5 miles upstream and including the entire Phelps Creek watershed which contains the Brookneal Reservoir.
5d	III		Falling River and its tributaries from 5 miles above ~~the the Bibb Company/Brookneal Plant~~

			Dan River, Inc. raw water intake to its headwaters.
5e	III	PWS	Reed Creek from Altavista's raw water intake upstream to its headwaters.
5f	III	PWS	Big Otter River and its tributaries from Bedford's raw water intake to ~~a~~ points 5 miles upstream, and Stony Creek and Little Stony Creek upstream to their headwaters.
	VI	PWS	**Natural Trout Waters in Section 5f**
	ii		Little Stony Creek from 1 mile above its confluence with Stony Creek upstream including all named and unnamed tributaries.
	ii		Stony Creek from the Bedford Reservoir upstream including all named and unnamed tributaries.

5g	III		Big Otter River and its tributaries from 5 miles above Bedford's raw water intake upstream to their headwaters.
5h	III		Ash Camp Creek and that portion of Little Roanoke Creek from its confluence with Ash Camp Creek to the Route 47 bridge.
5i	III	PWS	The Roanoke River and its tributaries from the Town of Altavista's raw water intake, 0.1 mile upstream from the confluence of Sycamore Creek, to ~~a~~ points 5 miles upstream.
5j	III	PWS	Big Otter River and its tributaries from the Campbell County Utilities and Service Authority's raw water intake to ~~a~~ points 5 miles upstream.
6	IV	pH-6.5-9.5	Roanoke River from a point (at latitude 37E15'53"; longitude 79E54'00") 5 miles above the headwaters of Smith Mountain

			Lake upstream to Salem's #1 raw water intake.
	V	pH-6.5-9.5	**Stockable Trout Waters in Section 6**
	***		Roanoke River from its junction from Routes 11 and 419 to Salem's #1 raw water intake.
6a	III	NEW-1	Tributaries of the Roanoke River from Leesville Dam to Niagra Reservoir, unless otherwise designated in this chapter.
	V		**Stockable Trout Waters in Section 6a**
	vi		Gourd Creek from 1.3 miles above its confluence with Snow Creek to its headwaters.
	vi		Maggodee Creek from Boones Mill upstream to Route 862 (approximately 3.8 miles).

vii	South Fork Blackwater River form its confluence with the Blackwater River upstream to Roaring Run.
vi	South Prong Pigg River from its confluence with the Pigg River to its headwaters.
VI	**Natural Trout Waters in Section 6a**
iii	Daniels Branch from its confluence with the South Fork Blackwater River upstream including all named and unnamed tributaries.
ii	Green Creek from Roaring Run upstream including all named and unnamed tributaries.
ii	Pigg River from 1 mile above the confluence of the South Prong Pigg River upstream including all named and unnamed tributaries.

	ii		Roaring Run from its confluence with the South Fork Blackwater River upstream including all named and unnamed tributaries.
6b			(Deleted)
6c	III	PWS	Falling Creek Reservoir and Beaverdam Reservoir.
6d	IV		Tributaries of the Roanoke River from Niagra Reservoir to Salem's #1 raw water intake, unless otherwise designated in this chapter.
	V		**Stockable Trout Waters in Section 6d**
	vii		Tinker Creek from its confluence with the Roanoke River north to Routes 11 and 220.
	VI		**Natural Trout Waters in Section 6d**

	iii		Glade Creek from its junction with Route 633 to the Bedford County line.
6e	IV	PWS	Carvin Cove Reservoir and its tributaries to their headwaters.
6f	IV	PWS, NEW-1	Blackwater River and its tributaries from the Town of Rocky Mount's raw water intake (just upstream of State Route 220) to ~~a~~ points 5 miles upstream.
6g	IV	PWS	Tinker Creek from the City of Roanoke's raw water intake (about 0.4 mile downstream from Glebe Mills) upstream 5 miles.
6h	IV	PWS	Roanoke River from Leesville Dam to Smith Mountain Dam (Gap of Smith Mountain), excluding all tributaries to Leesville Lake.
6i	IV	PWS	Roanoke River from Smith Mountain Dam (Gap of Smith Mountain) upstream to a point

			(at latitude 37E15'53"; longitude 79E54'00" and its tributaries to points 5 miles above the 795.0 foot contour (normal pool elevation) of Smith Mountain Lake.
7	IV	pH-6.5-9.5	Roanoke River and its tributaries, unless otherwise designated in this chapter, from Salem's #1 raw water intake to their headwaters.
	V	pH-6.5-9.5	**Stockable Trout Waters in Section 7**
	vi		Elliott Creek from the confluence of Rocky Branch to its headwaters.
	vi		Goose Creek from its confluence with the South Fork Roanoke River to its headwaters.
	vi		Mill Creek from its confluence with Bottom Creek to its headwaters.

***		Roanoke River from 5 miles above Salem's #2 raw water intake to the ~~Montgomery County line~~ Spring Hollow Reservoir intake (see section 7b).
vi		Smith Creek from its confluence with Elliott Creek to its headwaters.
vi		South Fork Roanoke River from ~~its confluence with the Roanoke River~~ 5 miles above the Spring Hollow Reservoir intake (see section 7b) to the mouth of Bottom Creek (river mile 17.1).
VI	pH-6.5-9.5	**Natural Trout Waters in Section 7**
ii		Big Laurel Creek from its confluence with Bottom Creek upstream including all named and unnamed tributaries.

ii	Bottom Creek from its confluence with the South Fork Roanoke River upstream including all named and unnamed tributaries.
ii	Lick Fork (Floyd County) from its confluence with Goose Creek upstream including all named and unnamed tributaries.
ii	Mill Creek from its confluence with the North Fork Roanoke River upstream including all named and unnamed tributaries.
iii	Purgatory Creek from Camp Alta Mons upstream including all named and unnamed tributaries.
ii	Spring Branch from its confluence with the South Fork Roanoke River upstream including all named and unnamed tributaries.

7a	IV	PWS, pH-6.5-9.5	Roanoke River and its tributaries from Salem's #1 raw water intake to ~~a~~ points 5 miles upstream from Salem's #2 raw water intake.
	V	PWS, pH-6.5-9.5	**Stockable Trout Waters in Section 7a**
	***		Roanoke River from Salem's #1 raw water intake to a point 5 miles upstream from Salem's #2 raw water intake.
7b	IV	PWS, pH-6.5-9.5	Roanoke River and its tributaries from the Spring Hollow Reservoir intake (37E14'2.59"/80E10'39.61") upstream to points 5 miles upstream.
	V	PWS, pH 6.5-9.5	**Stockable Trout Waters in Section 7b**
	***		Roanoke River from the Spring Hollow Reservoir intake to the Montgomery County line.

vi	South Fork Roanoke River from its confluence with the Roanoke River to 5 miles above the Spring Hollow Reservoir intake.

9 VAC 25-260-460. Roanoke River Basin.

Yadkin River Subbasin

SEC.	CLASS	SP. STDS.	SECTION DESCRIPTION
1	IV	PWS	Yadkin River Basin in Virginia including Ararat River, Johnson Creek, Little Fisher River, Lovills Creek, Pauls Creek and Stewarts Creek - the entire reach of these streams from the Virginia-North Carolina state line to their headwaters.
	V	PWS	**Stockable Trout Waters in Section 1**
	***		Ararat River from Route 823 upstream to Route 671.
	vi		Halls Branch from its confluence with Lovills Creek 4.5 miles upstream.
	vi		Johnson Creek from the Virginia-North Carolina state line to its headwaters.

vii		Lovills Creek from the Virginia-North Carolina state line 1.8 miles upstream (to the Natural Resource Conservation Service dam).
vii		Pauls Creek (at the Carroll County line at Route 690) from 6
VI	PWS	**Natural Trout Waters in Section 1**
iii		Ararat River from Route 671 upstream including all named and unnamed tributaries.
iii		East Fork Johnson Creek from its confluence with Johnson Creek upstream including all named and unnamed tributaries.
iii		Elk Spur Branch from its confluence with Lovills Creek upstream including all named and unnamed tributaries.

i	Little Fisher Creek from the Virginia-North Carolina state line upstream including all named and unnamed tributaries.
ii	Little Pauls Creek in the vicinity of Route 692 (4 miles above its confluence with Pauls Creek) upstream including all named and unnamed tributaries.
iii	Lovills Creek from the Natural Resource Conservation Service dam (1.8 miles above the Virginia-North Carolina state line) to river mile 7.8 (at the confluence of Elk Spur and Waterfall Branch).
ii	North Fork Stewarts Creek from its confluence with Stewarts Creek upstream including all named and unnamed tributaries.
ii	Pauls Creek (Carroll County) from 10.9 miles above its confluence with Stewarts Creek

	upstream including all named and unnamed tributaries.
i	South Fork Stewarts Creek from its confluence with Stewarts Creek upstream including all named and unnamed tributaries.
iii	Stewarts Creek below Lambsburg in the vicinity of Route 696 (10.4 miles above its confluence with the Ararat River) to the confluence of the North and South Forks of Stewarts Creek.
iii	Sun Run from its confluence with the Ararat River upstream including all named and unnamed tributaries.
iii	Thompson Creek from its confluence with the Ararat River upstream including all named and unnamed tributaries.

ii	Turkey Creek from its confluence with Stewarts Creek upstream including all named and unnamed tributaries.
ii	Waterfall Branch from its confluence with Lovills Creek upstream including all named and unnamed tributaries.

9 VAC 25-260-470. Chowan and Dismal Swamp.

Chowan River Subbasin

SEC.	CLASS	SP. STDS.	SECTION DESCRIPTION
1	II	NEW-21	Blackwater River and its tidal tributaries from the Virginia-North Carolina state line to the end of tidal waters at approximately State Route 611 at river mile 20.90; Nottoway River and its tidal tributaries from the Virginia-North Carolina state line to the end of tidal waters at approximately Route 674.
2	~~III~~ VII	NEW-21	Blackwater ~~and Nottoway~~ River~~s~~ from the end of tidal waters to ~~their~~ its headwaters and ~~their~~ its free-flowing tributaries in Virginia, unless otherwise designated in this chapter.
2a	~~III~~ VII	PWS	Blackwater River and its tributaries from Norfolk's auxiliary raw water intake near Burdette, Virginia, to ~~a~~ points 5 miles above the raw water intake, to include Corrowaugh Swamp to a point 5 miles above the raw water intake.

2b	III		~~(Deleted)~~ Nottoway River from the end of tidal waters to its headwaters and its free-flowing tributaries in Virginia, unless otherwise designated in this chapter.
2c	III	PWS	Nottoway River and its tributaries from Norfolk's auxiliary raw water intake near Courtland, Virginia, to ~~a~~ points 5 miles upstream.
2d			(Deleted)
2e	III	PWS	Nottoway River from the Georgia-Pacific and the Town of Jarratt's raw water intakes near Jarratt, Virginia, to a point 5 miles above the intakes.
2f	III	PWS	Nottoway River and its tributaries from ~~Camp Pickett's~~ the Town of Blackstone's raw water intake to ~~a~~ points 5 miles above the raw water intake.

2g	III	PWS	Lazaretto Creek and its tributaries from Crewe's raw water intake to ~~a~~ points 5 miles upstream.
2h	III	PWS	Modest Creek and its tributaries from Victoria's raw water intake to their headwaters.
2i	III	PWS	Nottoway River and its tributaries from the Town of Victoria's raw water intake at the Falls (about 200 feet upstream from State Route 49) to ~~a~~ points 5 miles upstream.
2j	III	PWS	Big Hounds Creek from the Town of Victoria's auxiliary raw water intake (on Lunenburg Lake) to its headwaters.
2k	VII		Assamoosick Swamp and its tributaries from its confluence with the Nottoway River to its headwaters.

2l	VII		Three Creek and its tributaries from its confluence with the Nottoway River to its headwaters.
2m	VII		Raccoon Creek and its tributaries from its confluence with the Nottoway River to its headwaters.
2n	VII		Nebletts Mill Run and its tributaries from its confluence with the Nottoway River to its headwaters.
2o	VII		Rowanty Creek and its tributaries from its confluence with the Nottoway River to Gravelly Run and Hatcher Run.
3	III		Meherrin River and its tributaries in Virginia from the Virginia-North Carolina state line to its headwaters, unless otherwise designated in this chapter.
3a	III	PWS	Meherrin River and its tributaries from Emporia's water supply dam to ~~a~~ points 5 miles upstream.

3b	III	PWS	Great Creek from Lawrenceville's raw water intake to a point 7.6 miles upstream.
3c	III	PWS	Meherrin River from Lawrenceville's raw water intake to a point 5 miles upstream.
3d	III	PWS	Flat Rock Creek from Kenbridge's raw water intake upstream to its headwaters.
3e	III	PWS	Meherrin River and its tributaries from South Hill's raw water intake to ~~a~~ points 5 miles upstream.
3f	III		Couches Creek from a point 1.6 miles downstream from the Industrial Development Authority discharge to its headwaters.
3g	VII		Tarrara Creek and its tributaries from its confluence with the Meherrin River to its headwaters.

3h	VII	Fountains Creek and its tributaries from its confluence with the Meherrin River to Route 301.

9 VAC 25-260-480. Chowan and Dismal Swamp.

Albemarle Sound Subbasin

SEC.	CLASS	SP. STDS.	SECTION DESCRIPTION
1	II		Back Bay and its tributaries in the City of Virginia Beach to the Virginia-North Carolina state line and the Northwest River and its tidal tributaries from the Virginia-North Carolina state line to the free flowing portion, unless otherwise designated in this chapter and North Landing River and its tidal tributaries from the Virginia-North Carolina state line to the Great Bridge Lock.
1a	III		The free flowing portions of streams in Section 1 and tributaries of Stumpy Lake.
1b	III	PWS	Stumpy Lake (raw water supply for the City of Norfolk) and feeder streams to ~~a~~ points 5 miles upstream.

1c	II	PWS	Northwest River and its tributaries from the City of Chesapeake's raw water intake to ~~a~~ points 5 miles upstream and ~~a~~ points 5 miles downstream.
2	III		Intracoastal Waterway (portions not described in Section 1).
3	III		Lake Drummond, including feeder ditches, and all interstate tributaries of the Dismal Swamp between Virginia and North Carolina.

9 VAC 25-260-490. Tennessee and Big Sandy River Basins.

Big Sandy River Subbasin

SEC.	CLASS	SP. STDS.	SECTION DESCRIPTION
1	IV		All tributaries of Tug Fork in Virginia.
2	IV		All tributaries of Jacobs Fork and Dry Fork in Virginia.
2a	IV	PWS	Crockett Cove, a tributary to Jacobs Fork, from Bishop's raw water intake to its headwaters.
3	IV		Levisa Fork and its tributaries and Knox Creek and its tributaries, unless otherwise designated in this chapter, from the Virginia-Kentucky state line upstream to their headwaters.
	V		**Stockable Trout Waters in Section 3**
	vi		Dismal Creek from its mouth to its headwaters.

4	IV	Russell Fork and its tributaries, unless otherwise designated in this chapter, from the Virginia-Kentucky state line upstream to their headwaters.
	V	**Stockable Trout Waters in Section 4**
	***	Caney Creek from Long Branch Creek upstream 5.5 miles.
	vi	Fryingpan Creek from 1.3 miles above its confluence with Russell Fork 8.6 miles upstream (in vicinity of Bucu).
	vi	North Fork Pound River from the town limits of Pound upstream to the water supply dam.
	***	Russell Fork from the confluence of Pound River to the Virginia-Kentucky state line.

	VI		**Natural Trout Waters in Section 4**
	iii		Pound River from its confluence with Russell Fork upstream to the John W. Flannagan Dam.
4a	IV	PWS	Pound River and its tributaries from the John W. Flannagan Dam, including the Cranes Nest River and its tributaries to ~~a~~ points 5 miles above the John W. Flannagan Water Authority's raw water intake.
4b	IV	PWS	North Fork Pound River and its tributaries from North Fork Pound River Dam and the Town of Pound's raw water intake upstream to their headwaters, unless otherwise designated in this chapter.
4c			(Deleted)

4d	IV		Phillips Creek from its mouth to its headwaters and the North Fork Pound River from Wise County's swimming area around the mouth of Phillips Creek to a point 1/2 mile upstream.
4e	IV	PWS	Russell Fork River and its tributaries from the Kentucky state line 2.2 miles upstream (Elkhorn City, Kentucky raw water intake including Grassy Creek from its confluence with Russell Fork northeast to the Kentucky state line, Hunts Creek from its confluence with Grassy Creek to 1 mile upstream, Laurel Branch to its headwaters including Laurel Lake (Breaks Interstate Park raw water intake).

9 VAC 25-260-500. Tennessee and Big Sandy River Basins.

Clinch River Subbasin

SEC.	CLASS	SP. STDS.	SECTION DESCRIPTION
1	IV		Powell River and its tributaries from the Virginia-Tennessee state line to their headwaters; Indian Creek and Martin Creek in Virginia, unless otherwise designated in this chapter.
	V		**Stockable Trout Waters in Section 1**
	vi		Batie Creek from its confluence with the Powell River 0.8 mile upstream.
	vi		Dry Creek from its confluence with Hardy Creek to its headwaters.
	vi		Hardy Creek and its tributaries to their headwaters.

vi	Lick Branch from its confluence with Indian Creek 1.4 miles upstream.
vi	Martin Creek (Lee County) from the Virginia-Tennessee state line to its headwaters.
vii	North Fork Powell River from the confluence of Straight Creek to its headwaters.
vi	Poor Valley Branch from its confluence with Martin Creek 1.4 miles upstream.
vi	Sims Creek from its confluence with the Powell River 1.1 miles upstream to Sims Spring.
vi	Station Creek at the boundary of the Cumberland Gap National Historical Park (river mile 2.2) 2.6 miles upstream.

	vi		Wallen Creek above its confluence with the Powell River (at Rasnic Hollow) to its headwaters.
	vi		White Branch from its confluence with Poor Valley Branch 0.7 mile upstream (to the Falls at Falling Water Gap).
1a	IV	PWS	Powell River from Pennington Gap's raw water intake to 5 miles upstream.
1b	IV	PWS	Bens Branch from Appalachia's raw water intake to its headwaters.
1c	IV	PWS	South Fork Powell River from Big Stone Gap's raw water intake to its headwaters.
1d	IV	PWS	Benges Branch from Norton's raw water intake to its headwaters.

1e	IV	PWS	Robinette Branch from Norton's raw water intake to its headwaters.
1f	IV	PWS	Fleenortown Creek and its tributaries from the Winn #1 and Barker Springs intakes (which provide raw water to the Town of Jonesville WTP) to points 5 miles upstream.
2	IV	x	Clinch River and its tributaries from the Virginia-Tennessee state line to their headwaters; North Fork Clinch River and its tributaries, Blackwater Creek and its tributaries, and Little Creek in Virginia, unless otherwise designated in this chapter.
	V		**Stockable Trout Waters in Section 2**
	vi		Amos Branch from its confluence with Copper Creek 3.3 miles upstream.

***	Big Cedar Creek from its confluence with Little Cedar Creek to the mouths of Elk Garden Creek and Loop Creek.
viii	Burns Creek from its confluence with the Guest River to its headwaters.
viii	Clear Creek (Wise County) from 1/2 mile above its confluence with the Guest River to its headwaters.
vi	Copper Creek (Russell County) from Route 678 below Parsonage - river mile 52.5 - 4.3 miles upstream.
vi	Cove Creek from river mile 6.5 (above Stanleytown) 5.5 miles upstream.

vi	Cowan Creek from its confluence with Sinking Creek 2.7 miles upstream.
vi	Devil Fork from its confluence with Straight Fork 3.2 miles upstream.
vi	Fall Creek from its confluence with the Clinch River 4.6 miles upstream.
vi	Gillinswater Branch from its confluence with Obeys Creek 2.8 miles upstream.
vi	Gray Branch from its confluence with Mill Creek (Scott County) 1.6 miles upstream.
vi	Jessee Branch from its confluence with Copper Creek at Thompson Ford 2 miles upstream.
vi	Lark Creek from its confluence with Copper

	Creek 3 miles upstream.
viii	Laurel Fork (Scott County) from its confluence with Stock Creek 4 miles upstream.
vi	Liberty Creek from its confluence with Little River 1.6 miles upstream.
vi	Little Stony Creek from the intersection of the stream and Route 72 upstream to its headwaters.
vi	Mill Creek (Scott County) from its confluence with the Clinch River at Grays ~~Fork~~ Ford 1.6 miles upstream.
vi	Obeys Creek from 2.5 miles above its confluence with Copper Creek 6 miles upstream.

vi	Palmer Branch from its confluence with the Clinch River 1.8 miles upstream.
vi	Powers Branch from its confluence with the Clinch River 2.4 miles upstream.
vi	Stock Creek from 0.25 mile north of Sunbright to 1.5 miles north of Mabe.
	Stony Creek from Fort Blackmore upstream to its headwaters.
***	(Stony Creek from Fort Blackmore (river mile 0.56) 5.5 miles upstream.)
vi	(Stony Creek from 5.5 miles above its confluence with the Clinch River (in the vicinity of Greens Chapel) 7.2 miles upstream.)

vi	Straight Fork (Scott County) from its confluence with Stony Creek 5.1 miles upstream.
vi	Valley Creek from 1.1 miles above its confluence with Copper Creek 6.8 miles upstream.
viii	Wolf Creek (Scott County) from its confluence with Laurel Fork 1.8 miles upstream.
VI	**Natural Trout Waters in Section 2**
iii	Maiden Spring Creek from 15 miles above its confluence with Little River at Route 602 above Benbow 5.3 miles upstream.
iii	Mill Creek (Russell County) from its confluence with the Clinch River 2.7 miles upstream.

2a	IV	PWS[, x]	Clinch River and its tributaries to their headwaters from the Wise County Public Service Authority's raw water intakes to 5 miles upstream from St. Paul's raw water intake.
2b	IV	PWS	Clinch River and its tributaries to their headwaters from Raven-Doran's raw water intake to a point 5 miles upstream of the Richland's raw water intake.
2c	IV	PWS	Clinch River and its tributaries from Tazewell's raw water intake to their headwaters.
2d	IV	PWS	North Fork Clinch River and its tributaries, including Spurlock Branch, from Duffield Development Authority's raw water intake at the confluence with Spurlock Branch and the intake on Spurlock Branch to 5 miles upstream.
2e	IV	PWS	Bear Creek from Wise's raw water intake to its

			headwaters.
2f	IV	PWS	Toms Creek from Coeburn's raw water intake to its headwaters.
2g	IV	PWS	Little River and its tributaries from the Tazewell County Water and Sewer Authority's (Claypool Hill Water Treatment Plant) raw water intake to ~~a~~ points 5 miles upstream.
2h	IV	PWS	Unnamed tributary to the North Fork Clinch River from the Divides raw water intake upstream to its headwaters.
2i	IV	PWS	Big Cedar Creek and its tributaries from Lebanon's raw water intake to ~~a~~ points 5 miles upstream.
2j	IV	PWS	Cavitts Creek from the proposed Baptist Valley raw water intake to its headwaters.

2k	IV	PWS	Unnamed tributary to Big Creek (Tazewell County) from the Tazewell County Water and Sewer Authority's Jewell Ridge raw water intake upstream to its headwaters.
2l	~~IV~~	~~PWS~~	~~Fleenortown Creek and its tributaries from the Winn #1 and Barker Springs intakes (which provide raw water to the Town of Jonesville WTP) to points 5 miles upstream.~~ (Moved to 1f)

9 VAC 25-260-510. Tennessee and Big Sandy River Basins.

Holston River Subbasin

SEC.	CLASS	SP. STDS.	SECTION DESCRIPTION
1	IV		North Fork Holston River and its tributaries, unless otherwise designated in this chapter, from the Virginia-Tennessee state line to their headwaters, and those sections of Timbertree Branch and Boozy Creek in Virginia.
	V		**Stockable Trout Waters in Section 1**
	vi		Greendale Creek from its confluence with the North Fork Holston River 4.1 miles upstream.
	v		Laurel Bed Creek from its confluence with Tumbling Creek 1.8 miles upstream.
	vi		Laurel Creek within the Thomas Jefferson National Forest boundaries.

***	Laurel Creek from Route 16 to its confluence with Roaring Fork.
vi	Lick Creek (Bland County) from 5.5 miles above its confluence with the North Fork Holston River 10.9 miles upstream.
vi	Little Tumbling Creek from Tannersville upstream to where the powerline crosses the stream.
vi	Lynn Camp Creek from its confluence with Lick Creek 3.9 miles upstream.
vi	Punch and Judy Creek from its confluence with Laurel Creek 3.2 miles upstream.
v	Tumbling Creek from its confluence with the North Fork Holston River 7.1 miles upstream.

VI	**Natural Trout Waters in Section 1**
ii	Barkcamp Branch from its confluence with Roaring Fork upstream including all named and unnamed tributaries.
ii	Beartown Branch from its confluence with Sprouts Creek upstream including all named and unnamed tributaries.
ii	Beaver Creek (Smyth County) from its confluence with the North Fork Holston River 2.8 miles upstream.
***	Big Tumbling Creek from its confluence with the North Fork Holston River upstream including all named and unnamed tributaries.
ii	Brier Cove from its confluence with Tumbling Creek upstream including all named and unnamed tributaries.

	Brumley Creek from its confluence with the North Fork Holston River upstream including all named and unnamed tributaries.
***	(Brumley Creek from its confluence with the North Fork Holston River (at Duncanville) 4 miles upstream.)
iii	(Brumley Creek from 4 miles above its confluence with the North Fork Holston River (at Duncanville) 6.9 miles upstream.)
iii	Campbell Creek (Smyth County) from its confluence with the North Fork Holston River at Ellendale Ford 1 mile upstream.
ii	Coon Branch from its confluence with Barkcamp upstream including all named and unnamed tributaries.

ii	Cove Branch from its confluence with Roaring Fork upstream including all named and unnamed tributaries.
ii	Henshaw Branch from its confluence with Lick Creek upstream including all named and unnamed tributaries.
ii	Little Sprouts Creek from its confluence with Sprouts Creek upstream including all named and unnamed tributaries.
ii	Little Tumbling Creek from the powerline crossing upstream including all named and unnamed tributaries.
v**	Red Creek from its confluence with Tumbling Creek upstream including all named and unnamed tributaries.

	ii		Roaring Fork (Tazewell County) from its confluence with Laurel Creek upstream including all named and unnamed tributaries.
	ii		Sprouts Creek from its confluence with the North Fork Holston River upstream including all named and unnamed tributaries.
	ii		Toole Creek from its confluence with the North Fork Holston River 5.9 miles upstream.
1a	IV		North Fork Holston River from the Olin Corporation downstream to the Virginia-Tennessee state line.
1b	IV	PWS	Big Moccasin Creek and its tributaries from Weber City's raw water intake to ~~a~~ points 5 miles upstream from Gate City's raw water intake.
1c			(Deleted)

1d	IV	PWS	Unnamed tributary to the North Fork Holston River from Hilton's Community No. 2 public water supply raw water intake to its headwaters. (Latitude 36E39'32" and Longitude 82E27'30").
2	IV	PWS	South Holston Lake in Virginia and South Holston Lake and its tributaries from the Bristol Virginia Utilities Board's raw water intake at 36E38'06" 81E57'36" to ~~a~~ points 5 miles upstream.
3	IV		Tributaries of the South Holston Lake, and Sinking Creek and Nicely Branch in Virginia, unless otherwise designated in this chapter.
	V		**Stockable Trout Waters in Section 3**
	vi		Berry Creek from its confluence with Fifteenmile Creek (Washington County) 2 miles upstream.

	vi		Spring Creek from its confluence with the South Holston Lake to its headwaters.
		VI	**Natural Trout Waters in Section 3**
	ii		Cox Mill Creek from its confluence with the South Fork Holston River upstream including all named and unnamed tributaries.
3a	IV		Wolf Creek and its tributaries from the northern corporate limits of Abingdon to their headwaters.
4	IV		Steel Creek and Beaver Creek and their tributaries in Virginia.
	V		**Stockable Trout Waters in Section 4**
	vi		Beaver Creek (Washington County) and its tributaries from the flood control dam (near Route 11) to their headwaters.

	vi	Sinking Creek (tributary to Paperville Creek-Washington County) from the Virginia-Tennessee state line at Bristol 3.4 miles upstream.
5	IV	Middle Fork Holston River and its tributaries, unless otherwise designated in this chapter.
	V	**Stockable Trout Waters in Section 5**
	vi	Dry Run from its confluence with the Middle Fork Holston River 1.6 miles upstream.
	vi	Dutton Branch from its confluence with the Middle Fork Holston River 2 miles upstream.
	vi	Laurel Springs Creek from its confluence with the Middle Fork Holston River 2 miles upstream.

vi	Middle Fork Holston River from 5 miles above Marion's raw water intake (river mile 45.83) to the headwaters.
vi	Preston Hollow from 0.5 mile above its confluence with the Middle Fork Holston River 1.5 miles upstream.
vi	Staley Creek from its confluence with the Middle Fork Holston River 1 mile upstream.
VI	**Natural Trout Waters in Section 5**
iii	East Fork Nicks Creek from its confluence with Nicks Creek upstream including all named and unnamed tributaries.
iii	Nicks Creek within the National Forest boundary (river mile 1.6) upstream including all named and unnamed tributaries.

	iii		Staley Creek from 1 mile above its confluence with the Middle Fork Holston River upstream including all named and unnamed tributaries.
5a	IV		Middle Fork Holston River and its tributaries from Edmondson Dam upstream to the Route 91 bridge.
5b	IV		Hungry Mother Creek from the dam upstream including all named and unnamed tributaries.
5c	IV	PWS	Middle Fork Holston River and its tributaries from Marion's raw water intake to ~~a~~ points 5 miles upstream, unless otherwise designated in this chapter.
	V		**Stockable Trout Waters in Section 5c**

	vi		Middle Fork Holston River from Marion's raw water intake at Mt. Carmel at river mile 45.83 to a point 5 miles upstream (river mile 50.83).
5d	IV	PWS	Middle Fork Holston River and its tributaries from Washington County Service Authority's raw water intake to ~~a~~ points 5 miles upstream.
6	IV		South Fork Holston River and its tributaries in Virginia, unless otherwise designated in this chapter.
	V		**Stockable Trout Waters in Section 6**
	vi		Grosses Creek from its confluence with the South Fork Holston River 3.4 miles upstream.
	vi		Rush Creek (Washington County) from its confluence with the South Fork Holston River 2.2 miles upstream.

vi	Straight Branch from its confluence with Whitetop Laurel Creek 2.5 miles upstream.
VI	**Natural Trout Waters in Section 6**
iii	Barkcamp Branch from its confluence with Rowland Creek upstream including all named and unnamed tributaries.
iii	Beaverdam Creek (Washington County) from its confluence with Laurel Creek to the Virginia-Tennessee state line 2 miles upstream.
iii	Bell Hollow from its confluence with Dickey Creek upstream including all named and unnamed tributaries.
iii	Big Branch from its confluence with Big Laurel Creek upstream including all named and unnamed tributaries.

	Big Laurel Creek (Smyth County) from its confluence with Whitetop Laurel Creek upstream including all named and unnamed tributaries.
iii	(Big Laurel Creek (Smyth County) from its confluence with Whitetop Laurel Creek 2.6 miles upstream.)
ii	(Big Laurel Creek (Smyth County) from 2.6 miles above its confluence with Whitetop Laurel Creek (at Laurel Valley Church) upstream including all named and unnamed tributaries.)
iii	Brush Creek from its confluence with Rush Creek upstream including all named and unnamed tributaries.
iii	Buckeye Branch from its confluence with Green Cove Creek upstream including all named and unnamed tributaries.

ii	Charlies Branch from its confluence with Big Laurel Creek upstream including all named and unnamed tributaries.
iii	Cold Branch from its confluence with Jerrys Creek upstream including all named and unnamed tributaries.
iv	Comers Creek from its confluence with the South Fork Holston River upstream including all named and unnamed tributaries.
ii	Cressy Creek from 1.7 miles above its confluence with the South Fork Holston River at Route 16 upstream including all named and unnamed tributaries.
ii	Daves Branch from its confluence with Big Laurel Creek upstream including all named and unnamed tributaries.

iii	Dickey Creek from 0.6 mile above its confluence with the South Fork Holston River upstream including all named and unnamed tributaries.
ii	Dry Fork from 1.2 miles above its confluence with St. Clair Creek upstream including all named and unnamed tributaries.
ii	Feathercamp Branch from its confluence with Straight Branch upstream including all named and unnamed tributaries.
ii	Grassy Branch from its confluence with Big Laurel Creek upstream including all named and unnamed tributaries.
ii	Green Cove Creek from its confluence with Whitetop Laurel Creek upstream including all named and unnamed tributaries.

ii	Grindstone Branch from its confluence with Big Laurel Creek upstream including all named and unnamed tributaries.
iii	High Trestle Branch from its confluence with Buckeye Branch upstream including all named and unnamed tributaries.
iii	Hopkins Branch from its confluence with the South Fork Holston River upstream including all named and unnamed tributaries.
iii	Houndshell Branch from its confluence with Cressy Creek upstream including all named and unnamed tributaries.
ii	Hurricane Creek (Smyth County) from its confluence with Comers Creek upstream including all named and unnamed tributaries.

iii	Hutton Branch from its confluence with Dickey Creek upstream including all named and unnamed tributaries.
iii	Jerrys Creek (Smyth County) from 1.5 miles above its confluence with Rowland Creek upstream including all named and unnamed tributaries.
***	Laurel Creek from its confluence with Beaverdam Creek (Washington County) to the state line.
ii	Little Laurel Creek (Smyth County) from its confluence with Whitetop Laurel Creek upstream including all named and unnamed tributaries.
ii	London Bridge Branch from its confluence with Beaverdam Creek (Washington County) 0.6 mile upstream.

iii	Long Branch from its confluence with Jerrys Creek upstream including all named and unnamed tributaries.
ii	Mill Creek (Washington County) from its confluence with the South Fork Holston River upstream including all named and unnamed tributaries.
iii	Parks Creek from its confluence with Cressy Creek upstream including all named and unnamed tributaries.
ii	Pennington Branch from its confluence with Whitetop Laurel Creek upstream including all named and unnamed tributaries.
iii	Quarter Branch from 1.1 miles above its confluence with Cressy Creek upstream including all named and unnamed tributaries.

iii	Raccoon Branch from its confluence with Dickey Creek upstream including all named and unnamed tributaries.
ii	Rowland Creek from 2.5 miles above its confluence with the South Fork Holston River upstream including all named and unnamed tributaries.
ii	Rush Creek (Washington County) from 2.2 miles above its confluence with the South Fork Holston River upstream including all named and unnamed tributaries.
iii	Scott Branch from its confluence with Dickey Creek upstream including all named and unnamed tributaries.
iii	Slemp Creek from 2 miles above its confluence with Cressy Creek upstream including all named and unnamed tributaries.

ii	South Fork Holston River from 101.8 miles above its confluence with the Holston River ~~12.9 miles upstream~~ to the Thomas Bridge Water corporation's raw water intake (see section 6a).
ii	South Fork Holston River from 5miles above the Thomas Bridge Water corporations raw water intake to a point 12.9 miles upstream (see section 6a).
ii	Star Hill Branch from its confluence with Green Cove Creek upstream including all named and unnamed tributaries.
ii	St. Clair Creek from 3.3 miles above its confluence with the South Fork Holston River (at Route 600) above Horseshoe Bend upstream including all named and unnamed tributaries.

ii	Sturgill Branch from its confluence with Whitetop Laurel Creek upstream including all named and unnamed tributaries.
iii	Valley Creek (Washington County) from its confluence with Whitetop Laurel Creek upstream including all named and unnamed tributaries.
	Whitetop Laurel Creek from its confluence with Laurel Creek upstream including all named and unnamed tributaries.
ii	(Whitetop Laurel Creek from its confluence with Laurel Creek 8.1 miles upstream.)
i	(Whitetop Laurel Creek from 8.1 miles above its confluence with Laurel Creek 4.4 miles upstream.)
iii	(Whitetop Laurel Creek from 12.5 miles above

			its confluence with Laurel Creek 3.8 miles upstream.)
6a	IV	PWS	South Fork Holston River and its tributaries from Thomas Bridge Water Corporation's raw water intake at 36E46'25.78" latitude and 81E34'35.91" longitude to ~~a~~ points 5 miles upstream.
	VI		**Natural Trout Waters in Section 6a**
	ii		South Fork Holston River from Thomas Bridge Corporation's raw water intake to a point 5 miles upstream.

9 VAC 25-260-520. Chesapeake Bay, Atlantic Ocean and small coastal basins.

SEC.	CLASS	SP. STDS.	SECTION DESCRIPTION
1	I	A	The Atlantic Ocean from Cape Henry Light (Latitude 36E55'06" North; Longitude 76E00'04" West) east to the three mile limit and south to the North Carolina state line. The Atlantic Ocean from Cape Henry Light to Thimble Shoal Channel (Latitude 36E57'30" North; Longitude 76E02'30" West) from Thimble Shoal Channel to Smith Island (Latitude 37E07'04" North; Longitude 75E54'04" West) and north to the Virginia-Maryland state line.
1a	III		All free flowing portions of the streams, creeks and coves in Section 1 east of the east-west divide boundary on the Eastern Shore of Virginia.
1b	II	A	Tidal portions of streams, creeks and coves in Section 1 east of the east-west divide boundary on the Eastern Shore of Virginia.

2	II	a,NEW-20	Chesapeake Bay and its tidal tributaries from Old Point Comfort Tower (Latitude 37E00'00" North; Longitude 76E18'08" West) to Thimble Shoal Light (Latitude 37E00'09" North; Longitude 76E14'04" West) to and along the south side of Thimble Shoal Channel to its eastern end (Latitude 36E57'03" North; Longitude 76E02'03" West) to Smith Island (Latitude 37E07'04" North; Longitude 75E54'04" West) north to the Virginia-Maryland border following the east-west divide boundary on the Eastern Shore of Virginia, west along the Virginia-Maryland border, to the Virginia Coast, (Latitude 37E53'23" North; Longitude 76E14'25" West) and south following the Virginia Coast to Old Point Comfort Tower (previously described), unless otherwise designated in this chapter.

2a	III		Free flowing portions of streams lying on the Eastern Shore of Virginia west of the east-west divide boundary unless otherwise designated in this chapter.
2b	III		Drummonds Millpond including Coards Branch.
2c	III		The Virginia Department of Agriculture experimental station pond and its tributaries.
2d	III		The free flowing streams tributary to the western portion of the Chesapeake Bay lying between the Virginia-Maryland state line and Old Point Comfort.
2e	III	PWS	Harwood's Mill Reservoir (in Poquoson River's headwaters - a source of water for the City of Newport News) and its tributaries.
2f	III	PWS	Brick Kiln Creek and its tributaries from Fort Monroe's raw water intake (at the Big Bethel

			Reservoir) to ~~a~~ points 5 miles upstream.
2g	III	PWS	Beaverdam Swamp and its tributaries (including Beaverdam Swamp Reservoir) from the Gloucester County Water System raw water intake (at latitude 37E26'23"; longitude 76E32'47") to its headwaters.
3	II	a,NEW-20	Chesapeake Bay from Old Point Comfort Tower (Latitude 37E00'00" North; Longitude 76E18'08" West) to Thimble Shoal Light (Latitude 37E00'09" North; Longitude 76E14'04" West) along the south side of Thimble Shoal Channel to Cape Henry Light (Latitude 36E55'06" North; Longitude 76E00'04" West).
3a	II	a,NEW-20,z	Little Creek from its confluence with Chesapeake Bay (Lynnhaven Roads) to end of navigable waters.

3b	II	a,NEW-20	Tidal portions of Lynnhaven watershed from its confluence with the Chesapeake Bay (Lynnhaven Roads) to and including Lynnhaven Bay, Western Branch Lynnhaven River, Eastern Branch Lynnhaven River, Long Creek, Broad Bay and Linkhorn Bay, Thalia Creek and its tributaries to the end of tidal waters. Great Neck Creek and Little Neck Creek from their confluence with Linkhorn Bay and their tidal tributaries. Rainey Gut and Crystal Lake from their confluence with Linkhorn Bay.
3c	III		Free flowing portions of streams in Section 3b, unless otherwise designated in this chapter.
3d	III	PWS	The impoundments on the Little Creek watershed including Little Creek Reservoir, Lake Smith, Lake Whitehurst, Lake Lawson, and Lake Wright.
3e	II	NEW-20	London Bridge Creek from its confluence with

		the Eastern Branch of Lynnhaven River to the end of tidal waters. Wolfsnare Creek from its confluence with the Eastern Branch Lynnhaven River to the fall line.
3f	III	Free flowing portions of London Bridge Creek and Wolfsnare Creek and their free flowing tributaries.
3g	III	Lake Joyce and Lake Bradford.

9 VAC 25-260-530. York River Basin.

SEC.	CLASS	SP. STDS	SECTION DESCRIPTION
1	II	a,NEW-17	York River and the tidal portions of its tributaries from Goodwin Neck and Sandy Point upstream to Thorofare Creek and Little Salem Creek near West Point; Mattaponi River and the tidal portions of its tributaries from Little Salem Creek to the end of tidal waters; Pamunkey River and the tidal portions of its tributaries from Thorofare Creek near West Point to the end of tidal waters.
2	III	NEW-17	Free flowing tributaries of the York River, free flowing tributaries of the Mattaponi River to Clifton and the Pamunkey River to Romancoke, unless otherwise designated in this chapter.
2a	III	PWS,NEW-17	Waller Mill Reservoir and its drainage area above Waller Mill dam which serves as a raw water supply for the City of Williamsburg.
2b	III	PWS,NEW-17	Jones Pond (a tributary of Queen Creek near Williamsburg which serves as the raw water

			supply for Cheatham Annex Naval Station) and its tributaries to ~~a~~ points 5 miles upstream.
3	III		Free flowing portions of the Mattaponi and Pamunkey Rivers, free flowing tributaries of the Mattaponi above Clifton, and free flowing tributaries of the Pamunkey above Romancoke, unless otherwise designated in this chapter.
3a	III	PWS	South Anna River from Ashland's raw water intake to a point 5 miles upstream.
3b	III	PWS	Northeast Creek from the Louisa County Water Authority's impoundment dam (approximately 1/8 mile upstream of Route 33) to its headwaters.
3c	III		South Anna River from Route 15 upstream to a point 1.5 miles below the effluent from the Gordonsville Sewage Treatment Plant.

3d	III	PWS	Ni River and its tributaries from Spotsylvania's raw water intake near Route 627 to their headwaters.
3e	III	PWS	The North Anna River and its tributaries from Hanover County's raw water intake near Doswell (approximately 1/2 mile upstream from State Route 30) to ~~a~~ points 5 miles upstream.
3f	III	PWS	Stevens Mill Run from the Lake Caroline water impoundment, and other tributaries into the impoundment upstream to their headwaters.

9 VAC 25-260-540. New River Basin.

SEC.	CLASS	SP. STDS	SECTION DESCRIPTION
1	IV	u	New River and its tributaries, unless otherwise designated in this chapter, from the Virginia-West Virginia state line to the Montgomery-Giles County line.
	V		**Stockable Trout Waters in Section 1**
	***		Laurel Creek (a tributary to Wolf Creek in Bland County) from Rocky Gap to the Route 613 bridge one mile west of the junction of Routes 613 and 21.
	viii		Laurel Creek (Bland County) from its confluence with Hunting Camp Creek 3.2 miles upstream.
	viii		Little Wolf Creek (Bland County) from its confluence with Laurel Creek 2.6 miles upstream.

v	Sinking Creek from 5.1 miles above its confluence with the New River 10.8 miles upstream (near the Route 778 crossing).
vi	Sinking Creek from the Route 778 crossing to the Route 628 crossing.
vi	Spur Branch from its confluence with Little Walker Creek to its headwaters.
v	Walker Creek from the Route 52 bridge to its headwaters.
***	Wolf Creek (Bland County) from Grapefield to its headwaters.
VI	**Natural Trout Waters in Section 1**
ii	Bear Spring Branch from its confluence with the

	New River upstream including all named and unnamed tributaries.
iii	Clear Fork (Bland County) from river mile 8.5 upstream including all named and unnamed tributaries.
ii	Cove Creek (Tazewell County) from its confluence with Clear Fork upstream including all named and unnamed tributaries.
ii	Cox Branch from its confluence with Clear Fork to Tazewell's raw water intake (river mile 1.6).
iii	Ding Branch from its confluence with Nobusiness Creek upstream including all named and unnamed tributaries.

ii	Dry Fork (Bland County) from 4.8 miles above its confluence with Laurel Creek upstream including all named and unnamed tributaries.
ii	East Fork Cove Creek (Tazewell County) from its confluence with Cove Creek upstream including all named and unnamed tributaries.
	Hunting Camp Creek from its confluence with Wolf Creek upstream including all named and unnamed tributaries.
***	(Hunting Camp Creek from its confluence with Wolf Creek 8.9 miles upstream.)
iii	(Hunting Camp Creek from 8.9 miles above its confluence with Wolf Creek 3 miles upstream.)
ii	Laurel Creek (tributary to Wolf Creek in Bland

	County) from Camp Laurel in the vicinity of Laurel Fork Church, upstream including all named and unnamed tributaries.
ii	Laurel Creek from a point 0.7 mile from its confluence with Sinking Creek upstream including all named and unnamed tributaries.
ii	Little Creek (Tazewell County) from 1.5 miles above its confluence with Wolf Creek above the Tazewell County Sportsmen's Club Lake upstream including all named and unnamed tributaries.
ii	Mercy Branch from its confluence with Mill Creek upstream including all named and unnamed tributaries.
ii	Mill Creek from the Narrows Town line upstream including all named and unnamed tributaries.

ii	Mudley Branch from its confluence with the West Fork Cove Creek upstream including all named and unnamed tributaries.
	Nobusiness Creek from its confluence with Kimberling Creek upstream including all named and unnamed tributaries.
***	(Nobusiness Creek from its confluence with Kimberling Creek 4.7 miles upstream.)
iii	(Nobusiness Creek from 4.7 miles above its confluence with Kimberling Creek upstream including all named and unnamed tributaries.)
ii	Oneida Branch from its confluence with the West Fork Cove Creek upstream including all named and unnamed tributaries.

	iii	Panther Den Branch from its confluence with Nobusiness Creek upstream including all named and unnamed tributaries.
	ii	Piney Creek from its confluence with the New River upstream including all named and unnamed tributaries.
	ii	Wabash Creek from its confluence with Walker Creek upstream including all named and unnamed tributaries.
	ii	West Fork Cove Creek from its confluence with Cove Creek upstream including all named and unnamed tributaries.
1a		(Deleted)

1b	IV	u	Wolf Creek and its tributaries in Virginia from its confluence with Mill Creek upstream to the Giles-Bland County line.
1c			(Deleted)
1d	IV	u	Stony Creek and its tributaries, unless otherwise designated in this chapter, from its confluence with the New River upstream to its headwaters, and Little Stony Creek and its tributaries from its confluence with the New River to its headwaters.
	V		**Stockable Trout Waters in Section 1d**
	vi		Stony Creek (Giles County) from its confluence with the New River to its ~~headwaters~~ confluence with Laurel Branch.

VI	**Natural Trout Waters in Section 1d**
iii	Dismal Branch from its confluence with Stony Creek upstream including all named and unnamed tributaries.
ii	Dixon Branch from its confluence with North Fork Stony Creek upstream including all named and unnamed tributaries.
ii	Hemlock Branch from its confluence with Little Stony Creek upstream including all named and unnamed tributaries.
ii	Laurel Branch from its confluence with Stony Creek upstream including all named and unnamed tributaries.

ii	Laurel Creek from its confluence with Little Stony Creek upstream including all named and unnamed tributaries.
ii	Little Stony Creek from its confluence with the New River upstream including all named and unnamed tributaries.
ii	Maple Flats Branch from its confluence with Little Stony Creek upstream including all named and unnamed tributaries.
ii	Meredith Branch from its confluence with Little Stony Creek upstream including all named and unnamed tributaries.
iii	Nettle Hollow from its confluence with Little Stony Creek upstream including all named and unnamed tributaries.

ii	North Fork Stony Creek from its confluence with Stony Creek upstream including all named and unnamed tributaries.
iii	Pine Swamp Branch from its confluence with Stony Creek upstream including all named and unnamed tributaries.
ii	Pond Drain from its confluence with Little Stony Creek upstream including all named and unnamed tributaries.
iii	Stony Creek (Giles County) from the confluence of Laurel Branch at Olean upstream including all named and unnamed tributaries.
ii	White Rock Branch from its confluence with Stony Creek upstream including all named and unnamed tributaries.

	ii		Wildcat Hollow from its confluence with Stony Creek upstream including all named and unnamed tributaries.
1e	IV	PWS,u	Kimberling Creek and its tributaries from Bland Correctional Farm's raw water intake to ~~a~~ points 5 miles upstream.
	VI	PWS	**Natural Trout Waters in Section 1e**
	iii		Dismal Creek from its confluence with Kimberling Creek upstream including all named and unnamed tributaries.
	iii		Pearis Thompson Branch from its confluence with Dismal Creek upstream including all named and unnamed tributaries.
	iii		Standrock Branch from its confluence with

			Dismal Creek upstream including all named and unnamed tributaries.
1f			(Deleted)
1g	IV	u	Bluestone River and its tributaries, unless otherwise designated in this chapter, from the Virginia-West Virginia state line upstream to their headwaters.
1h	IV	PWS,u	Bluestone River and its tributaries from Bluefield's raw water intake upstream to its headwaters.
	VI	PWS	**Natural Trout Waters in Section 1h**
	iii		Bluestone River ~~(at Route 650 in the vicinity of Dills Spring)~~ from a point adjacent to the Route 650/460 intersection to a point 5.7 miles upstream.

1i	IV	PWS	Big Spring Branch from the Town of Pocahontas' intake, from the Virginia-West Virginia state line, including the entire watershed in Abbs Valley (the Town of Pocahontas' intake is located in West Virginia (at latitude 37E18'23" and longitude 81E18'54").
1j			(Deleted)
1k	IV	PWS	Walker Creek and its tributaries from the Wythe-Bland Water and Sewer Authority's raw water intake (for Bland) to ~~a~~ points five miles upstream.
1l	VI ii	PWS	Cox Branch and its tributaries from Tazewell's raw water intake at the Tazewell Reservoir (river mile 1.6) to headwaters.
2	IV	v, NEW-5	New River and its tributaries, unless otherwise designated in this chapter, from the

	Montgomery-Giles County line upstream to the Virginia-North Carolina state line (to include Peach Bottom Creek from its confluence with the New River to the mouth of Little Peach Bottom Creek).
V	**Stockable Trout Waters in Section 2**
v	Beaverdam Creek from its confluence with the Little River to its headwaters.
v	Big Indian Creek from its confluence with the Little River to a point 7.4 miles upstream.
vi	Boyd Spring Run from its confluence with the New River to its headwaters.
***	Brush Creek from the first bridge on Route 617 south of the junction of Routes 617 and 601 to the Floyd County line.

vi	Camp Creek from its confluence with the Little River to its headwaters.
vi	Cove Creek (Wythe County) from Route 77, 8.1 miles above its confluence with Reed Creek, 10.5 miles upstream.
	Dodd Creek from its confluence with the West Fork Little River to its headwaters.
***	(Dodd Creek from its confluence with the West Fork Little River 4 miles upstream.)
vi	(Dodd Creek from 4 miles above its confluence with the West Fork Little River to its headwaters.)
vi	East Fork Stony Fork from its confluence with Stony Fork 4 miles upstream.

***	Elk Creek from its confluence with Knob Fork Creek to the junction of State Routes 611 and 662.
vi	Gullion Fork from its confluence with Reed Creek 3.3 miles upstream.
vi	Little Brush Creek from its confluence with Brush Creek 1.9 miles upstream.
vi	Lost Bent Creek from its confluence with the Little River to its headwaters.
vi	Middle Creek from its confluence with Little River to its headwaters.
vi	Middle Fox Creek from its confluence with Fox Creek 4.1 miles upstream.

vi	Mill Creek (Wythe County) from its confluence with the New River 3.7 miles upstream.
v	North Fork Greasy Creek from its confluence with Greasy Creek to its headwaters.
vi	Oldfield Creek from its confluence with the Little River to its headwaters.
vi	Peach Bottom Creek from the mouth of Little Peach Bottom Creek to its headwaters.
vi	Pine Branch from its confluence with the Little River to its headwaters.
vi	Pine Creek (Carroll County) from its confluence with Big Reed Island Creek to its headwaters.
vi	Piney Fork from its confluence with Greasy

	Creek to its headwaters.
vi	Poor Branch from its confluence with the New River to its headwaters.
vi	Poverty Creek (Montgomery County) from its confluence with Toms Creek to its headwaters.
vi	Reed Creek (Wythe County) within the Jefferson National Forest from 57 miles above its confluence with the New River 6.8 miles upstream, unless otherwise designated in this chapter.
vi	Shady Branch from its confluence with Greasy Creek to its headwaters.
vi	Shorts Creek from 6.2 miles above its confluence with the New River in the vicinity of Route 747, 3 miles upstream.

vi	South Fork Reed Creek from river mile 6.8 (at Route 666 below Groseclose) 11.9 miles upstream.
vi	St. Lukes Fork from its confluence with Cove Creek 1.4 miles upstream.
vi	Stony Fork (Wythe County) from 1.9 miles above its confluence with Reed Creek at the intersection of Routes 600, 682, and 21/52 at Favonia 5.7 miles upstream.
***	Toms Creek from its confluence with the New River to its headwaters.
vi	West Fork Big Indian Creek from its confluence with Big Indian Creek to its headwaters.
***	West Fork Peak Creek from the Forest Service

	Boundary to its headwaters.
vi	Wolf Branch from its confluence with Poor Branch 1.2 miles upstream.
VI	**Natural Trout Waters in Section 2**
ii	Baker Branch from its confluence with Cabin Creek upstream including all named and unnamed tributaries.
ii	Baldwin Branch from 0.2 mile above its confluence with Big Horse Creek at the Grayson County - Ashe County state line upstream including all named and unnamed tributaries.
ii	Bear Creek (Carroll County) from its confluence with Laurel Fork upstream including all named and unnamed tributaries.

iii	Beaver Creek from its confluence with the Little River upstream including all named and unnamed tributaries.
iii	Beaverdam Creek (Carroll County) from its confluence with Crooked Creek upstream including all named and unnamed tributaries.
ii	Big Branch from its confluence with Greasy Creek upstream including all named and unnamed tributaries.
iii	Big Horse Creek from 12.8 miles above its confluence with the North Fork New River (above the state line below Whitetop) upstream including all named and unnamed tributaries.
ii	Big Indian Creek from a point 7.4 miles upstream of its confluence with the Little River upstream including all named and unnamed

	tributaries.
ii	Big Laurel Creek from its confluence with the Little River upstream including all named and unnamed tributaries.
iii	Big Laurel Creek from its confluence with Pine Creek upstream including all named and unnamed tributaries.
iii	Big Reed Island Creek from Route 221 upstream including all named and unnamed tributaries.
iii	Big Run from its confluence with the Little River upstream including all named and unnamed tributaries.

	Big Wilson Creek from its confluence with the New River upstream including all named and unnamed tributaries.
***	
	(Big Wilson Creek from its confluence with the New River 8.8 miles upstream.)
ii	(Big Wilson Creek from 8.8 miles above its confluence with the New River 6.6 miles upstream.)
iii	Blue Spring Creek from its confluence with Cripple Creek upstream including all named and unnamed tributaries.
ii	Boothe Creek from its confluence with the Little River upstream including all named and unnamed tributaries.

ii	Bournes Branch from its confluence with Brush Creek upstream including all named and unnamed tributaries.
iii	Brannon Branch from its confluence with Burks Fork upstream including all named and unnamed tributaries.
ii	Brier Run from its confluence with Big Wilson Creek upstream including all named and unnamed tributaries.
ii	Buffalo Branch from its confluence with Laurel Fork upstream including all named and unnamed tributaries.
iii	Burgess Creek from its confluence with Big Horse Creek upstream including all named and unnamed tributaries.

iii	Burks Fork from the Floyd-Carroll County line upstream including all named and unnamed tributaries.
ii	Byars Creek from its confluence with Whitetop Creek upstream including all named and unnamed tributaries.
	Cabin Creek from its confluence with Helton Creek upstream including all named and unnamed tributaries.
ii	(Cabin Creek from its confluence with Helton Creek 3.2 miles upstream.)
i	(Cabin Creek from 3.2 miles above its confluence with Helton Creek upstream including all named and unnamed tributaries.)

ii	Cherry Creek from its confluence with Big Reed Island Creek upstream including all named and unnamed tributaries.
ii	Chisholm Creek from its confluence with Laurel Fork upstream including all named and unnamed tributaries.
iv	Crigger Creek from its confluence with Cripple Creek upstream including all named and unnamed tributaries.
***	Cripple Creek from the junction of the stream and U. S. Route 21 in Wythe County upstream including all named and unnamed tributaries.
iii	Crooked Creek (Carroll County) from Route 707 to Route 620.

ii	Crooked Creek from Route 620 upstream including all named and unnamed tributaries.
iii	Daniel Branch from its confluence with Crooked Creek upstream including all named and unnamed tributaries.
iii	Dobbins Creek from its confluence with the West Fork Little River upstream including all named and unnamed tributaries.
iv	Dry Creek from 1.9 miles above its confluence with Blue Spring Creek upstream including all named and unnamed tributaries.
iii	Dry Run (Wythe County) from its confluence with Cripple Creek upstream including all named and unnamed tributaries.

iii	Earls Branch from its confluence with Beaver Creek upstream including all named and unnamed tributaries.
iii	East Fork Crooked Creek from its confluence with Crooked Creek upstream including all named and unnamed tributaries.
ii	East Fork Dry Run from its confluence with Dry Run upstream including all named and unnamed tributaries.
ii	East Prong Furnace Creek from its confluence with Furnace Creek upstream including all named and unnamed tributaries.
ii	Elkhorn Creek from its confluence with Crooked Creek upstream including all named and unnamed tributaries.

ii	Fox Creek from junction of the Creek and Route 734 upstream including all named and unnamed tributaries.
iii	Francis Mill Creek from its confluence with Cripple Creek upstream including all named and unnamed tributaries.
ii	Furnace Creek from its confluence with the West Fork Little River upstream including all named and unnamed tributaries.
***	Glade Creek (Carroll County) from its confluence with Crooked Creek upstream including all named and unnamed tributaries.
iii	Grassy Creek (Carroll County) from its confluence with Big Reed Island Creek at Route 641, upstream including all named and unnamed tributaries.

vi**	Grassy Creek (Carroll County) from its confluence with Little Reed Island Creek at Route 769, upstream including all named and unnamed tributaries.
iii	Greasy Creek from the Floyd-Carroll County line upstream including all named and unnamed tributaries.
iii	Greens Creek from its confluence with Stone Mountain Creek upstream including all named and unnamed tributaries.
iii	Guffey Creek from its confluence with Fox Creek upstream including all named and unnamed tributaries.

ii	Helton Creek from the Virginia-North Carolina state line upstream including all named and unnamed tributaries.
ii	Howell Creek from its confluence with the West Fork Little River upstream including all named and unnamed tributaries.
ii	Jerry Creek (Grayson County) from its confluence with Middle Fox Creek upstream including all named and unnamed tributaries.
iii	Jones Creek (Wythe County) from its confluence with Kinser Creek upstream including all named and unnamed tributaries.
ii	Killinger Creek from its confluence with Cripple Creek and White Rock Creek upstream including all named and unnamed tributaries.

iii	Kinser Creek from 0.4 mile above its confluence with Crigger Creek above the National Forest Boundary at Groseclose Chapel upstream including all named and unnamed tributaries.
iii	Laurel Branch (Carroll County) from its confluence with Staunton Branch upstream including all named and unnamed tributaries.
iii	Laurel Creek (Grayson County) from its confluence with Fox Creek upstream including all named and unnamed tributaries.
ii	Laurel Fork from the Floyd-Carroll County line upstream including all named and unnamed tributaries.

iii	Laurel Fork (Carroll County) from its confluence with Big Reed Island Creek to the Floyd-Carroll County line.
i	Lewis Fork from its confluence with Fox Creek upstream including all named and unnamed tributaries.
iii	Little Cranberry Creek from its confluence with Crooked Creek upstream including all named and unnamed tributaries.
ii	Little Helton Creek from the Grayson County-Ashe County state line upstream including all named and unnamed tributaries.
***	Little Reed Island Creek from the junction of the stream and State Routes 782 and 772 upstream including all named and unnamed tributaries, unless otherwise designated in this chapter.

***	Little River from its junction with Route 706 upstream including all named and unnamed tributaries.
ii	Little Snake Creek from its confluence with Big Reed Island Creek upstream including all named and unnamed tributaries.
ii	Little Wilson Creek from its confluence with Wilson Creek (at Route 16 at Volney) upstream including all named and unnamed tributaries.
ii	Long Mountain Creek from its confluence with Laurel Fork upstream including all named and unnamed tributaries.
iii	Meadow Creek (Floyd County) from its confluence with the Little River upstream including all named and unnamed tributaries.

iii	Meadow View Run from its confluence with Burks Fork upstream including all named and unnamed tributaries.
iii	Middle Creek from its confluence with Crigger Creek upstream including all named and unnamed tributaries.
ii	Middle Fork Helton Creek from its confluence with Helton Creek 2.2 miles upstream.
i	Middle Fork Helton Creek from 2.2 miles above its confluence with Helton Creek upstream including all named and unnamed tributaries.
iii	Middle Fox Creek from 4.1 miles above its confluence with Fox Creek upstream including all named and unnamed tributaries.

iii	Mill Creek (Carroll County) from its confluence with Little Reed Island Creek upstream including all named and unnamed tributaries.
ii	Mill Creek (Grayson County) from its confluence with Fox Creek upstream including all named and unnamed tributaries.
iii	Mira Fork from its confluence with Greasy Creek upstream including all named and unnamed tributaries.
ii	North Branch Elk Creek from its confluence with Elk Creek upstream including all named and unnamed tributaries.
iii	North Prong Buckhorn Creek from its confluence with Buckhorn Creek upstream including all named and unnamed tributaries.

ii	Oldfield Creek from its confluence with Laurel Fork upstream including all named and unnamed tributaries.
ii	Opossum Creek from its confluence with Fox Creek upstream including all named and unnamed tributaries.
iii	Payne Creek from its confluence with the Little River upstream including all named and unnamed tributaries.
iii	Peak Creek from 19 miles above its confluence with the New River above the Gatewood Reservoir upstream including all named and unnamed tributaries.
iii	Pine Creek (Carroll County) from its confluence with Big Reed Island Creek upstream including all named and unnamed tributaries.

iii	Pine Creek (Floyd County) from its confluence with Little River upstream including all named and unnamed tributaries.
iii	Pipestem Branch from its confluence with Big Reed Island Creek upstream including all named and unnamed tributaries.
i	Quebec Branch from its confluence with Big Wilson Creek upstream including all named and unnamed tributaries.
iv	Raccoon Branch from its confluence with White Rock Creek upstream including all named and unnamed tributaries.

***	Reed Creek (Wythe County) from 5 miles above Wytheville's raw water intake upstream including all named and unnamed tributaries.
ii	Ripshin Creek from its confluence with Laurel Creek upstream including all named and unnamed tributaries.
iii	Road Creek (Carroll County) from its confluence with Big Reed Island Creek upstream including all named and unnamed tributaries.
ii	Roads Creek (Carroll County) from its confluence with Laurel Fork upstream including all named and unnamed tributaries.
iv	Rock Creek from its confluence with Big Reed Island Creek upstream including all named and unnamed tributaries.

iii	Silverleaf Branch from its confluence with the Little River upstream including all named and unnamed tributaries.
iii	Snake Creek from Route 670 (3.2 miles above its confluence with Big Reed Island Creek) upstream including all named and unnamed tributaries.
ii	Solomon Branch from its confluence with Fox Creek upstream including all named and unnamed tributaries.
vi**	South Branch Elk Creek from its confluence with Elk Creek upstream including all named and unnamed tributaries.

iii	Spurlock Creek from its confluence with the West Fork Little River upstream including all named and unnamed tributaries.
iii	Staunton Branch from its confluence with Crooked Creek upstream including all named and unnamed tributaries.
iii	Stone Mountain Creek from its confluence with Big Reed Island Creek upstream including all named and unnamed tributaries.
iii	Straight Branch (Carroll County) from its confluence with Greens Creek upstream including all named and unnamed tributaries.
ii	Sulphur Spring Branch from its confluence with Big Reed Island Creek upstream including all named and unnamed tributaries.

iii	Tory Creek from its confluence with Laurel Fork upstream including all named and unnamed tributaries.
iii	Tract Fork from the confluence of Fortnerfield Branch upstream including all named and unnamed tributaries.
ii	Trout Branch from its confluence with Little Reed Island creek upstream including all named and unnamed tributaries.
iii	Turkey Fork from 2.6 miles above its confluence with Elk Creek upstream including all named and unnamed tributaries.
ii	Venrick Run from its confluence with Reed Creek upstream including all named and unnamed tributaries.

iii	West Fork Comers Rock Branch from its confluence with Comers Rock Branch upstream including all named and unnamed tributaries.
iii	West Fork Dodd Creek from its confluence with Dodd Creek upstream including all named and unnamed tributaries.
iii	West Fork Dry Run from its confluence with Dry Run 2 miles upstream.
iii	West Fork Little Reed Island Creek (Carroll County) from its confluence with Little Reed Island Creek upstream including all named and unnamed tributaries.
***	West Fork Little River from its confluence with Little River upstream including all named and unnamed tributaries.

iii	West Prong Furnace Creek from its confluence with Furnace Creek upstream including all named and unnamed tributaries.
	White Rock Creek from its confluence with Cripple Creek upstream including all named and unnamed tributaries.
***	(White Rock Creek from its confluence with Cripple Creek 1.9 miles upstream.)
iv	(White Rock Creek from 1.9 miles above its confluence with Cripple Creek upstream including all named and unnamed tributaries.)
ii	Whitetop Creek from its confluence with Big Horse Creek upstream including all named and unnamed tributaries.

	i		Wilburn Branch from its confluence with Big Wilson Creek upstream including all named and unnamed tributaries.
2a	IV	PWS,v	New River from Radford Army Ammunition Plant's raw water intake (that intake which is the further downstream), upstream to a point 5 miles above the Blacksburg- Christiansburg, V.P.I. Water Authority's raw water intake and including tributaries in this area to ~~a~~ points 5 miles above the respective raw water intakes.
2b	IV	PWS,v	New River from Radford's raw water intake upstream to Claytor Dam and including tributaries to points 5 miles above the intake.
2c	IV	v, NEW-4	New River and its tributaries, except Peak Creek above Interstate Route 81, from Claytor Dam to Big Reed Island Creek (Claytor Lake).

V	**Stockable Trout Waters in Section 2c**
vi	Chimney Branch from its confluence with Big Macks Creek to its headwaters.
vi	White Oak Camp Branch from its confluence with Chimney Branch to its headwaters.
VI	**Natural Trout Waters in Section 2c**
ii	Bark Camp Branch from its confluence with Big Macks Creek upstream including all named and unnamed tributaries.
ii	Big Macks Creek from Powhatan Camp upstream including all named and unnamed tributaries.

	iii		Little Macks Creek from its confluence with Big Macks Creek upstream including all named and unnamed tributaries.
	ii		Puncheoncamp Branch from its confluence with Big Macks Creek upstream including all named and unnamed tributaries.
2d	IV	PWS,v,NEW-5	Peak Creek and its tributaries from Pulaski's raw water intake upstream, including Hogan Branch to its headwaters and Gatewood Reservoir.
2e			(Deleted)
2f	IV	PWS,v	Little Reed Island Creek and its tributaries from Hillsville's upstream raw water intake near Cranberry Creek to ~~a~~ points 5 miles above Hillsville's upstream raw water intake, including the entire watershed of the East Fork Little Reed Island Creek.

	VI	PWS	**Natural Trout Waters in Section 2f**
	iii		East Fork Little Reed Island Creek from its confluence with West Fork Little Reed Island Creek upstream including all named and unnamed tributaries.
	***		Little Reed Island Creek from Hillsville's upstream raw water intake to a point 5 miles upstream.
	iii		Mine Branch from its confluence with the East Fork Little Reed Island Creek 2 miles upstream.
2g	IV	PWS,v	Reed Creek and its tributaries from Wytheville's raw water intake to 5 miles upstream.
	VI	PWS,v	**Natural Trout Waters in Section 2g**

	***		Reed Creek from the western town limits of Wytheville to 5 miles upstream.
2h	IV	PWS,v	Chestnut Creek and its tributaries from Galax's raw water intake upstream to their headwaters or to the Virginia-North Carolina state line.
	VI	PWS	**Natural Trout Waters in Section 2h**
	***		Coal Creek from its confluence with Chestnut Creek upstream including all named and unnamed tributaries.
	ii		East Fork Chestnut Creek (Grayson County) from its confluence with Chestnut Creek upstream including all named and unnamed tributaries.
	iii		Hanks Branch from its confluence with the East Fork Chestnut Creek upstream including all

			named and unnamed tributaries.
	iii		Linard Creek from its confluence with Hanks Branch upstream including all named and unnamed tributaries.
2i	IV		Fries Reservoir section of the New River.
2j	IV	PWS	Eagle Bottom Creek from Fries' raw water intake upstream to its headwaters.
2k	IV		Stuart Reservoir section of the New River.

2l	IV	PWS	New River and its tributaries inclusive of the Wythe County Water Department's Austinville intake at latitude 36E51'8.47" and longitude 80E55'29.31", and the Wythe County Water Department's Ivanhoe intake on Powder Mill Branch at latitude 36E49'15.96" and longitude 80E58'11.28" to points 5 miles above the intakes.
	V	PWS	**Stockable Trout Waters in Section 2l**
	vi		Powder Mill Branch (from 0.6 mile above its confluence with the New River) 2.1 miles upstream.
2m	IV	PWS, NEW-4,5	New River (Claytor Lake) [~~and its tributaries~~] from the Klopman Mills raw water intake to ~~a~~ [~~points 5 miles upstream of~~] the Pulaski County Public Service Authority's raw water intake [and tributaries to points 5 miles upstream of each

	intake.]
2n	(Deleted)

PART X.

DESIGNATIONS OF AUTHORITY.

9 VAC 25-260-550. Designations of authority.

The director or his designee may perform any act of the board provided under this chapter, except as limited by э 62.1-44.14 of the Code of Virginia.

9 VAC 25-280-10. Definitions.

The following words and terms when used in this chapter shall have the following meanings unless the context clearly indicates otherwise:

"Board" means State Water Control Board.

"Criteria" means elements of the board's groundwater quality standards, expressed as constituent concentrations, levels, or narrative statements, representing a quality of water that supports a particular use. When criteria are met, groundwater quality will generally protect the designated use.

"Groundwater quality standards" means provisions of state law which consist of a designated use or uses for the waters of the Commonwealth and water quality criteria for such waters based upon such uses. Groundwater quality standards are to protect the public health or welfare, enhance the quality of water and serve the purposes of the State Water Control Law (§ 62.1-44.2 et seq. of the Code of Virginia).

9 VAC 25-280-20 GROUNDWATER STANDARDS - General Requirements

Except where otherwise specified, groundwater quality standards shall apply statewide and shall apply to all groundwater occurring at and below the uppermost seasonal limits of the water table. In order to prevent the entry of pollutants into groundwater occurring in any aquifer, a soil zone or alternate protective measure or device sufficient to preserve and protect present and anticipated uses of groundwater shall be maintained at all times. Zones for mixing wastes with groundwater may be allowed, upon request, but shall be determined on a case-by-case basis and shall be kept as small as possible. It is recognized that natural groundwater quality varies from area to area. Virginia is divided into four Physiographic Provinces, namely the Coastal Plain, Piedmont and Blue Ridge, Valley and Ridge, and Cumberland Plateau. See Figure 1. Accordingly, the Board has established certain groundwater standards specific to each individual Physiographic Province.

9 VAC 25-280-30 Anti-degradation Policy for Groundwater

If the concentration of any constituent in groundwater is less than the limit set forth by groundwater standards, the natural quality for the constituent shall be maintained; natural quality shall also be maintained for all constituents, including temperature, not set forth in groundwater standards. If the concentration of any constituent in groundwater exceeds the limit in the standard for that constituent, no addition of that constituent to the naturally occurring concentration shall be made. Variance to this policy shall not be made unless it has been affirmatively demonstrated that a change is justifiable to provide necessary economic or social development, that the degree of waste treatment necessary to preserve the existing quality cannot be economically or socially justified, and that the present and anticipated uses of such water will be preserved and protected.

9 VAC 25-280-40 Groundwater Standards Applicable Statewide

CONSTITUENT	CONCENTRATION	
Sodium	270	mg/l
Foaming Agents as methylene blue		
active substances	0.05	mg/l
Petroleum hydrocarbons	1	mg/l
Arsenic	0.05	mg/l
Barium	1.0	mg/l
Cadmium	0.0004	mg/l
Chromium	0.05	mg/l
Copper	1.0	mg/l
Cyanide	0.005	mg/l
Lead	0.05	mg/l
Mercury	0.00005	mg/l
Phenols	0.001	mg/l
Selenium	0.01	mg/l
Silver	None	
Zinc	0.05	mg/l
Chlorinated Hydrocarbon Insecticides		
Aldrin/Dieldrin	0.003	ug/l

Chlordane	0.01	ug/l
DDT	0.001	ug/l
Endrin	0.004	ug/l
Heptachlor	0.001	ug/l
Heptachlor Epoxide	0.001	ug/l
Kepone	None	
Lindane	0.01	ug/l
Methoxychlor	0.03	ug/l
Mirex	None	
Toxaphene	None	
Chlorophenoxy Herbicides		
2,4-D	0.1	mg/l
Silvex	0.01	mg/l
Radioactivity		
Total Radium (Ra-226 & Ra-228)	5	pCi/1
Radium 226	3	pCi/1
Gross Beta Activity*	50	pCi/1
Gross Alpha Activity	15	pCi/1
(excluding Radon & Uranium)		
Tritium	20,000	pCi/l

Strontium-90	8 pCi/l
Manmade Radioactivity - Total Dose Equiv.**	4 mrem/yr

pCi/l = picoCurie per liter   mrem/yr = millirems per year

*The gross beta value shall be used as a screening value only. If exceeded the water must be analyzed to determine the presence and quantity of radionuclides to determine compliance with the tritium, strontium, and manmade radioactivity standards.

**Combination of all sources should not exceed total dose equivalent of 4 mrem/year.

9 VAC 25-280-50 Groundwater Standards Applicable by Physiographic Province

CONSTITUENT	CONCENTRATION			
	Coastal Plain	Piedmont & Blue Ridge	Valley & Ridge	Cumberland Plateau
pH	6.5-9	5.5-8.5	6-9	5-8.5
Ammonia Nitrogen	0.025 mg/l	0.025 mg/l	0.025 mg/l	0.025 mg/l
Nitrite Nitrogen	0.025 mg/l	0.025 mg/l	0.025 mg/l	0.025 mg/l
Nitrate				

Nitrogen	5 mg/l	5 mg/l	5 mg/l	0.5 mg/l

9 VAC 25-280-60. GROUNDWATER CRITERIA - General requirements.

These groundwater quality criteria apply primarily to groundwater constituents that occur naturally. Since natural groundwater quality can vary greatly from area to area for these constituents, enforceable standards were not adopted. These criteria are intended to provide guidance in preventing groundwater pollution. Groundwater criteria are not mandatory.

9 VAC 25-280-70 Groundwater Criteria

CONSTITUENT GROUNDWATER CRITERIA BY PHYSIOGRAPHIC (mg/l) PROVINCE***

	Coastal Plain	Piedmont & Blue Ridge	Valley & Ridge	Cumberland Plateau
Alkalinity	30-500	10-200	30-500	30-200
Total Diss. Solids	1000	250	500	500
Chloride	50*	25	25	25
Sulfate	50	25	100	150
Total Organic				

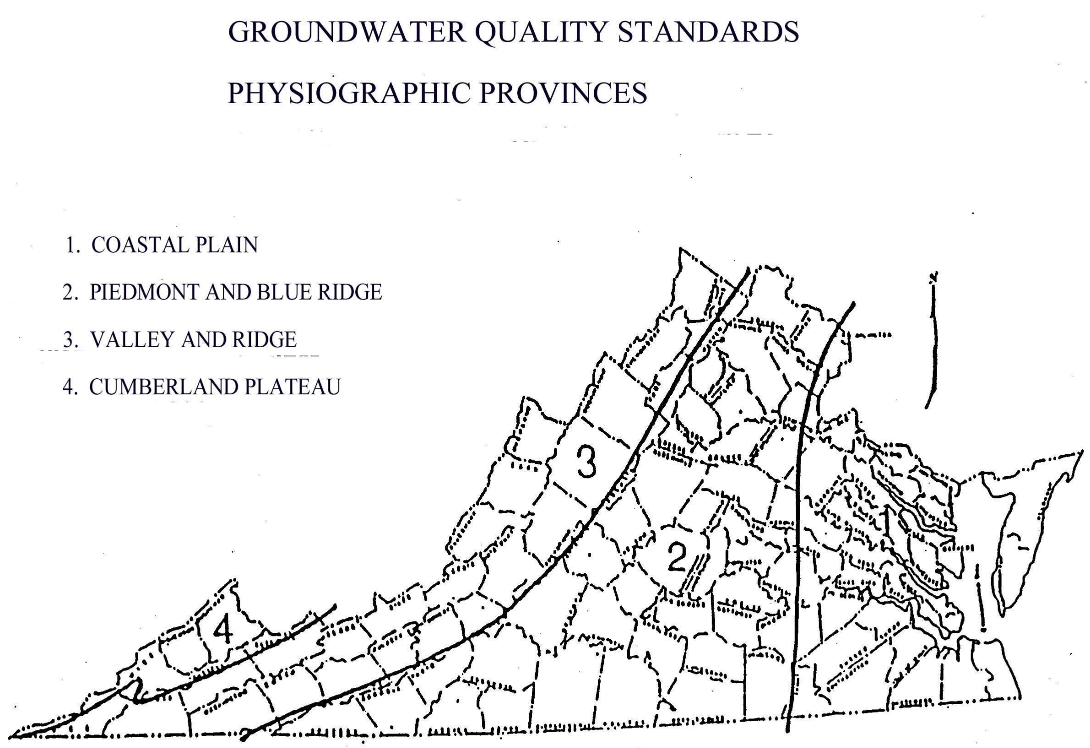
Carbon	10	10	10	10
Color units	15	15	15	15
Iron	0.3	0.3	0.3	0.01-10
Manganese	0.05	0.05	0.05	0.01-0.5
Sodium	100*	25	25	100
Fluoride	1.4**	1.4	1.4	1.4
Hardness	120	120	300	180

* It is recognized that naturally occurring concentrations will exceed this limit in the eastern part of the Coastal Plain, especially toward the shoreline and with increased depth.

** Except within the cretaceous aquifer: concentration up to 5 mg/l and higher.

*** See Figure 1, for delineation of physiographic provinces.

Figure1


GROUNDWATER QUALITY STANDARDS
PHYSIOGRAPHIC PROVINCES
1. COASTAL PLAIN
2. PIEDMONT AND BLUE RIDGE
3. VALLEY AND RIDGE
4. CUMBERLAND PLATEAU
1
2
3
4

9 VAC 25-280-80. Modification, amendment, and cancellation of standards.

A. Under the authority of ∍ 62.1-44.15(3)(b) of the State Water Control Law, the board reserves the right at any time to modify, amend, or cancel any of the rules, policies, or standards set forth here.

B. Within three years after the effective date of this chapter, the department shall perform an analysis on this chapter and provide the board with a report on the results. The analysis shall include (i) the purpose and need for the chapter; (ii) alternatives which would achieve the stated purpose of this chapter in a less burdensome and less intrusive manner; (iii) an assessment of the effectiveness of this chapter; (iv) the results of a review of current state and federal statutory and regulatory requirements, including identification and justification of requirements of this chapter which are more stringent than federal requirements; and (v) the results of a review as to whether this chapter is clearly written and easily understandable by affected entities.

Upon review of the department's analysis, the board shall confirm the need to (i) continue this chapter without amendment; (ii) repeal this chapter; or (iii) amend this chapter. If the board's decision is to repeal or amend this chapter, the board shall authorize the department to initiate the applicable regulatory process to carry out the decision of the board.

9 VAC 25-280-90. Designations of authority.

The director or his designee may perform any act of the board provided under this chapter, except as limited by ∍ 62.1-44.14 of the Code of Virginia.

Certified true and accurate: ________________________________

Robert G. Burnley, Director, DEQ

Date: __________________________