



STATE OF DELAWARE
**DEPARTMENT OF NATURAL RESOURCES AND
ENVIRONMENTAL CONTROL**

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OFFICE OF THE
SECRETARY

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Secretary's Order No.: 2021-W-0034

RE: Permit Applications of Artesian Wastewater Management, Inc. ("Artesian"), for (1) Wastewater Facilities Construction Permit Application and associated Draft Permit (WPCC 3007/20) ("Force Main Construction Permit Application"); and (2) On-Site Wastewater Treatment and Disposal System Operations Permit Amendment for the Beaver Creek Wastewater Treatment Facility ("Beaver Creek Permit Amendment")

Date of Issuance: December 21, 2021

Effective Date: December 21, 2021

Under the authority vested in the Secretary of the Department of Natural Resources and Environmental Control ("Department" or "DNREC"), pursuant to 7 *Del.C.* §§6003, 6004, 6006, Delaware's *Regulations Governing the Design, Installation, and Operation of On-Site Wastewater Treatment and Disposal Systems* (7 DE Admin. Code 7101), *Regulations Governing the Control of Water Pollution* (7 DE Admin. Code 7201), and all other relevant statutory authority, the Department of Natural Resources and Environmental Control ("Department" or "DNREC") issues this Order, approving the following permit applications of Artesian Wastewater Management, Inc. ("Artesian" or "Applicant"):

(1) *Wastewater Facilities Construction Permit Application and Draft Permit (WPCC 3007/20)* for construction of a force main from the intersection of the Lewes-Georgetown Highway and Gravel Hill Road to the Park Avenue intersection in Sussex County, Delaware ("Force Main Construction Permit Application"); and

(2) *On-site Wastewater Treatment and Disposal System Operations Permit (No. 359014-06) Amendment for the Beaver Creek Regional Wastewater Treatment Facility*, owned and operated by Artesian, and located near the intersection of State Road 5 and State Road 9, Sussex County, Delaware (tax map #2-35-30.00-24.00 & 32.00) (“Beaver Creek Permit Amendment”).

It should be noted that the Department processed both Artesian applications together to assure both efficiency and transparency, and to make sure the public was afforded the ability to provide meaningful comment jointly on these matters. Accordingly, presentations on both pending permit applications were offered at the public hearing held on November 17, 2020. This Order will address each of these permitting matters in full, starting with the Force Main Construction Permit Application, and the Beaver Creek Permit Amendment following thereafter.

Background, Procedural History and Findings of Fact

Wastewater Facilities Construction Permit Application and Draft Permit (WPCC 3007/20) – “Force Main Construction Permit Application”

On January 23, 2020, the Department’s Division of Water, Surface Water Discharges Section (“SWDS”), received an application for a Wastewater Facilities Construction Permit from Artesian, pursuant to the requirements of Section 4 of 7 DE Admin. Code 7201, *Regulations Governing the Control of Water Pollution*, to construct approximately eleven thousand, seven hundred and thirty-five linear feet (“11,735 LF”) of twelve (12) inch diameter force main from Park Avenue, Steiner Road, Lewes-Georgetown Highway (Route 9) and connect to their existing twelve (12) inch PVC force main near the Hawthorne Subdivision. The proposed force main would allow for the transmission of wastewater to the Beaver Creek Regional Wastewater Treatment Facility (“WWTF”), permitted under State Permit DEN Number 359014-06 for on-site wastewater treatment and disposal.

On February 9, 2020, the Department published legal notice for the above-described Force Main Construction Permit Application in *The News Journal*, the *Delaware State News*, and on the Department's website. Subsequently, the Department received requests for additional information and requests for a public hearing from numerous members of the public. Accordingly, on October 20, 2020, the Department published legal notice in *The News Journal*, the *Delaware State News*, and on the Department's website that a public hearing on the Force Main Construction Permit Application would be held on November 17, 2020.

***On-Site Wastewater Treatment and Disposal System Operations Permit (No. 359014-06) Amendment for the Beaver Creek Regional Wastewater Treatment Facility –
“Beaver Creek Permit Amendment”***

On February 9, 2018, the Department's Groundwater Discharges Section (“GWDS”) issued a State of Delaware On-Site Wastewater Treatment and Disposal System (“OWTDS”) Operations Permit (No. 359014-06) to Artesian to operate the Beaver Creek Regional WWTF (“Beaver Creek”) for the treatment and disposal of sanitary waste, in accordance with Sussex County Conditional Use Ordinance No. 1992. Operations Permit No. 359014-06 is currently in effect, and includes effluent limitations, operational, monitoring and reporting requirements, and conditions designed for the protection of public health and the environment, as required by 7 DE Admin. Code 7101, *Regulations Governing the Design, Installation and Operation of On-Site Wastewater Treatment and Disposal Systems* (“OWTDS Regulations”).

The Beaver Creek facility is owned and operated by Artesian and is located near the intersection of State Road 5 and State Road 9, Sussex County, Delaware (tax map 2-35-30.00-24.00 &32.00). The facility consists of an influent screen/grit removal system, a dual Aqua-Aerobic Sequencing Batch Reactor treatment system (SBR1 and SBR2), a screened effluent equalization basin, a chlorine contact tank for disinfection, an optional secondary digester tank, and six (6) Rapid Infiltration Basins (“RIBs”) for final disposal of treated wastewater (effluent).

The existing Beaver Creek Operations Permit limits the daily monthly average influent flow to 150,000 gallons per day (“GPD”) until SBR 2 and the secondary digester are brought online, at which point the facility is authorized to treat an influent flow of 300,000 GPD.

On January 23, 2020, the SWDS received Artesian’s application for the Force Main Construction Permit, as set forth above. As previously noted, the purpose of the force main extension is to allow a future twelve (12) inch diameter Sussex County force main to interconnect with the proposed Artesian force main on Park Avenue, thus allowing Sussex County to utilize the Beaver Creek facility for some of their customers in this area.

Pursuant to Section 6.5.3.3 of the OWTDS Regulations, the GWDS determined that an amendment of the existing Beaver Creek Operations Permit was required to incorporate enhanced notification and reporting requirements associated with this interconnection. Accordingly, a draft OWTDS Operations Permit Amendment for the Beaver Creek facility was prepared by the GWDS. Thereafter, on October 20, 2020, the Department published a detailed Legal Notice in *The News Journal*, the *Delaware State News*, and on the Department’s website, notifying the public that a public hearing would be held on November 17, 2020, regarding both the proposed Force Main Construction Permit Application and the proposed Beaver Creek Permit Amendment, as described above.

Department staff, representatives of the Applicant, and members of the public attended the virtual public hearing on November 17, 2020. The hearing record (“Record”) remained open for receipt of comment through December 2, 2020. It should be noted that comments were received from the public at the time of the public hearing, as well as during both the pre- and post-hearing phases of this matter, all of which were posted on the DNREC hearing web page dedicated to this matter. Proper notice of the hearing was provided as required by law.

Following the close of the public comment period as noted above, and at the request of Hearing Officer Lisa A. Vest, the technical experts in the Department's Division of Water, Surface Water Discharges Section ("SWDS") and Groundwater Discharges Section ("GWDS"), each provided a Technical Response Memorandum ("TRM"), in response to the public comments received by the Department about both pending Artesian permit applications.

The TRMs provided by both the Department's SWDS and GWDS were prepared to (1) specifically address the concerns associated with the respective Artesian application pending before each section, as set forth in the public comments received by the Department; and (2) offer conclusions and recommendations regarding both pending permitting matters for the benefit of the Record. It should be noted that the original TRM from SWDS regarding Artesian's Force Main Construction Permit Application, dated September 23, 2021, was subsequently *revised* on December 17, 2021, to correct clerical error contained therein. Additionally, the original TRM from GWDS regarding the Beaver Creek Permit Amendment, dated June 14, 2021, was subsequently *revised* on December 17, 2021, to clarify the distinction between a permit "modification" and a permit "amendment."

The *revised* TRM from SWDS, dated December 17, 2021, and the *revised* TRM from GWDS, also dated December 17, 2021 (which includes the *revised final* Draft Permit associated with the proposed Beaver Creek Permit Amendment), provide a summary of the public comments received by the Department in each of these permitting matters, and offer detailed responses to the same.

Subsequent to the receipt of the Department's *revised* TRMs referenced above, Hearing Officer Vest prepared her Hearing Officer's Report ("Report"), dated December 20, 2021. The Report expressly incorporated therein both *revised* TRMs from the Division of Water's SWDS and GWDS, along with the associated SWDS Draft Permit (regarding the Force Main Construction) and the GWDS *revised final* Draft Permit (regarding the Beaver Creek Operations Permit Amendment).

Ms. Vest's Report set forth the procedural history, summarized and established the record of information ("Record") relied on in the Report, and provided findings of fact, reasons, and conclusions that recommend the approval of both Artesian permit applications currently pending before the Department, subject to the conditions set forth in the SWDS Draft Permit regarding the proposed Force Main Construction project and the GWDS *revised final* Draft Permit regarding the proposed Beaver Creek Permit Amendment, respectively.

The Report, along with all Appendices, is incorporated herein by reference. The Report also addressed the public comments received in this matter and concluded that the same did not warrant the Department's denial of Artesian's pending permit applications, nor the delay of the decisions regarding these permits to receive any additional information.

Reasons and Conclusions

As noted above, to correct clerical error contained within the original TRM dated September 23, 2021, the SWDS provided a *revised* TRM, dated December 17, 2021, in response to the public comments received on Artesian's proposed Force Main Construction project. It should be noted that the Department's responses set forth in the *revised* TRM remain unchanged from those set forth in the original TRM provided by the SWDS in this matter.

The SWDS's responses to the comments received on the Applicant's proposed Force Main Construction project provide clarifying answers to specific questions raised by the public regarding this application. Additionally, the *revised* TRM from SWDS confirms that all applicable regulatory requirements concerning the proposed Force Main Construction have been met, and that the Draft Wastewater Facilities Construction Permit is protective of human health and the environment while being consistent with applicable State and Federal regulations. It should be noted that no changes were necessitated to the Draft Permit for Artesian's Force Main Construction as a result of the public comment received by the Department in this matter. Thus, the SWDS Draft Permit remains unchanged, and is as initially prepared by the technical experts in the SWDS at the time of the public hearing, and as posted on the hearing web page dedicated to this matter as "Department Exh. 6."

As noted above, the GWDS also provided a *revised* TRM, dated December 17, 2021, to offer clarity between the use of the word “amendment” and “modification.” The term “amendment” refers to the actual Permit document, while “modification” references the physical changes to processes or systems. It should be noted that the Department’s responses set forth in the *revised* TRM remain unchanged from those set forth in the original TRM provided by the GWDS in this matter.

The Department received both letters of support for the proposed Beaver Creek Permit Amendment and proposed Draft Permit, while other comments from two individuals highlighted various concerns. Additionally, the GWDS received written comments on the proposed draft permit amendment from the Applicant in a letter dated November 12, 2020, which is incorporated into the GWDS *revised* TRM as “Appendix 2,” and referenced in Section II of the Report (and, as posted on the hearing web page dedicated to this matter) as “Artesian Exh. 2.”

In discussing the potential environmental impacts of the proposed Beaver Creek Permit Amendment, the GWDS’s *revised* TRM notes that the proposed Amendment does not change or remove any of the current effluent limitations, operational, monitoring or reporting conditions already existent. Rather, the Amendment only proposes the addition of several special conditions associated with the interconnection proposed in Artesian’s Force Main Construction Permit Application and Draft Permit (WPCC3007/20). This includes: (1) notifications and authorizations associated with the already approved influent flow of 300,000 GPD; (2) assurances that only influent flows authorized by the Sussex County Conditional Use Ordinance No. 1992 will be treated and disposed at the Beaver Creek facility; and (3) limitations on influent wastewater strength authorized to be received at the Beaver Creek facility for treatment and disposal.

The *revised* TRM notes that the GWDS believes the effluent limitations, operational, monitoring and reporting conditions and requirements included in the current permit and the special conditions associated with the proposed Sussex County interconnection proposed in the draft permit amendment are protective of public health and the environment, and will not have a significant environmental impact.

To address the public's concerns regarding influent wastewater strength, the GWDS is recommending the addition of two special conditions requiring the sampling of inorganic and organic constituents on an annual basis. Analytical results will be submitted in the annual report, due February 28th each year.

One comment asked how a system failure at the Applicant's facility would be handled. In response, the *revised* TRM points to Part II A.1 of the *revised final* Draft Permit Amendment, requiring all structures, systems, and equipment used for treatment control and monitoring be properly maintained and operated as efficiently as possible. Part II A.3 of the *revised final* Draft Permit amendment requires that, if for any reason the Permittee does not comply with or will be unable to comply with any limitations specified in the Permit, the Permittee will contact the GWDS within 24 hours of the non-compliance issue having occurred. Additionally, the Permittee would be required to submit the following information within five (5) days: (1) a description of, and cause of non-compliance with any permit limitation or condition; (2) the period of non-compliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the non-complying condition; and (3) steps taken or planned to reduce or eliminate reoccurrence of the non-compliance.

In the event of a spill, leaks, or other accidental release, Artesian is required to follow 7 *Del.C.* §6028, which states, in pertinent part, that any individual (i.e., Permittee) who causes or contributes to an environmental release (i.e., spill) of a pollutant into surface water, or groundwater, or on land, must report such an incident to the Department as soon as possible and activate their emergency site plan. Additional information is required to be reported to the Department concerning such an incident as well, pursuant to that statute. Furthermore, the GWDS notes that any corrective actions performed or proposed associated with any non-compliance event or spill will be reviewed and approved by the Department and additional corrective actions, investigations, increased monitoring, or mitigation activities may be required.

As noted above, Artesian provided comments to the GWDS on the proposed Draft Permit Amendment following the public hearing of November 17, 2020. Those comments focused on the special conditions associated with the proposed Sussex County interconnection. Specifically, Artesian's comments identified condition language or requirements in the Draft Permit that were unclear, or not in-line with current operational practices or project status.

The GWDS agrees with Artesian that additional clarification and condition language and/or requirements revision is needed. As such, several condition revisions are recommended and set forth in detail in the *revised* TRM and have been incorporated into the *revised final* Draft Permit. The following is a summary of that *revised* permit language:

1. The GWDS agrees with Artesian that a new Construction Permit is not required for wastewater treatment system upgrades needed to increase the facility's capacity from 150,000 GPD to 300,000 GPD. However, the GWDS does require the submission of additional information prior to the facility receiving over 150,000 GPD of influent flow. This was the intent of the original condition. Thus, the GWDS has recommended *revised* language for Part III A, Subpart (m) of the *revised final* Draft Permit Amendment to provide further clarity on this issue.
2. Artesian suggests requiring the submission of a formal request for authorization for the Beaver Creek facility to begin receiving up to 300,000 GPD of raw influent along with the updated Record Drawings and the Certificate of Completion. The GWDS agrees with this suggestion, which was the intent of the original condition. The *revised* TRM notes that such authorization may be issued in the form of a letter, minor permit amendment, or other regulatory instrument. Thus, the GWDS has recommended *revised* language for Part III A, Subpart (n) of the *revised final* Draft Permit Amendment to provide further clarity on this issue.

3. Artesian is only authorized to provide service to parcels for which it has been granted a Certificate of Public Convenience and Necessity (“CPCN”) by the Delaware Public Service Commission. Since both the Department and Sussex County receive notification of all CPCN applications, Artesian believes that no further notification by Artesian should be required. Furthermore, Artesian notes that the flow treated at Beaver Creek’s facility shall only be from sources authorized by the Conditional Use Approval granted by Sussex County for the Beaver Creek facility, and that flow that does not meet these criteria cannot be treated at Beaver Creek.

In response, the GWDS acknowledges that only flows from sources authorized by Sussex County Conditional Use Ordinance No. 1992 are authorized to be received by Artesian’s Beaver Creek facility for treatment and disposal. Additionally, the GWDS also receives CPCN application notifications. However, neither the Sussex County conditional use approval nor the CPCN applications provide the GWDS with sufficient detail to ensure a rigorous understanding of Artesian and Sussex County agreements, interconnections, and influent flow sources/areas. This more detailed information is also needed for public transparency. Therefore, the GWDS is seeking additional notification and detailed narrative information of how conditional use approvals and CPCN applications fit into the bigger regional sewage picture. The GWDS further agrees that additional clarifying language is required. Thus, the GWDS has recommended *revised* language for Part III A, Subpart (p) of the *revised final* Draft Permit Amendment to provide further clarity on this issue.

4. Artesian suggests that wastewater influent chemical characterization, regardless of the influents source, is the key consideration regarding maintaining a regional wastewater treatment system and achieving permit effluent limitations and protecting public health and the environment. Further, Artesian believes that it can properly treat wastewater with influent concentrations of 80 mg/L Total Nitrogen (“TN”), 400 mg/L 5-Day Biochemical Oxygen Demand (“BOD₅”), and 500 mg/L Total Suspended Solids (“TSS”) and is willing to require pretreatment from any source exceeding those concentrations.

The GWDS agrees that routinely determining the chemical composition of influent wastewater is a key process control technique essential for the proper operation of a regional wastewater treatment facility. Therefore, the GWDS agrees with Artesian's proposal to monitor TN, BOD₅, and TSS (along with Total Dissolved Solids, or "TDS"), and to submit analytical results to the GWDS in the monthly monitoring reports. The *revised* TRM further notes that, if two consecutive months of data indicates influent TN, BOD₅, and TSS exceeds the proposed concentration values, then Artesian will be required to investigate and require pretreatment from any source exceeding those concentrations. Accordingly, the GWDS has recommended *revised* language for Part III A, Subpart (q) of the *revised final* Draft Permit Amendment to provide further clarity on this issue.

The GWDS believes that the *revised final* Draft Permit addresses the technical and regulatory concerns of both the public and the permittee, while fulfilling the Department's mission to protect the public health and the environment. It should be noted that the *revised final* Draft Permit supersedes all other versions of the Draft Permit previously incorporated into the Record by the Department in this matter.

As set forth in the GWDS's *revised* TRM, the proposed Beaver Creek Permit Amendment will require enhanced notification, monitoring and reporting requirements associated with the proposed Sussex County interconnect. Further, the proposed Beaver Creek Permit Amendment requires treated effluent discharged from the wastewater treatment system to achieve an annual average total nitrogen concentration of 10mg/L, which is in-line with Federal Drinking Water Standards and therefore protective of human health and environment. Additionally, the Beaver Creek Permit Amendment will require extensive water quality monitoring through influent and effluent monitoring, and the use of monitoring wells, thus allowing the GWDS to evaluate the condition of groundwater resources at the Beaver Creek facility to assure permitted treated effluent disposal is not having a negative impact on groundwater quality.

The *revised* TRM from GWDS further notes that, in the event trends of increasing concentrations and/or impacts are observed, Artesian will be required to take all necessary actions to eliminate and correct any adverse impact on public health or the environment resulting from permit non-compliance.

I find that the GWDS's *revised* TRM offers a thorough and detailed review of all aspects of the Applicant's pending Beaver Creek Operations Permit Amendment, addresses those concerns germane to the subject matter of the aforementioned public hearing held by the Department in this matter, and responds to them in a balanced manner, accurately reflecting the information contained in the Record. The Record developed in this matter indicates that the Department's experts in both the SWDS and the GWDS have considered all statutes and regulations that govern permitting actions such as Artesian's applications for the proposed Force Main Construction Permit and the Beaver Creek Operations Permit Amendment and have recommended approval of the same.

In reviewing the applicable statutes and regulations, as well as weighing public benefits of this project against potential detriments, the Department's experts in both the SWDS and the GWDS have concluded that Artesian's permit applications comply with all applicable federal and state laws and regulations. The Force Main Construction Permit and the Beaver Creek Permit Amendment that would be issued by the Department would be reflective of the respective applications submitted by Artesian, and would include water quality limitations, along with operational, monitoring, and reporting requirements for the Applicant, to ensure continued protection of public health and the environment.

I find that the pending permit applications submitted by Artesian, as set forth in detail above, are subject to various state and federal regulatory requirements, including, but not limited to, Delaware's *Regulations Governing the Design, Installation, and Operation of On-Site Wastewater Treatment and Disposal Systems* (7 DE Admin. Code 7101), *Regulations Governing the Control of Water Pollution* (7 DE Admin. Code 7201), and as provided for under Delaware law in 7 *Del.C.* Ch. 60.

I further find and conclude that the Applicant has adequately demonstrated compliance with all requirements of the statutes and regulations and is continuing to work with the Department to assure Artesian's commitments and ongoing compliance requirements are met, as noted herein. Moreover, I find and conclude that the Record supports approval of both the proposed Force Main Construction Permit and the proposed Beaver Creek Operations Permit Amendment, as submitted by Artesian to the Department's SWDS and the GWDS, respectively, in this matter. Additionally, I find and conclude that the Record supports the recommendations of the Department's experts in the SWDS and the GWDS, as set forth in (1) the SWDS *revised* TRM of December 17, 2021; (2) the associated SWDS Draft Permit; and (3) the GDWS revised TRM of December 17, 2021, which includes the *revised final* Draft Permit for the Beaver Creek Operations Permit Amendment, for the reasons noted above.

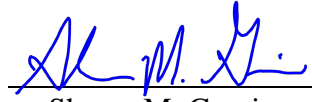
Accordingly, this Order approves the issuance of (1) a Wastewater Facilities Construction Permit for the proposed force main construction, consistent with the SWDS Draft Permit; and (2) an Amendment to the existing On-Site Wastewater Treatment and Disposal System Operations Permit, consistent with the GWDS *revised final* Draft Permit for the Beaver Creek Regional Wastewater Treatment Facility, consistent with the Record developed in this matter, and with appropriate conditions.

Further, the Department concludes and specifically directs the following:

1. The Department has jurisdiction, as provided for under 7 *Del.C.* Ch. 60, 7 DE Admin. Code 7101, *Regulations Governing the Design, Installation and Operation of On-Site Wastewater Treatment and Disposal Systems*, 7 DE Admin. Code 7201, *Regulations Governing the Control of Water Pollution*, and all other relevant statutory authority, to make a final determination on the aforementioned pending permit applications submitted by Artesian after holding a public hearing, considering the public comments, and all information contained in the Record generated in this matter;

2. The Department provided proper public notice of the aforementioned applications submitted by Artesian, and of the public hearing held on November 17, 2020, and held said hearing to consider any public comments that may be offered on the Application, in a manner required by the law and regulations;
3. The Department considered all timely and relevant public comments in the Record, as established in the SWDS's *revised* TRM of December 17, 2021, the SWDS Draft Permit, and the GWDS's *revised* TRM of December 17, 2021 (which includes the GWDS *revised final* Draft Permit), all of which have now been expressly incorporated into the Record generated in this matter;
4. The Department has carefully considered the factors required to be weighed in issuing the permits required by the aforementioned applications submitted to the Department by Artesian, and finds that the Record supports approval of the same;
5. The Department shall issue to Artesian the following permits: (1) a Wastewater Facilities Construction Permit for the proposed force main construction, consistent with the SWDS Draft Permit; and (2) an Amendment to the existing On-Site Wastewater Treatment and Disposal System Operations Permit, consistent with the GWDS *revised final* Draft Permit, as proposed for the Beaver Creek Regional Wastewater Treatment Facility, consistent with the Record developed in this matter.
6. Furthermore, said permits shall include all conditions as set forth in the Department's *revised* TRMs, along with the SWDS Draft Permit and the *revised final* GWDS Draft Permit, to ensure that Delaware's environment and public health will be protected from harm;
7. The Department adopts the Report and its attachments as further support for this decision;

8. The Department has an adequate Record for its decision, and no further public hearing is appropriate or necessary; and
9. The Department shall serve and publish its Order on its internet site.



Shawn M. Garvin
Secretary