ROY COOPER
Governor
ELIZABETH S. BISER
Secretary
RICHARD E. ROGERS, JR.
Director

NORTH CAROLINA
Environmental Quality

April 26, 2023

DONALD I. MCREE, JR. – COUNTY MANAGER
CURRITUCK COUNTY
153 COURTHOUSE ROAD – SUITE 110
CURRITUCK, NORTH CAROLINA 27929-9716

Subject: Permit No. WQ0035706
Moyock Regional WWTP
High-Rate Infiltration System
Currituck County

Dear Mr. McRee:

In accordance with your permit renewal request received on December 2, 2022, and subsequent additional information received on March 14, 2023, we are forwarding herewith Permit No. WQ0035706 dated April 26, 2023, to Currituck County for the continued operation of a 99,000 gallon per day (GPD) wastewater treatment and high-rate infiltration facility and the construction and operation of a 200,000 GPD wastewater treatment and high-rate infiltration expansion facility.

This permit shall be effective from the date of issuance through June 30, 2030, shall replace Permit No. WQ0035706 issued on April 29, 2020, and shall be subject to the conditions and limitations therein. **The Permittee shall submit a renewal application no later than January 1, 2030.**

Please pay attention to the monitoring requirements listed in Attachments A, B, and C for they may differ from the previous permit issuance. Failure to establish an adequate system for collecting and maintaining the required operational information shall result in future compliance problems.

The Division has removed the following permit condition since the last permit issuance dated April 29, 2020:

- Old Condition I.1. – This compliance schedule has been fulfilled.

If any parts, requirements, or limitations contained in this permit are unacceptable, the Permittee has the right to request an adjudicatory hearing upon written request within 30 days following receipt of this permit. This request shall be in the form of a written petition, conforming to Chapter 150B of the North Carolina General Statutes, and filed with the Office of Administrative Hearings at 6714 Mail Service Center, Raleigh, NC 27699-6714. Otherwise, this permit shall be final and binding.

If you need additional information concerning this permit, please contact Zachary Mega at (919) 707-3658 or zachary.mega@ncdenr.gov.

Sincerely,

DocuSigned by:
Nathaniel Thornburg
D1043082680C483...

Richard E. Rogers, Jr., Director
Division of Water Resources

cc: Currituck County Health Department (Electronic Copy)
Washington Regional Office, Water Quality Regional Operations Section (Electronic Copy)
Laserfiche File (Electronic Copy)
Digital Permit Archive (Electronic Copy)

NORTH CAROLINA

ENVIRONMENTAL MANAGEMENT COMMISSION

DEPARTMENT OF ENVIRONMENTAL QUALITY

RALEIGH

HIGH-RATE INFILTRATION SYSTEM PERMIT

In accordance with the provisions of Article 21 of Chapter 143, General Statutes of North Carolina as amended, and other applicable Laws, Rules, and Regulations

PERMISSION IS HEREBY GRANTED TO

Currituck County

Currituck County

FOR THE

operation of a 299,000 gallon per day (GPD) wastewater treatment and high-rate infiltration facility consisting of the:

continued operation of a 99,000 GPD wastewater treatment and high-rate infiltration facility consisting of a mechanically-cleaned bar screen with 5-millimeter (mm) fine-slit spacings; two mechanically-cleaned bar screens with 3/16-inch spacings; two 12,776 gallon interconnected flow equalization tanks each with a 2 horsepower (hp) submersible mixer and two 50 gallon per minute (GPM) submersible pumps; an alkalinity-feed system with a 100 gallon tank and two 1 gallon per hour (GPH) chemical metering pumps serving the two equalization basins; two 7,046 gallon pre-anoxic basins each with a 0.5 hp submersible mixer; a carbon feed system with two 55 gallon drums and two 1 GPH chemical metering pumps serving the two pre-anoxic basins; four 7,340 gallon aeration basins; two 4,194 gallon post-anoxic basins each with a 0.5 hp submersible mixer and both post-anoxic basins located concentrically within two 2,309 gallon recycle basins; a carbon-feed system with two 55 gallon drums and two 1 GPH chemical metering pumps serving the two post-anoxic basins; two 4,650 gallon reaeration/coagulation basins; an alum feed system with a 100 gallon tank and two 1 GPH chemical metering pumps serving the two reaeration/coagulation basins; two 11,736 gallon clarifiers with three 60 GPM recycled activated sludge (RAS) and waste activated sludge (WAS) pumps in a dry pit configuration; four RAS dry pit recycle intake flow meters; a 10,000 gallon media filter dosing tank with two 212 GPM submersible pumps, five 200,000 GPD rated tertiary media filters; an ultraviolet (UV) disinfection system with two parallel banks each containing two lamps per bank; a post-UV disinfection flowmeter; an 18,000 gallon dosing tank; four 15,260 gallon aerobic digesters with two 25 GPM portable submersible decant pumps; two 285 cubic feet per minute (CFM) blowers serving the aeration basins, reaeration basins, clarifiers, and aerobic digesters; a 250 kilowatt (kW) automatically-activated standby generator; two brass-spigot effluent monitoring stations served by a portable composite-sampler; two effluent flow meters each serving a high-rate infiltration basin; two 0.287 acre high-rate infiltration wet/dry basins each containing 22 low-profile irrigation heads rated at 1.73 GPM; a gravity-fed groundwater lowering system; and all associated piping, valves, controls, and appurtenances; the

continued operation of two stainless steel influent drum screens with 2 mm openings (to operate in parallel) prior to the mechanically cleaned bar screen with 5 mm fine-slit spacings serving the 99,000 GPD wastewater treatment plant (WWTP); and all associated piping, valves, controls, and appurtenances; the

construction and operation of a 299,000 GPD wastewater influent headworks and screen plant consisting of an influent flow meter vault containing a 5,971 GPM influent flow meter and a 10 GPM sump pump; a stainless steel influent mechanical bar screen; two stainless steel influent drum screens with 2 mm openings (one online and one standby); and all associated piping, valves, controls, and appurtenances; and the

construction and operation of a 200,000 GPD wastewater treatment and high-rate infiltration expansion facility consisting of a 200,000 GPD biological treatment unit (BTU) consisting of two 100,000 GPD treatment trains consisting of a shared 76,242 gallon equalization tank with dual (one online and one standby) 295 GPM equalization transfer pumps that convey wastewater to the 99,000 GPD WWTP, dual (one online and one standby) 210 GPM equalization transfer pumps that convey wastewater to the flow splitter box, two 2.7 hp submersible mixers, a dissolved oxygen (DO) controller/sensor, and a flow splitter box splitting flow between Train 1 and Train 2; two 8,966 gallon anaerobic tanks (Train 1 and Train 2) each with a 1.75 hp submersible mixer; two 32,875 gallon pre-anoxic tanks (Train 1 and Train 2) each with a 2.7 hp submersible mixer; two 69,734 gallon aeration tanks (Train 1 and Train 2) each with dual 210 GPM internal recycle pumps (one online and one standby) and a total of three 400 CFM blowers (two online and one standby); two 26,897 gallon post-anoxic tanks (Train 1 and Train 2) each with a 2.7 hp mixer and served by three carbon-source metering pumps (two online and one standby); one shared 123,921 gallon digester receiving WAS from the RAS/WAS pump station containing three (two online and one standby) 280 GPM RAS/WAS sub pumps containing a 100 GPM skimmer pump that conveys supernatant to the equalization tank and three (two online and one standby) 500 CFM digester blowers; a 200,000 GPD membrane bioreactor (MBR) system containing two sets of MBR filter cartridges and dual (one online and one standby) 500 CFM air-scour blowers; a dual 348 GPM UV disinfection system; a 25,987 gallon precast pump tank containing four 210 GPM submersible centrifugal dosing pumps (dual pumps for Basin 1 and Basin 2); two disposal pump valve vaults containing gate valves and check valves; three 3,358 GPM flow meter vaults (one for flow to the 99,000 GPD WWTP, one for effluent flow to Bain 1, and one for effluent flow to Basin 2), a valve vault to divert flow from Basin 2 to the Repair basin, a valve vault to divert flow from Basin 1 to the Repair basin; a check valve vault for the junction of Repair basin force mains; three (Basin 1, Basin 2, and Repair) 0.51 acre high-rate infiltration basins; a 485,457 GPD mechanically-lowered groundwater lowering system surrounding each basin utilizing three 225 GPM groundwater lowering pumps; a 3,358 GPM groundwater discharge flow meter; a groundwater discharge stilling basin that gravity-overflows into the southern wetlands; and all associated piping, valves, controls, and appurtenances

to serve the Moyock Regional WWTP, with no discharge of wastes to surface waters, pursuant to the application received on December 2, 2022, subsequent additional information received on March 14, 2023, and in conformity with the Division-approved plans and specifications considered a part of this permit.

This permit shall be effective from the date of issuance through June 30, 2030, shall replace Permit No. WQ0035706 issued on April 29, 2020, and shall be subject to the following conditions and limitations:

I. SCHEDULES

1. Upon completion of construction and prior to operation of the 200,000 GPD wastewater treatment and high-rate infiltration expansion facility, the Permittee shall submit an engineering certification from a North Carolina licensed Professional Engineer certifying that the permitted facility has been constructed in accordance with G.S. 143-215.1, Administrative Code Title 15A Subchapter 02T, this permit, and the Division-approved plans and specifications. For phased and partially certified facilities, the Permittee shall retain the responsibility to track further construction approved under this permit and shall provide a final engineering certification upon project completion. Mail the Engineering Certification to the Division of Water Resources, Non-Discharge Branch, 1617 Mail Service Center, Raleigh, NC 27699-1617, or Non-Discharge.Reports@ncdenr.gov. [15A NCAC 02T .0116(a)]

2. The Permittee shall notify the Washington Regional Office, telephone number (252) 946-6481, at least two business days in advance of the initial operation of the constructed facilities so that the Division can conduct a startup inspection. [15A NCAC 02T .0108(b)(1)(B)]

3. The Washington Regional Office, telephone number (252) 946-6481, shall approve monitoring wells MW-4, MW-5, MW-6, MW-7, MW-8, and MW-9 prior to installation, and the monitoring wells shall be installed prior to beginning waste disposal operations. The Washington Regional Office shall be notified at least two business days in advance of the construction of any monitoring well. The monitoring wells shall be constructed such that the water level in the well is never above or below the screened portion of the well and in accordance with 15A NCAC 02C .0108. The general location and Division-approved name for each monitoring well are in Figure 2. [15A NCAC 02C .0108, 02T .0108(b)(1)(B)]

4. Within 90 days of completing the installation of monitoring wells MW-4, MW-5, MW-6, MW-7, MW-8, and MW-9, the Permittee shall submit two original copies and one digital copy of a site map with a scale no greater than 1-inch equals 100 feet; however, special provisions may be granted upon prior approval for large properties. The map shall include the following information:

   a. Legend, north arrow, scale, and legible in black and white.
   b. Topographic contour intervals not exceeding 10 feet or 25 percent of total site relief.
   c. All habitable residences or places of assembly within 500 feet of the infiltration area.
   d. Location of all wells, streams (ephemeral, intermittent, and perennial), springs, lakes, ponds, ditches, and other surface drainage features within 500 feet of the infiltration area.
   e. Location and identification of each monitoring well (identify any background/upgradient wells).
   f. Latitude and longitude coordinates of each monitoring well (decimal degrees to the sixth decimal degree and in NAD83).
   g. Location and identification of major components of the waste disposal system.
   h. The perimeter of all infiltration areas with field names (named according to the approved permit)
   i. Location and ownership of property boundaries within 500 feet of the infiltration area (including road/rail right-of-ways and easements).
   j. Latitude and longitude of the established horizontal control monument (decimal degrees to the sixth decimal degree).
   k. Elevation of the top of the well casing (i.e., measuring point) relative to a common datum.
   l. Depth of water below the measuring point at the time the measuring point is established.
   m. Delineation of the compliance and review boundaries.
   n. Distance measurements verifying all setbacks are being met.
   o. Stormwater drainage controls.
   p. 100-year floodplain.
   q. The date the map is prepared and/or revised.
   r. Location of the groundwater lowering system and discharge point (if present).

   Boundaries and physical features not under the purview of other licensed professions shall be provided by a Professional Surveyor. Control monuments shall be installed in such a manner and made of such materials that the monument will not be destroyed due to activities taking place on the property. The map and any supporting documentation shall be sent to the Division of Water Resources, Non-Discharge Branch, 1617 Mail Service Center, Raleigh, NC 27699-1617, or Non-Discharge.Reports@ncdenr.gov. [15A NCAC 02C .0105(f), 02T .0108(b)(1)(B)]

5. Within 30 days of construction, a Well Construction Record (Form GW-1) listing this permit number and the appropriate monitoring well identification number shall be completed for each well constructed and mailed to the Division of Water Resources, Non-Discharge Branch, 1617 Mail Service Center, Raleigh, NC 27699-1617, or Non-Discharge.Reports@ncdenr.gov. A North Carolina Certified Well Contractor shall construct the monitoring wells according to the North Carolina Well Construction Standards (15A NCAC 02C .0113) and local county rules. [15A NCAC 02C .0113, 02T .0108(b)(1)(B)]

6. Prior to the operation of the newly installed facilities, a Final Operation and Maintenance Plan shall be submitted for review. The plan shall be sent to the Division of Water Resources, Non-Discharge Branch, 1617 Mail Service Center, Raleigh, NC 27699-1617 or Non-Discharge.Reports@ncdenr.gov. [15A NCAC 02T .0108(b)(1)(B), 02T .0707(a)]

7. Upon completion of construction and prior to infiltration, a soil evaluation shall be completed for all areas where fill material is placed within the permitted infiltration areas. The report shall certify that areas utilizing fill material are capable of accepting the designed loading rate. This report shall specifically address, but not be limited to, soil features such as soil compaction and saturated hydraulic conductivity of the least permeable layer, soil fertility report and any amendments added, verification of fill suitability and depth of fill material (and to the seasonal high water table) across the field, as well as any other properties that might impact the soil's ability to accept infiltrated water. The soil scientist evaluation shall be mailed to the Division of Water Resources, Non-Discharge Branch, 1617 Mail Service Center, Raleigh, NC 27699-1617 or Non-Discharge.Reports@ncdenr.gov. Infiltration shall not occur until the Washington Regional Office approves the soil evaluation. [15A NCAC 02T .0108(b)(1)(A)]

8. The Permittee shall request renewal of this permit on Division-approved forms no later than January 1, 2030. [15A NCAC 02T .0105(b), 02T .0109]

II. PERFORMANCE STANDARDS

1. The Permittee shall maintain and operate the subject non-discharge facilities so there is no discharge to surface waters, nor any contravention of groundwater or surface water standards. In the event the facilities fail to perform satisfactorily, including the creation of nuisance conditions due to improper operation and maintenance, or failure of the infiltration areas to assimilate the effluent, the Permittee shall take immediate corrective actions, including Division required actions, such as the construction of additional or replacement wastewater treatment or disposal facilities. [15A NCAC 02T .0108(b)(1)(A)]

2. This permit shall not relieve the Permittee of their responsibility for damages to groundwater or surface water resulting from the operation of this facility. [15A NCAC 02T .0108(b)(1)(A)]

3. Groundwater monitoring wells shall be constructed in accordance with 15A NCAC 02C .0108 (Standards of Construction for Wells Other than Water Supply), and any other jurisdictional laws and regulations pertaining to well construction. [15A NCAC 02C .0108]

4. Effluent quality shall not exceed the limitations specified in Attachment A. [15A NCAC 02T .0705(b)]

5. Application rates, whether hydraulic, nutrient, or other pollutant, shall not exceed those specified in Attachment B. [15A NCAC 02T .0705(m)]

6. High-rate infiltration sites permitted on or after December 30, 1983, have a compliance boundary that is either 250 feet from the infiltration area, or 50 feet within the property boundary, whichever is closest to the infiltration area. Any exceedance of groundwater standards at or beyond the compliance boundary shall require corrective action. Division-approved relocation of the compliance boundary shall be noted in Attachment B. Multiple contiguous properties under common ownership and permitted for use as a disposal system shall be treated as a single property regarding the determination of a compliance boundary. [15A NCAC 02L .0106(d)(2), 02L .0107(b), 02T .0105(h), G.S. 143-215.1(i), G.S. 143-215.1(k)]

7. The review boundary is midway between the compliance boundary and the infiltration area. Any exceedance of groundwater standards at or beyond the review boundary shall require preventative action. [15A NCAC 02L .0106(d)(1), 02L .0108]

8. The Permittee shall apply for a permit modification to establish a new compliance boundary prior to any sale or transfer of property affecting a compliance boundary (i.e., parcel subdivision). [15A NCAC 02L .0107(c)]

9. No wells, excluding Division-approved monitoring wells, shall be constructed within the compliance boundary except as provided for in 15A NCAC 02L .0107(g). [15A NCAC 02L .0107]

10. Except as provided for in 15A NCAC 02L .0107(g), the Permittee shall ensure any landowner who is not the Permittee and owns land within the compliance boundary shall execute and file with the Currituck County Register of Deeds an easement running with the land containing the following items:

    a. A notice of the permit and number or other description as allowed in 15A NCAC 02L .0107(f)(1);

    b. Prohibits construction and operation of water supply wells within the compliance boundary; and

    c. Reserves the right of the Permittee or the State to enter the property within the compliance boundary for purposes related to the permit.

    The Director may terminate the easement when its purpose has been fulfilled or is no longer needed.

    [15A NCAC 02L .0107(f)]

11. The facilities herein were permitted per the following setbacks:

    a. Infiltration spray beds 1-1 and 1-2 were originally permitted on May 10, 2012. The setbacks for infiltration sites originally permitted or modified from September 1, 2006, to August 31, 2018, are as follows (all distances in feet):

i. Each habitable residence or place of assembly under separate ownership:	400 [1]
ii. Each habitable residence or place of assembly owned by the Permittee:	200
iii. Each private or public water supply source:	100
iv. Surface waters:	100 [3]
v. Groundwater lowering ditches:	100 [3]
vi. Surface water diversions:	50
vii. Each well with exception of monitoring wells:	100
viii. Each property line:	200 [2]
ix. Top of slope of embankments or cuts of two feet or more in vertical height:	100
x. Each water line:	10
xi. Subsurface groundwater lowering drainage systems:	100 [3]
xii. Each swimming pool:	100
xiii. Public right of way:	50
xiv. Nitrification field:	20
xv. Each building foundation or basement:	15
xvi. Each impounded public surface water supply:	500
xvii. Each public shallow groundwater supply (less than 50 feet deep):	500

    [1] Habitable residences or places of assembly under separate ownership constructed after the facilities herein were originally permitted or subsequently modified are exempt from this setback.

    [2] Setbacks to property lines are not applicable when the Permittee, or the entity from which the Permittee is leasing, owns both parcels separated by the property line.

    [3] Setbacks to surface waters, groundwater lowering ditches, and subsurface groundwater lowering drainage systems have been reduced from 200 to 100 feet because the treatment units are designed to meet a Total Nitrogen of 7 mg/L and a Total Phosphorus of 3 mg/L.

    [15A NCAC 02T .0706(a), 02T .0706(b), 02T .0706(f), 02T .0706(g)]

b. The storage and treatment units in the 99,000 GPD WWTP were modified on December 7, 2015. The setbacks for storage and treatment units originally permitted or modified from September 1, 2006, to August 31, 2018, are as follows (all distances in feet):

i. Each habitable residence or place of assembly under separate ownership:	100 [1]
ii. Each private or public water supply source:	100
iii. Surface waters:	50
iv. Each well with exception of monitoring wells:	100
v. Each property line:	50 [2]

[1] Habitable residences or places of assembly under separate ownership constructed after the facilities herein were originally permitted or subsequently modified are exempt from this setback.

[2] Setbacks to property lines are not applicable when the Permittee, or the entity from which the Permittee is leasing, owns both parcels separated by the property line.

[15A NCAC 02T .0706(d), 02T .0706(f), 02T .0706(g)]

c. Infiltration basins 1, 2, and Repair were originally permitted on April 8, 2020. The setbacks for infiltration sites originally permitted or modified on or after September 1, 2018, are as follows (all distances in feet):

i. Each habitable residence or place of assembly under separate ownership:	100 [1]
ii. Each habitable residence or place of assembly owned by the Permittee:	50
iii. Each private or public water supply source:	100
iv. Surface waters:	100 [3]
v. Groundwater lowering ditches:	100 [3]
vi. Surface water diversions:	50
vii. Each well with exception of monitoring wells:	100
viii. Each property line:	50 [2]
ix. Top of slope of embankments or cuts of two feet or more in vertical height:	100
x. Each water line:	10
xi. Subsurface groundwater lowering drainage systems:	100 [3]
xii. Public right of way:	50
xiii. Nitrification field:	20
xiv. Each building foundation or basement:	15
xv. Each impounded public surface water supply:	500
xvi. Each public shallow groundwater supply (less than 50 feet deep):	500

[1] Habitable residences or places of assembly under separate ownership constructed after the facilities herein were originally permitted or subsequently modified are exempt from this setback.

[2] Setbacks to property lines are not applicable when the Permittee, or the entity from which the Permittee is leasing, owns both parcels separated by the property line.

[3] Setbacks to surface waters, groundwater lowering ditches, and subsurface groundwater lowering drainage systems have been reduced from 200 to 100 feet because the treatment units are designed to meet a Total Nitrogen of 7 mg/L and a Total Phosphorus of 3 mg/L.

[15A NCAC 02T .0706(a), 02T .0706(b), 02T .0706(f), 02T .0706(g)]

d. The storage and treatment units in the 200,000 GPD WWTP expansion facility were originally permitted on April 8, 2020, and the two stainless steel influent drum screens serving the 99,000 GPD WWTP facility were permitted on April 29, 2020. The setbacks for storage and treatment units originally permitted or modified on or after September 1, 2018, are as follows (all distances in feet):

i.	Each habitable residence or place of assembly under separate ownership:	100 [1]
ii.	Each private or public water supply source:	100
iii.	Surface waters:	50
iv.	Each well with exception of monitoring wells:	100
v.	Each property line:	50 [2]

[1] Habitable residences or places of assembly under separate ownership constructed after the facilities herein were originally permitted or subsequently modified are exempt from this setback.

[2] Setbacks to property lines are not applicable when the Permittee, or the entity from which the Permittee is leasing, owns both parcels separated by the property line.

[15A NCAC 02T .0706(d), 02T .0706(f), 02T .0706(g)]

III. OPERATION AND MAINTENANCE REQUIREMENTS

1. The Permittee shall operate and maintain the subject facilities as a non-discharge system. [15A NCAC 02T .0700]

2. The Permittee shall maintain an Operation and Maintenance Plan, which shall include operational functions, maintenance schedules, safety measures, and a spill response plan. [15A NCAC 02T .0707(a)]

3. Upon the Water Pollution Control System Operators Certification Commission's (WPCSOCC) classification of the subject non-discharge facilities, the Permittee shall designate and employ a certified Operator in Responsible Charge (ORC), and one or more certified operators as Back-up ORCs. The ORC or their Back-up shall operate and visit the facilities as required by the WPCSOCC. [15A NCAC 02T .0117]

4. The Permittee shall take measures to prevent effluent ponding in or runoff from the infiltration spray beds (i.e., non-basins) listed in Attachment B. [15A NCAC 02T .0707(c)]

5. Infiltration equipment shall be tested and calibrated once per permit cycle. [15A NCAC 02T .0707(d)]

6. Only treated effluent from the Moyock Regional WWTP shall be infiltrated on the sites listed in Attachment B. [15A NCAC 02T .0701]

7. The Permittee shall not allow vehicles or heavy machinery on the infiltration area, except during equipment installation or maintenance activities. [15A NCAC 02T .0707(e)]

8. The Permittee shall prohibit public access to wastewater treatment, storage, and infiltration facilities. [15A NCAC 02T .0705(p)]

9. The Permittee shall dispose of or utilize generated residuals in a Division-approved manner. [15A NCAC 02T .0708, 02T .1100].

10. The Permittee shall not divert or bypass untreated or partially treated wastewater from the subject facilities. [15A NCAC 02T .0705(i)]

11. Freeboard in the infiltration spray beds 1-1 and 1-2, infiltration basins 1, 2, and Repair, and the groundwater stilling basin shall not be less than two feet at any time. [15A NCAC 02T .0705(c)]

12. Gauges to monitor waste levels in the infiltration spray beds 1-1 and 1-2, infiltration basins 1, 2, and Repair, and the groundwater stilling basin shall be provided. These gauges shall have readily visible permanent markings, at an inch or tenth of foot increments, indicating the following elevations: the maximum liquid level at the top of the temporary liquid storage volume; the minimum liquid level at the bottom of the temporary liquid storage volume; and the lowest point on top of the dam. [15A NCAC 02T .0707(f)]

13. A protective vegetative cover shall be established and maintained on all berms, pipe runs, erosion control areas, surface water diversions, and earthen embankments (i.e., the outside toe of the embankment to the maximum allowable temporary storage elevation on the inside of the embankment). Trees, shrubs, and other woody vegetation shall not be allowed to grow on earthen dikes or embankments. Earthen embankments shall be kept mowed or otherwise controlled and accessible. [15A NCAC 02T .0707(g)]

14. Metering equipment shall be tested and calibrated annually. [15A NCAC 02T .0707(d)]

15. An automatically activated standby power source capable of powering all essential treatment units shall be on-site and operational at all times. If a generator is employed as an alternate power supply, it shall be tested weekly by interrupting the primary power source. [15A NCAC 02T .0705(k)]

16. The infiltration areas shall be cleaned at least once per permit cycle to remove deposited materials that may impede the infiltration process. Cleaning records shall be maintained at the facility for five years and shall be made available to the Division upon request. The Washington Regional Office, telephone number (252) 946-6481, shall be notified prior to each cleaning. [15A NCAC 02T .0707(h)]

IV. MONITORING AND REPORTING REQUIREMENTS

1. The Permittee shall conduct and report any Division required monitoring necessary to evaluate this facility's impact on groundwater and surface water. [15A NCAC 02T .0108(c)]

2. A Division-certified laboratory shall conduct all analyses for the required effluent, groundwater, and surface water parameters. [15A NCAC 02H .0800]

3. Flow through the treatment facility shall be continuously monitored, and daily flow values shall be reported on Form NDMR. Facilities with a permitted flow of less than 10,000 GPD may estimate their flow from water usage records provided the water source is metered. [15A NCAC 02T .0105(k), 02T .0108(c)]

4. The Permittee shall monitor the treated effluent at the frequencies and locations for the parameters specified in Attachment A. [15A NCAC 02T .0108(c)]

5. The Permittee shall maintain records tracking the amount of effluent infiltrated. These records shall include the following information for each infiltration site listed in Attachment B:

   a. Date of infiltration;
   b. Volume of effluent infiltrated;
   c. Site infiltrated;
   d. Length of time site is infiltrated;
   e. Loading rates to each infiltration site listed in Attachment B; and
   f. Weather conditions.

   [15A NCAC 02T .0108(c)]

6. Freeboard (i.e., waste level to the lowest embankment elevation) in the infiltration spray beds 1-1 and 1-2, infiltration basins 1, 2, and Repair, and the groundwater stilling basin shall be measured to the nearest inch or tenth of a foot and recorded weekly. Weekly freeboard records shall be maintained for five years and shall be made available to the Division upon request. [15A NCAC 02T .0108(c)]

7. Three copies of all monitoring data (as specified in Conditions IV.3. and IV.4.) on Form NDMR for each PPI and three copies of all operation and disposal records (as specified in Conditions IV.5. and IV.6.) on Form NDAR-2 for every site in Attachment B shall be submitted on or before the last day of the following month. If no activities occurred during the monitoring month, monitoring reports are still required to document the absence of the activity. All information shall be submitted to the following address:

   Division of Water Resources
   Information Processing Unit
   1617 Mail Service Center
   Raleigh, North Carolina 27699-1617

   [15A NCAC 02T .0105(l)]

8. Pursuant to G.S. 143-215.1C(a), the Permittee shall provide to its users and the Division of Water Resources an annual report summarizing the performance of the wastewater treatment and high-rate infiltration facility and the extent to which the facility has violated this permit, or federal or State laws, regulations, or rules related to the protection of water quality. This report shall be prepared on either a calendar or fiscal year basis and shall be provided no later than 60 days after the end of the calendar or fiscal year. Two copies of the annual report provided to the Permittee's users shall be submitted to:

   Division of Water Resources
   Water Quality Permitting Section
   1617 Mail Service Center
   Raleigh, North Carolina 27699-1617

   [G.S. 143-215.1C(a)]

9. The Permittee shall maintain a record of all residuals removed from this facility. This record shall be maintained for five years and shall be made available to the Division upon request. This record shall include:

   a. Name of the residuals hauler;
   b. Non-Discharge permit number authorizing the residuals disposal, or a letter from a municipality agreeing to accept the residuals;
   c. Date the residuals were hauled; and
   d. Volume of residuals removed.

   [15A NCAC 02T .0708(b)]

10. A maintenance log shall be kept at this facility. This log shall be maintained for five years and shall be made available to the Division upon request. This log shall include:

    a. Date of flow measurement device calibration;
    b. Date of infiltration equipment calibration;
    c. Date of turbidimeter calibration;
    d. Date and results of power interruption testing on the alternate power supply;
    e. Visual observations of the plant and plant site; and
    f. Record of preventative maintenance (e.g., changing of equipment, adjustments, testing, inspections, cleanings, etc.).

    [15A NCAC 02T .0707(i)]

11. Monitoring wells MW-4, MW-5, MW-6, MW-7, MW-8, and MW-9 shall be sampled after construction, and within three months prior to initiating high-rate infiltration operations. Monitoring wells MW-4, MW-5, MW-6, MW-7, MW-8, and MW-9 shall be sampled thereafter at the frequencies and for the parameters specified in Attachment C. All mapping, well construction forms, well abandonment forms, and monitoring data shall refer to the permit number and the well nomenclature as provided in Attachment C and Figure 2. [15A NCAC 02T .0105(m)]

12. Monitoring wells MW-1, MW-2, and MW-3 shall be sampled at the frequencies and for the parameters specified in Attachment C. All mapping, well construction forms, well abandonment forms, and monitoring data shall refer to the permit number and the well nomenclature as provided in Attachment C and Figure 1. [15A NCAC 02T .0105(m)]

13. For the initial sampling of monitoring wells MW-4, MW-5, MW-6, MW-7, MW-8, and MW-9, the Permittee shall submit a Compliance Monitoring Form (GW-59) and a Well Construction Record Form (GW-1) listing this permit number and the appropriate monitoring well identification number. Initial Compliance Monitoring Forms (GW-59) without copies of the Well Construction Record Forms (GW-1) are deemed incomplete and may be returned to the Permittee without being processed. [15A NCAC 02T .0105(m)]

14. Two copies of the monitoring well sampling and analysis results shall be submitted on a Compliance Monitoring Form (GW-59), along with attached copies of laboratory analyses, on or before the last working day of the month following the sampling month. The Compliance Monitoring Form (GW-59) shall include this permit number and the appropriate well identification number, and one GW-59a certification form shall be submitted with each set of sampling results. All information shall be submitted to the following address:

    Division of Water Resources
    Information Processing Unit
    1617 Mail Service Center
    Raleigh, North Carolina 27699-1617

    [15A NCAC 02T .0105(m)]

15. **Noncompliance Notification:**

    The Permittee shall report to the Washington Regional Office, telephone number (252) 946-6481, within 24 hours of first knowledge of the following:

    a. Treatment of wastes abnormal in quantity or characteristic, including the known passage of a hazardous substance.

    b. Any process unit failure (e.g., mechanical, electrical, etc.) rendering the facility incapable of adequate wastewater treatment.

    c. Any facility failure resulting in a discharge to surface waters.

    d. Any time self-monitoring indicates the facility has gone out of compliance with its permit limitations.

    e. Ponding in or runoff from the infiltration spray beds (i.e., non-basins).

    f. Effluent breakout from the infiltration sites.

    Emergencies requiring reporting outside normal business hours shall call the Division's Emergency Response personnel at the telephone number (800) 662-7956, (800) 858-0368, or (919) 733-3300. All noncompliance notifications shall file a written report to the Washington Regional Office within five days of first knowledge of the occurrence, and this report shall outline the actions proposed or taken to ensure the problem does not recur. [15A NCAC 02T .0108(b)(1)(A)]

V. INSPECTIONS

1. The Permittee shall perform inspections and maintenance to ensure proper operation of the wastewater treatment and infiltration facilities. [15A NCAC 02T .0707(j)]

2. The Permittee shall inspect the wastewater treatment and infiltration facilities to prevent malfunctions, facility deterioration, and operator errors that may result in discharges of wastes to the environment, threats to human health, or public nuisances. The Permittee shall maintain an inspection log that includes the date and time of inspection, observations made, and maintenance, repairs, or corrective actions taken. The Permittee shall maintain this inspection log for five years from the date of the inspection, and this log shall be made available to the Division upon request. [15A NCAC 02T .0707(i), 02T .0707(j)]

3. Division-authorized representatives may, upon presentation of credentials, enter and inspect any property, premises, or place related to the wastewater treatment and infiltration facilities permitted herein at any reasonable time for determining compliance with this permit. Division-authorized representatives may inspect or copy records maintained under the terms and conditions of this permit and may collect groundwater, surface water, or leachate samples. [G.S. 143-215.3(a)(2)]

VI. GENERAL CONDITIONS

1. Failure to comply with the conditions and limitations contained herein may subject the Permittee to a Division enforcement action. [G.S. 143-215.6A, 143-215.6B, 143-215.6C]

2. This permit is effective only for the nature and volume of wastes described in the permit application, and Division-approved plans and specifications. [G.S. 143-215.1(d)]

3. Unless specifically requested and approved in this permit, there are no variances to administrative codes or general statutes governing the construction or operation of the facilities permitted herein. [15A NCAC 02T .0105(n)]

4. The issuance of this permit does not exempt the Permittee from complying with all statutes, rules, regulations, or ordinances that other jurisdictional government agencies (e.g., local, state, and federal) may require. [15A NCAC 02T .0105(c)(6)]

5. If the permitted facilities change ownership, or the Permittee changes its name, the Permittee shall submit a permit modification request on Division-approved forms. The Permittee shall comply with all terms and conditions of this permit until the permit is transferred to the successor-owner. [G.S. 143-215.1(d3)]

6. The Permittee shall retain a set of Division-approved plans and specifications for the life of the facilities permitted herein. [15A NCAC 02T .0105(o)]

7. The Permittee shall maintain this permit until the proper closure of all facilities permitted herein, or until the facilities permitted herein are permitted by another authority. [15A NCAC 02T .0105(j)]

8. This permit is subject to revocation or modification upon 60-day notice from the Division Director, in whole or part for:
   a. violation of any terms or conditions of this permit or Administrative Code Title 15A Subchapter 02T;
   b. obtaining a permit by misrepresentation or failure to disclose all relevant facts;
   c. the Permittee's refusal to allow authorized Department employees upon presentation of credentials:
      i. to enter the Permittee's premises where a system is located or where any records are required to be kept;
      ii. to have access to any permit-required documents and records;
      iii. to inspect any monitoring equipment or method as required in this permit; or
      iv. to sample any pollutants;
   d. the Permittee's failure to pay the annual fee for administering and compliance monitoring; or
   e. a Division determination that the conditions of this permit conflict with the North Carolina Administrative Code or General Statutes.

   [15A NCAC 02T .0110]

9. Unless the Division Director grants a variance, expansion of the facilities permitted herein shall not occur if any of the following apply:
   a. The Permittee or any parent, subsidiary, or other affiliate of the Permittee has been convicted of environmental crimes under G.S. 143-215.6B, or under Federal law that would otherwise be prosecuted under G.S. 143-215.6B, and all appeals of this conviction have been abandoned or exhausted.
   b. The Permittee or any parent, subsidiary, or other affiliate of the Permittee has previously abandoned a wastewater treatment facility without properly closing the facility.
   c. The Permittee or any parent, subsidiary, or other affiliate of the Permittee has not paid a civil penalty, and all appeals of this penalty have been abandoned or exhausted.
   d. The Permittee or any parent, subsidiary, or other affiliate of the Permittee is currently not compliant with any compliance schedule in a permit, settlement agreement, or order.
   e. The Permittee or any parent, subsidiary, or other affiliate of the Permittee has not paid an annual fee.

   [15A NCAC 02T .0120(b), 02T .0120(d)]

10. This permit shall not be renewed if the Permittee or any affiliation has not paid the required annual fee. [15A NCAC 02T .0120(c)]

11. Pursuant to the flow reduction request received July 6, 2009, and approved August 7, 2009, the Division accepts the data-based design flow rate of 89 gallons per day per bedroom (GPD/BR) for the users served by this facility. At no time shall wastewater flows exceed the limits defined in this permit, or exceed the sewer capacity downstream of any new sewer extension or service connection.

    The Permittee shall report the measured monthly average amount of wastewater flow contributed per unit (GPD/BR) for the 12 months prior to permit renewal. If any of these monthly averages are within 20% of the approved value, the Permittee shall reevaluate the approved value using the methodology applied to determine the approved flow rate of 89 GPD/BR and submit this information with the renewal application for reevaluation of the approved flow rate. [15A NCAC 02T .0114(f)]

12. The Permittee shall retain the Division's written approval of the authorized adjusted daily design flow rate for the life of this facility and shall transfer this approval to any future Permittee. [15A NCAC 02T .0114(f)]

Permit issued this the 26th day of April 2023

NORTH CAROLINA ENVIRONMENTAL MANAGEMENT COMMISSION

DocuSigned by:
Nathaniel Thornburg
D1043082680C483...

Richard E. Rogers, Jr., Director
Division of Water Resources
By Authority of the Environmental Management Commission

Permit Number WQ0035706

ENGINEERING CERTIFICATION

☐ Partial ☐ Final

I, _____, as a duly licensed North Carolina Professional Engineer, having ☐ periodically / ☐ fully observed the construction of the permitted facilities, do hereby state to the best of my abilities that the facility was constructed in compliance with G.S. 143-215.1, Administrative Code Title 15A Subchapter 02T, this permit, and the Division-approved plans and specifications.

Documentation of any variation to this permit, and the Division-approved plans and specifications, is in the attached as-built drawings.

Description of variations: _____

_____

_____

_____

_____

_____

Professional Engineer's Name			
Firm Name		Firm No.	
Address			
City	State	Zip Code	
Telephone	Email		Seal, Signature, and Date

THE COMPLETED ENGINEERING CERTIFICATION, INCLUDING ALL SUPPORTING DOCUMENTATION, SHALL BE SENT TO THE FOLLOWING ADDRESS:

NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER RESOURCES
NON-DISCHARGE BRANCH

By U.S. Postal Service
1617 MAIL SERVICE CENTER
RALEIGH, NORTH CAROLINA 27699-1617

By Courier/Special Delivery
512 N. SALISBURY ST.
RALEIGH, NORTH CAROLINA 27604

PPI 001 – WWTP Effluent (99,000 GPD WWTP)

EFFLUENT CHARACTERISTICS		EFFLUENT LIMITS					MONITORING REQUIREMENTS	
PCS Code	**Parameter Description**	**Units of Measure**	**Monthly Average**	**Monthly Geometric Mean**	**Daily Minimum**	**Daily Maximum**	**Measurement Frequency**	**Sample Type**
00310	BOD, 5-Day (20 ºC)	mg/L	10				2 x Month	Composite
00940	Chloride (as Cl)	mg/L					3 x Year [1]	Grab
31616	Coliform, Fecal MF, M-FC Broth, 44.5 ºC	#/100 mL		14			2 x Month	Grab
50050	Flow, in Conduit or thru Treatment Plant	GPD	99,000				Continuous	Recorder
00610	Nitrogen, Ammonia Total (as N)	mg/L	4				2 x Month	Composite
00625	Nitrogen, Kjeldahl, Total (as N)	mg/L					2 x Month	Composite
00620	Nitrogen, Nitrate Total (as N)	mg/L	10				2 x Month	Composite
00600	Nitrogen, Total (as N)	mg/L	7				2 x Month	Composite
00400	pH	su					5 x Week	Grab
00665	Phosphorus, Total (as P)	mg/L	3				2 x Month	Composite
70300	Solids, Total Dissolved – 180 ºC	mg/L					3 x Year [1]	Grab
00530	Solids, Total Suspended	mg/L	15				2 x Month	Composite

1. 3 x Year monitoring shall be conducted in March, July, and November.

PPI 002 – WWTP Effluent (200,000 GPD WWTP)

EFFLUENT CHARACTERISTICS		EFFLUENT LIMITS					MONITORING REQUIREMENTS	
PCS Code	**Parameter Description**	**Units of Measure**	**Monthly Average**	**Monthly Geometric Mean**	**Daily Minimum**	**Daily Maximum**	**Measurement Frequency**	**Sample Type**
00310	BOD, 5-Day (20 ºC)	mg/L	10				2 x Week	Composite
00940	Chloride (as Cl)	mg/L					3 x Year [1]	Grab
31616	Coliform, Fecal MF, M-FC Broth, 44.5 ºC	#/100 mL		14			2 x Week	Grab
50050	Flow, in Conduit or thru Treatment Plant	GPD	200,000				Continuous	Recorder
00610	Nitrogen, Ammonia Total (as N)	mg/L	4				2 x Week	Composite
00625	Nitrogen, Kjeldahl, Total (as N)	mg/L					2 x Week	Composite
00620	Nitrogen, Nitrate Total (as N)	mg/L	10				2 x Week	Composite
00600	Nitrogen, Total (as N)	mg/L	7				2 x Week	Composite
00400	pH	su					5 x Week	Grab
00665	Phosphorus, Total (as P)	mg/L	3				2 x Week	Composite
70300	Solids, Total Dissolved – 180 ºC	mg/L					3 x Year [1]	Grab
00530	Solids, Total Suspended	mg/L	15				2 x Week	Composite

1. 3 x Year monitoring shall be conducted in March, July, and November.

PPI 003 – Groundwater Lowering System Effluent (Surface Water Monitoring Station South of Check Dam)

EFFLUENT CHARACTERISTICS		EFFLUENT LIMITS					MONITORING REQUIREMENTS	
PCS Code	Parameter Description	Units of Measure	Monthly Average	Monthly Geometric Mean	Daily Minimum	Daily Maximum	Measurement Frequency	Sample Type
00680	Carbon, Total Organic	mg/L					3 x Year [1]	Grab
00940	Chloride (as Cl)	mg/L	250				3 x Year [1]	Grab
31616	Coliform, Fecal MF, M-FC Broth, 44.5 ºC	#/100 mL					Monthly	Grab
00610	Nitrogen, Ammonia Total (as N)	mg/L	1.5				Monthly	Grab
00620	Nitrogen, Nitrate Total (as N)	mg/L	10				Monthly	Grab
00600	Nitrogen, Total (as N)	mg/L					Monthly	Grab
00400	pH	su			6.5	8.5	Monthly	Grab
00665	Phosphorus, Total (as P)	mg/L					Monthly	Grab
70300	Solids, Total Dissolved – 180 ºC	mg/L	500				3 x Year [1]	Grab

1. 3 x Year monitoring shall be conducted in March, July, and November.

PPI 004 – Groundwater Lowering System Effluent (Groundwater Stilling Basin)

EFFLUENT CHARACTERISTICS		EFFLUENT LIMITS					MONITORING REQUIREMENTS	
PCS Code	Parameter Description	Units of Measure	Monthly Average	Monthly Geometric Mean	Daily Minimum	Daily Maximum	Measurement Frequency	Sample Type
00680	Carbon, Total Organic	mg/L					3 x Year [1]	Grab
00940	Chloride (as Cl)	mg/L	250				3 x Year [1]	Grab
31616	Coliform, Fecal MF, M-FC Broth, 44.5 ºC	#/100 mL					Monthly	Grab
00610	Nitrogen, Ammonia Total (as N)	mg/L	1.5				Monthly	Grab
00620	Nitrogen, Nitrate Total (as N)	mg/L	10				Monthly	Grab
00600	Nitrogen, Total (as N)	mg/L					Monthly	Grab
00400	pH	su			6.5	8.5	5 x Week	Grab
00665	Phosphorus, Total (as P)	mg/L					Monthly	Grab
70300	Solids, Total Dissolved – 180 ºC	mg/L	500				3 x Year [1]	Grab

1. 3 x Year monitoring shall be conducted in March, July, and November.

Currituck County – Moyock Regional WWTP

INFILTRATION AREA INFORMATION							APPLICATION LIMITATIONS		
Site	**Owner**	**County**	**Latitude**	**Longitude**	**Net Acreage**	**Dominant Soil Series**	**Parameter**	**Rate**	**Units**
1-1	Currituck County	Currituck	36.535169°	-76.203344°	0.287	Roanoke	01284 – Non-Discharge Application Rate	3.997	GPD/ft^2
1-2	Currituck County	Currituck	36.534807°	-76.203382°	0.287	Roanoke	01284 – Non-Discharge Application Rate	3.997	GPD/ft^2
1	Currituck County	Currituck	36.530620°	-76.202794°	0.51	Roanoke	01284 – Non-Discharge Application Rate	4.45	GPD/ft^2
2	Currituck County	Currituck	36.530784°	-76.204552°	0.51	Roanoke	01284 – Non-Discharge Application Rate	4.45	GPD/ft^2
Repair	Currituck County	Currituck	36.530702°	-76.203673°	0.51	Roanoke	01284 – Non-Discharge Application Rate	4.45	GPD/ft^2
Totals					**2.104**				

THIS PAGE BLANK

Monitoring Wells: MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, and MW-9

GROUNDWATER CHARACTERISTICS		GROUNDWATER STANDARDS		MONITORING REQUIREMENTS		
PCS Code	Parameter Description	Daily Maximum		Frequency Measurement	Sample Type	Footnotes
00680	Carbon, Tot Organic (TOC)		mg/L	3 x Year	Grab	1, 6
00940	Chloride (as Cl)	250	mg/L	3 x Year	Grab	1
31616	Coliform, Fecal MF, M-FC Broth, 44.5 ºC		#/100 mL	3 x Year	Grab	1
00610	Nitrogen, Ammonia Total (as N)	1.5	mg/L	3 x Year	Grab	1
00620	Nitrogen, Nitrate Total (as N)	10	mg/L	3 x Year	Grab	1
00400	pH	6.5-8.5	su	3 x Year	Grab	1, 2
00665	Phosphorus, Total (as P)		mg/L	3 x Year	Grab	1
70300	Solids, Total Dissolved - 180 ºC	500	mg/L	3 x Year	Grab	1
GWVOC	Volatile Compounds (GW)		Present: Yes/No	Annually	Grab	1, 4, 5
82546	Water Level, Distance from measuring point		feet	3 x Year	Calculated	1, 2, 3

1. 3 x Year monitoring shall be conducted in March, July, and November; Annual monitoring shall be conducted in November.
2. The measurement of water levels shall be made prior to purging the wells. The depth to water in each well shall be measured from the surveyed point on the top of the casing. The measurement of pH shall be made after purging and prior to sampling for the remaining parameters.
3. The measuring points (top of well casing) of all monitoring wells shall be surveyed to provide the relative elevation of the measuring point for each monitoring well. The measuring points (top of casing) of all monitoring wells shall be surveyed relative to a common datum.
4. Volatile Organic Compounds (VOC) - In November only, analyze by one of the following methods:
   a. Standard Method 6230D, PQL at 0.5 µg/L or less
   b. Standard Method 6210D, PQL at 0.5 µg/L or less
   c. EPA Method 8021, Low Concentration, PQL at 0.5 µg/L or less
   d. EPA Method 8260, Low Concentration, PQL at 0.5 µg/L or less
   e. Another method with prior approval by the Water Quality Permitting Section Chief

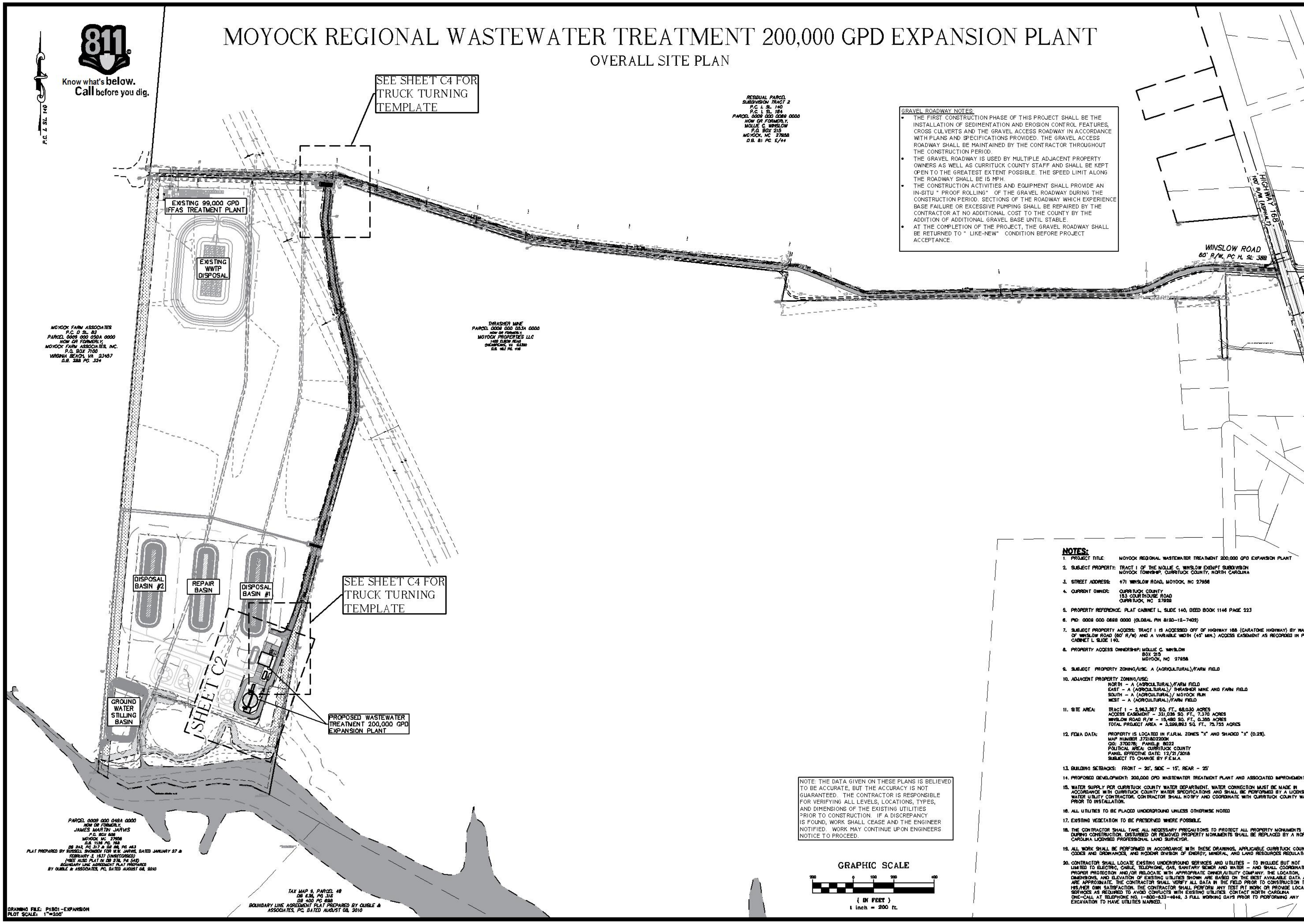
   Any method used shall meet the following qualifications:
   a. A laboratory shall be DWR certified to run any method used.
   b. The method used shall include all the constituents listed in Table VIII of Standard Method 6230D.
   c. The method used shall provide a PQL of 0.5 µg/L or less that shall be supported by laboratory proficiency studies as required by the DWR Laboratory Certification Unit. Any constituents detected above the MDL but below the PQL of 0.5 µg/L shall be qualified (estimated) and reported.
5. If any volatile organic compounds (VOC) are detected as a result of monitoring as provided in Attachment C, then the Washington Regional Office supervisor, telephone number 252) 946-6481, shall be contacted immediately for further instructions regarding any additional follow-up analyses required.
6. If TOC concentrations greater than 10 mg/L are detected in any downgradient monitoring well, additional sampling and analysis shall be conducted to identify the individual constituents comprising this TOC concentration. If the TOC concentration as measured in the background monitor well exceeds 10 mg/L, this concentration will be taken to represent the naturally occurring TOC concentration. Any exceedances of this naturally occurring TOC concentration in the downgradient wells shall be subject to the additional sampling and analysis as described above.
7. Monitoring wells shall be reported consistent with the nomenclature and location information provided in Figure 1 and this attachment.

FIGURE 1 – SITE MAP **Permit Number: WQ0035706** **Version: 3.0**

Currituck County – Moyock Regional WWTP

MOYOCK REGIONAL WASTEWATER TREATMENT 200,000 GPD EXPANSION PLANT

OVERALL SITE PLAN



GRAVEL ROADWAY NOTES:

- THE FIRST CONSTRUCTION PHASE OF THIS PROJECT SHALL BE THE INSTALLATION OF SEDIMENTATION AND EROSION CONTROL FEATURES, CROSS CULVERTS AND THE GRAVEL ACCESS ROADWAY IN ACCORDANCE WITH PLANS AND SPECIFICATIONS PROVIDED. THE GRAVEL ACCESS ROADWAY SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION PERIOD.
- THE GRAVEL ROADWAY IS USED BY MULTIPLE ADJACENT PROPERTY OWNERS AS WELL AS CURRITUCK COUNTY STAFF AND SHALL BE KEPT OPEN TO THE GREATEST EXTENT POSSIBLE. THE SPEED LIMIT ALONG THE ROADWAY SHALL BE 15 MPH.
- THE CONSTRUCTION ACTIVITIES AND EQUIPMENT SHALL PROVIDE AN IN-SITU " PROOF ROLLING" OF THE GRAVEL ROADWAY DURING THE CONSTRUCTION PERIOD. SECTIONS OF THE ROADWAY WHICH EXPERIENCE BASE FAILURE OR EXCESSIVE PUMPING SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE COUNTY BY THE ADDITION OF ADDITIONAL GRAVEL BASE UNTIL STABLE.
- AT THE COMPLETION OF THE PROJECT, THE GRAVEL ROADWAY SHALL BE RETURNED TO " LIKE-NEW" CONDITION BEFORE PROJECT ACCEPTANCE.

NOTE: THE DATA GIVEN ON THESE PLANS IS BELIEVED TO BE ACCURATE, BUT THE ACCURACY IS NOT GUARANTEED. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL LEVELS, LOCATIONS, TYPES, AND DIMENSIONS OF THE EXISTING UTILITIES PRIOR TO CONSTRUCTION. IF A DISCREPANCY IS FOUND, WORK SHALL CEASE AND THE ENGINEER NOTIFIED. WORK MAY CONTINUE UPON ENGINEERS NOTICE TO PROCEED.

NOTES:

1. PROJECT TITLE: MOYOCK REGIONAL WASTEWATER TREATMENT 200,000 GPD EXPANSION PLANT
2. SUBJECT PROPERTY: TRACT 1 OF THE MOLLIE C. WINSLOW EXEMPT SUBDIVISION MOYOCK TOWNSHIP, CURRITUCK COUNTY, NORTH CAROLINA
3. STREET ADDRESS: 471 WINSLOW ROAD, MOYOCK, NC 27958
4. CURRENT OWNER: CURRITUCK COUNTY, 153 COURTHOUSE ROAD, CURRITUCK, NC 27929
5. PROPERTY REFERENCE: PLAT CABINET L, SLIDE 140, DEED BOOK 1146 PAGE 223
6. PID: 0009 000 0698 0000 (GLOBAL PIN 8120-12-7402)
7. SUBJECT PROPERTY ACCESS: TRACT 1 IS ACCESSED OFF OF HIGHWAY 168 (CARATOKE HIGHWAY) BY WAY OF WINSLOW ROAD (60' R/W) AND A VARIABLE WIDTH (45' MIN.) ACCESS EASEMENT AS RECORDED IN PLAT CABINET L SLIDE 140.
8. PROPERTY ACCESS OWNERSHIP: MOLLIE C. WINSLOW, BOX 215, MOYOCK, NC 27958
9. SUBJECT PROPERTY ZONING/USE: A (AGRICULTURAL)/FARM FIELD
10. ADJACENT PROPERTY ZONING/USE:
    NORTH – A (AGRICULTURAL)/FARM FIELD
    EAST – A (AGRICULTURAL)/ THRASHER MINE AND FARM FIELD
    SOUTH – A (AGRICULTURAL)/ MOYOCK RUN
    WEST – A (AGRICULTURAL)/FARM FIELD
11. SITE AREA:
    TRACT 1 – 2,963,387 SQ. FT., 68.030 ACRES
    ACCESS EASEMENT – 321,026 SQ. FT., 7.370 ACRES
    WINSLOW ROAD R/W – 15,480 SQ. FT., 0.355 ACRES
    TOTAL PROJECT AREA = 3,299,893 SQ. FT., 75.755 ACRES
12. FEMA DATA: PROPERTY IS LOCATED IN F.I.R.M. ZONES "X" AND SHADED "X" (0.2%).
    MAP NUMBER 3721802200K
    CID: 370078; PANEL#: 8022
    POLITICAL AREA: CURRITUCK COUNTY
    PANEL EFFECTIVE DATE: 12/21/2018
    SUBJECT TO CHANGE BY F.E.M.A.
13. BUILDING SETBACKS: FRONT – 20', SIDE – 15', REAR – 25'
14. PROPOSED DEVELOPMENT: 200,000 GPD WASTEWATER TREATMENT PLANT AND ASSOCIATED IMPROVEMENTS
15. WATER SUPPLY PER CURRITUCK COUNTY WATER DEPARTMENT. WATER CONNECTION MUST BE MADE IN ACCORDANCE WITH CURRITUCK COUNTY WATER SPECIFICATIONS AND SHALL BE PERFORMED BY A LICENSED WATER UTILITY CONTRACTOR. CONTRACTOR SHALL NOTIFY AND COORDINATE WITH CURRITUCK COUNTY WATER PRIOR TO INSTALLATION.
16. ALL UTILITIES TO BE PLACED UNDERGROUND UNLESS OTHERWISE NOTED
17. EXISTING VEGETATION TO BE PRESERVED WHERE POSSIBLE.
18. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT ALL PROPERTY MONUMENTS DURING CONSTRUCTION. DISTURBED OR REMOVED PROPERTY MONUMENTS SHALL BE REPLACED BY A NORTH CAROLINA LICENSED PROFESSIONAL LAND SURVEYOR.
19. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE DRAWINGS, APPLICABLE CURRITUCK COUNTY CODES AND ORDINANCES, AND NCDENR DIVISION OF ENERGY, MINERAL, AND LAND RESOURCES REGULATIONS.
20. CONTRACTOR SHALL LOCATE EXISTING UNDERGROUND SERVICES AND UTILITIES – TO INCLUDE BUT NOT LIMITED TO ELECTRIC, CABLE, TELEPHONE, GAS, SANITARY SEWER AND WATER – AND SHALL COORDINATE PROPER PROTECTION AND/OR RELOCATE WITH APPROPRIATE OWNER/UTILITY COMPANY. THE LOCATION, DIMENSIONS, AND ELEVATION OF EXISTING UTILITIES SHOWN ARE BASED ON THE BEST AVAILABLE DATA AND ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL DATA IN THE FIELD PRIOR TO CONSTRUCTION TO HIS/HER OWN SATISFACTION. THE CONTRACTOR SHALL PERFORM ANY TEST PIT WORK OR PROVIDE LOCATION SERVICES AS REQUIRED TO AVOID CONFLICTS WITH EXISTING UTILITIES. CONTACT NORTH CAROLINA ONE-CALL AT TELEPHONE NO. 1-800-632-4949, 3 FULL WORKING DAYS PRIOR TO PERFORMING ANY EXCAVATION TO HAVE UTILITIES MARKED.

DRAWING FILE: P1801-EXPANSION
PLOT SCALE: 1"=200'

Anlauf Engineering, PLLC — CIVIL ENGINEERING SERVICES

NO.	DATE	REVISIONS
1	10/24/2019	ADD GRINDER STATION
2	11/8/2019	ADD C4 – TRUCK TURNING
3	11/15/2019	BID SET
4	12/17/2019	TRC COMMENT REVISIONS
5	01/09/2020	TRC – REVISE DRIVE WIDTH AT PROP. LINE
6	02/07/2020	BID DOCUMENTS

OVERALL SITE PLAN VIEW

MOYOCK REGIONAL WWTP 200,000 GPD PLANT EXPANSION

MOYOCK — CURRITUCK COUNTY — NORTH CAROLINA

COMMISSION NO. P1801
DESIGNED BY JJA
DRAWN BY JJA
CHECKED BY JJA
ISSUE DATE 9/2/2019

SHEET NO. C1
OF 4 SHEETS