

ROY COOPER
Governor
MICHAEL S. REGAN
Secretary
S. DANIEL SMITH
Director



October 14, 2020

THE HONORABLE CHARLES HOOKS
TOWN OF PIKEVILLE
POST OFFICE BOX 9
PIKEVILLE, NORTH CAROLINA 27863

Subject: Permit No. WQ0023934
Town of Pikeville WWTP
Wastewater Irrigation System
Wayne County

Dear Mayor Hooks:

In accordance with your permit minor modification request received July 29, 2020, we are forwarding herewith Permit No. WQ0023934 dated October 14, 2020, to the Town of Pikeville for the construction and operation of the storage lagoon, as well as the continued operation of the existing wastewater treatment and irrigation facilities.

The following modifications to the subject permit are as follows: The permit's format has been updated to be consistent with the most current wastewater irrigation system permit template, and rule references have been updated pursuant to 15A NCAC 02T .0500.

This permit shall be effective from the date of issuance through April 30, 2023, shall void Permit No. WQ0023934 issued May 21, 2018, and shall be subject to the conditions and limitations therein. **The Permittee shall submit a renewal application no later than November 1, 2022.**

Please pay attention to the monitoring requirements listed 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 conditions since the last permit issuance dated May 21, 2018:

- Old Condition I.2. – The condition is not applicable as fill material was not used for Field CP-2.
- Old Conditions I.4., I.5., and I.7. – The conditions have been met.
- Old Conditions II.7., II.8., II.9., and II.10. – The conditions are not applicable as the system is no longer a reclaimed water system.
- Old Conditions III.13., III.10., III.20., III.21., III.22., and III.23. – The conditions are not applicable as the system is no longer a reclaimed water system.
- Old Conditions IV.5., IV.10., and IV.13. – The conditions are not applicable as the system is no longer a reclaimed water system.



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

OFFICIAL COPY

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- Old Condition VI.2. – The permit is not voidable.
- Old Condition VI.11. – The condition is not applicable any more.


The following permit conditions are new since the last permit issuance dated May 21, 2018:

- Condition I.3. – The condition requires MW-6 and MW-7 be temporarily abandoned.
- Condition I.5. – The condition requires a Final Operation and Maintenance Plan be submitted.
- Condition II.6. and II.7. – The compliance boundary and review boundary have been redefined as the system is now a wastewater irrigation system.
- Condition II.11. – Setbacks have been updated according to the 02T .0506 rules.
- Condition III.16. – The condition requires that metering equipment be tested and calibrated annually.
- Condition IV.12. – The condition requires that an annual representative soils analysis be conducted on each irrigation site.
- Conditions VI.8. and VI.9. – Updated general permit language.
- Condition VI.10 – The condition prevents the permit from being renewed if the Permittee has unpaid overdue fees.
- Attachment A – Effluent limits have been updated according to 02T .0505(b)(1).
- Attachment B – Irrigation fields have been updated to only include CP-1 and CP-2.

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 Vivien Zhong at (919) 707-3627 or vivien.zhong@ncdenr.gov.

Sincerely,


S. Daniel Smith, Director
Division of Water Resources

cc: Wayne County Health Department (Electronic Copy)
Washington Regional Office, Water Quality Regional Operations Section (Electronic Copy)
Cecil G. Madden, Jr., PE – McDavid Associates, Inc. (Electronic Copy)
Laserfiche File (Electronic Copy)
Digital Permit Archive (Electronic Copy)

NORTH CAROLINA
ENVIRONMENTAL MANAGEMENT COMMISSION
DEPARTMENT OF ENVIRONMENTAL QUALITY
RALEIGH
WASTEWATER IRRIGATION 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

Town of Pikeville
Wayne County

FOR THE

operation of a 140,000 gallon per day (GPD) wastewater treatment and irrigation facility consisting of the:

construction and operation of: a 15,261,394 gallon Irrigation Structure No. 1 with inside berm walls with fabric-enclosed concrete; and all associated piping, valves, controls, and appurtenances; the

continued operation of a wastewater treatment system consisting of: dual manual bar screens and dual grit chambers; an influent pump station with dual 300 gallon per minute (GPM), 15 horsepower (hp) self-priming pumps; an influent magnetic flowmeter; dual 70,000 GPD secondary treatment steel package plant and a 50 cubic feet per minute (CFM) air blower; a 27,200 gallon aerobic digester chamber; an 87,500 gallon aeration chamber; dual 12 square foot (ft²) clarifier chamber with dual air-lift sludge return pumps and dual 472 CFM air blowers; decommissioned dual 48 ft² tertiary sand filters serving as conveyance of wastewater; dual 10,000 gallon steel wastewater tanks; flow control structure used to transfer effluent to storage ponds; four 300 GPM vertical turbine pumps with flowmeter for irrigation; a sodium hypochlorite chemical feed and storage building with dual 165 gallon tanks and feed pumps for disinfection; a 1,119,940 gallon side stream detention pond; a 35 GPM return pump station; a 5,146,849 gallon Irrigation Structure No. 2; a 6,611,658 gallon Irrigation Structure No. 3; a 200 kilowatt (kW) emergency generator with automatic transfer switch; and all associated piping, valves, controls, and appurtenances; and the

continued operation of wastewater irrigation system consisting of: a 38.5 acre spray irrigation area (i.e., Field CP-1 and CP-2) with two center pivot irrigation units, and a programmable type control panel with an automatic rain shut-off feature; and all associated piping, valves, controls, and appurtenances

to serve the Town of Pikeville WWTP, with no discharge of wastes to surface waters, pursuant to the application received July 29, 2020, 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 April 30, 2023, shall void Permit No. WQ0023934 issued May 21, 2018, and shall be subject to the following conditions and limitations:

I. SCHEDULES

1. Upon completion of construction and prior to operation of Irrigation Structure No. 1, 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 initial operation of the constructed facilities so that the Division can conduct a startup inspection. [15A NCAC 02T .0108(b)(1)(B)]
3. Within 60 days of the effective date of this permit, monitoring wells MW-6 and MW-7 shall be temporarily abandoned by securing the wellheads to prevent access. Each monitoring well shall have a lockable cap, and a compatible watertight cap or seal shall be placed onto each monitoring well riser pipe. [15A NCAC 02C .0113(a), 02T .0108(b)(1)(B)]
4. A gauge to monitor waste levels in the 15,261,392 gallon Irrigation Structure No. 1 shall be installed prior to operation. Caution shall be taken not to damage the integrity of any liner (if present) when installing a gauge. [15A NCAC 02T .0108(b)(1)(B), 02T .0505(d)]
5. Prior to operation of the newly installed and modified 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 .0507(a)]
6. The Permittee shall request renewal of this permit on Division-approved forms no later than November 1, 2022. [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 irrigation 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 .0505(b)]
5. Application rates, whether hydraulic, nutrient, or other pollutant, shall not exceed those specified in Attachment B. [15A NCAC 02T .0505(c), 02T .0505(n)]

6. Wastewater irrigation fields permitted on or after December 30, 1983 have a compliance boundary that is either 250 feet from the wastewater irrigation area, or 50 feet within the property boundary, whichever is closest to the wastewater irrigation 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 with regard to 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 wastewater irrigation 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 Wayne 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. The irrigation sites were modified October 14, 2020. The setbacks for spray irrigation 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: | 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 |
| v. Groundwater lowering ditches: | 100 |
| vi. Surface water diversions: | 25 |
| vii. Each well with exception of monitoring wells: | 100 |
| viii. Each property line: | 150 ² |
| ix. Top of slope of embankments or cuts of two feet or more in vertical height: | 15 |
| x. Each water line: | 10 |
| xi. Subsurface groundwater lowering drainage systems: | 100 |
| xii. Public right of way: | 50 |
| xiii. Nitrification field: | 20 |
| xiv. Each building foundation or basement: | 15 |

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 .0506(a), 02T .0506(e), 02T .0506(f)]

b. The storage and treatment units were modified October 14, 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 .0506(b), 02T .0506(e), 02T .0506(f)]

III. OPERATION AND MAINTENANCE REQUIREMENTS

1. The Permittee shall operate and maintain the subject facilities as a non-discharge system. [15A NCAC 02T .0500]
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 .0507(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 maintain vegetative cover on the irrigation sites, such that crop health is optimal, allows even effluent distribution, and allows inspection of the irrigation system. [15A NCAC 02T .0507(b)]
5. The Permittee shall take measures to prevent effluent ponding in or runoff from the irrigation sites listed in Attachment B. [15A NCAC 02T .0507(c)]
6. The Permittee shall not irrigate treated effluent during inclement weather, or when the soil is in a condition that will cause ponding or runoff. [15A NCAC 02T .0505(x)]
7. Irrigation equipment shall be tested and calibrated once per permit cycle. [15A NCAC 02T .0507(d)]
8. Only treated effluent from the Town of Pikeville WWTP shall be irrigated on the sites listed in Attachment B. [15A NCAC 02T .0501]
9. The Permittee shall not allow vehicles or heavy machinery on the irrigation area, except during equipment installation or maintenance activities. [15A NCAC 02T .0507(e)]
10. The Permittee shall prohibit public access to the wastewater treatment, storage, and irrigation facilities. [15A NCAC 02T .0505(q)]
11. The Permittee shall dispose or utilize generated residuals in a Division-approved manner. [15A NCAC 02T .0508, 02T .1100].
12. The Permittee shall not divert or bypass untreated or partially treated wastewater from the subject facilities. [15A NCAC 02T .0505(j)]
13. Freeboard in the 1,119,940 gallon equalization pond, the 15,261,392 gallon Irrigation Structure No. 1, the 5,146,849 gallon Irrigation Structure No. 2, and the 6,611,658 gallon Irrigation Structure No. 3 shall not be less than two feet at any time. [15A NCAC 02T .0505(d)]
14. Gauges to monitor waste levels in the 1,119,940 gallon equalization pond, the 15,261,392 gallon Irrigation Structure No. 1, the 5,146,849 gallon Irrigation Structure No. 2, and the 6,611,658 gallon Irrigation Structure No. 3 shall be provided. These gauges shall have readily visible permanent markings, at inch or tenth of a foot increments, indicating the following elevations: maximum liquid level at the top of the temporary liquid storage volume; minimum liquid level at the bottom of the temporary liquid storage volume; and the lowest point on top of the dam. [15A NCAC 02T .0507(f)]

15. 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., outside toe of embankment to maximum allowable temporary storage elevation on the inside of the embankment). Trees, shrubs, and other woody vegetation shall not be allowed to grow on the earthen dikes or embankments. Earthen embankments shall be kept mowed or otherwise controlled and accessible. [15A NCAC 02T .0507(g)]
16. Metering equipment shall be tested and calibrated annually. [15A NCAC 02T .0507(d)]
17. 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 .0505(l)]

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 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 irrigated. These records shall include the following information for each irrigation site listed in Attachment B:
 - a. Date of irrigation;
 - b. Volume of effluent irrigated;
 - c. Site irrigated;
 - d. Length of time site is irrigated;
 - e. Continuous weekly, monthly, and year-to-date hydraulic (inches/acre) loadings;
 - f. Continuous monthly and year-to-date loadings for any non-hydraulic parameter specifically limited in Attachment B;
 - g. Weather conditions; and
 - h. Maintenance of cover crops.[15A NCAC 02T .0108(c)]
6. Freeboard (i.e., waste level to the lowest embankment elevation) in the 1,119,940 gallon equalization pond, the 15,261,392 gallon Irrigation Structure No. 1, the 5,146,849 gallon Irrigation Structure No. 2, and the 6,611,658 gallon Irrigation Structure No. 3 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-1 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 documenting 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. 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:
- Name of the residuals hauler;
 - Non-Discharge permit number authorizing the residuals disposal, or a letter from a municipality agreeing to accept the residuals;
 - Date the residuals were hauled; and
 - Volume of residuals removed.

[15A NCAC 02T .0508(b)]

9. 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:
- Date of flow measurement device calibration;
 - Date of irrigation equipment calibration;
 - Date and results of power interruption testing on alternate power supply;
 - Visual observations of the plant and plant site; and
 - Record of preventative maintenance (e.g., changing of equipment, adjustments, testing, inspections and cleanings, etc.).

[15A NCAC 02T .0507(h)]

10. Monitoring wells MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, MW-16, MW-17, and MW-18 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)]

11. 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, 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)]

12. An annual representative soils analysis (i.e., Standard Soil Fertility Analysis) shall be conducted on each irrigation site listed in Attachment B. These results shall be maintained at the facility for five years, and shall be made available to the Division upon request. Each Standard Soil Fertility Analysis shall include the following parameters:

| | | |
|----------------------------------|--------------------------------|------------|
| Acidity | Exchangeable Sodium Percentage | Phosphorus |
| Base Saturation (by calculation) | Magnesium | Potassium |
| Calcium | Manganese | Sodium |
| Cation Exchange Capacity | Percent Humic Matter | Zinc |
| Copper | pH | |

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

13. 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:

- Treatment of wastes abnormal in quantity or characteristic, including the known passage of a hazardous substance.
- Any process unit failure (e.g., mechanical, electrical, etc.) rendering the facility incapable of adequate wastewater treatment.
- Any facility failure resulting in a discharge to surface waters.
- Any time self-monitoring indicates the facility has gone out of compliance with its permit limitations.
- Ponding in or runoff from the irrigation sites.

Emergencies requiring reporting outside normal business hours shall call the Division's Emergency Response personnel at 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

- The Permittee shall perform inspections and maintenance to ensure proper operation of the wastewater treatment and irrigation facilities. [15A NCAC 02T .0507(i)]
- The Permittee shall inspect the wastewater treatment and irrigation 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 a period of five years from the date of the inspection, and this log shall be made available to the Division upon request. [15A NCAC 02T .0507(h), 02T .0507(i)]
- Division authorized representatives may, upon presentation of credentials, enter and inspect any property, premises, or place related to the wastewater treatment and irrigation 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 with respect to 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 their 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 are in conflict with 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:
- 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.
 - The Permittee or any parent, subsidiary, or other affiliate of the Permittee has previously abandoned a wastewater treatment facility without properly closing the facility.
 - 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.
 - 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.
 - 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)]

Permit issued this the 14th day of October 2020

NORTH CAROLINA ENVIRONMENTAL MANAGEMENT COMMISSION



8

S. Daniel Smith, Director
Division of Water Resources

By Authority of the Environmental Management Commission

Permit Number WQ0023934

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

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PPI 001 – WWTP Effluent

| 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 °C) | mg/L | 30 | | | | 2 x Month | Composite |
| 00940 | Chloride (as Cl) | mg/L | | | | | 3 x Year ¹ | Composite |
| 50060 | Chlorine, Total Residual | mg/L | | | | | 5 x Week | Grab |
| 31616 | Coliform, Fecal MF, M-FC Broth, 44.5 °C | #/100 mL | | 200 | | | 2 x Month | Grab |
| 50050 | Flow, in Conduit or thru Treatment Plant | GPD | 140,000 | | | | Continuous | Recorder |
| 00610 | Nitrogen, Ammonia Total (as N) | mg/L | 15 | | | | 2 x Month | Composite |
| 00625 | Nitrogen, Kjeldahl, Total (as N) | mg/L | | | | | 2 x Month | Composite |
| 00620 | Nitrogen, Nitrate Total (as N) | mg/L | | | | | 2 x Month | Composite |
| 00600 | Nitrogen, Total (as N) | mg/L | | | | | 2 x Month | Composite |
| 00400 | pH | su | | | | | 5 x Week | Grab |
| 00665 | Phosphorus, Total (as P) | mg/L | | | | | 2 x Month | Composite |
| 70300 | Solids, Total Dissolved – 180 °C | mg/L | | | | | 3 x Year ¹ | Composite |
| 00530 | Solids, Total Suspended | mg/L | 30 | | | | 2 x Month | Composite |

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

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Town of Pikeville – Town of Pikeville WWTP

| IRRIGATION AREA INFORMATION | | | | | | | APPLICATION LIMITATIONS | | | |
|-----------------------------|-------------------|--------|------------|-------------|-------------|----------------------|--|-------------|------------|--------|
| Field | Owner | County | Latitude | Longitude | Net Acreage | Dominant Soil Series | Parameter | Hourly Rate | Yearly Max | Units |
| CP-1 | Town of Pikeville | Wayne | 35.505006° | -77.975331° | 21.52 | Norfolk | 01284 – Non-Discharge Application Rate | 0.5 | 58.6 | inches |
| CP-2 | Town of Pikeville | Wayne | 35.500683° | -77.975886° | 16.98 | Norfolk | 01284 – Non-Discharge Application Rate | 0.5 | 58.6 | inches |
| Totals | | | | | 38.50 | | | | | |

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Monitoring Wells: MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, MW-16, MW-17, and MW-18

| 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 °C | | #/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 °C | 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 |

- 3 x Year monitoring shall be conducted in March, July, and November; Annual monitoring shall be conducted in November.
- 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.
- 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.
- Volatile Organic Compounds (VOC) - In November only, analyze by one of the following methods:
 - Standard Method 6230D, PQL at 0.5 µg/L or less
 - Standard Method 6210D, PQL at 0.5 µg/L or less
 - EPA Method 8021, Low Concentration, PQL at 0.5 µg/L or less
 - EPA Method 8260, Low Concentration, PQL at 0.5 µg/L or less
 - Another method with prior approval by the Water Quality Permitting Section Chief

Any method used shall meet the following qualifications:

 - A laboratory shall be DWR certified to run any method used.
 - The method used shall include all the constituents listed in Table VIII of Standard Method 6230D.
 - 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.
- 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.
- 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.
- Monitoring wells shall be reported consistent with the nomenclature and location information provided in Figure 1 and this attachment.

Drawing: W:\DBxx_gen\084x_eng\0847_1c\2014-6024-4716 Pikeville USDA WWTP\dwg\14-6024-4716--Soils and Boundary Map.dwg
Layout: Contours and Aerial Map
Plotted: Monday, August 10, 2020, 9:41:06am



CONTOURS AND AERIAL PROJECT AREA
CONTRACT NO. 16 - WWTP IMPROVEMENTS
2017 USDA PROJECT
TOWN OF PIKEVILLE
WAYNE COUNTY
NORTH CAROLINA

CAD FILE DIRECTORY: \\G-CAS\0847\2014-6024-4716
CAD DWG FILE NAME: 14-6024-4716--SOILS AND BOUNDARY MAP.DWG
CAD PLOT FILE NAME: 14-6024-4716--SOILS AND BOUNDARY MAP.DWG
MAP FILE REFERENCE:
PROJECT NO.: 2-14-6024-4716
DRAWING NO.:
SCALE: 1" = 200'
DATE: OCTOBER 1, 2017

SURVEYED BY:
COMPUTED BY:
DRAWN BY:
APPROVED BY:

MA
INC

McDAVID ASSOCIATES, INC.

Engineers • Planners • Land Surveyors

Corporate License No. C-131

BRANCH OFFICE
109 East Walnut Street
P. O. Box 1776
Fayetteville, NC 28533
Telephone: (919) 736-7630
Facsimile: (919) 736-7351

REVISIONS

| NO. | DATE | DESCRIPTION |
|-----|-----------|--|
| 1. | 4/23/2020 | MODIFIED LOCATION OF PROPOSED MW #17 PER REGIONAL OFFICE |
| 2. | 9/6/20 | CHANGED PROPOSED MONITORING WELLS TO EXISTING |
| 3. | 9/10/20 | ADDED MONITORING WELLS #6 & #7 |

SHEET 1 OF 1

Jul 27 2022

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