

DOCKET NO. D-1988-077 CP-5

DELAWARE RIVER BASIN COMMISSION

**Township of Spring
Wastewater Treatment Plant
Spring Township, Berks County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an application submitted to the Delaware River Basin Commission (DRBC or Commission) on June 11, 2020 (Application), for approval for the proposed modification for of the docket holder's existing wastewater treatment plant (WWTP) and its discharge. The Pennsylvania Department of Environmental Protection (PADEP) issued National Pollutant Discharge Elimination System (NPDES) Permit No. PA004305 for this discharge. The PADEP issued Water Quality Management Permit No. 0609404 for this proposed project.

The application was reviewed for continuation of the project in the Comprehensive Plan and approval under Section 3.8 of the *Delaware River Basin Compact*. The Berks County Planning Commission has been notified of pending action. A public hearing on this project was held by the DRBC on August 11, 2021.

A. DESCRIPTION

- 1. Purpose.** The purpose of this docket is to approve a modification to the docket holder's existing 2.0 million gallons per day (mgd) WWTP and its discharge. The proposed modification consists of installing a third final clarifier and appurtenant equipment.
- 2. Location.** The docket holder's WWTP is located at southeastern split of Reedy Road and State Hill Road intersection, in Spring Township, Berks County, Pennsylvania. The WWTP will continue to discharge treated effluent to Cacoosing Creek, at River Mile 92.47 – 76.8 – 4.0 – 2.0 (Delaware River – Schuylkill River – Tulpehocken Creek – Cacoosing Creek).

Specific location information has been withheld for security reasons.

- 3. Area Served.** The docket holder's WWTP will continue to serve Sinking Spring Borough and portions of the following municipalities: West Lawn Borough, Wyomissing Township, Wyomissing Borough, Lower Heidelberg Township, South Heidelberg Township, and Spring Township. All municipalities served are located within Berks 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 2.0 mgd WWTP operates as a 3-Plant system with a fixed film activated sludge process employed at Plants 1 and 2 and oxidative ditch treatment process at Plant 3. All Plants utilize ultraviolet (UV) disinfection. The WWTP is designed for an annual average flow of 2.0 mgd, and a hydraulic design capacity of 2.28 mgd. The new Final clarifier will be located at Plant 3 and will receive flow conveyed from the oxidation ditch, it will be operating in conjunction with 2 existing final clarifiers with same design and capacity.

5. **Facilities.** The existing WWTP facilities consist of a septage receiving station, with a flow splitter at to separate the convey flows between Plants 1/2 and Plant 3. Plant 1 and 2 operate with 2 comminutor and grit removal stations, 3 activated sludge treatment trains in a 7-stage processes followed by two Parshall flumes and an UV disinfection unit. The upgraded 3rd Plant will consist of a screen and grit chamber, a screw pump to convey flow to an oxidation ditch with 3 final clarifier units, UV disinfection unit with a post-aeration tank. The WWTP sludge handling facilities consist of a 2-stage anaerobic digestion process, with 3 anaerobic digesters, a belt filter press, and a filtrate holding tank.

Several of the WWTP facilities located within Plants 1 and 2 are located in the 100-year floodplain, Plant 3, at the proposed modification is not located in the 100-year flood plain. Any future construction located at Plants 1 or 2 facilities located in the floodplain will need to be floodproofed 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 withdrawals owned and operated by Pennsylvania American Water Company, described in detail in Docket No. D-1998-043 CP-3, which was approved on September 16, 2015.

7. **NPDES Permit / DRBC Effluent Requirements.** NPDES Permit No. PA0043052 issued by the PADEP includes final effluent limitations for the project discharge to surface waters classified by the PADEP as supporting migratory fishes (MF) and cold-water fishes (CWF). EFFLUENT TABLES C-1 & C-2 included in Section C. DECISION Condition C.1. of this docket, contain effluent requirements for DRBC parameters that must be met as a condition of this approval. Effluent requirements for Outfall No. 001 are based on a discharge rate of 2.0 mgd.

8. **Relationship to the Comprehensive Plan.** The existing WWTP was added to the Comprehensive Plan by Docket No. D-1965-140 CP on December 29, 1965. The WWTP approval was renewed and modified by Docket Nos. listed below. Issuance of this docket will renew and continue the WWTP and its discharge in the Comprehensive Plan.

DOCKET NO.	APPROVAL DATE	DOCKET ACTION
D-1988-077 CP	February 22, 1989	Modification & Expansion
D-1988-077 CP-2	May 5, 2010	Modification & Expansion
D-1988-077 CP-3	June 10, 2015	Approval Renewal
D-1988-077 CP-4	March 11, 2020	Approval Renewal

B. FINDINGS

The docket holder submitted an application for approval of the proposed modification to their existing 2.0 mgd WWTP and its discharge. The proposed modification will consist of the installation of a third final clarifier unit, located at their Plant 3 treatment site, which combines its effluent with Plants 1 and 2.

1. Total Dissolved Solids (TDS)

Section 3.10.4.D.2 of the Commission's Water Quality Regulations (WQR) states the following:

"Total dissolved solids shall not exceed 1000 mg/l, or a concentration established by the Commission which is compatible with designated water uses and stream quality objectives and recognizes the need for reserve capacity to serve future dischargers."

On May 5, 2010, the DRBC approved Docket No. D-1988-077 CP-2 which contained a TDS effluent limit of 1,000 mg/l with required quarterly TDS monitoring. Due to multiple of exceedances of the TDS effluent limit, the docket holder performed additional influent and effluent testing, where influent samplings indicated influent TDS concentrations were above 1,000 mg/l. On March 19, 2015, the docket holder and DRBC staff agreed on additional influent and effluent TDS testing to investigate the sources and possible mitigation of TDS. Docket No. D-2007-034 CP-3 (approved on June 10, 2015) contained a temporary TDS effluent variance of 1,500 mg/l while the docket holder performed a track down study of potential TDS sources.

Since the docket holder performed the track down study and maintained consistent monitoring of TDS influent and effluent, TDS concentrations have remained below the 1,000 mg/l. however, values still remain elevated and close to 1,000 mg/l. Monitoring over the past year since the docket holder's last approval have average 802 mg/l, therefore, this docket continues the requirement for the docket holder to conduct monthly monitoring of influent and effluent TDS concentrations (See DECISION Condition C.1.).

The docket holder will also continue to monitor the potential sources of TDS. The docket maintains Condition C.2. to request a reduction in the effluent monitoring from monthly to quarterly and elimination of the TDS influent testing upon the completion and additional 12 consecutive months of monthly monitoring without an effluent exceedance of 1,000 mg/l (See DECISION Condition C.2.).

2. Other

At the docket holder's WWTP discharge, the Cacoosing Creek has an estimated seven-day low flow with a recurrence interval of ten years (Q_{7-10}) of 4.6 mgd (7.1 cfs). The ratio of this low flow to the hydraulic design wastewater discharge rate from the 2.28 mgd WWTP is 2 to 1.

The nearest surface water intake of record for public water supply is located on the Schuylkill River approximately 25 River Miles downstream of the docket holder’s WWTP and is operated by Pottstown Borough Water 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. D-1988-077 CP-5 below, the project described in Docket No. D-1988-077 CP-3 is removed from the Comprehensive Plan to the extent that they are not included in Docket No. D-1988-077 CP-5; Docket No. D-1988-077 CP-4 is terminated and replaced by Docket No. D-1988-077 CP-5; and the project and the appurtenant facilities described in Section A “DESCRIPTION” of this docket shall be continued in the Comprehensive Plan. 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 Cacoosing 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
CBOD ₅ (at 20° C)	25 mg/l (Minimum 85% Removal)	As required by NPDES Permit

OUTFALL 001 (Discharging to Cacoosing Creek)		
PARAMETER	LIMIT	MONITORING
Ammonia Nitrogen (5-1 to 10-31) (11-1 to 4-30)	3.5 mg/l 10.5 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*	1,500 mg/l*	As required by NPDES Permit

See DECISION Condition C.2

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 Cacoosing Creek)		
PARAMETER	LIMIT	MONITORING
Total Dissolved Solids Influent*	Monitor & Report	Monthly
Total Dissolved Solids Effluent*	Monitor & Report	Monthly
CBOD ₅ (at 20° C) Percent Removal	Monitor & Report	Monthly
CBOD ₅ (at 20° C) Influent	Monitor & Report	Monthly

* See DECISION Condition C.2 and C.9

2. The docket holder is required to perform monthly influent and effluent TDS testing in accordance with EFFLUENT TABLE C-2 above. After completing 12 consecutive months of monthly monitoring without an effluent exceedance of 1,000 mg/l, the docket holder may request in writing to the Executive Director a reduction in the effluent monitoring frequency from monthly to quarterly and may request elimination of the TDS influent testing.
3. 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.
4. 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.

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 (January 31, 2025) 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. 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*
9. 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.
10. 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.

- 11.** 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.
- 12.** 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.
- 13.** The facility and operational records shall be available at all times for inspection by the DRBC.
- 14.** The facility shall be operated at all times to comply with the requirements of the Commission's WQR.
- 15.** 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.
- 16.** 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.
- 17.** 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.
- 18.** 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).
- 19.** 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.
- 20.** 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).
- 21.** 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).

22. 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).

23. 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.

24. 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: September 9, 2021

EXPIRATION DATE: January 31, 2025