

DOCKET NO. D-2016-011-3

DELAWARE RIVER BASIN COMMISSION

Discharge to a Tributary of Special Protection Waters

**Aqua Pennsylvania Wastewater, Inc.
Thornhurst Wastewater Treatment Plant
Thornhurst Township, Lackawanna County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an application submitted to the Delaware River Basin Commission (DRBC or Commission) on September 31, 2020 (Application) for approval to modify the docket holder's existing Thornhurst wastewater treatment plant (WWTP) and its discharge. The discharge and proposed facility upgrades are permitted by the Pennsylvania Department of Environmental Protection (PADEP) in National or State Pollutant Discharge Elimination System (NPDES) Permit No. PA0060411 and Water Quality Management Application Permit No. 3593408.

The Application was reviewed for approval under Section 3.8 of the *Delaware River Basin Compact* and inclusion in the DRBC Comprehensive Plan. The Lackawanna County Planning Commission has been notified of pending action. A public hearing on this project was held by the DRBC on February 10, 2021.

A. DESCRIPTION

1. Purpose. The purpose of this docket is to approve an upgrade to the docket holder's existing 0.07 million gallons per day (mgd) WWTP and its discharge. The proposed upgrade consists of replacing the existing headworks, construction of new influent screening building, replacing the existing equalization pumps, upgrading the existing chlorine disinfection with ultraviolet (UV) disinfection.

2. Location. The docket holder's WWTP is located at Magnolia Drive in Thornhurst Township, Lackawanna County, Pennsylvania. The WWTP will continue to discharge treated effluent to Pond Creek, upstream of F.E. Walter Reservoir, at River Mile 183.7 – 88.8 – 2.5 (Delaware River – Lehigh River – Pond Creek) and is located in the drainage area to the Lower Delaware Special Protection Waters (SPW).

Specific location information has been withheld for security reasons.

3. Area Served. The docket holder's WWTP will continue to serve Thornhurst Country Club Estates Development located in Lackawanna County, Pennsylvania. For the purpose of defining the Area Served, Section B (Type of Discharge) and D (Service Area) of the docket holder's

Application are incorporated herein by reference, to the extent consistent with all other conditions contained in the DECISION Section of this docket.

4. Design Criteria. The docket holder's 0.07 mgd WWTP utilizes an extended aeration treatment process with chlorine disinfection. The proposed upgrades will consist of upgrading the existing influent screening equipment, replacing the existing blower equipment, and upgrading the existing chlorine disinfection system into an ultraviolet (UV) disinfection system.

5. Facilities. The existing WWTP facilities consist of a comminutor, a manually cleaned bar screen, an aerated flow equalization tank, 4 parallel package extended aeration tanks with coarse bubble diffusers, ferric chloride chemical addition for phosphorus removal, a secondary clarifier and a chlorine disinfection unit. Sludge handling facilities consist of 2 sludge holding tanks.

The proposed WWTP upgrades will consist of replacing the existing comminutor with a new mechanically-cleaned screen, a by-pass channel with a manually-cleaned bar rack, and the construction of a new influent screening building. The existing pumps for the flow equalization tank will be replaced with larger capacity pumps, the construction of a new concrete vault for new valves and a flow meter. A new force main will be installed to convey flow from the flow equalization tank to the aeration tanks, all appurtenant blowers will be replaced with newly installed blowers in a new blower building, the existing chlorine disinfection system will be replaced with a UV disinfection unit. A new operations building will be constructed to handle all newly installed electrical equipment, chemical feed equipment and related storage.

The docket holder's WWTP discharges to waters classified as SPW and is required to have available standby power. The existing WWTP has a generator installed capable of providing standby power.

The docket holder's WWTP is not staffed 24 hours per day and has a remote alarm system that continuously monitors plant operations in accordance with the Commission's SPW requirements.

The docket holder has prepared and implemented an emergency management plan (EMP) for the existing WWTP in accordance with Commission SPW requirements.

The docket holder has satisfactorily proved the technical infeasibility of using natural wastewater treatment technologies in accordance with the Commission's SPW requirements, due to space limitations at the location.

Several of the WWTP facilities are located in the 100-year floodplain. The docket holder indicated in the application that the WWTP facilities located in the floodplain are not located in the floodway and are flood proofed up to the flood protection elevation (one foot above the 100-year flood elevation).

Wasted sludge will continue to be hauled off-site for disposal.

6. Water Withdrawals. The potable water supply in the project service area is provided by groundwater wells owned by the docket holder. The groundwater withdrawals are operated at a

withdrawal rate below the DRBC groundwater withdrawal review threshold and are not subject to Commission review and approval.

7. **NPDES/SPDES Permit / DRBC Effluent Requirements.** NPDES Permit No. .PA0060411 issued by the PADEP includes final effluent limitations for the project discharge to surface waters classified by the PADEP as supporting high quality water (HQ) cold water fishes (CWF). EFFLUENT TABLES C-1 & C-2 included in the DECISION section of this docket, contain(s) effluent requirements for DRBC parameters that must be met as a condition of this approval (See C. DECISION Condition C.1.). Effluent requirements for Outfall No. 001 are based on a discharge rate of 0.07 mgd.

B. FINDINGS

The docket holder submitted an application to approve the upgrade to their existing 0.07 mgd WWTP and its discharge. The proposed upgrade will replace the existing headworks equipment and building replace and upgrade existing equalization tank blower equipment, upgrade aeration tank blower equipment and upgrade existing chlorine disinfection to UV disinfection.

1. Special Protection Waters

On July 16, 2008, the DRBC approved amendments to its *Water Quality Regulations (WQR)* that provide increased protection for waters that the Commission classifies as SPW. The portion of the Delaware River and its tributaries within the boundary of the Lower Delaware River Management Plan Area was approved for SPW designation.

The docket holder's WWTP discharges to the drainage area to the Lower Delaware SPW. The docket holder's WWTP discharge is required to comply with the SPW requirements, as outlined in Article 3.10.3A.2. of the WQR.

In accordance with Section 3.10.3A.2.f.1) of the Commission's *WQR*, following consultation between the PADEP and Commission staff, Commission staff determined that the requirements under Section 3.10.3A.2.d.8)(e), requirement for the No Measurable Change (NMC) to Existing Water Quality (EWQ) analysis described within the Commission's *WQR* is not applicable to the proposed project since the WWTP will continue to discharge waters that drain to a water storage impoundment identified in Section 3.10.3A.2.g.5) of the Commission's *WQR* (F.E. Walter Reservoir), where time of travel and relevant hydraulic and limnological factors preclude a direct impact on SPW.

Article 3.10.3A.2.e.1). and 2). of the Commission's *WQR* states that projects subject to review under Section 3.8 of the Compact that are located in the drainage area of SPW must submit for approval a Non-Point Source Pollution Control Plan (NPSPCP) that controls the new or increased non-point source loads generated within the portion of the docket holder's service area which is also located within the drainage area of SPW. The service area of the docket holder is located in the drainage area to the SPW. Since this project does entail additional construction of facilities and there are increased non-point source loads associated with this approval, the NPSPCP

requirement is applicable at this time. Accordingly, Conditions C.4 and C.8 have been included in Section C. DECISION of this docket.

2. Other

At the docket holder's WWTP discharge, the Pond Creek has an estimated seven-day low flow with a recurrence interval of ten years (Q_{7-10}) of 0.17 mgd (0.27 cfs). The ratio of this low flow to the hydraulic design wastewater discharge rate from the 0.07 mgd WWTP is 2.4 to 1.

The nearest surface water intake of record for public water supply is located on Lehigh River approximately 35 River Miles downstream of the docket holder's WWTP and is operated by Northampton Brough Municipal Authority.

The project does not conflict with the Comprehensive Plan and is designed to prevent substantial adverse impact on the water resources related environment, while sustaining the current and future water uses and development of the water resources of the Basin.

The effluent limits in the NPDES Permit conform with Commission effluent quality requirements, where applicable.

The project is designed to produce a discharge that meets the effluent requirements as set forth in the Commission's *Water Quality Regulations (WQR)*.

C. DECISION

Effective on the approval date for Docket No(s). D-2016-011-2 is terminated and replaced by Docket No. D-2016-011-3. The project and appurtenant facilities as described in Section A of this docket are approved pursuant to Section 3.8 of the *Compact*, subject to the following conditions:

Monitoring and Reporting

1. The docket holder shall comply with the requirements contained in the EFFLUENT TABLES below. The docket holder shall submit the required monitoring results electronically to the DRBC Project Review Section via email aemr@drbc.gov on the **Annual Effluent Monitoring Report Form** located at this web address: <https://www.nj.gov/drbc/programs/project/docket-app-info.html#3>. The monitoring results shall be submitted annually, absent any observed limit violations, by January 31. If a DRBC effluent limit is violated, the docket holder shall submit the result(s) to the DRBC within 30 days of the violation(s) and provide a written explanation that states the action(s) the docket holder has taken to correct the violation(s) and protect against any future violations. The following average monthly effluent limits are among those listed in the NPDES Permit and meet or are more stringent than the effluent requirements of the DRBC.

EFFLUENT TABLE C-1: DRBC Parameters Included in NPDES Permit

OUTFALL 001 (Discharging to Pond Creek)		
PARAMETER	LIMIT	MONITORING
pH (Standard Units)	6 to 9 at all times	As required by NPDES Permit
Total Suspended Solids	30 mg/l	As required by NPDES Permit
Dissolved Oxygen	5.0 mg/l (minimum at all times)	As required by NPDES Permit
CBOD ₅ (at 20° C)	20 mg/l	As required by NPDES Permit
Ammonia Nitrogen (5-1 to 10-31) (11-1 to 4-30)	3.0 mg/l 9.0 mg/l	As required by NPDES Permit
Fecal Coliform (5-1 to 9-30) (10-1 to 4-30)	200 colonies per 100 ml as a geo. avg. 2000 colonies per 100 ml as a geo. avg.	As required by NPDES Permit
Total Dissolved Solids	Monitor & Report	As required by NPDES Permit

The following monitoring requirements and average monthly effluent limits are for DRBC parameters not listed in the NPDES Permit.

EFFLUENT TABLE C-2: DRBC Parameters Not Included in NPDES Permit

OUTFALL 001 (Discharging to Pond Creek)		
PARAMETER	LIMIT	MONITORING
Total Dissolved Solids*	1,000 mg/l*	Quarterly
CBOD ₅ (at 20° C)	Monitor & Report Percent Removal	Monthly
CBOD ₅ (at 20° C) Influent	Monitor & Report	Monthly

* See DECISION Condition C.11

2. Within 10 days of the date that construction of the project has started, the docket holder shall notify the DRBC of the starting date and scheduled completion date. Within 30 days of the date of project completion, the docket holder shall notify the DRBC of the project completion date.
3. Within 30 days of completion of construction of the approved project, the docket holder is to submit to the attention of the Project Review Section of DRBC a Construction Completion Statement (“Statement”) signed by the docket holder’s professional engineer for the project. The Statement must (1) either confirm that construction has been completed in a manner consistent with any and all DRBC-approved plans or explain how the as-built project deviates from such plans; and (2) indicate the date on which the project was (or is to be) placed in operation.
4. Prior to project construction, the docket holder shall submit and have approved by the Executive Director of the DRBC, a NPSPCP in accordance with Article 3.10.3A.2.e. of the Commission’s WQR.

Other Conditions

5. Sound practices of excavation, backfill and reseeded shall be followed to minimize erosion and deposition of sediment in streams.

6. The WWTP modifications shall be completed prior to the date of docket expiration (March 31, 2024) or the docket holder shall demonstrate to the Executive Director that it has expended substantial funds (in relation to the cost of the project) in reliance upon this docket approval. If the modifications have not been completed prior to docket expiration and the docket holder does not submit a cost analysis demonstrating substantial funds have been expended, Commission approval of the modifications to the existing WWTP shall expire. If the docket expires under this condition, the docket holder shall file a new application with the Commission and receive Commission approval prior to initiating construction of any modifications.

7. Nothing in this docket constitutes a defense to any penalty action for past conduct of the docket holder or ongoing activity not authorized by this approval. In particular, renewal of this docket does not resolve violations – whether in the past or continuing – of provisions of the Delaware River Basin Compact (“Compact”) or any rule, regulation, order or approval duly issued by the Commission or the Executive Director pursuant to the Compact. The Commission reserves its right to take appropriate enforcement action against the docket holder, including but not limited to recovery of financial penalties consistent with Section 14.17 of the Compact, for any and all such prior or continuing violations.

8. Prior to allowing connections from any new service areas or any new developments, the docket holder shall either submit and have approved by the Executive Director of the DRBC a NPSPCP in accordance with Section 3.10.3.A.2.e, or receive written confirmation from the Executive Director of the DRBC that the new service area is in compliance with a DRBC-approved NPSPCP.

9. Prior to the docket holder initiating any substantial alterations or additions to the existing WWTP as defined in Section 3.10.3A2.a.16) of the Commission’s WQR, an application must be submitted and approved by the Commission. Such an application shall be submitted prior to final design to ensure that the Commission can provide the docket holder with draft effluent limitations for SPW specific parameters as guidance for design as to not require duplication of work or cause a substantial expenditure of public funds without Commission approval. The docket holder is encouraged to contact the Commission staff during the planning stages to identify the potential effluent limitations required to meet the no measurable change parameters under SPW.

10. Except as otherwise authorized by this docket, if the docket holder seeks relief from any limitation based upon a DRBC water quality standard or minimum treatment requirement, the docket holder shall apply for approval from the Executive Director or for a docket revision in accordance with Section 3.8 of the *Compact* and the *Rules of Practice and Procedure*.

11. The docket holder may request of the Executive Director in writing the substitution of specific conductance for TDS. The request should include information that supports the effluent specific correlation between TDS and specific conductance. Upon review, the Executive Director may modify the docket to allow the substitution of specific conductance for TDS monitoring.

12. The docket holder is responsible for timely submittal to the DRBC of a docket renewal application on the appropriate application form including the appropriate docket application filing fee (see 18 CFR 401.43) at least 6 months in advance of the docket expiration date set forth below. The docket holder will be subject to late filed renewal surcharges in the event of untimely

submittal of its renewal application, whether or not DRBC issues a reminder notice in advance of the deadline or the docket holder receives such notice. In the event that a timely and complete application for renewal has been submitted and the DRBC is unable, through no fault of the docket holder, to reissue the docket before the expiration date below, the terms and conditions of the current docket will remain fully effective and enforceable against the docket holder pending the grant or denial of the application for docket approval.

13. The docket holder is permitted to treat and discharge wastewater as set forth in the Area Served Section of this docket, which incorporates by reference Sections B (Type of Discharge) and D (Service Area) of the docket holder's Application to the extent consistent with all other conditions of this DECISION Section.

14. The docket holder is prohibited from treating/pre-treating any hydraulic fracturing wastewater from sources in or out of the Basin at this time. Should the docket holder wish to treat/pre-treat hydraulic fracturing wastewater in the future, the docket holder will need to first apply to the Commission to renew this docket and be issued a revised docket allowing such treatment and an expanded service area. Failure to obtain this approval prior to treatment/pre-treatment will result in action by the Commission.

15. The facility and operational records shall be available at all times for inspection by the DRBC.

16. The facility shall be operated at all times to comply with the requirements of the Commission's WQR.

17. If at any time the receiving treatment plant proves unable to produce an effluent that is consistent with the requirements of this docket approval, no further connections shall be permitted until the deficiency is remedied.

18. Nothing herein shall be construed to exempt the docket holder from obtaining all necessary permits and/or approvals from other State, Federal or local government agencies having jurisdiction over this project.

19. The docket holder shall discharge wastewater in such a manner as to avoid injury or damage to fish or wildlife and shall avoid any injury to public or private property.

20. No sewer service connections shall be made to newly constructed premises with plumbing fixtures and fittings that do not comply with water conservation performance standards contained in Resolution No. 88-2 (Revision 2).

21. The issuance of this docket approval shall not create any private or proprietary rights in the waters of the Basin, and the Commission reserves the right to amend, suspend or rescind the docket for cause, in order to ensure proper control, use and management of the water resources of the Basin.

22. The docket holder shall be subject to applicable DRBC regulatory program fees, in accordance with duly adopted DRBC resolutions and/or regulations (see 18 CFR 401.43).

23. This approval is transferable by request to the DRBC Executive Director provided that the project purpose and area served approved by the Commission in this docket will not be materially altered because of the change in project ownership. The request shall be submitted on the appropriate form and be accompanied by the appropriate fee (see 18 CFR 401.43).

24. The docket holder shall request a name change of the entity to which this approval is issued if the name of the entity to which this approval is issued changes its name. The request for name change shall be submitted on the appropriate form and be accompanied by the appropriate fee (see 18 CFR 401.43).

25. The Executive Director may modify or suspend this approval or any condition thereof, or require mitigating measures pending additional review, if in the Executive Director's judgment such modification or suspension is required to protect the water resources of the Basin.

26. Any person who objects to a docket decision by the Commission may request a hearing in accordance with Article 6 of the Rules of Practice and Procedure. In accordance with Section 15.1(p) of the *Delaware River Basin Compact*, cases and controversies arising under the *Compact* are reviewable in the United States district courts.

BY THE COMMISSION

APPROVAL DATE: March 10, 2021

EXPIRATION DATE: March 31, 2024