

TITLE 15A – DEPARTMENT OF ENVIRONMENTAL QUALITY

Notice is hereby given in accordance with G.S. 150B-21.2 that the Environmental Management Commission intends to amend the rules cited as 15A NCAC 02T .0114 and .0118.

Link to agency website pursuant to G.S. 150B-19.1(c): <https://www.deq.nc.gov/permits-regulations/rules-regulations/proposed-main/proposed-rules>

Proposed Effective Date: Pending Legislative Review

Public Hearing:

Date: December 5, 2024

Time: 11:00 a.m.

Location: Archdale Building, Ground Floor Hearing Room - 512 North Salisbury Street, Raleigh, NC 27604

Reason for Proposed Action: Three Session Laws (SL 2023-55, SL 2023-134, and SL 2023-137) passed by the NC General Assembly require amendments to 15A NCAC 02T .0114 and .0118. The Environmental Management Commission proposes to amend 15A NCAC 02T .0114 to lower the water flow capacity for new dwelling units from 120 gallons per day per room to 75 gallons per day per bedroom. Session Law 2023-137 as amended by Session Law 2023-55 requires amendments to 15A NCAC 02T Rule .0118 to allow a Wastewater Treatment Plant in a county that has above a 2% population growth rate, or is one of the top 20% of the fastest growing counties in the State, to allocate 110% of its hydraulic capacity and to increase its allocation amount to 115% when a system expansion is within 24 months of completion. If the permittee exceeds its current permitted monthly flow more than once in any 12-month period, the permittee may not allocate more than 100%. Session Law 2023-134 and Session Law 2023-137 as amended by Session Law 2023-55 have been implemented by DEQ since November 1, 2023.

Comments may be submitted to: Nathaniel Thornburg, Division of Water Resources Non-Discharge Branch, Archdale Building, 1617 Mail Service Center, Raleigh, NC 27699-1617; email Nathaniel.Thornburg@deq.nc.gov

Comment period ends: December 31, 2024

Rules are automatically subject to legislative review. Statutory reference: S.L. 2023-137, s.18.1(c).

Fiscal impact. Does any rule or combination of rules in this notice create an economic impact? Check all that apply.

- State funds affected
- Local funds affected
- Substantial economic impact (\geq \$1,000,000)
- Approved by OSBM
- No fiscal note required

CHAPTER 02 - ENVIRONMENTAL MANAGEMENT

SUBCHAPTER 02T – WASTE NOT DISCHARGED TO SURFACE WATERS

SECTION .0100 – GENERAL REQUIREMENTS

15A NCAC 02T .0114 WASTEWATER DESIGN FLOW RATES

(a) This Rule shall be used to determine wastewater flow rates for all systems governed by this Subchapter unless alternate criteria are provided by a program-specific rule or for flow used for the purposes of 15A NCAC 02H .0105. Higher flow rates shall be required where usage and occupancy are atypical, including those in Paragraph (e) of this Rule. Wastewater flow calculations shall take hours of operation and anticipated maximum occupancies and usage into account when calculating peak flows for design.

~~(b) In determining the volume of sewage from dwelling units, the flow rate shall be 120 gallons per day per bedroom. The minimum volume of sewage from each dwelling unit shall be 240 gallons per day and each additional bedroom above two bedrooms shall increase the volume by 120 gallons per day. Each bedroom or any other room or addition that can function as a bedroom shall be considered a bedroom for design purposes. When the occupancy of a dwelling unit exceeds two persons per bedroom, the volume of sewage shall be determined by the maximum occupancy at a rate of 60 gallons per person per day.~~

(b) In determining the volume of sewage from dwelling units for a wastewater system:

- (1) A permittee may calculate its wastewater flows for new dwelling units discharging to wastewater systems serving two or more dwelling units that have yet to be connected and for which the permittee has allocated capacity, at 75 gallons per day per bedroom, or at a lower rate approved by the Department pursuant to the requirements in Paragraph (f) of this Rule. Unless adjusted pursuant to Paragraph (f) of this Rule, the minimum volume of sewage from each dwelling unit is 75 gallons per day and each additional bedroom above one bedroom increases the volume by 75 gallons per day.
- (2) An applicant, or permittee modifying their existing permit, shall calculate its wastewater flows for new dwelling units discharging to wastewater systems serving two or more dwelling units that have yet to be connected and for which the applicant or permittee has not allocated capacity at 75 gallons per day per bedroom, or at a lower rate approved by the

Department pursuant to the requirements in Paragraph (f) of this Rule. Unless adjusted pursuant to Paragraph (f) of this Rule, the minimum volume of sewage from each dwelling unit is 75 gallons per day and each additional bedroom above one bedroom increases the volume by 75 gallons per day.

- (3) For wastewater systems serving one dwelling unit, the flow rate shall be 120 gallons per day per bedroom. The minimum volume of sewage from each dwelling unit shall be 240 gallons per day and each additional bedroom above two bedrooms shall increase the volume by 120 gallons per day. Each bedroom or any other room or addition that can function as a bedroom shall be considered a bedroom for design purposes. When the occupancy of a dwelling unit exceeds two persons per bedroom, the volume of sewage shall be determined by the maximum occupancy at a rate of 60 gallons per person per day.

(c) The following table shall be used to determine the minimum allowable design daily flow of wastewater facilities. Design flow rates for establishments not identified below shall be determined using available flow data, water-using fixtures, occupancy or operation patterns, and other measured data.

Type of Establishments	Daily Flow For Design
Barber and beauty shops	
Barber Shops	50 gal/chair
Beauty Shops	125 gal/booth or bowl
Businesses, offices and factories	
General business and office facilities	25 gal/employee/shift
Factories, excluding industrial waste	25 gal/employee/shift
Factories or businesses with showers or food preparation	35 gal/employee/shift
Warehouse	100 gal/loading bay
Warehouse – self storage (not including caretaker residence)	1 gal/unit
Churches	
Churches without kitchens, day care or camps	3 gal/seat
Churches with kitchen	5 gal/seat
Churches providing day care or camps	25 gal/person (child & employee)
Fire, rescue and emergency response facilities	
Fire or rescue stations without on site staff	25 gal/person
Fire or rescue stations with on-site staff	50 gal/person/shift
Food and drink facilities	
Banquet, dining hall	30 gal/seat
Bars, cocktail lounges	20 gal/seat
Caterers	50 gal/100 sq ft floor space
Restaurant, full Service	40 gal/seat
Restaurant, single service articles	20 gal/seat
Restaurant, drive-in	50 gal/car space
Restaurant, carry out only	50 gal/100 sq ft floor space
Institutions, dining halls	5 gal/meal
Deli	40 gal/100 sq ft floor space
Bakery	10 gal/100 sq ft floor space
Meat department, butcher shop or fish market	75 gal/100 sq ft floor space
Specialty food stand or kiosk	50 gal/100 sq ft floor space
Hotels and Motels	
Hotels, motels and bed & breakfast facilities, without in-room cooking facilities	120 gal/room
Hotels and motels, with in-room cooking facilities	175 gal/room
Resort hotels	200 gal/room
Cottages, cabins	200 gal/unit
Self service laundry facilities	500 gal/machine
Medical, dental, veterinary facilities	
Medical or dental offices	250 gal/practitioner/shift
Veterinary offices (not including boarding)	250 gal/practitioner/shift
Veterinary hospitals, kennels, animal boarding facilities	20 gal/pen, cage, kennel or stall
Hospitals, medical	300 gal/bed
Hospitals, mental	150 gal/bed
Convalescent, nursing, rest homes without laundry facilities	60 gal/bed
Convalescent, nursing, rest homes with laundry facilities	120 gal/bed
Residential care facilities	60 gal/person
Parks, recreation, camp grounds, R-V parks and other outdoor activity facilities	
Campgrounds with comfort station, without water or sewer hookups	75 gal/campsite
Campgrounds with water and sewer hookups	100 gal/campsite
Campground dump station facility	50 gal/space
Construction, hunting or work camps with flush toilets	60 gal/person

Construction, hunting or work camps with chemical or portable toilets	40 gal/person
Parks with restroom facilities	250 gal/plumbing fixture
Summer camps without food preparation or laundry facilities	30 gal/person
Summer camps with food preparation and laundry facilities	60 gal/person
Swimming pools, bathhouses and spas	10 gal/person
Public access restrooms	325 gal/plumbing fixture
Schools, preschools and day care	
Day care and preschool facilities	25 gal/person (child & employee)
Schools with cafeteria, gym and showers	15 gal/student
Schools with cafeteria	12 gal/student
Schools without cafeteria, gym or showers	10 gal/student
Boarding schools	60 gal/person (student & employee)
Service stations, car wash facilities	
Service stations, gas stations	250 gal/plumbing fixture
Car wash facilities	1200 gal/bay
Sports centers	
Bowling center	50 gal/lane
Fitness, exercise, karate or dance center	50 gal/100 sq ft
Tennis, racquet ball	50 gal/court
Gymnasium	50 gal/100 sq ft
Golf course with only minimal food service	250 gal/plumbing fixture
Country clubs	60 gal/member or patron
Mini golf, putt-putt	250 gal/plumbing fixture
Go-kart, motocross	250 gal/plumbing fixture
Batting cages, driving ranges	250 gal/plumbing fixture
Marinas without bathhouse	10 gal/slip
Marinas with bathhouse	30 gal/slip
Video game arcades, pool halls	250 gal/plumbing fixture
Stadiums, auditoriums, theaters, community centers	5 gal/seat
Stores, shopping centers, malls and flea markets	
Auto, boat, recreational vehicle dealerships/showrooms with restrooms	125 gal/plumbing fixture
Convenience stores, with food preparation	60 gal/100 sq ft
Convenience stores, without food preparation	250 gal/plumbing fixture
Flea markets	30 gal/stall
Shopping centers and malls with food service	130 gal/1000 sq ft
Stores and shopping centers without food service	100 gal/1000 sq ft
Transportation terminals – air, bus, train, ferry, port and dock	5 gal/passenger

(d) Design daily flow rates for proposed non-residential developments where the types of use and occupancy are not known shall be designed for a minimum of 880 gallons per acre, or the applicant shall specify an anticipated flow based upon anticipated or potential uses.

(e) Design daily flow rates for residential property servicing two or more dwelling units on barrier islands and similar communities located south or east of the Atlantic Intracoastal Waterway and used as vacation rental as defined in G.S. 42A-4 shall be ~~120~~ 75 gallons per day per habitable room. Habitable room shall mean a room or enclosed floor space used or intended to be used for living or sleeping, excluding kitchens and dining areas, bathrooms, shower rooms, water closet compartments, laundries, pantries, foyers, connecting corridors, closets, and storage spaces.

(f) An adjusted daily sewage flow design rate shall be granted for permitted but not yet tributary connections and future connections tributary to the system upon showing that the capacity of a sewage system is adequate to meet actual daily wastewater flows from a facility included in Paragraph (b) or (c) of this Rule without causing flow violations at the receiving wastewater treatment plant or capacity-related sanitary sewer overflows within the collection system as follows:

- (1) Documented, representative data from that facility or a comparable facility shall be submitted by an authorized signing official in accordance with Rule .0106 of this Section to the Division for all flow reduction requests, as follows:
 - (A) dates of flow meter calibrations during the time frame evaluated and indication if any adjustments were necessary;
 - (B) a breakdown of the type of connections (e.g. two bedroom units, three bedroom units) and number of customers for each month of submitted data as applicable. Identification of any non-residential connections including subdivision clubhouses and pools, restaurants, schools, churches and businesses. For each non-residential connection, information identified in Paragraph (c) of this Rule (e.g. 200 seat church, 40 seat restaurant, 35 person pool bathhouse);
 - (C) a letter of agreement from the owner or an official, meeting the criteria of Rule .0106 of this Section, of the receiving collection system or treatment works accepting the wastewater and agreeing with the adjusted design rate;
 - (D) age of the collection system;

- (E) analysis of inflow and infiltration within the collection system or receiving treatment plant, as applicable;
 - (F) if a dedicated wastewater treatment plant serves the specific area and is representative of the residential wastewater usage, at least the 12 most recent consecutive monthly average wastewater flow readings and the daily total wastewater flow readings for the highest average wastewater flow month per customers, as reported to the Division;
 - (G) if daily data from a wastewater treatment plant cannot be used or is not representative of the project area: 12 months worth of monthly average wastewater flows from the receiving treatment plant shall be evaluated to determine the peak sewage month. Daily wastewater flows shall then be taken from a flow meter installed at the most downstream point of the collection area for the peak month selected that is representative of the project area. Justification for the selected placement of the flow meter shall also be provided; and
 - (H) an estimated design daily sewage flow rate shall be determined by calculating the numerical average of the top three daily readings for the highest average flow month. The calculations shall also account for seasonal variations, excessive inflow and infiltration, age and suspected meter reading and recording errors.
- (2) The Division shall evaluate all data submitted but shall also consider other factors in granting, with or without adjustment, or denying a flow reduction request including: applicable weather conditions during the data period (i.e. rainy or drought), other historical monitoring data for the particular facility or other similar facilities available to the Division, the general accuracy of monitoring reports and flow meter readings, and facility usage, such as whether the facility is in a resort area.
 - (3) Flow increases shall be required if the calculations required by Subparagraph (f)(1) of this Rule yield design flows higher than that specified in Paragraphs (b) or (c) of this Rule.
 - (4) The permittee shall retain the letter of any approved adjusted daily design flow rate for the life of the facility and shall transfer such letter to a future permittee.

*History Note: Authority G.S. 143-215.1; 143-215.3(a)(1);
 Eff. September 1, 2006;
 Readopted Eff. September 1, 2018;
 Amended Eff. Pending Legislative Review.*

15A NCAC 02T .0118 DEMONSTRATION OF FUTURE WASTEWATER TREATMENT CAPACITIES

~~No permits for sewer line extensions shall be issued to wastewater treatment systems owned or operated by municipalities, counties, sanitary districts, or public utilities unless they meet the following requirements:~~

- ~~(1) Prior to exceeding 80 percent of the system's permitted hydraulic capacity (based on the average flow during the last calendar year), the permittee shall submit an engineering evaluation of their future wastewater treatment, utilization, and disposal needs. This evaluation shall outline plans for meeting future wastewater treatment, utilization, or disposal needs by either expansion of the existing system, elimination or reduction of extraneous flows, or water conservation and shall include the source of funding for the improvements. If expansion is not proposed or is proposed for a later date, a justification shall be made that wastewater treatment needs will be met based on past growth records and future growth projections and, as appropriate, shall include conservation plans or other measures to achieve waste flow reductions.~~
- ~~(2) Prior to exceeding 90 percent of the system's permitted hydraulic capacity (based on the average flow during the last calendar year), the permittee shall obtain all permits needed for the expansion of the wastewater treatment, utilization, or disposal system and, if construction is needed, submit final plans and specifications for expansion, including a construction schedule. If expansion is not proposed or is proposed for a later date, a justification shall be made that wastewater treatment needs will be met based on past growth records and future growth projections and, as appropriate, shall include conservation plans or other specific measures to achieve waste flow reductions.~~
- ~~(3) The Director shall allow permits to be issued to facilities that are exceeding the 80 percent or 90 percent disposal capacity if the additional flow is not projected to result in the facility exceeding its permitted hydraulic capacity, the facility is in compliance with all other permit limitations and requirements, and adequate progress is being made in developing the required engineering evaluations or plans and specifications. In determining the adequacy of the progress, the Director shall consider the projected flows, the complexity and scope of the work to be completed, and any projected environmental impacts.~~

(a) No permits for sewer line extensions shall be issued to wastewater treatment systems owned or operated by municipalities, counties, sanitary districts, or public utilities unless the systems meet the following requirements:

- (1) Prior to actual flow exceeding 80 percent of the system's permitted hydraulic capacity, based on the average flow during the last calendar year, the permittee shall submit an engineering evaluation of its future wastewater treatment, utilization, and disposal needs. This evaluation shall outline plans for meeting future wastewater treatment, utilization, or disposal needs by either expansion of the existing system, elimination or reduction of extraneous flows, or water conservation and shall include the source of funding for the improvements. If expansion is not proposed or is proposed for a later date, a justification shall be made that wastewater treatment needs will be met based on past growth records and future growth projections and, as appropriate, shall include conservation plans or other measures to achieve waste flow reductions.
- (2) Prior to actual flow exceeding 90 percent of the system's permitted hydraulic capacity, based on the average flow during the last calendar year, the permittee shall obtain all permits needed for the expansion of the wastewater treatment, utilization, or disposal system and, if construction is needed, submit final plans and specifications for expansion, including a construction schedule. If expansion is not proposed or is proposed for a later date, a justification

shall be made that wastewater treatment needs will be met based on past growth records and future growth projections and, as appropriate, shall include conservation plans or other specific measures to achieve waste flow reductions.

- (3) The Director shall allow permits to be issued to facilities that are exceeding the 80 percent or 90 percent disposal capacity if the additional flow is not projected to result in the facility exceeding its permitted hydraulic capacity, the facility is in compliance with all other permit limitations and requirements, and adequate progress is being made in developing the required engineering evaluations or plans and specifications. In determining the adequacy of the progress, the Director shall consider the projected flows, the complexity and scope of the work to be completed, and any projected environmental impacts.

(b) A permittee for a wastewater treatment system, who has signed a contract for the expansion of its wastewater treatment system, utilization, or disposal system and whose current system is located in a county with a projected population growth rate above 2 percent annually or is located in one of the top 20 percent of the fastest growing counties in the State, by population, and is meeting pollutant discharge limits set out in the system's current permit, may allocate 110 percent of its existing system's hydraulic capacity and increase the allocation amount to 115 percent when the expansion of its system is within 24 months of completion, but may not allocate more than the permitted projected capacity after expansion without approval by the Department. If the permittee exceeds its current permitted monthly flow more than once in any 12-month period, the permittee may not allocate more than 100 percent of the existing system's hydraulic capacity until the permittee complies with the permitted monthly flow for at least 12 consecutive months. Nothing in this subsection shall be construed to limit the Department from authorizing allocations above 115 percent of a system's hydraulic capacity."

*History Note: Authority G.S. 143-215.3;
Eff. September 1, 2006;
Readopted Eff. September 1, 2018;
Amended Eff. Pending Legislative Review.*