

[prev](#) | [next](#)**9VAC25-280-10. 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 ground 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, ground water quality will generally protect the designated use.

"Ground water quality standards" means provisions of state law that consist of a designated use or uses for the waters of the Commonwealth and water quality criteria for such waters based upon such uses. Ground 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).

Statutory Authority

§ [62.1-44.15](#) of the Code of Virginia.

Historical Notes

Derived from Virginia Register Volume 20, Issue 9, eff. February 12, 2004.

[prev](#) | [next](#) | [new search](#) | [table of contents](#) | [home](#)

[prev](#) | [next](#)**9VAC25-280-20. Ground water standards; general requirements.**

Except where otherwise specified, ground water quality standards shall apply statewide and shall apply to all ground water occurring at and below the uppermost seasonal limits of the water table. In order to prevent the entry of pollutants into ground water occurring in any aquifer, a soil zone or alternate protective measure or device sufficient to preserve and protect present and anticipated uses of ground water shall be maintained at all times. Zones for mixing wastes with ground water 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 ground water 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 ground water standards specific to each individual physiographic province.

Statutory Authority

§ [62.1-44.15](#) of the Code of Virginia.

Historical Notes

Derived from Virginia Register Volume 20, Issue 9, eff. February 12, 2004.

[prev](#) | [next](#) | [new search](#) | [table of contents](#) | [home](#)

[prev](#) | [next](#)**9VAC25-280-30. Antidegradation policy for ground water.**

If the concentration of any constituent in ground water is less than the limit set forth by ground water 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 ground water standards. If the concentration of any constituent in ground water 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.

Statutory Authority

§ [62.1-44.15](#) of the Code of Virginia.

Historical Notes

Derived from Virginia Register Volume 20, Issue 9, eff. February 12, 2004.

[prev](#) | [next](#) | [new search](#) | [table of contents](#) | [home](#)

[prev](#) | [next](#)**9VAC25-280-40. Ground water standards applicable statewide.**CONSTITUENT
CONCENTRATION

Sodium mg/l	270
Foaming Agents as methylene blue active mg/l	0.05
substances	
Petroleum hydrocarbons mg/l	1
Arsenic mg/l	0.05
Barium mg/l	1.0
Cadmium mg/l	0.0004
Chromium mg/l	0.05
Copper mg/l	1.0
Cyanide mg/l	0.005

Lead mg/l	0.05
Mercury mg/l	0.00005
Phenols mg/l	0.001
Selenium mg/l	0.01
Silver None	
Zinc mg/l	0.05
Chlorinated Hydrocarbon Insecticides	
Aldrin/Dieldrin šg/l	0.003
Chlordane šg/l	0.01
DDT šg/l	0.001
Endrin šg/l	0.004
Heptachlor šg/l	0.001

Heptachlor Epoxide šg/l	0.001
Kepone None	
Lindane šg/l	0.01
Methoxychlor šg/l	0.03
Mirex None	
Toxaphene None	
Chlorophenoxy Herbicides	
2,4-D mg/l	0.1
Silvex mg/l	0.01
Radioactivity	
Total Radium (Ra-226 & Ra-228) pCi/l	5
Radium 226 pCi/l	3
Gross Beta Activity*	50

pCi/l

Gross Alpha Activity (excluding Radon & Uranium)
pCi/l 15

Uranium)

Tritium
pCi/l 20,000

Strontium-90
pCi/l 8

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.

Statutory Authority

§ [62.1-44.15](#) of the Code of Virginia.

Historical Notes

Derived from Virginia Register Volume 20, Issue 9, eff. February 12, 2004.

[prev](#) | [next](#) | [new search](#) | [table of contents](#) | [home](#)

[prev](#) | [next](#)**9VAC25-280-50. Ground water 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

Statutory Authority§ [62.1-44.15](#) of the Code of Virginia.**Historical Notes**

Derived from Virginia Register Volume 20, Issue 9, eff. February 12, 2004.

[prev](#) | [next](#) | [new search](#) | [table of contents](#) | [home](#)

[prev](#) | [next](#)**9VAC25-280-60. Ground water criteria; general requirements.**

These ground water quality criteria apply primarily to ground water constituents that occur naturally. Since natural ground water 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 ground water pollution. Ground water criteria are not mandatory.

Statutory Authority

§ [62.1-44.15](#) of the Code of Virginia.

Historical Notes

Derived from Virginia Register Volume 20, Issue 9, eff. February 12, 2004.

[prev](#) | [next](#) | [new search](#) | [table of contents](#) | [home](#)

[prev](#) | [next](#)

9VAC25-280-70. Ground water criteria.

CONSTITUENT (mg/l)	GROUND WATER			
	CRITERIA BY			
	PHYSIOGRAPHIC			
	PROVINCE***			
	Coastal Plain	Piedmont & Blue Ridge	Valley & Ridge	Cumberland Plateau
Alkalinity	30-500	10-200	30-500	<u>30-200</u>
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

image

For Ground water criteria, see Virginia Administrative Code print product.

Statutory Authority

§ [62.1-44.15](#) of the Code of Virginia.

Historical Notes

Derived from Virginia Register Volume 20, Issue 9, eff. February 12, 2004.

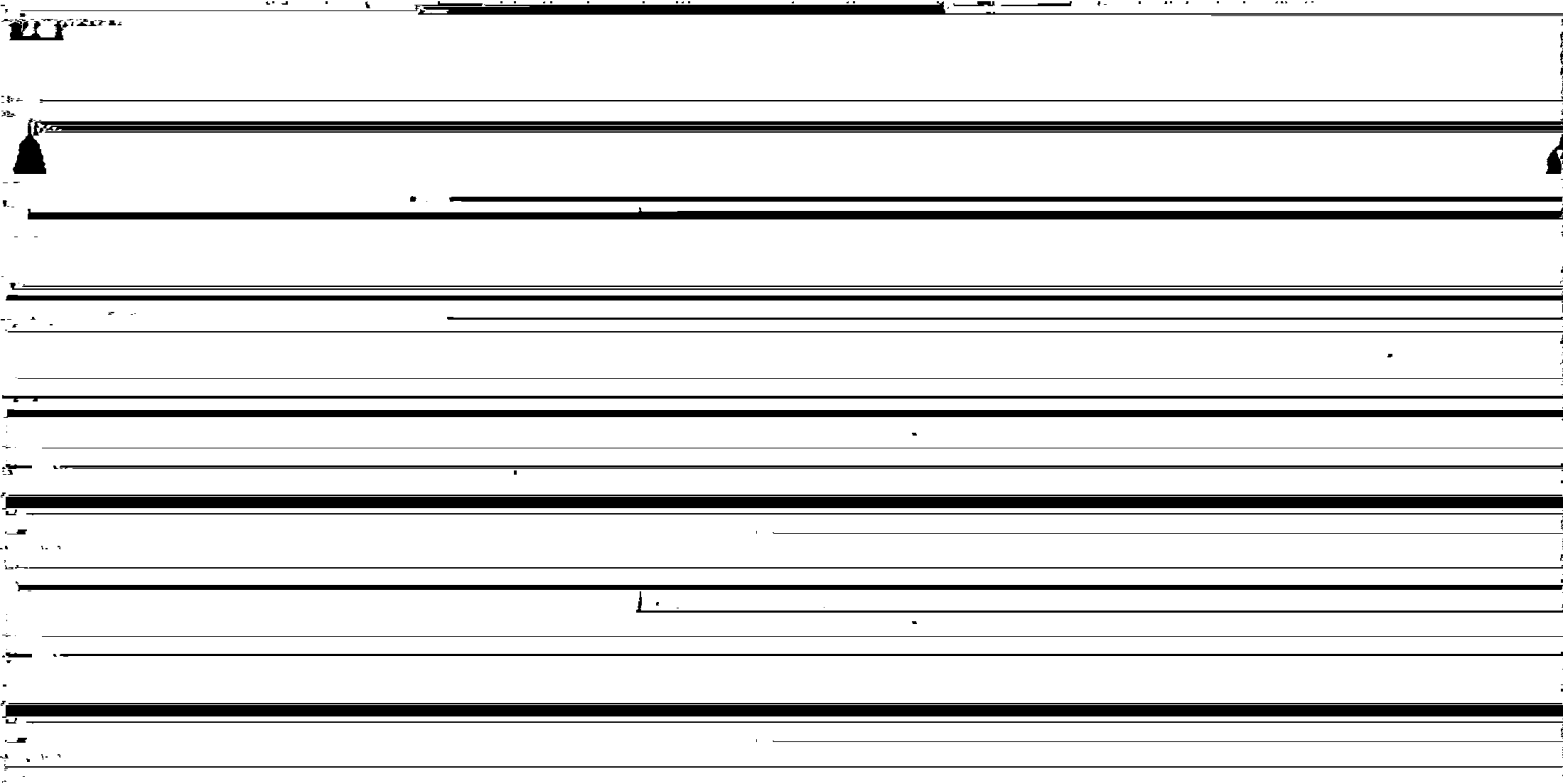
[prev](#) | [next](#) | [new search](#) | [table of contents](#) | [home](#)

[prev](#) | [next](#)

9VAC25-280-80. 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



Derived from Virginia Register Volume 20, Issue 9, eff. February 12, 2004.

[prev](#) | [next](#) | [new search](#) | [table of contents](#) | [home](#)