



AUTHORIZATION TO OPERATE AND MAINTAIN  
UNDER THE LAWS OF THE  
STATE OF DELAWARE

1. Pursuant to the provisions of 7 Del. C., 6003

Artesian Wastewater Management, Inc.  
664 Churchman's Road  
Newark, DE 19702

**is herein authorized to operate and maintain an on-site wastewater treatment and disposal system to service:**

within the areas identified in the Beaver Creek Conditional Use Approval granted by Sussex County

**Located on (tax map #: 2-35-30.00-24.00 & 32.00):**

on the North East corner of SR 5 & 9, Sussex County, DE

**to dispose of:**

domestic waste generated by dwellings and community facilities as approved by the Department

2. **The effluent limitations, monitoring requirements and other permit conditions are set forth in Part I, II and III hereof.**

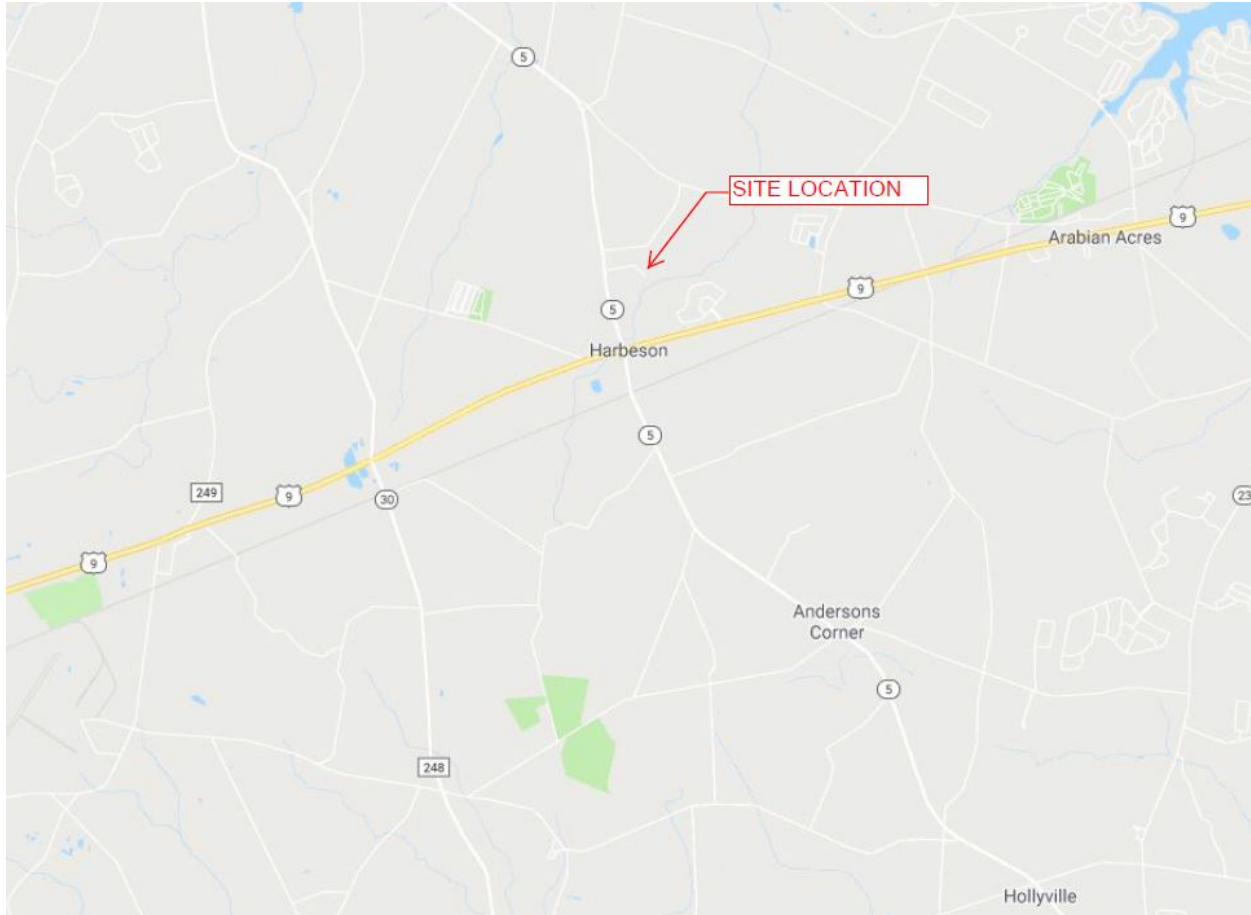
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Derrick P. Caruthers, Environmental Engineer  
Ground Water Discharges Section  
Department of Natural Resources &  
Environmental Control

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Date

**LOCATION MAP**





**Part I**

**A. General Description of Discharges**

The discharge shall be residential waste that is generated by dwellings located in the area as identified in the Conditional Use approval from Sussex County. The influent is treated by a Sequencing Batch Reactor (SBR) system and disposed of into six (6) Rapid Infiltration Basins (RIB). The influent flows from the dwellings and facilities may not exceed a daily monthly average of 150,000 gallons per day (gpd). Once the second SBR is converted, and a digester is constructed, the facility will have the capacity to treat 300,000 gallons per day of wastewater.

**B. Effluent Limitations**

During the period beginning on the effective date and lasting through the expiration date of this permit, the permittee is authorized to treat and discharge to the RIB as identified in the above mentioned permit the limitations specified below:

1. The daily monthly average of influent flow shall not exceed 150,000 gpd
2. Biological Oxygen Demand (BOD) monthly average concentration shall not exceed 30 mg/l
3. Total Suspended Solids (TSS) monthly average concentration shall not exceed 30 mg/l
4. Total Nitrogen (TN) annual average concentration shall not exceed 10 mg/L
5. Total Phosphorous (TP) annual average concentration shall not exceed 7.85 mg/L
6. Fecal coliform concentration shall not exceed 200 col/100 ml

**C. Monitoring Requirements**

During the period beginning on the effective date and lasting through the expiration date of this permit, the permittee is authorized to discharge to the RIB. Such discharge shall be monitored by the permittee as specified below:

1. Influent and effluent samples

Influent to the wastewater treatment plant and effluent monitoring requirements from the wastewater treatment plant prior to the discharge to the RIB shall be sampled for the following parameters:

Parameter	Unit Measurement	Monitoring Frequency	Sample Type	
			Influent	Effluent
Flow	Gallons Per Day	Continuous	Recorded	Recorded
BOD <sub>5</sub>	mg/L	2 x Month	Grab	Composite
TSS	mg/L	2 x Month	Grab	Composite
Total Dissolved Solids	mg/L	Quarterly	NA	Grab
Fecal Coliform	Col/100 ml	Quarterly	NA	Grab

Total Nitrogen	mg/L	2 x Month	Grab	Composite
Ammonia Nitrogen	mg/L	Monthly	Grab	Composite
Nitrate/Nitrite as Nitrogen	mg/L	Monthly	Grab	Composite
pH	S.U.	3 x per week	Grab	Grab
Total Phosphorus	mg/L	Monthly	Grab	Composite
Chloride	mg/L	Quarterly	Grab	Composite
Sodium	Mg/L	Quarterly	NA	Composite

2. Monitoring Well Requirements

The following monitoring wells:

DNREC ID
211955
211956
211957
211958

shall be sampled by the permittee for the following parameters:

Parameter	Unit Measurement	Monitoring Frequency	Sample Type
pH	S.U.	Quarterly	Field Test
Temperature	°F	Quarterly	Field Test
Specific Conductance	µS/cm	Quarterly	Field Test
Dissolved Oxygen	mg/L	Quarterly	Field Test
Depth to Water Table	Hundredth of a foot	Quarterly	Field Test
Ammonia Nitrogen	mg/L	Quarterly	Grab
Nitrate + Nitrite Nitrogen	mg/L	Quarterly	Grab
Total Nitrogen	mg/L	Quarterly	Grab
Total Coliforms	Col/100 ml	Quarterly	Grab
Fecal Coliform	Col/100 ml	Quarterly	Grab
Total Phosphorus	mg/L	Quarterly	Grab
Sodium	mg/L	Quarterly	Grab
Chloride	mg/L	Quarterly	Grab
Total Dissolved Solids	mg/L	Quarterly	Grab

\* Should water levels in the wells rise above the minimum isolation distance of two (2) feet, then the discharge shall be reduced at the area of concern and the Department shall be notified within 24 hours.

\*\* Samples taken in compliance with the monitoring requirements specified above shall be taken at each monitoring well and observation well in accordance with procedures approved by the Department and listed in the State of Delaware, Field Manual for Groundwater Sampling (Custer, 1988).

D. Monitoring Reporting

In accordance with Section 6.9 of the *Regulations Governing the Design Installation and Operation of On-Site Wastewater Treatment and Disposal Systems* (the Regulations), the permittee shall submit to the Department an annual report summarizing operations, management, administration and maintenance of the facility for the calendar year. The annual report must be submitted to the Department on or before February 28<sup>th</sup> of each year.

Monitoring results obtained during the previous one (1) month/quarter shall be summarized for each month/quarter and reported on an approved On-Site Effluent/Groundwater Monitoring Report Form postmarked no later than the 28<sup>th</sup> day of the month following the completed reporting period. Signed copies of these, and all other reports required herein, shall be submitted to the Department at the following address:

Delaware Department of Natural Resources and Environmental Control  
Ground Water Discharges Section  
89 Kings Highway  
Dover, DE 19901

Telephone: (302) 739-9948  
Fax: (302) 739-7764

E. Representative Samples

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

F. Test Procedures

Test procedures for the analysis of pollutants shall conform to the applicable test procedures identified in 40 C.F. R. Part 136, unless otherwise specified in this permit.

G. Records Retention

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation and recording from continuous monitoring instrumentation shall be retained for five (5) years. This period of retention shall be extended automatically during

the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the permittee, or as requested by the Department.

H. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods specified herein, then the results of such monitoring shall be included in the calculation and reporting of the values required in the appropriate Monitoring Report Form. Such increased frequency shall also be indicated.

**Part II**

A. MANAGEMENT REQUIREMENTS

1. Facilities Operation

The permittee shall properly maintain and operate as efficiently as possible all structures, systems and equipment for treatment control and monitoring which are used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance including, but is not limited to, effective performance based on designed facility removals, adequate funding, effective management, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures.

Operation of this wastewater treatment and disposal facility requires a Class 3 Licensed Operator. The operator is responsible for operation, maintenance, and sampling of the facility. The operator shall perform site checks at a minimum of three times a week or as needed to adequately operate the facility.

An operator log shall be kept on site. All records and reports shall also be kept on site. This log shall, at a minimum, include the following:

- a. Time spent at the treatment facility on any date
- b. Details of the operation and maintenance performed on the wastewater treatment plant and the rapid infiltration basins on any date
- c. The volume of wastewater treated and disposed of
- d. Identification of and description of RIB in service
- e. Identification of any RIB that has ponded for more than 72 hours
- f. A record of any deviations from the operation and maintenance manual
- g. General daily weather conditions

- h. A record of all actions taken to correct violations of this permit and the Department's regulations
  - i. Record of all site management activities undertaken such as planting, reseeding
  - j. Record the date and volumes of sludge removed from the facility. A copy of the sludge hauling receipts with amounts removed shall be kept on file at the site.
2. Change in Discharge

Any usage authorized herein shall be consistent with the terms and conditions of this permit. Any anticipated facility expansions, production increases, or process modifications which will result in new, different, or increased discharges must be reported by submission of a written report to the Department with the following timelines:

- a. Thirty (30) days before any planned physical alteration or addition to the permitted facility or activity if that alteration or addition would result in any change in information that was submitted to the Department.
  - b. Thirty (30) days before any anticipated change which would result in noncompliance with any permit condition or the regulations.
  - c. Immediately after the permittee becomes aware of relevant facts not submitted or incorrect information submitted in a permit application or any report to the Department. Those facts or the correct information shall be submitted as soon as possible and be included as part of the report.
3. Noncompliance Notification

If, for any reason, the permittee does not comply with or will be unable to comply with any limitations specified in this permit, the permittee shall contact the Ground Water Discharges at 739-9948, within 24 hours of noncompliance issue occurring. During non-business hours, weekends or holidays, the permittee shall call the Department's Enforcement Section at (800) 662-8802.

The permittee shall also provide the Groundwater Discharges Section with the following information, in writing, within five (5) days of becoming aware of such condition:

- a. A description of, and cause of noncompliance with any such limitation or condition
- b. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying condition



- c. Steps taken or planned to reduce or eliminate reoccurrence of the noncompliance

#### 4. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to waters of the State resulting from this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

#### 5. Removed Substances

Solids, sludges, filter backwash or other pollutants removed in the course of treatment or control of wastewater shall be disposed of in a manner such as to prevent any pollutant from entering the surface water or ground water and to comply with applicable federal or state laws and regulations.

#### 6. Power Failures

An alternative power source, which is adequate to operate the wastewater treatment and disposal facilities, shall be available. If such alternative power source is not available, the permittee shall halt, reduce or otherwise control production and/or all discharges upon the reduction, loss, or failure of the primary source of power to the wastewater facilities.

### B. RESPONSIBILITIES

#### 1. Reapplication for a Permit

At least 180 days before the expiration date of this permit, the permittee shall submit a new application for a permit or notify the Department of the intent to cease discharging by the expiration date. In the event that a timely and complete application has been submitted as determined by the Department, and the Department is unable, through no fault of the permittee, to issue a new permit before the expiration date of this permit, the terms and conditions of this permit are automatically continued and remain fully effective and enforceable until a decision is made on the new application.

#### 2. Right of Entry

The permittee shall allow, at reasonable times, the Secretary of the Department of Natural Resources and Environmental Control, or his authorized representatives, upon the presentation of credentials and such other documents as may be required by law:

- a. To enter upon the permittee's premises where the on-site wastewater treatment and disposal system is located or where any records are required to be kept under the terms and conditions of this permit;

- b. To have access to and copy any records required to be kept under the terms and conditions of this permit;
  - c. To inspect any facility, equipment, monitoring method, monitoring equipment, practice or operation permitted or required under this permit; and
  - d. To sample or monitor for the purpose of assuring permit compliance with any condition of this permit, the regulations or 7 Del C., Chapter 60.
3. Transfer of Ownership and Control

No person shall transfer a permit from one location to another or from one piece of equipment to another. No person shall transfer a permit from one person to another unless thirty days written notice is given to the Department, indicating the transfer is agreeable to both persons, and approval of such transfer is obtained in writing from the Department, and any conditions of the transfer approved by the Department are complied with by the transferor and the transferee.

The notice to the Department shall contain a written agreement between the transferor and the transferee, indicating the specific date of proposed transfer of permit coverage and acknowledging responsibilities of current and new permittees for compliance with and liability for the terms and conditions of this permit. The notice shall be signed by both the transferor and the transferee.

4. Availability of Reports

All reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department of Natural Resources and Environmental Control. Monitoring data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in 7 Del. C., §6013.

5. Permit Modification, Revocation and Termination

This permit may be modified, terminated, or revoked in whole or in part during its term for cause including, but not limited to, any of the following:

- a. Violation of any terms or conditions of this permit, the regulations, 7 Del. C., Chapter 60 or failure to pay applicable Department fees;
- b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; or
- d. If the Department finds that the health, safety or welfare of the public requires emergency action, the Department shall incorporate findings in support of such

action in a written notice of emergency revocation issued to the permittee. Emergency revocation shall be effective upon receipt by the permittee. Thereafter, if requested by the permittee in writing, the Department shall provide the permittee a revocation hearing and prior notice thereof. Such hearings shall be conducted in accordance with 7 Del. C., Chapter 60.

#### 6. State Laws

This permit shall not be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation.

#### 7. Property Rights

The issuance of this permit does not convey any property rights of either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

#### 8. Severability

The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

### **PART III**

#### **A. SPECIAL CONDITIONS**

- a. The RIB shall be operated so that one basin receives all flow from a 24-hour period. At the end of the 24-hour period, the next RIB in sequence shall be placed into operation. If operation of the RIB deviates from this plan, the permittee must notify the Department and note any deviations clearly in the operator's log.
- b. If ponding in any single RIB, or portion thereof, exceeds 72 hours following RIB loading, the permittee shall report the incident to the GWDS in accordance with Part II, A, 3. of this permit.
- c. If at any time a RIB does not drain before its next scheduled dosing period, the Department must be notified immediately.
- d. Connections or additions to the on-site wastewater treatment and disposal system other than those indicated on the approved plans will not be allowed without prior approval of the Department.
- e. Roof downspouts, foundation drains, area drains, storm sewers, combined sewers or appurtenances thereto or any sewer or device carrying storm water

shall not be connected to the on-site wastewater treatment and disposal system unless designed too.

- f. If the permittee installs new monitoring wells/observation wells or replaces any existing monitoring wells/observation wells, the permittee shall submit to the Department new elevation details relative to the common benchmark previously established.
- g. A valid sludge hauling contract shall be maintained for the life of the system. A copy of the waste manifest shall be made available to the Department during the annual compliance inspection or upon request. Any changes in the sludge haulers shall be reported to the Department immediately.
- h. This permit does not relieve the permittee of complying with any other applicable Federal, State or local regulations.
- i. The Department will conduct annual compliance inspection with the facility's licensed operator of the on-site wastewater treatment and disposal system. A fee will be charged.
- j. The wastewater utility shall maintain a wastewater Certificate of Public Convenience and Necessity (CPCN) through the Public Service Commission (PSC) for the Community On-site Wastewater Treatment and Disposal System (OWTDS) permitted herein.
- k. Mandatory connection to central or municipal sewer shall be determined by the Public Service Commission and Sussex County Council.
- l. The RIB surface must be maintained as necessary to remove any impedance of infiltration. Any maintenance activity scheduled, or emergency must be performed when the basin is dry.
- m. Once the flow to the WWTP reaches 80% of the permitted treatment capacity of 150,000 gpd, the permittee must submit written notification to the Department. The written notification must include a work plan for upgrades to be made to the WWTP in order to receive additional flow. The permittee must submit a construction permit application, plans and specifications and a Design Engineer Report with applicable fees if the upgrades have not been permitted or there are changes to the previously permitted design.
- n. Any flow above the permitted treatment capacity of 150,000 gpd shall not be permitted until the construction is complete and an operating permit has been issued or amended by the Department for the increase in flow.
- o. The permittee shall provide a written quarterly update to the Department of any planned connections to the regional wastewater facility. This update shall include anticipated dates of when connections will occur.

- p. Connections to the WWTP shall be from a combination of developments located within the Conditional Use Approval granted by Sussex County. The permittee must seek approval from Sussex County and the Department prior to the addition of connections. The permittee must submit a letter of approval to the Department for review and approval, from Sussex County that indicates the Engineering Department approves the permittee to use the Beaver Creek Regional WWTP to serve the proposed connections.
- q. No industrial or commercial wastewater may be discharged to the Beaver Creek Regional WWTP unless the Department has reviewed and approved the discharge in writing through a wastewater management plan. Any additions or changes to a wastewater management plan must be approved by the Department prior to the connection.
- r. Once the permit reaches 80% of the 300,000 gpd disposal capacity based on a period of seven (7) consecutive days, the permittee must submit written notification to the Department. The written notification must include a work plan for construction of the next permitted phase or indicate that the permittee will not be treating and disposing of flow greater than 300,000 gpd. The permittee must submit a construction permit application, plans and specifications and a Design Engineer Report with applicable fees for review.