

SECTION .0900 – RECLAIMED WATER SYSTEMS**15A NCAC 02T .0901 SCOPE**

The rules in this Section apply to reclaimed water systems; the utilization of tertiary treated wastewater effluent, meeting the standards in Rule .0906 of this Section, used in a beneficial manner and for the purpose of conservation of the states water resources by reducing the use of a water resource (potable water, surface water, groundwater). The disposal of treated wastewater effluent that does not serve in place of the use of a water resource shall be covered by Section .0500 of this Subchapter. Requirements for closed-loop recycle systems are provided in Section .1000 of this Subchapter.

History Note: Authority G.S. 143-215.1; 143-215.3(a);
Eff. September 1, 2006.

15A NCAC 02T .0902 DEFINITIONS

As used in this Section:

"Conjunctive system" means a system where the reclaimed water option is not necessary to meet the wastewater disposal needs of the facility and where other wastewater utilization or disposal methods (e.g., NPDES permit) are available to the facility at all times.

History Note: Authority G.S. 143-215.1; 143-215.3(a);
Eff. September 1, 2006.

15A NCAC 02T .0903 PERMITTING BY REGULATION

(a) The following systems are deemed permitted pursuant to Rule .0113 of this Subchapter provided the system meets the criteria in Rule .0113 of this Subchapter and all criteria required for the specific system in this Rule:

- (1) Overflow from elevated reclaimed water storage facilities where no viable alternative exists and all possible measures are taken to reduce the risk of overflow.
- (2) Any de minimus runoff from reclaimed water used during fire fighting or extinguishing, dust control, soil compaction for construction purposes, street sweeping, overspray on yard inlets, overspray on golf cart paths, or vehicle washing provided the use is approved in a permit issued by the Division.
- (3) Rehabilitation, repair, or replacement of reclaimed water lines in kind (i.e., size) with the same horizontal and vertical alignment.

(b) The Director may determine that a system should not be deemed permitted in accordance with this Rule and Rule .0113 of this Subchapter. This determination shall be made in accordance with Rule .0113(e) of this Subchapter.

History Note: Authority G.S. 143-215.1; 143-215.3(a);
Eff. September 1, 2006.

15A NCAC 02T .0904 APPLICATION SUBMITTAL – CONJUNCTIVE SYSTEMS

(a) The requirements in this Rule apply to all new and expanding conjunctive facilities, as applicable.

(b) A soil evaluation of the utilization site where the reclaimed water is applied to the land surface or otherwise used in a ground absorption manner shall be provided to the Division by the applicant. Recommendations shall include loading rates of liquids, solids, and other constituents. For systems that utilize reclaimed water through irrigation, the evaluation shall also include recommended maximum irrigation precipitation rates. If required by G.S. 89F, a soil scientist shall prepare this evaluation.

[Note: The North Carolina Board for Licensing of Soil Scientists has determined, via letter dated December 1, 2005, that preparation of soils reports pursuant to this Paragraph constitutes practicing soil science under G.S. 89F.]

(c) Engineering design documents. If required by G.S. 89C, a professional engineer shall prepare these documents. The following documents shall be provided to the Division by the applicant:

[Note: The North Carolina Board of Examiners for Engineers and Surveyors has determined, via letter dated December 1, 2005, that preparation of engineering design documents pursuant to this Paragraph constitutes practicing engineering under G.S. 89C.]

- (1) engineering plans for the entire system, including treatment, storage, application, and disposal facilities and equipment except those previously permitted unless those previously permitted are directly tied into the new units or are critical to the understanding of the complete process;
- (2) specifications describing materials to be used, methods of construction, and means for ensuring quality and integrity of the finished product including leakage testing; and

- (3) engineering calculations including hydraulic and pollutant loading for each treatment unit, treatment unit sizing criteria, hydraulic profile of the treatment system, total dynamic head and system curve analysis for each pump, buoyancy calculations, and irrigation design.
- (d) Site plans. If required by G.S. 89C, a professional land surveyor shall provide location information on boundaries and physical features not under the purview of other licensed professions. Site plans or maps shall be provided for treatment and storage facilities and where the reclaimed water is applied to the land surface or otherwise used in a ground absorption manner showing the location, orientation and relationship of facility components including:
- [Note: The North Carolina Board of Examiners for Engineers and Surveyors has determined, via letter dated December 1, 2005, that locating boundaries and physical features, not under the purview of other licensed professions, on maps pursuant to this Paragraph constitutes practicing surveying under G.S. 89C.]
- (1) a scaled map of the site showing all facility-related structures and fences within the treatment, storage, and utilization areas;
- (2) for land application sites and other ground absorption uses, the site map shall include topography; and
- (3) to the extent needed to determine compliance with setbacks, the location of all wells (including usage and construction details if available), streams (ephemeral, intermittent, and perennial), springs, lakes, ponds, and other surface drainage features on all waste treatment, storage, and utilization site(s) and any other feature included in the Rule .0912.
- (e) Property Ownership Documentation shall be provided to the Division consisting of:
- (1) legal documentation of ownership (e.g., contract, deed or article of incorporation);
- (2) written notarized intent to purchase agreement signed by both parties, accompanied by a plat or survey map; or
- (3) written notarized lease agreement signed by both parties, specifically indicating the intended use of the property, as well as a plat or survey map. The lease agreements shall adhere to the requirements of 15A NCAC 02L .0107. Where a lease is not required, a compliance boundary for the site shall not be established.
- (f) Public utilities shall submit a Certificate of Public Conveyance and Necessity or a letter from the NC Utilities Commission to the Division stating that a franchise application has been received.
- (g) A complete chemical analysis of the typical reclaimed water to be utilized shall be provided to the Division for industrial waste. The analysis may include Total Organic Carbon, 5-day Biochemical Oxygen Demand (BOD₅), Chemical Oxygen Demand (COD), Nitrate Nitrogen (NO₃-N), Ammonia Nitrogen (NH₃-N), Total Kjeldahl Nitrogen (TKN), pH, Chloride, Total Phosphorus, Phenol, Total Volatile Organic Compounds, Fecal Coliform, Calcium, Sodium, Magnesium, Sodium Adsorption Ratio (SAR), Total Trihalomethanes, Toxicity Test Parameters and Total Dissolved Solids.
- (h) A project evaluation and a receiver site agronomic management plan (if applicable) and recommendations concerning cover crops and their ability to accept the proposed application rates of liquid, solids, minerals and other constituents of the wastewater shall be provided to the Division.

History Note: Authority G.S. 143-215.1; 143-215.3(a);
Eff. September 1, 2006.

15A NCAC 02T .0905 APPLICATION SUBMITTAL – NON-CONJUNCTIVE SYSTEMS

- (a) The requirements in this Rule apply to all new and expanding non-conjunctive facilities, as applicable.
- (b) Soils Report. A soil evaluation of the disposal site shall be provided to the Division. This evaluation shall be presented in a report that includes the following. If required by G.S. 89F, a soil scientist shall prepare this evaluation: [Note: The North Carolina Board for Licensing of Soil Scientists has determined, via letter dated December 1, 2005, that preparation of soils reports pursuant to this Paragraph constitutes practicing soil science under G.S. 89F.]
- (1) Field description of soil profile, based on examinations of excavation pits and auger borings, within seven feet of land surface or to bedrock describing the following parameters by individual diagnostic horizons:
- (A) thickness of the horizon;
- (B) texture;
- (C) color and other diagnostic features;
- (D) structure;
- (E) internal drainage;
- (F) depth, thickness, and type of restrictive horizon(s); and
- (G) presence or absence and depth of evidence of any seasonal high water table (SHWT).
- Applicants shall dig pits when necessary for proper evaluation of the soils at the site.

- (2) Recommendations concerning loading rates of liquids, solids, other wastewater constituents and amendments. Annual hydraulic loading rates shall be based on in-situ measurement of saturated hydraulic conductivity in the most restrictive horizon for each soil mapping unit. Maximum irrigation precipitation rates shall be provided for each soil mapping unit.
- (3) A soil map delineating soil mapping units within each land application site and showing all physical features, location of pits and auger borings, legends, scale, and a north arrow.
- (4) A representative soils analysis (i.e., Standard Soil Fertility Analysis) conducted on each land application site. The Standard Soil Fertility Analysis shall include the following parameters:
 - (A) acidity,
 - (B) base saturation (by calculation),
 - (C) calcium,
 - (D) cation exchange capacity,
 - (E) copper,
 - (F) exchangeable sodium percentage (by calculation),
 - (G) magnesium,
 - (H) manganese,
 - (I) percent humic matter,
 - (J) pH,
 - (K) phosphorus,
 - (L) potassium,
 - (M) sodium, and
 - (N) zinc.

(c) Engineering design documents. If required by G.S. 89C, a professional engineer shall prepare these documents. The following documents shall be provided to the Division:

[Note: The North Carolina Board of Examiners for Engineers and Surveyors has determined, via letter dated December 1, 2005, that preparation of engineering design documents pursuant to this Paragraph constitutes practicing engineering under G.S. 89C.]

- (1) engineering plans for the entire system, including treatment, storage, application, and disposal facilities and equipment except those previously permitted unless those previously permitted are directly tied into the new units or are critical to the understanding of the complete process;
- (2) specifications describing materials to be used, methods of construction, and means for ensuring quality and integrity of the finished product including leakage testing; and
- (3) engineering calculations including, hydraulic and pollutant loading for each treatment unit, treatment unit sizing criteria, hydraulic profile of the treatment system, total dynamic head and system curve analysis for each pump, buoyancy calculations, and irrigation design.

(d) Site plans. If required by G.S. 89C, a professional land surveyor shall provide location information on boundaries and physical features not under the purview of other licensed professions. Site plans or maps shall be provided to the Division where the reclaimed water is applied to the land surface or otherwise used in a ground absorption manner depicting the location, orientation and relationship of facility components including:

[Note: The North Carolina Board of Examiners for Engineers and Surveyors has determined, via letter dated December 1, 2005, that locating boundaries and physical features, not under the purview of other licensed professions, on maps pursuant to this Paragraph constitutes practicing surveying under G.S. 89C.]

- (1) a scaled map of the site, with topographic contour intervals not exceeding 10 feet or 25 percent of total site relief and showing all facility-related structures and fences within the treatment, storage and utilization areas, soil mapping units shown on all utilization sites;
- (2) the location of all wells (including usage and construction details if available), streams (ephemeral, intermittent, and perennial), springs, lakes, ponds, and other surface drainage features within 500 feet of all waste treatment, storage, and utilization site(s) and delineation of the review and compliance boundaries;
- (3) setbacks as required by Rule .0912 of this Section; and
- (4) site property boundaries within 500 feet of all waste treatment, storage, and utilization site(s).

(e) A hydrogeologic description prepared by a Licensed Geologist, License Soil Scientist, or Professional Engineer if required by Chapters 89E, 89F, or 89C respectively of the subsurface to a depth of 20 feet or bedrock, whichever is less, shall be provided to the Division for systems treating industrial waste and any system with a design flow of over 25,000 gallons per day. A greater depth of investigation is required if the respective depth is used in predictive calculations. This evaluation shall be based on borings for which the numbers, locations, and depths are sufficient to define the components of the hydrogeologic evaluation. In addition to borings, other techniques may be used to investigate the

subsurface conditions at the site. These techniques may include geophysical well logs, surface geophysical surveys, and tracer studies. This evaluation shall be presented in a report that includes the following components:

[Note: The North Carolina Board for Licensing of Geologists, via letter dated April 6, 2006, North Carolina Board for Licensing of Soil Scientists, via letter dated December 1, 2005, and North Carolina Board of Examiners for Engineers and Surveyors, via letter dated December 1, 2005, have determined that preparation of hydrogeologic description documents pursuant to this Paragraph constitutes practicing geology under G.S. 89E, soil science under G.S. 89F, or engineering under G.S. 89C.]

- (1) a description of the regional and local geology and hydrogeology based on research of available literature for the area;
 - (2) a description, based on field observations of the site, of the site topographic setting, streams, springs and other groundwater discharge features, drainage features, existing and abandoned wells, rock outcrops, and other features that may affect the movement of the contaminant plume and treated wastewater;
 - (3) changes in lithology underlying the site;
 - (4) depth to bedrock and occurrence of any rock outcrops;
 - (5) the hydraulic conductivity and transmissivity of the affected aquifer(s);
 - (6) depth to the seasonal high water table;
 - (7) a discussion of the relationship between the affected aquifers of the site to local and regional geologic and hydrogeologic features;
 - (8) a discussion of the groundwater flow regime of the site prior to operation of the proposed facility and post operation of the proposed facility focusing on the relationship of the system to groundwater receptors, groundwater discharge features, and groundwater flow media; and
 - (9) if the SHWT is within 6 feet of the surface, a mounding analysis to predict the level of the SHWT after wastewater application.
- (f) Property Ownership Documentation shall be provided to the Division consisting of:
- (1) legal documentation of ownership (i.e., contract, deed or article of incorporation);
 - (2) written notarized intent to purchase agreement signed by both parties, accompanied by a plat or survey map; or
 - (3) written notarized lease agreement signed by both parties, specifically indicating the intended use of the property, as well as a plat or survey map. Lease agreements shall adhere to the requirements of 15A NCAC 02L .0107. Where a lease is not required, a compliance boundary for the site will shall not be established by the Division.
- (g) Public utilities shall submit a Certificate of Public Conveyance and Necessity or a letter from the NC Utilities Commission stating that a franchise application has been received.
- (h) A complete chemical analysis of the typical reclaimed water to be utilized shall be provided to the Division for industrial waste. The analysis may include Total Organic Carbon, 5-day Biochemical Oxygen Demand (BOD₅), Chemical Oxygen Demand (COD), Nitrate Nitrogen (NO₃-N), Ammonia Nitrogen (NH₃-N), Total Kjeldahl Nitrogen (TKN), pH, Chloride, Total Phosphorus, Phenol, Total Volatile Organic Compounds, Fecal Coliform, Calcium, Sodium, Magnesium, Sodium Adsorption Ratio (SAR), Total Trihalomethanes, Toxicity Test Parameters and Total Dissolved Solids.
- (i) A project evaluation and a receiver site agronomic management plan (if applicable) and recommendations concerning cover crops and their ability to accept the proposed application rates of liquid, solids, minerals and other constituents of the wastewater shall be provided to the Division.
- (j) A residuals management plan as required by Rule .0914 of this Section shall be provided to the Division. A written commitment is not required at the time of application; however, it must be provided prior to operation of the permitted system.
- (k) A water balance shall be provided to the Division that determines required storage based upon the most limiting factor of the hydraulic loading based on either the most restrictive horizon or groundwater mounding analysis; or nutrient management based on either agronomic rates for a specified cover crop or crop management requirements.

History Note: Authority G.S. 143-215.1; 143-215.3(a);
Eff. September 1, 2006.

15A NCAC 02T .0906 RECLAIMED WATER EFFLUENT STANDARDS

(a) The reclaimed water treatment process shall be documented to produce a tertiary quality effluent (filtered or equivalent) prior to storage, distribution, or irrigation that meets the parameter limits listed below:

- (1) monthly average BOD₅ of less than or equal to 10 mg/l and a daily maximum BOD₅ of less than or equal to 15 mg/l;
 - (2) monthly average TSS of less than or equal to 5 mg/l and a daily maximum TSS of less than or equal to 10 mg/l;
 - (3) monthly average NH₃ of less than or equal to 4 mg/l and a daily maximum NH₃ of less than or equal to 6 mg/l;
 - (4) monthly geometric mean fecal coliform level of less than or equal to 14/100 ml and a daily maximum fecal coliform of less than or equal to 25/100 ml; and
 - (5) maximum turbidity of 10 NTUs.
- (b) Reclaimed water produced by industrial facilities shall not be required to meet the above criteria if the reclaimed water is used in the industry's process and the area of use has no public access.

History Note: Authority G.S. 143-215.1; 143-215.3(a);
Eff. September 1, 2006.

15A NCAC 02T .0907 DESIGN CRITERIA FOR WASTEWATER TREATMENT FACILITIES – CONJUNCTIVE SYSTEMS

- (a) The requirements in this Rule apply to all new and expanding conjunctive facilities, as applicable.
- (b) Continuous on-line monitoring and recording for turbidity or particle count and flow shall be provided prior to storage, distribution or irrigation.
- (c) Effluent from the treatment facility shall not be discharged to the storage, distribution or irrigation system if either the turbidity exceeds 10 NTU or if the permitted fecal coliform levels cannot be met. The facility must have the ability to utilize alternate wastewater management options when the effluent quality is not sufficient.
- (d) An automatically activated standby power source or other means to prevent improperly treated wastewater from entering the storage, distribution or irrigation system shall be provided.
- (e) There shall be a certified operator of a grade equivalent or greater than the facility classification on call 24 hours/day.
- (f) No storage facilities are required as long as it can be demonstrated that other permitted means of disposal are available if the reclaimed water cannot be completely utilized.
- (g) Irrigation system design shall not exceed the recommended precipitation rates in the soils report prepared pursuant to Rule .0904 of this Section.

History Note: Authority G.S. 143-215.1; 143-215.3(a);
Eff. September 1, 2006.

15A NCAC 02T .0908 DESIGN CRITERIA FOR WASTEWATER TREATMENT FACILITIES – NON-CONJUNCTIVE SYSTEMS

- (a) The requirements in this Rule apply to all new and expanding non-conjunctive facilities, as applicable.
- (b) Aerated flow equalization facilities shall be provided with a capacity based upon either a representative diurnal hydrograph or at least 25 percent of the daily system design flow.
- (c) Dual facilities shall be provided for all essential treatment units.
- (d) Continuous on-line monitoring and recording for turbidity or particle count and flow shall be provided prior to storage, distribution, or irrigation.
- (e) Effluent from the treatment facility shall be discharged to a five-day side-stream detention pond if either the turbidity exceeds 10 NTU or if the permitted fecal coliform levels cannot be met. The facility must have the ability to return the effluent in the five-day side-stream detention pond back to the head of the treatment facility.
- (f) There must be no public access to the wastewater treatment facility or the five-day side-stream detention pond. The five day side-stream detention pond shall have either a liner of natural material at least one foot in thickness and having a hydraulic conductivity of no greater than 1×10^{-6} centimeters per second when compacted, or a synthetic liner of sufficient thickness to exhibit structural integrity and an effective hydraulic conductivity no greater than that required of the natural material liner. Liner requirements of the five day side-stream detention pond or separation distances between the bottom of the five day side-stream detention pond and the groundwater table may be reduced if it can be demonstrated by predictive calculations or modeling methods acceptable to the Director, that construction and use of the five day side-stream detention pond will not result in contravention of assigned groundwater standards at the compliance boundary.
- (g) The storage basin shall have either a liner of natural material at least one foot in thickness and having a hydraulic conductivity of no greater than 1×10^{-6} centimeters per second when compacted, or a synthetic liner of sufficient thickness to exhibit structural integrity and an effective hydraulic conductivity no greater than that required of the natural material liner. Liner requirements of the storage basin or separation distances between the bottom of storage basin and

the groundwater table may be reduced if it can be demonstrated by predictive calculations or modeling methods acceptable to the Director, that construction and use of the storage basin will not result in contravention of assigned groundwater standards at the compliance boundary.

(h) Automatically activated standby power supply onsite, capable of powering all essential treatment units under design conditions shall be provided.

(i) There shall be a certified operator of a grade equivalent or greater than the facility classification on call 24 hours/day.

(j) By-pass and overflow lines shall be prohibited.

(k) Multiple pumps shall be provided if pumps are used.

(l) A water-tight seal on all treatment/storage units or minimum of two feet protection from 100-year flood shall be provided.

(m) Irrigation system design shall not exceed the recommended precipitation rates in the soils report prepared pursuant to Rule .0905 of this Section.

(n) A minimum of 30 days of residual storage shall be provided.

(o) Disposal areas shall be designed to maintain a one-foot vertical separation between the seasonal high water table and the ground surface.

(p) Influent pump stations shall meet the sewer minimum design criteria as provided in Section .0300 of this Subchapter.

*History Note: Authority G.S. 143-215.1; 143-215.3(a);
Eff. September 1, 2006.*

15A NCAC 02T .0909 DESIGN CRITERIA FOR DISTRIBUTION LINES

(a) The requirements in this Rule apply to all new distribution lines.

(b) All reclaimed water valves, storage facilities and outlets shall be tagged or labeled to warn the public or employees that the water is not intended for drinking.

(c) All reclaimed water piping, valves, outlets and other appurtenances shall be color-coded, taped, or otherwise marked to identify the source of the water as being reclaimed water as follows:

(1) All reclaimed water piping and appurtenances shall be either colored purple (Pantone 522) and embossed or integrally stamped or marked "CAUTION: RECLAIMED WATER - DO NOT DRINK" or be installed with a purple (Pantone 522) identification tape or polyethylene vinyl wrap. The warning shall be stamped on opposite sides of the pipe and repeated every 3 feet or less.

(2) Identification tape shall be at least 3 inches wide and have white or black lettering on purple (Pantone 522) field stating "CAUTION: RECLAIMED WATER - DO NOT DRINK". Identification tape shall be installed on top of reclaimed water pipelines, fastened at least every 10 feet to each pipe length and run continuously the entire length of the pipe.

(3) Existing underground distribution systems retrofitted for the purpose of utilizing reclaimed water shall be taped or otherwise identified as in Subparagraphs (1) or (2) of this Paragraph. This identification need not extend the entire length of the distribution system but shall be incorporated within 10 feet of crossing any potable water supply line or sanitary sewer line.

(d) All reclaimed water valves and outlets shall be of a type, or secured in a manner, that permits operation by authorized personnel only.

(e) Hose bibs shall be located in locked, below grade vaults that shall be labeled as being of nonpotable quality. As an alternative to the use of locked vaults with standard hose bib services, hose bibs which can only be operated by a tool may be placed above ground and labeled as nonpotable water.

(f) Cross-Connection Control

(1) There shall be no direct cross-connections between the reclaimed water and potable water systems.

(2) Where both reclaimed water and potable water are supplied to a reclaimed water use area, a reduced pressure principle backflow prevention device or an approved air gap separation pursuant to 15A NCAC 18C shall be installed at the potable water service connection to the use area. The installation of the reduced pressure principal backflow prevention device shall allow proper testing.

(3) Where potable water is used to supplement a reclaimed water system, there shall be an air gap separation, approved and regularly inspected by the potable water supplier, between the potable water and reclaimed water systems.

(g) Irrigation system piping shall be considered part of the distribution system for the purposes of this Rule.

(h) Reclaimed water distribution lines shall be located 10 feet horizontally from and 18 inches below any water line where practicable. Where these separation distances can not be met, the piping and integrity testing procedures shall meet water main standards in accordance with 15A NCAC 18C.

- (i) Reclaimed water distribution lines shall not be less than 100 feet from a well unless the piping and integrity testing procedures meet water main standards in accordance with 15A NCAC 18C, but no case shall they be less than 25 feet from a private well or 50 feet from a public well.
- (j) Reclaimed water distribution lines shall meet the separation distances to sewer lines in accordance with Rule .0305 of this Subchapter.

History Note: Authority G.S. 143-215.1; 143-215.3(a);
Eff. September 1, 2006.

15A NCAC 02T .0910 RECLAIMED WATER UTILIZATION

(a) Reclaimed water for land application to areas intended to be accessible to the public such as residential lawns, golf courses, cemeteries, parks, school grounds, industrial or commercial site grounds, landscape areas, highway medians, roadways and other similar areas shall meet the following criteria:

- (1) Notification shall be provided by the permittee or its representative to inform the public of the use of reclaimed water (Non Potable Water) and that the reclaimed water is not intended for drinking.
- (2) The generator of the reclaimed water shall develop and maintain a program of record keeping for distribution of reclaimed water.
- (3) The generator of the reclaimed water shall develop and maintain a program of education and approval for all use of reclaimed wastewater on property not owned by the generator.
- (4) The generator of the reclaimed water shall develop and maintain a program of routine review and inspection of all use of reclaimed water not on property owned by the generator.
- (5) The compliance boundary and the review boundary for groundwater shall be established at the irrigation area boundaries. No deed restrictions or easements shall be required to be filed on adjacent properties. Land application of effluents must be on property controlled by the generator unless a contractual agreement is provided in accordance with 15A NCAC 02L .0107 except in cases where a compliance boundary is not established.

(b) Reclaimed water used for purposes such as industrial process water or cooling water, aesthetic purposes such as decorative ponds or fountains, fire fighting or extinguishing, dust control, soil compaction for construction purposes, street sweeping (not street washing), and individual vehicle washing for personal purposes shall meet the criteria below:

- (1) Notification shall be provided by the permittee or its representative to inform the public or employees of the use of reclaimed water (Non Potable Water) and that the reclaimed water is not intended for drinking.
- (2) Use of reclaimed water in decorative ponds or fountains shall require regular inspection by the Permittee to ensure permanent signs/notification and to ensure no discharge occurs from the fountains/ponds.
- (3) Use of reclaimed water for vehicle washing shall be conducted in a manner to ensure minimal surface runoff and the Permittee shall provide educational information to the users of reclaimed water for vehicle washing.
- (4) The generator of the reclaimed water shall develop and maintain a program of education and approval for all reclaimed water users.
- (5) The generator of the reclaimed water shall develop and maintain a program of record keeping for distribution of reclaimed water.
- (6) The generator of the reclaimed water shall develop and maintain a program of routine review and inspection of reclaimed water users.

(c) Reclaimed water used for urinal and toilet flushing or fire protection in sprinkler systems located in commercial or industrial facilities shall be approved by the Director if the applicant can demonstrate to the Division that public health and the environment will be protected.

(d) Reclaimed water shall not be used for irrigation of direct food chain crops.

(e) Reclaimed water shall not be used for swimming pools, hot-tubs, spas or similar uses.

(f) Reclaimed water shall not be used for direct reuse as a raw potable water supply.

History Note: Authority G.S. 143-215.1; 143-215.3(a);
Eff. September 1, 2006.

15A NCAC 02T .0911 BULK DISTRIBUTION OF RECLAIMED WATER

(a) Tank trucks and other equipment used to distribute reclaimed water shall be identified with advisory signs.

- (b) Tank trucks used to transport reclaimed water shall not be used to transport potable water that is used for drinking or other potable purposes.
- (c) Tank trucks used to transport reclaimed water shall not be filled through on-board piping or removable hoses that may subsequently be used to fill tanks with water from a potable water supply.
- (d) The generator of the reclaimed water shall develop and maintain a program of education and approval for all reclaimed water users.
- (e) The generator of the reclaimed water shall develop and maintain a program of record keeping for bulk distribution of reclaimed water.
- (f) The generator of the reclaimed water shall develop and maintain a program of routine review and inspection of reclaimed water users.

*History Note: Authority G.S. 143-215.1; 143-215.3(a);
Eff. September 1, 2006.*

15A NCAC 02T .0912 SETBACKS

(a) Treatment and storage facilities associated with systems permitted under this Section shall adhere to the setback requirements in Section .0500 of this Subchapter except as provided in this Rule.

(b) The setbacks for Irrigation and utilization areas shall be as follows:

	feet
Surface waters (streams – intermittent and perennial, perennial waterbodies, and wetlands) not classified SA	25
Surface waters (streams – intermittent and perennial, perennial waterbodies, and wetlands) classified SA	100
Any well with exception to monitoring wells	100

(c) No setback between the application area and property lines shall be required.

*History Note: Authority G.S. 143-215.1; 143-215.3(a);
Eff. September 1, 2006.*

15A NCAC 02T .0913 OPERATION AND MAINTENANCE PLAN

An Operation and Maintenance Plan shall be maintained by the permittee for all reclaimed water systems. The plan shall:

- (1) describe the operation of the system in sufficient detail to show what operations are necessary for the system to function and by whom the functions are to be conducted;
- (2) provide a map of all distribution lines and record drawings of all irrigation systems under the permittee's control;
- (3) describe anticipated maintenance of the system;
- (4) include provisions for safety measures including restriction of access to the site and equipment, as appropriate; and
- (5) include spill control provisions including:
 - (a) response to upsets and bypasses including control, containment, and remediation; and
 - (b) contact information for plant personnel, emergency responders, and regulatory agencies.

*History Note: Authority G.S. 143-215.1; 143-215.3(a);
Eff. September 1, 2006.*

15A NCAC 02T .0914 RESIDUALS MANAGEMENT PLAN

A Residuals Management Plan shall be maintained for all reclaimed water systems that generate residuals. The plan must include the following:

- (1) a detailed explanation as to how the residuals will be collected, handled, processed, stored and disposed;
- (2) an evaluation of the residuals storage requirements for the treatment facility based upon the maximum anticipated residuals production rate and ability to remove residuals;
- (3) a permit for residuals utilization, a written commitment to the Permittee of a Division approved residuals disposal/utilization program accepting the residuals which demonstrates that the program has adequate capacity to accept the residuals, or that an application for approval has been submitted; and
- (4) if oil, grease, grit, or screenings removal and collection is a designed unit process, a detailed explanation as to how the oil/grease will be collected, handled, processed, stored and disposed.

*History Note: Authority G.S. 143-215.1; 143-215.3(a);
Eff. September 1, 2006.*

15A NCAC 02T .0915 LOCAL PROGRAM APPROVAL

(a) Municipalities, counties, local boards or commissions, water and sewer authorities, or groups of municipalities and counties may apply to the Division for approval of programs for permitting construction, modification, and operation of reclaimed water distribution lines and permitting users under their authority. Construction of and modifications to treatment works, including pump stations for reclaimed water distribution, require Division approval. Permits issued by approved local programs serve in place of permits issued by the Division.

(b) Applications. Applications for approval of local programs must provide adequate information to assure compliance with the requirements of this Subchapter and the following:

- (1) The program application shall include two copies of the permit application forms, intended permits including types of uses, minimum design criteria (specifications), flow chart of permitting, inspection and certification procedures, and other relevant documents to be used in administering the local program.
- (2) Certification that the local authority has procedures in place for processing permit applications, setting permit requirements, enforcement, and penalties that are compatible with those for permits issued by the Division.
- (3) Any future amendments to the requirements of this Subchapter shall be incorporated into the local program within 60 days of the effective date of the amendments.
- (4) A North Carolina registered Professional Engineer shall be on the staff of the local program or retained as a consultant to review unusual situations or designs and to answer questions that arise in the review of proposed projects. The local program shall also provide staff or retain a consultant to review all other non-engineering related program areas.
- (5) Each project permitted by the local program shall be inspected for compliance with the requirements of the local program at least once during construction.

(c) Approval of Local Programs. The staff of the Division shall acknowledge receipt of an application for a local program in writing, review the application, notify the applicant of additional information that may be required, and make a recommendation to the Commission on the acceptability of the proposed local program.

(d) All permitting actions, bypasses from distribution lines, enforcement actions, and monitoring of the distribution system shall be summarized and submitted to the Division on a quarterly basis on forms provided by the Division. The report shall also provide a listing and summary of all enforcement actions taken or pending during the quarter. The quarters begin on January 1, April 1, July 1 and October 1. The report shall be submitted within 30 days after the end of each quarter.

(e) A copy of all program documents such as specifications, permit applications, permit shells and shell certification forms shall be submitted to the Division on an annual basis along with a summary of any other program changes. Program changes to note include staffing, processing fees, and ordinance revisions.

(f) Modification of a Local Program. After a local program has been approved by the Commission, any modification of the program procedures or requirements specified in this Rule must be approved by the Director to assure that the procedures and requirements remain at least as stringent as the state-wide requirements in this Subchapter.

(g) Appeal of Local Decisions. Appeal of individual permit denials or issuance with conditions the permit applicant finds unacceptable shall be made according to the approved local ordinance. The Commission shall not consider individual permit denials or issuance with conditions to which a Permittee objects. This Paragraph does not alter the enforcement authority of the Commission as specified in G.S. 143-215.1(f).

History Note: Authority G.S. 143-215.1; 143-215.3(a); S.L. 2006-250; Eff. January 1, 2007.