

ROY COOPER

Governor

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Secretary

LINDA CULPEPPER

Director



NORTH CAROLINA
Environmental Quality

November 8, 2019

Michael A. Melton, Engineering Manager
Aqua North Carolina, Inc.
202 MacKenan Court
Cary, NC 27511

Subject: Permit No. WQ0029022 Modification
Aqua North Carolina, Inc.
The Legacy at Jordan Lake – Phases 1, 2, and 3
Wastewater Collection System Extension Permit
Chatham County

Dear Mr. Melton:

In accordance with your application received May 31, 2019, and additional information received on September 9, 2019 we are forwarding herewith Permit No. WQ0029022, dated November 8, 2019, to Aqua North Carolina, Inc. (Permittee) for the construction and operation upon certification of the subject wastewater collection system extension. This permit shall be effective from the date of issuance until rescinded, shall void Permit No. WQ0029022 issued October 26, 2006, and shall be subject to the conditions and limitations as specified therein. This cover letter and supplement shall be considered a part of this permit and are therefore incorporated therein by reference.

Please pay particular attention to the following conditions contained within this permit:

- Condition II.1: This permit shall not be automatically transferable; a request must be made and approved.
- Condition II.4: Requires that the wastewater collection facilities be properly operated and maintained in accordance with 15A NCAC 2T .0403 or any individual system-wide collection system permit issued to the Permittee.
- Condition II.7: Upon completion of construction and prior to operation of these permitted facilities, the completed Engineering Certification form attached to this permit shall be submitted with the required supporting documents to the address provided on the form. **Permit modifications are required for any changes resulting in non-compliance with this permit, regulations, or the Minimum Design Criteria.** [15A NCAC 02T.0116]

It shall be responsibility of the Permittee to ensure that the as-constructed project meets the appropriate design criteria and rules. Failure to comply may result in penalties in accordance with North Carolina General Statute §143-215.6A through §143-215.6C, construction of additional or replacement wastewater collection facilities, and/or referral of the North Carolina-licensed Professional Engineer to the licensing board.



North Carolina Department of Environmental Quality | Division of Water Resources
512 North Salisbury Street | 1617 Mail Service Center | Raleigh, North Carolina 27699-1617
919.707.9000

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

If you need additional information concerning this matter, please contact Christyn Fertenbaugh, P.E., at (919) 707-3625 or via e-mail at Christyn.Fertenbaugh@ncdenr.gov.

Sincerely,



for Linda Culpepper
Director, Division of Water Resources

by Christyn L. Fertenbaugh, P.E.
Pretreatment, Emergency Response, Collection System Unit

cc: Joseph M. Craig, P.E., CE Group, Inc. (mitch@cegrouppinc.com)
Raleigh Regional Office, Water Quality Section Regional Operations
Water Resources Central Files: WQ0029022
PERCS (electronic copy)



NORTH CAROLINA
Environmental Quality

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

Aqua North Carolina, Inc.

for the continued construction and operation of approximately 416 linear feet of 1.5-inch pressure sewer, approximately 1,709 linear feet of 2-inch pressure sewer, approximately 4,389 linear feet of 3-inch pressure sewer, approximately 1,193 linear feet of 4-inch pressure sewer, and approximately 493 linear feet of 6-inch pressure sewer; as well as 123 simplex grinder pump stations with audible and visual high water alarms and associated pressure service laterals, to serve 123 4-bedroom single family residences (Phase 2 – 54 [Partial Certification received September 10, 2014] and Phase 3 – 69) as part of the Legacy at Jordan Lake Phases 2 & 3 project, and the discharge of 41,100 gallons per day of collected domestic wastewater into Aqua North Carolina, Inc.'s existing sewerage system, pursuant to the application received May 31, 2019, and additional information received on September 9, 2019 and in conformity with the project plans, specifications, and other supporting data subsequently filed and approved by the Department of Environmental Quality and considered a part of this permit.

Original Permit (August 11, 2005) – Final Certification received June 25, 2007:

Project description was modified to reflect the name change from the Homestead Phase 1 to the Legacy at Jordan Lake, Phase 1.

Continued operation of a pressure sewer collection system consisting of 106, 15-35 GPD simplex pump stations with pre-cast concrete wet well, on-site audible and visual high water alarms; approximately 2,970 linear feet of 2-inch pressure sewer, approximately 2,775 linear feet of 3-inch pressure sewer, approximately 1,045 linear feet of 4-inch pressure sewer, approximately 2,611 linear feet of 6-inch pressure sewer, approximately 2,370 linear feet of 8-inch pressure sewer, and approximately 1,550 linear feet of 10-inch pressure sewer; to serve 105 4-bedroom single family residences and 1 guard house for The Legacy at Jordan Lake Phase 2 and 3, Legacy Phase 1 project, and the discharge of 50,500 gallons per day of collected wastewater into the Legacy at Jordan Lake's existing sewerage system pursuant to the application received June 24, 2005.

This permit shall be effective from the date of issuance until rescinded and shall be subject to the specified conditions and limitations contained therein.

A handwritten signature in blue ink, appearing to read "Linda Culpepper", written over a horizontal line.

for Linda Culpepper

Director, Division of Water Resources

By Authority of The Environmental Management Commission

Permit Number: WQ0029022 Modification
Permit Issued: November 8, 2019
Treatment Facility: The Legacy at Jordan Lake WWTP (WQ0024844)

SUPPLEMENT TO PERMIT COVER SHEET

The Permittee is hereby authorized to:

Construct, and then operate upon certification the aforementioned wastewater collection extension.

Permitting of this project does not constitute an acceptance of any part of the project that does not meet 15A NCAC 2T; the Division's Gravity Sewer Minimum Design Criteria adopted February 12, 1996 as applicable; and the Division's Minimum Design Criteria for the Fast-Track Permitting of Pump Stations and Force Mains adopted June 1, 2000 as applicable, unless specifically mentioned herein. Division approval is based on acceptance of the certification provided by a North Carolina-licensed Professional Engineer in the application. It shall be the Permittee's responsibility to ensure that the as-constructed project meets the appropriate design criteria and rules.

Construction and operation is contingent upon compliance with the Standard Conditions and any Special Conditions identified below.

I. SPECIAL CONDITIONS

1. Each pump station shall be clearly and conspicuously posted using a weatherproof sign with a pump station identifying name/number, 24-Hour Emergency telephone number, and name of the owner/operator of the sewer system/pump station and instructions to call the number in the event of alarm activation or other emergency. Simplex pump stations or vacuum sewer pits serving a single-family residence may have a placard or sticker on the control panel in lieu of a sign. [15A NCAC 02T .0305(h)(2)]
2. The Permittee shall be responsible for all individual pumps, tanks, service laterals and main lines as permitted. This does not prohibit the Permittee from entering into a service agreement with another entity for maintenance or operation of these units, however, the Permittee shall be responsible for correcting any environmental or public health problem with the system. [15A NCAC 02T.304(c)]
3. The Permittee shall obtain all deeds, easements and encroachment agreements necessary for installation, operation, and maintenance of the system prior to operation. [15A NCAC 02T.0305(c)]
4. The Permittee shall maintain on hand for immediate installation an adequate supply of spare, fully operational pump units of each type used in the system. [15A NCAC 02T .0305(h)]

II. STANDARD CONDITIONS

1. This permit shall not be transferable. In the event there is a desire for the wastewater collection facilities to change ownership, or there is a name change of the Permittee, a formal permit request shall be submitted to the Division accompanied by documentation from the parties involved, and other supporting materials as may be appropriate. The approval of this request shall be considered on its merits and may or may not be approved. [15A NCAC 02T.0104; G.S. 143-215.1(d3)]
2. This permit shall become voidable unless the wastewater collection facilities are constructed in accordance with the conditions of this permit; 15A NCAC 2T; the Division's Gravity Sewer Minimum Design Criteria adopted February 12, 1996 as applicable; the Division's Minimum Design Criteria for the Fast-Track Permitting of Pump Stations and Force Mains adopted June 1, 2000 as applicable; and other supporting materials unless specifically mentioned herein. [15A NCAC 02T.0110]
3. This permit shall be effective only with respect to the nature and volume of wastes described in the application and other supporting data. [15A NCAC 02T .0110]
4. The wastewater collection facilities shall be properly maintained and operated at all times. The Permittee shall maintain compliance with an individual system-wide collection system permit for the operation and maintenance of these facilities as required by 15A NCAC 02T.0403. If an individual permit is not required, the following performance criteria shall be met:
 - a. The sewer system shall be effectively maintained and operated at all times to prevent discharge to land or surface waters, and to prevent any contravention of groundwater standards or surface water standards.
 - b. A map of the sewer system shall be developed and shall be actively maintained.
 - c. An operation and maintenance plan including pump station inspection frequency, preventative maintenance schedule, spare parts inventory and overflow response has been developed and implemented.
 - d. Pump stations that are not connected to a telemetry system shall be inspected every day (i.e. 365 days per year). Pump stations that are connected to a telemetry system shall be inspected at least once per week.
 - e. High-priority sewer lines shall be inspected at least once per every six-months and inspections are documented.
 - f. A general observation of the entire sewer system shall be conducted at least once per year.
 - g. Overflows and bypasses shall be reported to the appropriate Division regional office in accordance with 15A NCAC 2B .0506(a), and public notice shall be provided as required by North Carolina General Statute §143-215.1C.
 - h. A Grease Control Program is in place as follows:
 1. For public owned collection systems, the Grease Control Program shall include at least biannual distribution of educational materials for both commercial and residential users and

the legal means to require grease interceptors at existing establishments. The plan shall also include legal means for inspections of the grease interceptors, enforcement for violators and the legal means to control grease entering the system from other public and private satellite sewer systems.

2. For privately owned collection systems, the Grease Control Program shall include at least bi-annual distribution of grease education materials to users of the collection system by the permittee or its representative.
 3. Grease education materials shall be distributed more often than required in Parts (1) and (2) of this Subparagraph if necessary to prevent grease-related sanitary sewer overflows.
- i. Right-of-ways and easements shall be maintained in the full easement width for personnel and equipment accessibility.
 - j. Documentation shall be kept for Subparagraphs (a) through (i) of this Rule for a minimum of three years with exception of the map, which shall be maintained for the life of the system.
5. Noncompliance Notification:

The Permittee shall report by telephone to a water resources staff member at the Raleigh Regional Office, telephone number (919) 791-4200, as soon as possible, but in no case more than 24 hours, following the occurrence or first knowledge of the occurrence of either of the following:

- a. Any process unit failure, due to known or unknown reasons, that renders the facility incapable of adequate wastewater transport, such as mechanical or electrical failures of pumps, line blockage or breakage, etc.; or
- b. Any SSO and/or spill over 1,000 gallons; or
- c. Any SSO and/or spill, regardless of volume, that reaches surface water

Voice mail messages or faxed information is permissible, but this shall not be considered as the initial verbal report. Overflows and spills occurring outside normal business hours may also be reported to the Division of Emergency Management at telephone number (800) 858-0368 or (919) 733-3300. Persons reporting any of the above occurrences shall file a spill report by completing and submitting Part I of Form CS-SSO (or the most current Division approved form) within five days following first knowledge of the occurrence. This report must outline the actions taken or proposed to be taken to ensure that the problem does not recur. Part II of Form CS-SSO (or the most current Division approved form) can also be completed to show that the SSO was beyond control. [G.S. 143-215.1C(a1)]

6. Construction of the gravity sewers, pump stations, and force mains shall be scheduled so as not to interrupt service by the existing utilities nor result in an overflow or bypass discharge of wastewater to the surface waters of the State. [15A NCAC 02T.0108(b)]
7. Upon completion of construction and prior to operation of these permitted facilities, the completed Engineering Certification form attached to this permit shall be submitted with the required supporting documents to the address provided on the form. A complete certification is one where the form is fully executed and the supporting documents are provided as applicable. Any wastewater flow made tributary to the wastewater collection system extension prior to completion of this Engineer's Certification shall be considered a violation of the permit and shall subject the Permittee to appropriate enforcement actions.

If the permit is issued to a private entity with an Operational Agreement, then a copy of the Articles of Incorporation, Declarations/Covenants/Restrictions, and Bylaws that have been appropriately filed with the applicable County's Register of Deeds office shall be submitted with the certification.

A complete certification is one where the form is fully executed and the supporting documents are provided as applicable. Supporting documentation shall include the following:

- a. One copy of the project construction record drawings (plan & profile views of sewer lines & force mains) of the wastewater collection system extension. Final record drawings should be clear on the plans or on digital media (CD or DVD disk) and are defined as the design drawings that are marked up or annotated with after construction information and show required buffers, separation distances, material changes, etc.
- b. Changes to the project that do not result in non-compliance with this permit, regulations, or the Minimum Design Criteria should be clearly identified on the record drawings, on the certification in the space provided, or in written summary form.

Prior to Certification (Final or Partial): Permit modifications are required for any changes resulting in non-compliance with this permit (including but not limited to pipe length changes of 10% or greater, increased flow, pump station design capacity design increases of 5% or greater, and increases in the number/type of connections), regulations, or the Minimum Design Criteria. Requested modifications or variances to the Minimum Design Criteria will be reviewed on a case-by-case basis and each on its own merit. Please note that variances to the Minimum Design Criteria should be requested and approved during the permitting process prior to construction. After-construction requests are discouraged by the Division and may not be approved, thus requiring replacement or repair prior to certification & activation. [15A NCAC 02T .0116]

8. Gravity sewers installed greater than ten percent below the minimum required slope per the Division's Gravity Sewer Minimum Design Criteria shall not be acceptable and shall not be certified until corrected. If there is an unforeseen obstacle in the field where all viable solutions have been examined, a slope variance can be requested from the Division with firm supporting documentation. This shall be done through a permit modification with fee. Such variance requests will be evaluated on a case-by-case basis. Resolution of such request shall be evident prior to completing and submitting the construction certification. [15A NCAC 02T.0105(n)]
9. A copy of the construction record drawings shall be maintained on file by the Permittee for the life of the wastewater collection facilities. [15A NCAC 02T .0116]
10. Failure to abide by the conditions and limitations contained in this permit; 15A NCAC 2T; the Division's Gravity Sewer Design Criteria adopted February 12, 1996 as applicable; the Division's Minimum Design Criteria for the Fast-Track Permitting of Pump Station and Force Mains adopted June 1, 2000 as applicable; and other supporting materials may subject the Permittee to an enforcement action by the Division, in accordance with North Carolina General Statutes §143-215.6A through §143-215.6C, construction of additional or replacement wastewater collection facilities, and/or referral of the North Carolina-licensed Professional Engineer to the licensing board. [15A NCAC 02T .0108(b-c)]
11. In the event that the wastewater collection facilities fail to perform satisfactorily, including the creation of nuisance conditions, the Permittee shall take immediate corrective action, including those

as may be required by this Division, such as the construction of additional or replacement facilities. [15A NCAC 02T .0110; 15A NCAC 02T .0108(b)]

12. The issuance of this permit shall not exempt the Permittee from complying with any and all statutes, rules, regulations, or ordinances that may be imposed by the Division any other Federal, State, or Local government agencies which have jurisdiction or obtaining other permits which maybe required by the Division or any other Federal, State, of Local government agencies. [G.S.143-215.1(b)]
13. The Permittee shall provide for the pump station and force main the following items:
 - a. Pump Station Reliability [15A NCAC 02T .0305(h)(1)]:
 1. Pump stations, except when exempted by Subparagraph (j)(2) of 15A NCAC 02T.0305, shall be designed with multiple pumps such that peak flow can be pumped with the largest pump out of service.
 2. A standby power source or pump is required at all pump stations except for those pump stations subject to Subparagraph (j)(2) of 15A NCAC 02T.0305. Controls shall be provided to automatically activate the standby source and signal an alarm condition.
 3. As an alternative to Part (c) for pump stations with an average daily design flow less than 15,000 gallons per day as calculated using 15A NCAC 02T.0114, a portable power source or pumping capability may be utilized. It shall be demonstrated to the Division that the portable source is owned or contracted by the permittee and is compatible with the station. If the portable power source or pump is dedicated to multiple pump stations, an evaluation of all the pump stations' storage capacities and the rotation schedule of the portable power source or pump, including travel timeframes, shall be provided in the case of a multiple station power outage.
 4. As an alternative to Part (ii) for pump or vacuum stations connecting a single building to an alternative sewer system, wet well storage requirements shall be documented to provide 24-hours' worth of wastewater storage or, exceed the greatest power outage over the last three years or the documented response time to replace a failed pump, whichever is greater. Documentation shall be required pursuant to the permit application.
 - b. All pump stations designed for two pumps or more shall have a telemetry system to provide remote notification of a problem condition to include power failure and high water alarm. [15A NCAC 02T .0305(h)(1)(E)]
 - c. High water audio and visual alarm. [15A NCAC 02T .0305(h)(1)(F)]
 - d. Pump stations shall have a permanent weatherproof sign stating the pump station identifier, 24-hour emergency number and instructions to call in case of emergency. Simplex pump or vacuum stations serving a single-family residence shall have a placard or sticker placed inside the control panel with a 24-hour emergency contact number. [15A NCAC 02T .0305(h)(2)]
 - e. Screened vents for all wet wells. [15A NCAC 02T .0305(h)(3)]
 - f. The public shall be restricted access to the site and equipment. [15A NCAC 02T .0305(h)(4)]
 - g. Air relief valves shall be provided at all high points along force mains where the vertical distance exceeds ten feet. [15A NCAC 02T .0305(h)(5)]

