

15A NCAC 02B .0214 FRESH SURFACE WATER QUALITY STANDARDS FOR CLASS WS-II WATERS

The following water quality standards apply to surface waters within water supply watersheds classified as WS-II. Water quality standards applicable to Class C waters as described in Rule .0211 of this Section shall also apply to Class WS-II waters.

- (1) The best usage of WS-II waters shall be as follows: a source of water supply for drinking, culinary, or food-processing purposes for those users desiring maximum protection for their water supplies where a WS-I classification is not feasible and any best usage specified for Class C waters;
- (2) The conditions related to the best usage shall be as follows: waters of this class are protected as water supplies that are in predominantly undeveloped watersheds and meet average watershed development density levels as specified in Sub-Items (3)(b)(i)(A), (3)(b)(i)(B), (3)(b)(ii)(A) and (3)(b)(ii)(B) of this Rule; discharges that qualify for a General Permit pursuant to 15A NCAC 02H .0127, trout farm discharges, recycle (closed loop) systems that only discharge in response to 10-year storm events and other stormwater discharges shall be allowed in the entire watershed; new domestic and industrial discharges of treated wastewater shall not be allowed in the entire watershed; the waters, following treatment required by the Division, shall meet the Maximum Contaminant Level concentrations considered safe for drinking, culinary, and food-processing purposes that are specified in the national drinking water regulations and in the North Carolina Rules Governing Public Water Supplies, 15A NCAC 18C .1500. Sources of water pollution that preclude any of these uses on either a short-term or long-term basis shall be considered to be violating a water quality standard. The Class WS-II classification may be used to protect portions of Class WS-III and WS-IV water supplies. For reclassifications of these portions of Class WS-III and WS-IV water supplies occurring after the July 1, 1992 statewide reclassification, the more protective classification requested by local governments shall be considered by the Commission when all local governments having jurisdiction in the affected area(s) have adopted a resolution and the appropriate ordinances to protect the watershed or the Commission acts to protect a watershed when one or more local governments has failed to adopt necessary protection measures;
- (3) Quality standards applicable to Class WS-II Waters shall be as follows:
 - (a) Sewage, industrial wastes, non-process industrial wastes, or other wastes: none shall be allowed except for those specified in either Item (2) of this Rule and Rule .0104 of this Subchapter; none shall be allowed that have an adverse effect on human health or that are not treated to the satisfaction of the Commission and in accordance with the requirements of the Division. Any discharger shall be required upon request by the Commission to disclose all chemical constituents present or potentially present in their wastes and chemicals that could be spilled or be present in runoff from their facility that may have an adverse impact on downstream water quality. These facilities may be required to have spill and treatment failure control plans as well as perform special monitoring for toxic substances;
 - (b) Nonpoint Source and Stormwater Pollution: none that would adversely impact the waters for use as a water supply or any other designated use;
 - (i) Nonpoint Source and Stormwater Pollution Control Criteria for Entire Watershed:
 - (A) Low Density Option: development density shall be limited to either no more than one dwelling unit per acre of single family detached residential development (or 40,000 square foot lot excluding roadway right-of-way), or 12 percent built-upon area for all other residential and non-residential development in the watershed outside of the critical area; stormwater runoff from the development shall be transported by vegetated conveyances to the maximum extent practicable;
 - (B) High Density Option: if new development exceeds the low density option requirements as stated in Sub-Item (3)(b)(i)(A) of this Rule, then engineered stormwater controls shall be used to control runoff from the first inch of rainfall; new residential and non-residential development shall not exceed 30 percent built-upon area;

- (C) Land within the watershed shall be deemed compliant with the density requirements if the following condition is met: the density of all existing development at the time of reclassification does not exceed the density requirement when densities are averaged throughout the entire watershed area at the time of classification;
- (D) Cluster development shall be allowed on a project-by-project basis as follows:
 - (I) overall density of the project meets associated density or stormwater control requirements of this Rule;
 - (II) buffers meet the minimum statewide water supply watershed protection requirements;
 - (III) built-upon areas shall be designed and located to minimize stormwater runoff impact to the receiving waters, minimize concentrated stormwater flow, maximize the use of sheet flow through vegetated areas, and maximize the flow length through vegetated areas;
 - (IV) areas of concentrated development shall be located in upland areas and away, to the maximum extent practicable, from surface waters and drainageways;
 - (V) remainder of tract to remain in vegetated or natural state;
 - (VI) area in the vegetated or natural state may be conveyed to a property owners association, a local government for preservation as a park or greenway, a conservation organization, or placed in a permanent conservation or farmland preservation easement;
 - (VII) a maintenance agreement for the vegetated or natural area shall be filed with the Register of Deeds; and
 - (VIII) cluster development that meets the applicable low density option requirements shall transport stormwater runoff from the development by vegetated conveyances to the maximum extent practicable;
- (E) A maximum of 10 percent of each jurisdiction's portion of the watershed outside of the critical area as delineated on July 1, 1993 may be developed with new development projects and expansions of existing development of up to 70 percent built-upon surface area (the "10/70 option") in addition to the new development approved in compliance with the appropriate requirements of Sub-Item (3)(b)(i)(A) or Sub-Item (3)(b)(i)(B) of this Rule. For expansions to existing development, the existing built-upon surface area shall not be counted toward the allowed 70 percent built-upon surface area. A local government having jurisdiction within the watershed may transfer, in whole or in part, its right to the 10/70 option land area to another local government within the watershed upon submittal of a joint resolution and review by the Commission. When the water supply watershed is composed of public lands, such as National Forest land, local governments may count the public land acreage within the watershed outside of the critical area in calculating the acreage allowed under this provision. For local governments that do not choose to use the high density option in that WS-II watershed, each project shall, to the maximum extent practicable, minimize built-upon surface area, direct stormwater runoff away from surface waters, and incorporate best management practices, as defined in Rule .0202 of this Section, to minimize water quality impacts. If the local government selects the high density development option within that WS-II watershed, then engineered stormwater controls shall be employed for the new development;

- (F) If local governments choose the high density development option that requires stormwater controls, then they shall assume ultimate responsibility for operation and maintenance of the required controls as outlined in Rule .0104 of this Subchapter;
- (G) A minimum 100 foot vegetative buffer shall be required for all new development activities that exceed the low density option requirements as specified in Sub-Items (3)(b)(i)(A) and Sub-Item (3)(b)(ii)(A) of this Rule, otherwise a minimum 30 foot vegetative buffer for development activities shall be required along all perennial waters indicated on the most recent versions of U.S.G.S. 1:24,000 (7.5 minute) scale topographic maps or as determined by local government studies. Nothing in this Rule shall stand as a bar to artificial streambank or shoreline stabilization;
- (H) No new development shall be allowed in the buffer; water dependent structures, or other structures such as flag poles, signs, and security lights, which result in only de minimus increases in impervious area and public projects such as road crossings and greenways may be allowed where no practicable alternative exists. These activities shall minimize built-upon surface area and avoid channelizing stormwater;
- (I) No National Pollutant Discharge Elimination System (NPDES) permits shall be issued for landfills that discharge treated leachate;
- (ii) Critical Area Nonpoint Source and Stormwater Pollution Control Criteria:
 - (A) Low Density Option: new development shall be limited to either no more than one dwelling unit of single family detached residential development per two acres (or 80,000 square foot lot excluding roadway right-of-way), or six percent built-upon area for all other residential and non-residential development; stormwater runoff from the development shall be transported by vegetated conveyances to the maximum extent practicable;
 - (B) High Density Option: if new development density exceeds the low density requirements specified in Sub-Item (3)(b)(ii)(A) of this Rule, then engineered stormwater controls shall be used to control runoff from the first inch of rainfall; new residential and non-residential development density shall not exceed 24 percent built-upon area;
 - (C) No new permitted sites for land application of residuals or petroleum contaminated soils shall be allowed;
 - (D) No new landfills shall be allowed;
- (c) MBAS (Methylene-Blue Active Substances): not greater than 0.5 mg/l to protect the aesthetic qualities of water supplies and to prevent foaming;
- (d) Odor producing substances contained in sewage or other wastes: only such amounts, whether alone or in combination with other substances or wastes, as shall not cause taste and odor difficulties in water supplies that cannot be corrected by treatment, impair the palatability of fish, or have a deleterious effect upon any best usage established for waters of this class;
- (e) Chlorinated phenolic compounds: not greater than 1.0 ug/l to protect water supplies from taste and odor problems from chlorinated phenols;
- (f) Total hardness: not greater than 100 mg/l as calcium carbonate (CaCO₃ or Ca + Mg);
- (g) Total dissolved solids: not greater than 500 mg/l;
- (h) Toxic and other deleterious substances:
 - (i) Water quality standards (maximum permissible concentrations) to protect human health through water consumption and fish tissue consumption for non-carcinogens in Class WS-II waters:
 - (A) Barium: 1.0 mg/l;
 - (B) Chloride: 250 mg/l;
 - (C) Nickel: 25 ug/l;
 - (D) Nitrate nitrogen: 10 mg/l;

- (E) 2,4-D: 70 ug/l;
- (F) 2,4,5-TP (Silvex): 10 ug/l; and
- (G) Sulfates: 250 mg/l;
- (ii) Water quality standards (maximum permissible concentrations) to protect human health through water consumption and fish tissue consumption for carcinogens in Class WS-II waters:
 - (A) Aldrin: 0.05 ng/l;
 - (B) Arsenic: 10 ug/l;
 - (C) Benzene: 1.19 ug/l;
 - (D) Carbon tetrachloride: 0.254 ug/l;
 - (E) Chlordane: 0.8 ng/l;
 - (F) Chlorinated benzenes: 488 ug/l;
 - (G) DDT: 0.2 ng/l;
 - (H) Dieldrin: 0.05 ng/l;
 - (I) Dioxin: 0.000005 ng/l;
 - (J) Heptachlor: 0.08 ng/l;
 - (K) Hexachlorobutadiene: 0.44 ug/l;
 - (L) Polynuclear aromatic hydrocarbons (total of all PAHs): 2.8 ng/l;
 - (M) Tetrachloroethane (1,1,2,2): 0.17 ug/l;
 - (N) Tetrachloroethylene: 0.7 ug/l;
 - (O) Trichloroethylene: 2.5 ug/l; and
 - (P) Vinyl Chloride: 0.025 ug/l.

*History Note: Authority G.S. 143-214.1; 143-215.3(a)(1);
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