

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.

"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.

"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).

"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 (§ 62.1-44.2 et seq. of the Code of Virginia) and the federal Clean Water Act (33 USC §1251 et seq.).

9 VAC 25-260-140 Criteria for Surface Water.

(Amendments to this section were deferred)

9 VAC 25-260-155 Ammonia surface water quality criteria.

(Amendments to this section were deferred)

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 ~~median~~ geometric mean fecal coliform value for a sampling station shall not exceed an MPN (most probable number) of 14 per 100 milliliters. ~~Not more than 10% of samples~~ The 90th 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.~~

A. ~~General requirements~~ In all surface waters, except shellfish waters and certain waters addressed identified in subsection B of this section, the following criteria shall apply to protect primary contact recreational uses:

1. ~~the~~ 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 ~~30-day period, or a fecal coliform bacteria level of 1,000 per 100 ml at any time.~~ 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:

	<u>Geometric Mean¹</u>	<u>Single Sample Maximum²</u>
<u>Fresh[and Transition Zone Waters water]³</u>		
<u>enterococci</u>	<u>33</u>	<u>61</u>
<u><i>E.coli</i></u>	<u>126</u>	<u>235</u>

Saltwater [and Transition Zone³]

<u>enterococci</u>	<u>35</u>	<u>104</u>
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¹ [Calendar month average] 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 fresh[and transition zone waterswater] 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 fresh[water] and transition zone [waters] delineation.

~~B. Disinfection policy. Notwithstanding the above, all in waters that receive sewage discharges, all the designated uses in these waters shall be protected shall be disinfected to achieve the applicable bacteria concentrations in subsection A [2] of this section prior to discharge. The board's disinfection policy applies to these waters.~~

- ~~1. Sewage discharges in relation to water supply intakes. Discharges located within 15 miles upstream or one tidal cycle downstream of a water supply intake shall be disinfected in order to achieve a fecal coliform geometric mean value in the effluent equal to or less than 200 per 100 milliliters.~~
- ~~2. Sewage discharges into shellfish waters. When sewage discharges are permitted to or within five miles upstream of shellfish waters, they shall be disinfected in order to achieve a fecal coliform geometric mean value in the effluent equal to or less than 200 per 100 milliliters.~~
- ~~3. Sewage discharges into other waters. Sewage discharges into other waters shall be adequately treated and disinfected as necessary to protect all the designated uses in these waters. Generally, these discharges shall achieve a fecal coliform geometric mean value in the effluent equal to or less than 200 per 100 milliliters.~~

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.

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 [~~median~~ geometric mean] fecal coliform value for a sampling station shall not exceed an MPN of 14 per 100 ml of sample and [~~not more than 10% of samples~~ the 90th percentile] shall [not] exceed 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 25-415-10 ~~et seq.~~ 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 BOD₅, 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.

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 apply to the entire Chickahominy watershed above Walker's Dam:

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 [Holly Farms Poultry Industries <u>Tyson Foods</u>], 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 Boshier 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.

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 27°C (81°F) unless caused by natural conditions; the maximum rise above natural temperatures shall not exceed 2.8°C (5°F).

This maximum temperature limit of 81°F 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 29°C (84°F).

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 µg/l for protection from chronic effects and 19.5 µg/l for protection from acute effects. These site-specific criteria are needed to provide protection to several endangered species of freshwater mussels.

y. Tidal freshwater Potomac River and tributaries that enter the tidal freshwater Potomac River from Cockpit Point (below Occoquan Bay) to the fall line at Chain Bridge. During November 1 through February 14 of each year the [chronic ammonia criterion for early life stage of fish absent shall apply (see 9 VAC 25-260-155 C). This special standard is adopted in accordance with 9 VAC 5-260-155 C 1 b thirty-day average concentration of total ammonia

nitrogen (in mg N/L) shall not exceed, more than once every three years on the average the following chronic ammonia criterion:

$$\left(\frac{0.0577}{1 + 10^{7.688 - \text{pH}}} + \frac{2.487}{1 + 10^{\text{pH} - 7.688}} \right) \times 1.45(10^{0.028(25 - \text{MAX})})$$

MAX = temperature in ° C or 7, whichever is greater.

The default design flow for calculating steady state waste load allocations for this chronic ammonia criterion is the 30Q10, unless statistically valid methods are employed which demonstrate compliance with the duration and return frequency of this water quality criterion.]

9 VAC25-260-390. 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, <u>y</u> ,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 point 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 point 5 miles above the dam.
7d	III	PWS,g	The impounded waters of Lake Jackson, Broad Run, and Cedar Run.
7e	III	PWS,g	Cedar Run from the Town of Warrenton's raw water intake (just upstream of Route 672) to a

			point 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 point 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 point 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 point 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.
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 point 5 miles above the dam.

9b III PWS

The Town of Round Hill'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 raw water intake (Loudoun County) located in an old quarry (at latitude 39°02'02"; longitude 77°40'49") to its headwaters.

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.
 - 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.