

APPENDIX 1

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SUMMARY OF NORTH CAROLINA'S WATER QUALITY CLASSIFICATIONS AND STANDARDS

PRIMARY CLASSIFICATIONS

BEST USAGE

NUMERIC STANDARDS

STORMWATER CONTROLS

OTHER REQUIREMENTS

Freshwater:

Class C
(standards apply to all freshwaters, unless preempted by more stringent standard for more protective classification)

Secondary recreation (including swimming on an unorganized or infrequent basis); fish and other aquatic life propagation and survival; agriculture and other uses, except for primary recreation, water supply or other food-related uses

See attached Table 1.; WATER QUALITY STANDARDS FOR FRESHWATER CLASSES; standards listed under "Standards For All Freshwaters" column (aquatic life and human health sections) apply to Class C waters, unless preempted by more protective standard.

Stormwater Disposal Rules apply in the 20 coastal counties as described in 15A NCAC 21 .1000

Class B

Primary recreation (swimming on an organized or frequent basis) and all uses specified for Class C (and not water supply or other food-related uses)

Same as for Class C

Same as for Class C

Wastewater treatment reliability requirements (dual train design; backup power capability) may apply to protect swimming uses (15A NCAC 21 .0124)

WS-I

Water Supply
NOTE: Revised water supply classifications and standards effective as of 8/3/92

Water supplies in natural and undeveloped watersheds

See Table 1. under "More Stringent Standards to Support Additional Uses"; WS Classes heading; no point sources except groundwater remediation when no alternative exists

Not applicable since watershed is undeveloped

No landfills, sludge/residual or petroleum contaminated soils application allowed in watershed

WS-II

Water supply

Water supplies in predominantly undeveloped watersheds

See Table 1. under "More Stringent Standards to Support Additional Uses"; WS Classes heading; only general permit wastewater discharges allowed in watershed and groundwater remediation discharges allowed when no alternative exists

Local land management program required as per 15A NCAC 2B .0211(d); 2-acre lots or 6% built-upon area in critical area; 1-acre lots or 12% built-upon area outside of critical area; up to 6% in the critical area and 30% built upon area outside of the critical area allowed with engineered stormwater controls for the 1" storm

Buffers required along perennial waters; no new landfills allowed in the critical area and no new discharging landfills outside of critical area; no new sludge/residual or petroleum contaminated soils application allowed in the critical area; hazardous material and spill/failure containment plan required; spill containment structures required for new industries in the critical area using, storing or manufacturing hazardous materials

WS-III

Water Supply

Water supplies in low to moderately developed watersheds

See Table 1. under "More Stringent Standards to Support Additional Uses"; WS Classes heading; general permits allowed throughout watershed, domestic and non-process industrial outside of the critical area, groundwater remediation discharges allowed when no alternative exists

Local land management program required as per 15A NCAC 2B .0211(e); 1-acre lots or 12% built-upon area in critical area; 1-acre lots or 24% built-upon outside of critical area; up to 30% in critical area and 50% built-upon area outside critical area with engineered stormwater controls for the 1" storm

Buffers required along perennial waters; no new landfills allowed in the critical area and no new discharging landfills outside of the critical area; no new sludge/residual or petroleum contaminated soils application allowed in the critical area; hazardous material and spill/failure containment plan required; spill containment structures required for new industries in the critical area using, storing or manufacturing hazardous materials

SUMMARY OF NORTH CAROLINA'S WATER QUALITY CLASSIFICATIONS AND STANDARDS (continued)

PRIMARY CLASSIFICATIONS

BEST USAGE

NUMERIC STANDARDS

STORMWATER CONTROLS

OTHER REQUIREMENTS

WS-IV
Water Supply

Water supplies in moderately to highly developed watersheds

See Table 1, under "More Stringent Standards to Support Additional Uses"; WS Classes heading; general permits, domestic and industrial discharges allowed throughout water supply; groundwater remediation discharges allowed when no alternative exists

Local land management program required as per 15A NCAC 2B .0211(f); 1/3 acre lots or 24% built-upon area in critical area and protected area; up to 50% in critical area and 70% built-upon area outside critical area with engineered stormwater controls for the 1" storm

Buffers required along perennial waters; no new landfills allowed in the critical area; no new sludge/residual or petroleum contaminated soils application allowed in the critical area; hazardous material and spill/failure containment plan required

WS-V
Water Supply

River segment

No categorical restrictions on development or wastewater dischargers. Instream water quality standards for water supply waters are applicable.

- NOTE:**
- 1 Please refer to 15A NCAC 2B .0101, .0104, .0202, .0211 and .0301 for more specific requirements for surface water supply protection. If the high density development option is utilized, then wet detention basins are required and local governments will assume ultimate responsibility for the operation and maintenance of these engineered stormwater control structures.
 - 2 New industrial process wastewater discharges in the critical area are allowed but must meet additional treatment requirements.
 - 3 Applies to projects requiring an Erosion/Sedimentation Control Plan.
 - 4 1/3 acre or 36% built-upon area is allowed for projects without a curb and gutter street system in the protected area.
 - 5 Critical area is 1/2 mile and draining to water supplies from normal pool elevation of reservoirs, or 1/4 mile and draining to a river intake.
 - 6 Protected area is 5 miles and draining to water supplies from normal pool elevation of reservoirs, or 10 miles upstream of and draining to a river intake.
 - 7 Agricultural activities are subject to provisions of the Food Security Act of 1985 and the Food, Agriculture, Conservation and Trade Act of 1990. In WS-I watersheds and critical areas of WS-II, WS-III and WS-IV areas, agricultural activities must maintain a 10 foot vegetated buffer or equivalent control, and animal operations >100 animal units must use BRPs as determined by the Soil and Water Conservation Commission.
 - 8 Silviculture activities are subject to the provisions of the Forest Practices Guidelines Related to Water Quality (15A NCAC 11 .0101-.0209).
 - 9 The Department of Transportation must use BRPs as described in their document, "Best Management Practices for Protection of Surface Waters".

PRIMARY CLASSIFICATIONS

BEST USAGE

NUMERIC STANDARDS

STORMWATER CONTROLS

OTHER REQUIREMENTS

Saltwater:

Class SC

Saltwaters protected for secondary recreation, aquatic life propagation and survival and other uses as described for Class C

See attached Table 2.; WATER QUALITY STANDARDS FOR SALTWATER CLASSES; standards listed under "Standards for All Tidal Saltwaters" column (aquatic life and human health sections) apply to Class SC waters, unless preempted by more protective standard.

Stormwater Disposal Rules (15A NCAC 2B .1000) apply to all waters in the 20 coastal counties; low density option: 30% built-upon area or 1/3 acre lots, or structural stormwater controls with higher density, as specified

Class SB

Saltwaters protected for primary recreation and all Class SC uses (similar to Class B)

Same as Class SC

Reliability requirements same as for Class B

Class SA

Shellfishing and all Class SC and SB uses

Same as for Class SC, except fecal coliform = 14 colonies per 100 ml of water; all water >200/100000 fecal

Same as for Class SC, except low density option = 24% built-upon area

No domestic discharges and only nonprocess industrial discharges such as seafood processing or vegetable water discharges

SUMMARY OF NORTH CAROLINA'S WATER QUALITY CLASSIFICATIONS AND STANDARDS (continued)

Supplemental Classifications are added to the primary classifications as appropriate (Examples include Class C-NSH, Class SA-ORW, Class B-Trout, etc.) and impose additional requirements.

<u>SUPPLEMENTAL CLASSIFICATIONS</u>	<u>BEST USAGE</u>	<u>NUMERIC STANDARDS</u>	<u>STORMWATER CONTROLS</u>	<u>OTHER REQUIREMENTS</u>
High Quality Waters (HQM) (Categories: (1) waters rated as Excellent by DEM; (2) Primary Nursey Areas; (3) Native or Special Native Trout Waters; (4) Critical Habitat Areas; (5) WS-I and WS-II water supplies; (6) SA waters)	Waters with quality higher than the standards (EPA's Tier II waters; the minimum standards for Class C and SC define Tier I); see Standards and Stream Classifications Rules (15A NCAC 2B .0100) for detailed description (15A NCAC 2B .0101(e)(5))	For new or expanded discharges, advanced treatment requirements are: BOD ₅ = 5 mg/l; NH ₃ -N = 2 mg/l; DO = 6 mg/l	Projects requiring Erosion/Sedimentation Control Plan and are within 1 mile and draining to HQM waters: 1- acre lots or 12½ built-upon area, or higher density with engineered structural controls (wet detention ponds); WS-I, WS-II and 20 coastal counties exempt since stormwater control requirements already apply	Other treatment requirements may apply, dependent upon type of discharge and characteristics of receiving waters (see pp. 1 and 2 of Section .0200 Rules: 15A: NCAC 2B .0201(d) of Antidegradation Policy)
Outstanding Resource Waters (ORW)	Unique and special waters having exceptional water quality and being of exceptional state or national ecological or recreational significance; must meet other certain conditions and have 1 or more of 5 outstanding resource value criteria as described in Rule 2B .0216	Water quality must clearly maintain and protect uses, including outstanding resource values; management strategies must include at a minimum: no new or expanded discharges to freshwater ORWs; some discharges may be allowed in coastal areas	Same as for High Quality Waters for Freshwater ORWs; for Saltwater ORWs, development activities within a 575' buffer must comply with the low density option of Stormwater Disposal Rules (generally, 25% built-upon area around SA waters and 30% around other waters)	Other management strategy components as described in Rule .0216
Trout Waters (Tr)	Protected for natural trout propagation and survival of stocked trout;	More protective standards for cadmium, total residual chlorine, chlorophyll-a, dissolved oxygen, turbidity and toluene to protect these sensitive species (see Table 1. under "Trout" heading)		
Nutrient Sensitive Waters (NSW)	Waters needing additional nutrient management due to their being subject to excessive growth of microscopic or macroscopic vegetation	No increase of nutrients over background levels		Nutrient management strategies developed on a case-by-case basis
Swamp Waters (Sw)	Waters with low velocities and other characteristics different from other waterbodies (generally, low pH, DO, high organic content)	pH as low as 4.3 and DO less than 5 mg/l allowed if due to natural conditions		

TABLE 1. WATER QUALITY STANDARDS FOR FRESHWATER CLASSES

Parameters	Standards For All Freshwater		More Stringent Standards To Support Additional Uses	
	Aquatic Life	Human Health	WS Classes	Trout
Arsenic (ug/l)	50			
Barium (mg/l)			1.0	
Benzene (ug/l)		71.4	1.19	
Beryllium (ng/l)		117	6.8	
Cadmium (ug/l)	2.0			0.4
Carbon tetrachloride (ug/l)		4.42	0.254	
Chloride (mg/l)	230 (AL)		250	
Chlorinated benzenes (ug/l)			488	
Chlorine, total residual (ug/l)	17 (AL)			17
Chlorophyll a, corrected (ug/l)	40 (N)			15 (N)
Chromium, total (ug/l)	50			
Coliform, total (MFTCC/100ml)			50 (N)(2)	
Coliform, fecal (MFTCC/100ml)		200 (N)		
Copper (ug/l)	7 (AL)			
Cyanide (ug/l)	5.0			
Dioxin (ng/l)		0.000014	0.000013	
Dissolved gases	(N)			
Dissolved oxygen (mg/l)	5.0 (Sw)(1)			6.0
Fluoride (mg/l)	1.8			
Hardness, total (mg/l)			100	
Hexachlorobutadiene (ug/l)		49.7	0.445	
Iron (mg/l)	1.0 (AL)			
Lead (ug/l)	25 (N)			
Manganese (ug/l)			200	
MBAS (ug/l)	500			
(Methylene-Blue-Active Substances)				
Mercury (ug/l)	0.012			
Nickel (ug/l)	88		25	
Nitrate nitrogen (mg/l)			10	
Pesticides				
Aldrin (ng/l)	2.0	0.136	0.127	
Chlordane (ng/l)	4.0	0.588	0.575	
DDT (ng/l)	1.0	0.591	0.588	
Demeton (ng/l)	100			
Dieldrin (ng/l)	2.0	0.144	0.135	
Endosulfan (ng/l)	50			
Endrin (ng/l)	2.0			
Guthion (ng/l)	10			
Heptachlor (ng/l)	4.0	0.214	0.208	
Lindane (ng/l)	10			
Methoxychlor (ng/l)	30			
Mirex (ng/l)	1.0			
Parathion (ng/l)	13			
Toxaphene (ng/l)	0.2			
2,4-D (ug/l)			100	
2,4,5-TP (Silvex) (ug/l)			10	
pH (units)	6.0-9.0 (Sw)			
Phenolic compounds (ug/l)		(N)	1.0 (N)	
Polychlorinated biphenyls (ng/l)	1.0	0.079		
Polynuclear aromatic hydrocarbons (ng/l)		31.1 (N)	2.8	
Radioactive substances				
Selenium (ug/l)	5			
Silver (ug/l)	0.06 (AL)			
Solids, total dissolved (mg/l)			500	
Solids, suspended	(N)			
Sulfates (mg/l)			250	
Temperature :	(N)			
Tetrachloroethane (1,1,2,2) (ug/l)		10.8	0.172	
Tetrachloroethylene (ug/l)			0.8	
Toluene (ug/l)	11 (N)			0.36
Toxic Substances	(N)			
Trialkyltin (ug/l)	0.008			
Trichloroethylene (ug/l)		92.4	3.08	
Turbidity (NTU)	50; 25 (N)			10 (N)
Vinyl chloride (ug/l)		525	2	
Zinc (ug/l)	50 (AL)			

Notes: (N) See 2B .0211 (b), (c), (d), or (e) for narrative description of limits.
 (AL) Values represent action levels as specified in .0211 (b)(4).
 (Sw) Designated swamp waters may have a pH as low as 4.3 and dissolved oxygen less than 5.0 mg/l if due to natural conditions.
 (1) An instantaneous reading may be as low as 4.0 ug/l but the daily average must be 5.0 ug/l or more.
 (2) Applies only to unfiltered water supplies.

TABLE 2. WATER QUALITY STANDARD FOR SALTWATER CLASSES

Parameters	Standards For All Tidal Saltwaters		More Stringent Standards To Support Additional Uses
	Aquatic Life	Human Health	Class SA
Arsenic (ug/l)	50		
Benzene (ug/l)		71.4	
Beryllium (ng/l)		117	
Cadmium (ug/l)	5.0		
Carbon tetrachloride (ug/l)		4.42	
Chlorophyll a (ug/l)	40 (N)		
Chromium, total (ug/l)	20		
Coliform, fecal (MFCC/100ml)		200 (N)	14 (N)
Copper (ug/l)	3 (AL)		
Cyanide (ug/l)	1.0		
Dioxin (ng/l)		0.000014	
Dissolved gases	(N)		
Dissolved oxygen (mg/l)	5.0 (1)		
Hexachlorobutadiene (ug/l)		49.7	
Lead (ug/l)	25 (N)		
Mercury (ug/l)	0.025		
Nickel (ug/l)	8.3		
Phenolic compounds		(N)	
Polychlorinated biphenyls (ng/l)	1.0	0.079	
Polynuclear aromatic hydrocarbons (ng/l)		31.1	
Pesticides (ng/l)			
Aldrin	3.0	0.136	
Chlordane	4.0	0.588	
DDT	1.0	0.591	
Demeton	100		
Dieldrin	2.0	0.144	
Endosulfan	9.0		
Endrin	2.0		
Guthion	10		
Heptachlor	4.0	0.214	
Lindane	4.0		
Methoxychlor	30		
Mirex	1.0		
Parathion	178		
Toxaphene	0.2		
pH (units)	6.8-8.5 (1)		
Radioactive substances		(N)	
Salinity	(N)		
Selenium (ug/l)	71		
Silver (ug/l)	0.1 (AL)		
Solids, suspended	(N)		
Temperature	(N)		
Tetrachloroethane (1,1,2,2) (ug/l)		10.8	
Toxic substances	(N)		
Trialkyltin (ug/l)	0.002		
Trichloroethylene (ug/l)		92.4	
Turbidity (NTU)	25 (N)		
Vinyl chloride (ug/l)		525	
Zinc (ug/l)	86 (AL)		

Note: (N) See 28 .0212 (b), (c), or (d) for narrative description of limits.
 (AL) Values represent action levels as specified in .0212(b)(4).
 (1) Designated swamp waters may have a pH as low as 4.3 and dissolved oxygen less than 5.0 mg/l if due to natural conditions.

HIGH QUALITY WATERS

Excerpt from Classifications and Water Quality Standards Applicable to Surface Waters of North Carolina 15 NCAC 2B .0200

.0201 ANTIDegradation Policy

(a) It is the policy of the Environmental Management Commission to maintain, protect, and enhance water quality within the State of North Carolina. Pursuant to this policy, the requirements of 40 CFR 131.12 are hereby incorporated by reference including any subsequent amendments and editions. This material is available for inspection at the Department of Environment, Health, and Natural Resources, Division of Environmental Management, Water Quality Planning Branch, 512 North Salisbury Street, Raleigh, North Carolina. Copies may be obtained from the U.S. Government Printing Office, Superintendent of Documents, Washington, DC 20402-9325 at a cost of thirteen dollars (\$13.00). These requirements will be implemented in North Carolina as set forth in Paragraphs (b), (c) and (d) of this Rule.

(b) Existing uses, as defined by Rule .0202 of this Section, and the water quality to protect such uses shall be protected by properly classifying surface waters and having standards sufficient to protect these uses. In cases where the Commission or its designee determines that an existing use is not included in the classification of waters, a project which will affect these waters will not be permitted unless the existing uses are protected.

(c) The Commission shall consider the present and anticipated usage of waters with quality higher than the standards, including any uses not specified by the assigned classification (such as outstanding national resource waters or waters of exceptional water quality) and will not allow degradation of the quality of waters with quality higher than the standards below the water quality necessary to maintain existing and anticipated uses of those waters. Waters with quality higher than the standards are defined by Rule .0202 of this Section. The following procedures will be implemented in order to meet these requirements:

- (1) Each applicant for an NPDES permit or NPDES permit expansion to discharge treated waste will document an effort to consider non-discharge alternatives pursuant to 15A NCAC 2H .0105(c)(2).
- (2) Public Notices for NPDES permits will list parameters that would be water quality limited and state whether or not the discharge will use the entire available load capacity of the receiving waters and may cause more stringent water quality based effluent limitations to be established for dischargers downstream.
- (3) The Division may require supplemental documentation from the affected local government that a proposed project or parts of the project are necessary for important economic and social development.
- (4) The Commission and Division will work with local governments on a voluntary basis to identify and develop appropriate management strategies or classifications for waters with unused pollutant loading capacity to accommodate future economic growth.

Waters with quality higher than the standards will be identified by the Division on a case-by-case basis through the NPDES permitting and waste load allocation processes (pursuant to the provisions of 15A NCAC 2H .0100). Dischargers affected by the requirements of Paragraphs (c)(1) through (c)(4) of this Rule and the public at large will be notified according to the provisions described herein, and all other appropriate provisions pursuant to 15A NCAC 2H .0109. If an applicant objects to the requirements to protect waters with quality higher than the standards and believes degradation is necessary to accommodate important social and economic development, the applicant can contest these requirements according to the provisions of General Statute 143-215.1(e) and 150B-23.

(d) The Commission shall consider the present and anticipated usage of High Quality Waters (HQW), including any uses not specified by the assigned classification (such as outstanding national resource waters or waters of exceptional water quality) and will not allow degradation of the quality of High Quality Waters below the water quality necessary to maintain existing and anticipated uses of those waters. High Quality Waters are a subset of waters with quality higher than the standards and are as described by 15A NCAC 2B .0101(e)(5). The following procedures will be implemented in order to meet the requirements of this part:

- (1) New or expanded wastewater discharges in High Quality Waters will comply with the following:
 - (A) Discharges from new single family residences will be prohibited. Those that must discharge will install a septic tank, dual or recirculating sand filters, disinfection and step aeration.
 - (B) All new NPDES wastewater discharges (except single family residences) will be required to provide the treatment described below:
 - (i) Oxygen Consuming Wastes: Effluent limitations will be as follows: BOD₅ = 5 mg/l, NH₃-N = 2 mg/l and DO = 6 mg/l. More stringent limitations will be set, if necessary, to ensure that the cumulative pollutant discharge of oxygen-consuming wastes will not cause the DO of the receiving water to drop more than 0.5 mg/l below background levels, and in no case below the standard. Where background information is not readily available, evaluations will assume a percent saturation determined by staff to be generally applicable to that hydroenvironment.

- (ii) **Total Suspended Solids:** Discharges of total suspended solids (TSS) will be limited to effluent concentrations of 10 mg/l for trout waters and PNA's, and to 20 mg/l for all other High Quality Waters.
 - (iii) **Disinfection:** Alternative methods to chlorination will be required for discharges to trout streams, except that single family residences may use chlorination if other options are not economically feasible. Domestic discharges are prohibited to SA waters.
 - (iv) **Emergency Requirements:** Failsafe treatment designs will be employed, including stand-by power capability for entire treatment works, dual train design for all treatment components, or equivalent failsafe treatment designs.
 - (v) **Volume:** The total volume of treated wastewater for all discharges combined will not exceed 50 percent of the total instream flow under 7Q10 conditions.
 - (vi) **Nutrients:** Where nutrient overenrichment is projected to be a concern, appropriate effluent limitations will be set for phosphorus or nitrogen, or both.
 - (vii) **Toxic substances:** In cases where complex wastes (those containing or potentially containing toxicants) may be present in a discharge, a safety factor will be applied to any chemical or whole effluent toxicity allocation. The limit for a specific chemical constituent will be allocated at one-half of the normal standard at design conditions. Whole effluent toxicity will be allocated to protect for chronic toxicity at an effluent concentration equal to twice that which is acceptable under design conditions. In all instances there may be no acute toxicity in an effluent concentration of 90 percent as measured by the North Carolina "Pass/Fail Methodology for Determining Acute Toxicity in a Single Effluent Concentration". Ammonia toxicity will be evaluated according to EPA guidelines promulgated in the Ammonia Criteria Development Document (1986); EPA document number 440/5-85-001; NTIS number PB85-227114; July 29, 1985 (50 FR 30784).
- (C) All expanded NPDES wastewater discharges in High Quality Waters will be required to provide the treatment described in part (1)(B) of this Rule, except for those existing discharges which expand with no increase in permitted pollutant loading.
- (2) Development activities which require an Erosion and Sedimentation Control Plan in accordance with rules established by the NC Sedimentation Control Commission or local erosion and sedimentation control program approved in accordance with 15A NCAC 4B .0218, and which drain to and are within one mile of High Quality Waters (HQW) will be required to control runoff from the one inch design storm as follows:
- (A) **Low Density Option:** Developments which limit single family developments to one acre lots and other type developments to 12 percent built-upon area, have no stormwater collection system as defined in 15A NCAC 2H .1002(13), and have built-upon areas at least 30 feet from surface waters will be deemed to comply with this requirement, unless it is determined that additional runoff control measures are required to protect the water quality of High Quality Waters necessary to maintain existing and anticipated uses of those waters, in which case more stringent stormwater runoff control measures may be required on a case-by-case basis. Activities conforming to the requirements described in 15A NCAC 2H .1003(a) [except for Subparagraphs (2) and (3) which apply only to waters within the 20 coastal counties as defined in 15A NCAC 2H .1002(9)] will also be deemed to comply with this requirement, except as provided in the preceding sentence.
 - (B) **High Density Option:** Higher density developments will be allowed if stormwater control systems utilizing wet detention ponds as described in 15A NCAC 2H .1003(i), (k) and (l) are installed, operated and maintained which control the runoff from all built-upon areas generated from one inch of rainfall, unless it is determined that additional runoff control measures are required to protect the water quality of High Quality Waters necessary to maintain existing and anticipated uses of those waters, in which case more stringent stormwater runoff control measures may be required on a case-by-case basis. The size of the control system must take into account the runoff from any pervious surfaces draining to the system.
 - (C) All waters classified WS-I or WS-II and all waters located in the 20 coastal counties as defined in Rule 15A NCAC 2H .1002(9) are excluded from this requirement since they already have requirements for nonpoint source controls.

If an applicant objects to the requirements to protect high quality waters and believes degradation is necessary to accommodate important social and economic development, the applicant can contest these requirements according to the provisions of G.S. 143-215.1(e) and 150B-23.

(e) Outstanding Resource Waters (ORW) are a special subset of High Quality Waters with unique and special characteristics as described in Rule .0216 of this Section. The water quality of waters classified as ORW shall be maintained such that existing uses, including the outstanding resource values of said Outstanding Resource Waters, will be maintained and protected.

0216 OUTSTANDING RESOURCE WATERS

(a) General. In addition to the existing classifications, the Commission may classify certain unique and special surface waters of the state as outstanding resource waters (ORW) upon finding that such waters are of exceptional state or national recreational or ecological significance and that the waters have exceptional water quality while meeting the following conditions:

- (1) there are no significant impacts from pollution with the water quality rated as excellent based on physical, chemical or biological information;
- (2) the characteristics which make these waters unique and special may not be protected by the assigned narrative and numerical water quality standards.

(b) Outstanding Resource Values. In order to be classified as ORW, a water body must exhibit one or more of the following values or uses to demonstrate it is of exceptional state or national recreational or ecological significance:

- (1) there are outstanding fish (or commercially important aquatic species) habitat and fisheries;
- (2) there is an unusually high level of water-based recreation or the potential for such recreation;
- (3) the waters have already received some special designation such as a North Carolina or National Wild and Scenic River, Native or Special Native Trout Waters, National Wildlife Refuge, etc, which do not provide any water quality protection;
- (4) the waters represent an important component of a state or national park or forest; or
- (5) the waters are of special ecological or scientific significance such as habitat for rare or endangered species or as areas for research and education.

(c) Quality Standards for ORW.

- (1) Freshwater: Water quality conditions shall clearly maintain and protect the outstanding resource values of waters classified ORW. Management strategies to protect resource values will be developed on a site specific basis during the proceedings to classify waters as ORW. At a minimum, no new discharges or expansions of existing discharges will be permitted, and stormwater controls for all new development activities requiring an Erosion and Sedimentation Control Plan in accordance with rules established by the NC Sedimentation Control Commission or an appropriate local erosion and sedimentation control program will be required to control stormwater runoff as follows:

- (A) Low Density Option: Developments which limit single family developments to one acre lots and other type developments to 12 percent built-upon area, have no stormwater collection system as defined in 15A NCAC 2H .1002(13), and have built-upon areas at least 30 feet from surface water areas will be deemed to comply with this requirement, unless it is determined that additional runoff control measures are required to protect the water quality of Outstanding Resource Waters necessary to maintain existing and anticipated uses of those waters, in which case such additional stormwater runoff control measures may be required on a case-by-case basis.
- (B) High Density Development: Higher density developments will be allowed if stormwater control systems utilizing wet detention ponds as described in 15A NCAC 2H .1003(i), (k) and (l) are installed, operated and maintained which control the runoff from all built-upon areas generated from one inch of rainfall, unless it is determined that additional runoff control measures are required to protect the water quality of Outstanding Resource Waters necessary to maintain existing and anticipated uses of those waters, in which case such additional stormwater runoff control measures may be required on a case-by-case basis. The size of the control system must take into account the runoff from any pervious surfaces draining to the system.

- (2) Saltwater: Water quality conditions shall clearly maintain and protect the outstanding resource values of ~~waters classified ORW. Management strategies to protect resource values will be developed on a site specific~~ basis during the proceedings to classify waters as ORW. At a minimum, new development will comply with the low density options as specified in the Stormwater Runoff Disposal rules [15A NCAC 2H .1003(a)(2)] within 575 feet of the mean high water line of the designated ORW area. New non-discharge permits will be required to meet reduced loading rates and increased buffer zones, to be determined on a case-by-case basis. No dredge or fill activities will be allowed where significant shellfish or submerged aquatic vegetation bed resources occur, except for maintenance dredging, such as that required to maintain access to existing channels and facilities located within the designated areas or maintenance dredging for activities such as agriculture. A public hearing is mandatory for any proposed permits to discharge to waters classified as ORW.

Additional actions to protect resource values will be considered on a site specific basis during the proceedings to classify waters as ORW and will be specified in Paragraph (e) of this Rule. These actions may include anything within the powers of the commission. The commission will also consider local actions which have been taken to protect a water body in determining the appropriate state protection options. Descriptions of boundaries of waters classified as ORW are included in Paragraph (e) of this Rule and in the Schedule of Classifications (15A NCAC 2B .0302 through .0317) as specified for the appropriate river basin and will also be described on maps maintained by the Division of Environmental Management.

(d) **Petition Process.** Any person may petition the Commission to classify a surface water of the state as an ORW. The petition shall identify the exceptional resource value to be protected, address how the water body meets the general criteria in Paragraph (a) of this Rule, and the suggested actions to protect the resource values. The Commission may request additional supporting information from the petitioner. The Commission or its designee will initiate public proceedings to classify waters as ORW or will inform the petitioner that the waters do not meet the criteria for ORW with an explanation of the basis for this decision. The petition shall be sent to:

Director
DEHNR/Division of Environmental Management
P.O. Box 29535
Raleigh, North Carolina 27626-0535

The envelope containing the petition shall clearly bear the notation: RULE-MAKING PETITION FOR ORW CLASSIFICATION.

(e) **Listing of Waters Classified ORW with Specific Actions.** Waters classified as ORW with specific actions to protect exceptional resource values are listed as follows:

- (1) Roosevelt Natural Area [White Oak River Basin, Index Nos. 20-36-9.5-(1) and 20-36-9.5-(2)], including all fresh and saline waters within the property boundaries of the natural area will have only new development which complies with the low density option in the stormwater rules as specified in 15A NCAC 2H .1003(a)(2) within 575 feet of the Roosevelt Natural Area (if the development site naturally drains to the Roosevelt Natural Area).
- (2) Chattooga River ORW Area (Little Tennessee River Basin and Savannah River Drainage Area): the following undesignated waterbodies that are tributary to ORW designated segments shall comply with Paragraph (c) of this Rule in order to protect the designated waters as per Rule .0203 of this Section. However, expansions of existing discharges to these segments will be allowed if there is no increase in pollutant loading:
 - (A) North and South Fowler Creeks,
 - (B) Green and Norton Mill Creeks,
 - (C) Cane Creek,
 - (D) Ammons Branch,
 - (E) Glade Creek, and
 - (F) Associated tributaries.
- (3) Henry Fork ORW Area (Catawba River Basin): the following undesignated waterbodies that are tributary to ORW designated segments shall comply with Paragraph (c) of this Rule in order to protect the designated waters as per Rule .0203 of this Section:
 - (A) Ivy Creek,
 - (B) Rock Creek, and
 - (C) Associated tributaries.
- (4) South Fork New and New Rivers ORW Area [New River Basin (Index Nos. 10-1-33.5 and 10)]: the following management strategies, in addition to the discharge requirements specified in Rule .0216(c)(1), will be applied to protect the designated ORW areas:
 - (A) Stormwater controls described in Rule .0216(c)(1) will apply within one mile and draining to the designated ORW areas;
 - (B) New or expanded NPDES permitted wastewater discharges located upstream of the designated ORW will be permitted such that the following water quality standards are maintained in the ORW segment:
 - (i) the total volume of treated wastewater for all upstream discharges combined will not exceed 50 percent of the total instream flow in the designated ORW under 7Q10 conditions;
 - (ii) a safety factor will be applied to any chemical allocation such that the effluent limitation for a specific chemical constituent will be the more stringent of either the limitation allocated under design conditions (pursuant to 15A NCAC 2B .0206) for the normal standard at the point of discharge, or the limitation allocated under design conditions for one-half the normal standard at the upstream border of the ORW segment;
 - (iii) a safety factor will be applied to any discharge of complex wastewater (those containing or potentially containing toxicants) to protect for chronic toxicity in the ORW segment by setting the whole effluent toxicity limitation at the higher (more stringent) percentage effluent determined under design conditions (pursuant to 15A NCAC 2B .0206) for either the instream effluent concentration at the point of discharge or twice the effluent concentration calculated as if the discharge were at the upstream border of the ORW segment;
 - (C) New or expanded NPDES permitted wastewater discharges located upstream of the designated ORW will comply with the following:

- (i) **Oxygen Consuming Wastes:** Effluent limitations will be as follows: BOD = 5 mg/1, and NH₃-N = 2 mg/1;
 - (ii) **Total Suspended Solids:** Discharges of total suspended solids (TSS) will be limited to effluent concentrations of 10 mg/1 for trout waters and to 20 mg/1 for all other waters;
 - (iii) **Emergency Requirements:** Failsafe treatment designs will be employed, including stand-by power capability for entire treatment works, dual train design for all treatment components, or equivalent failsafe treatment designs;
 - (iv) **Nutrients:** Where nutrient over-enrichment is projected to be a concern, appropriate effluent limitations will be set for phosphorus or nitrogen, or both.
- (5) **Old Field Creek (New River Basin):** the undesignated portion of Old Field Creek (from its source to Call Creek) shall comply with Rule .0216(c) of this Section in order to protect the designated waters as per Rule .0203 of this Section.