

0464

To: tsm  
From: GS-7 MICHAEL P SENUS@EMD2@MCB LEJEUNE  
Certify: N  
Subject: water supply wells  
Date: Tuesday, June 4, 1996 at 3:33:17 pm EDT  
Attached: None

Reference NCAC 15A, subchapter 18C, section 02 and 03, subparagraph 2 (j).  
"Rules governing public watering systems"

New water supply wells can be no closer than:  
1,000 ft from haz waste disposal sites  
500 ft from gw contamination, chemical or POL USTs without secondary containment, or  
landfills.

POC Tony Chen, Div of Env Health, Public Water Supply, (919) 715-3237

CLW

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Happy  Mail!

GS-9 THOMAS S MORRIS@EMD2@MCB LEJEUNE  
GS-11 JOHN E RIGGS@EMD2@MCB LEJEUNE  
From: N  
Subject: re: Fwd: water supply wells  
Date: Tuesday, June 4, 1996 at 4:13:15 pm EDT  
Attachment: None

id to that 1000' from surface waters, 200' from property boundaries, 1000' from outside the  
zone of influence for off-site groundwater wells.....

ohn

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## SUBCHAPTER 18C – WATER SUPPLIES

### SECTION .0100 – PROTECTION OF PUBLIC WATER SUPPLIES

Rules .0101 – .0102 of Title 15A Subchapter 18C of the North Carolina Administrative Code (T15A.18C .0101 – .0102); has been transferred and recodified from Rules .0701 – .0702 Title 10 Subchapter 10D of the North Carolina Administrative Code (T10.10D .0701 – .0702), effective April 4, 1990.

#### .0101 PURPOSE AND SCOPE

##### HISTORY NOTE

Statutory Authority G.S. 130A-315;  
Eff. January 1, 1977;  
Readopted Eff. December 5, 1977;  
Amended Eff. October 1, 1984; September 1, 1979; January 1, 1978;  
Repealed Eff. September 1, 1990.

#### .0102 DEFINITIONS

(a) The definitions contained in G.S. 130A-2, G.S. 130A-290, and G.S. 130A-313 are hereby incorporated by reference including any subsequent amendments and editions. Copies of this material are available for inspection and may be obtained from the Department of Environment, Health, and Natural Resources, Division of Environmental Health, Public Water Supply Section, P.O. Box 29536, Raleigh, North Carolina 27626-0536 at no charge.

(b) The definitions contained in 40 C.F.R. 141.2 are hereby incorporated by reference including any subsequent amendments and editions except the following definitions are not adopted:

- (1) "Disinfection",
- (2) "Maximum containment level",
- (3) "Person",
- (4) "Public Water System", and
- (5) "Supplier of water".

This material is available for inspection at the Department of Environment, Health, and Natural Resources, Division of Environmental Health, 1330 Saint Mary's Street, Raleigh, North Carolina. Non-members may obtain copies from the American Water Works Association, Information Services, 6666 West Quincy Avenue, Denver, Colorado 80235 at a cost of fifteen dollars (\$15.00) up to 20 pages and thirty cents (\$0.30) per page for each additional page.

(c) In addition to the definitions incorporated by reference, the following definitions shall apply to this Subchapter:

- (1) "Act" means the North Carolina Drinking Water Act.
- (2) "Class I reservoir" means a reservoir from which water flows by gravity or is pumped directly to a treatment plant or to a small intervening storage basin and thence to a treatment plant.
- (3) "Class II reservoir" means a reservoir from which the water flows by gravity or is pumped to a Class I reservoir prior to final entrance to a water treatment plant.
- (4) "Class III reservoir" is an impoundment used for electric power generation, flood control, and similar purposes, and which also serves as a source of raw water for a community water system.
- (5) "Cross-connection" means:

(A) any physical connection between a potable water supply system and any other piping system, sewer fixture, container, or device,

whereby water or other liquids, mixtures, or substances may flow into or enter the potable water supply system;

(B) any potable water supply outlet which is submerged or is designed or intended to be submerged in non-potable water or in any source of contamination or;

(C) an air gap, providing a space between the potable water pipe outlet and the flood level rim of a receiving vessel of less than twice the diameter of the potable water pipe.

(6) "Community Water System intake" means the structure at the head of a conduit into which water is diverted from a stream or reservoir for transmission to water treatment facilities.

(7) "Disinfection" means a process which inactivates pathogenic organisms in water.

(8) "Fecal Coliform" means bacteria consistently found in the intestine of man and other warm blooded animals which are not normally disease producing but serve as indicators of recent fecal contamination. They are members of the Family Enterobacteriaceae, Genus Escherichia, Species Coli.

(9) "Mobile Home Park" means a site or tract of land where spaces are provided for lease or rental only to mobile home occupants.

(10) "Mobile home subdivision" means a subdivided site or tract of land in which lots are sold for use by mobile home occupants.

(11) "Non-potable water supply" means waters: not approved for drinking or other household uses.

(12) "Potable water supply" means water which is approved for drinking or other household uses.

(13) "Raw water" means surface water or groundwater which because of bacteriological quality, chemical quality, turbidity, color, or mineral content makes it unsatisfactory as a source for a community water system without treatment.

(14) "Raw water reservoir" means a natural or artificial impoundment used for the primary purpose of storing raw water to be subsequently treated for use as a source for a community water system.

(15) "Service connection" means a piped connection from a water main for the purpose of conveying water to a building or onto a premises for human use.

(16) "Water supply product" means any chemical or substance added to a public water system in conjunction with a treatment technique or material used in construction of a public water system. The term includes any material used in the manufacture of public water system components, appurtenances, any pipe, storage tank or valve which comes in contact with water intended for use in a public water system.

##### HISTORY NOTE

Authority G.S. 130A-311 through 130A-327; P.L. 93-523; 40 C.F.R. 141.2;  
Eff. January 1, 1977;  
Readopted Eff. December 5, 1977;  
Amended Eff. July 1, 1994; August 1, 1991; January 1, 1991; September 1, 1990.

### SECTION .0200 – LOCATION OF SOURCES OF PUBLIC WATER SUPPLIES

Rules .0201 – .0203 of Title 15A Subchapter 18C of the North Carolina Administrative Code (T15A.18C .0201 – .0203); has been transferred and recodified from Rules .0801 – .0803 Title 10 Subchapter 10D of the North Carolina Administrative Code (T10.10D .0801 – .0803), effective April 4, 1990.

#### .0201 SURFACE SUPPLIES FOR PUBLIC WATER SYSTEMS

(a) A surface supply may be used for a community or a non-transient, non-community water system with disinfection and without

filtration if it complies with the provisions of this Section and Rule .2005 of this Subchapter.

(b) Such water supply shall be derived from uninhabited wooded areas.

(c) The entire watershed shall be either owned or controlled by the person supplying the water or be under the control of the federal or state government; however, no such new water supply shall be created except where the water system owner shall own in its entirety the watershed from which the water will be obtained.

(d) The water after disinfection shall be of potable quality as determined by bacteriological and chemical tests performed by a certified laboratory. The presence of contaminants shall not exceed the limits set forth in Section .1500 of this Subchapter.

(e) The water source shall have an WS-I classification as established by the Environmental Management Commission and shall meet the quality standards for that classification, codified in 15A NCAC 2B which are hereby incorporated by reference including any subsequent amendments and editions. Copies of this material are available for inspection and may be obtained from the Department of Environment, Health, and Natural Resources, Division of Environmental Health, Public Water Supply Section, P.O. Box 29536, Raleigh, North Carolina 27626-0536 at no charge.

#### HISTORY NOTE

Statutory Authority G.S. 130A-315; 130A-318; P.L. 93-523;  
Eff. January 1, 1977;  
Readopted Eff. December 5, 1977;  
Amended Eff. July 1, 1994; February 1, 1987; September 1, 1979.

### .0202 REMOVAL OF DISSOLVED MATTER AND SUSPENDED MATTER

Any surface water which is to receive treatment for removal of dissolved matter or suspended matter in order to be used for a public water system shall be obtained from a source which meets the WS-I, WS-II, WS-III, WS-IV or WS-V stream classification standards established by the Environmental Management Commission codified in 15A NCAC 2B which are hereby incorporated by reference including any subsequent amendments and editions. Copies of this material are available for inspection and may be obtained from the Department of Environment, Health, and Natural Resources, Division of Environmental Health, Public Water Supply Section, P.O. Box 29536, Raleigh, North Carolina 27626-0536 at no charge. The source shall be protected from sources of pollution as determined by a sanitary survey of the watershed made by an authorized representative of the Department. The source supply shall be sufficient in capacity to satisfy the anticipated needs of the users for the period of design.

#### HISTORY NOTE

Statutory Authority G.S. 130A-315; 130A-318; P.L. 93-523;  
Eff. January 1, 1977;  
Readopted Eff. December 5, 1977;  
Amended Eff. July 1, 1994; September 1, 1990; February 1, 1987; September 1, 1979.

### .0203 PUBLIC WELL WATER SUPPLIES

Any site or sites for any water supply well to be used as a community or non-transient, non-community water system shall be investigated by an authorized representative of the Division of Environmental Health. Approval by the Division is required in addition to any approval or permit issued by any other state agency. The site shall meet the following requirements at the time of approval:

(1) The well shall be located on a lot so that the area within 100 feet of the well shall be owned or controlled by the person supplying the

water. The supplier of water shall be able to protect the well lot from potential sources of pollution and to construct landscape features for drainage and diversion of pollution.

(2) The minimum horizontal separation between the well and known potential sources of pollution shall be as follows:

(a) 100 feet from any sanitary sewage disposal system, sewer, or a sewer pipe unless the sewer is constructed of water main materials and joints, in which case the sewer pipe shall be at least 50 feet from the well;

(b) 200 feet from a subsurface sanitary sewage treatment and disposal system designed for 3000 or more gallons of wastewater a day flows, unless it is determined that the well water source utilizes a confined aquifer;

(c) 500 feet from a septage disposal site;

(d) 100 feet from buildings, mobile homes, permanent structures, animal houses or lots, or cultivated areas to which chemicals are applied;

(e) 100 feet from surface water;

(f) 100 feet from a chemical or petroleum fuel underground storage tank with secondary containment;

(g) 500 feet from a chemical or petroleum fuel underground storage tank without secondary containment;

(h) 500 feet from the boundary of a ground water contamination area;

(i) 500 feet from a sanitary landfill or non-permitted non-hazardous solid waste disposal site;

(j) 1000 feet from a hazardous waste disposal site or in any location which conflicts with the North Carolina Hazardous Waste Management Rules cited as 15A NCAC 13A;

(k) 300 feet from a cemetery or burial ground; and

(l) 100 feet from any other potential source of pollution.

(3) The Department may require greater separation distances or impose other protective measures when necessary to protect the well from pollution; the Department shall consider as follows:

(a) The hazard or health risk associated with the source of pollution;

(b) The proximity of the potential source to the well;

(c) The type of material, facility or circumstance that poses the source or potential source of pollution;

(d) The volume or size of the source or potential source of pollution;

(e) Hydrogeological features of the site which could affect the movement of contaminants to the source water;

(f) The effect which well operation might have on the movement of contamination; and

(g) The feasibility of providing additional separation distances or protective measures.

(4) The lot shall be graded or sloped so that surface water is diverted away from the wellhead. The lot shall not be subject to flooding.

(5) When the supplier of water is unable to locate water from any other approved source and when an existing well can no longer provide water that meets the requirements of this Subchapter, a representative of the Division may approve a smaller well lot and reduced separation distances for temporary use.

#### HISTORY NOTE

Statutory Authority G.S. 130A-315; 130A-318; P.L. 93-523;  
Eff. January 1, 1977;  
Readopted Eff. December 5, 1977;  
Amended Eff. July 1, 1994; September 1, 1990; September 1, 1979.

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