

**DOCKET NO. D-2014-014 CP-2**

**DELAWARE RIVER BASIN COMMISSION**

**Tinicum Township  
Wastewater Treatment Plant  
Tinicum Township, Delaware County, Pennsylvania**

**PROCEEDINGS**

This docket is issued in response to an application submitted to the Delaware River Basin Commission (DRBC or Commission) on December 20, 2019 (Application), for renewal of the docket holder's existing wastewater treatment plant (WWTP) and its discharge. The discharge is permitted by Pennsylvania Department of Environmental Protection (PADEP) in National Pollutant Discharge Elimination System (NPDES) Permit No. PA0028380.

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 Delaware 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 renew approval of the docket holder's existing 2.8 million gallons per day (mgd) WWTP and its discharge.
- 2. Location.** The docket holder's WWTP is located on Chippewa Street in Tinicum Township, Delaware County, Pennsylvania. The WWTP will continue to discharge treated effluent to the tidal portion of Darby Creek, at River Mile 85.28 – 1.0 (Delaware River – Darby Creek).

Specific location information has been withheld for security reasons.

- 3. Area Served.** The docket holder's WWTP will continue to serve portions of Tinicum Township, Delaware 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 2.8 mgd WWTP utilizes a two-stage, high rate trickling filter treatment process.

5. **Facilities.** The IWTP/ WWTP facilities consist of a grit chamber, a comminutor, two (2) primary settling tanks, a primary and secondary trickling filter, three (3) secondary settling tanks, a primary and secondary anaerobic digester, and a chlorine contact tank.

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 Aqua Pennsylvania's main system which is described in detail in multiple DRBC Dockets.

7. **NPDES Permit / DRBC Effluent Requirements.** NPDES Permit No. PA0028380, issued by the PADEP includes final effluent limitations for the project discharge to surface waters classified by the PADEP as supporting warm water fishes and migratory fishes (WWF/MF). EFFLUENT TABLE C-1 included in the DECISION section of this docket, contains effluent requirements for DRBC parameters that must be met as a condition of this approval (See DECISION Condition C.1.). Effluent requirements for Outfall 001 are based on a discharge rate of 1.4 mgd.

8. **Relationship to the Comprehensive Plan.** The existing WWTP was added to the Comprehensive Plan by Docket No. D-2014-014 CP-1 on June 10, 2015. Issuance of this docket will renew and continue the WWTP and its discharge in the Comprehensive Plan.

## B. FINDINGS

The docket holder submitted an application to renew approval of their existing 2.8 mgd WWTP and its discharge.

### 1. Total Dissolved Solids (TDS)

Zone 4 stream quality objectives require Total Dissolved Solids (TDS) not to exceed 133% of background. The Commission reserves the right, in accordance with the *WQR* and the *Rules of Practice and Procedure*, to apply the basin-wide TDS requirements in Zone 4 when and where it determines that the requirements are necessary to protect water uses in Zone 4. EFFLUENT TABLE C-1 included in the DECISION section of this docket includes effluent monitoring and reporting of TDS. If TDS monitoring indicates that the WWTP effluent exceeds the DRBC's basin-wide effluent limit for TDS of 1,000 mg/l, the docket holder may be required to demonstrate that the Zone 4 water quality objective of 133% of background is not exceeded.

### 2. Chronic Toxicity

Zone 4 stream quality objectives exist for toxic pollutants. They include criteria to protect the taste and odor of ingested water and fish (Table 4 of DRBC's Water Quality Regulations (WQR)), to protect aquatic life (Table 5), and to protect human health (Tables 6 & 7). Toxicity in effluent is measured as Whole Effluent Toxicity (WET), and results from both acute and chronic exposures. The acute toxicity stream quality objective for Zone 4 is 0.3 Toxic Units (TU<sub>a</sub> = 0.3). The chronic toxicity stream quality objective for Zone 4 is 1.0 Toxic Units (TU<sub>c</sub> = 1.0).

The docket holder is required to perform annual Whole Effluent Toxicity (WET) tests to generate chronic toxicity data on the cladoceran (*Ceriodaphnia dubia*) and the fathead minnow (*Pimephales promelas*).

### **3. CBOD20 Wasteload Allocation**

The Commission's Water Quality Regulations (WQR) provide for the allocation of the stream assimilative capacity where waste discharges would otherwise result in exceeding such capacity. The DRBC determined in the late 1960's that discharges to the Delaware Estuary would be limited to a total of 322,000 lbs/day of carbonaceous biochemical (first stage) oxygen demand (later noted as CBOD20). In accordance with the WQR, the assimilative capacity of each Delaware Estuary zone minus a reserve was originally allocated in 1968 among the individual dischargers based upon the concept of uniform reduction of raw waste in a zone (Zones 2, 3, 4 and 5). The totals and percent reduction for each zone are given in Table 1 of the Commission's Status of CBOD20 Wasteload Allocations (Revised October 1, 2000). The docket holder's WWTP is located in Zone 4 at River Mile 85.28 – 1.0. Zone 4 is allocated at 183 lbs/day of CBOD and has a total reduction requirement of 89.25%. Compliance with the 89.25% Zone 4 reduction requirement can be demonstrated by meeting the 89.25% CBOD5 removal requirement included in EFFLUENT TABLE C-1 included in the DECISION section of this docket.

A letter from the Executive Director in August 1999 approved an allocation of 365 lbs/day of CBOD<sub>20</sub> with a correlating CBOD<sub>20</sub> to CBOD<sub>5</sub> ratio of 2 to 1. The COBD20 allocation of 365 was continued in DRBC Docket No. D-2014-014 CP-1 approved on June 10, 2015. The CBOD5 effluent load limit is calculated as the CBOD20 allocation divided by the BOD20/CBOD5 ratio of 2:1. This docket continues the allocation of up to 365 lbs/day of CBOD20 for the existing facility. Compliance with the CBOD20 allocation can be demonstrated by meeting the CBOD5 effluent load limit of 183 lbs/day.

### **4. Other**

Near the project discharge site, the Delaware River is tidal, and its flow is regulated by upstream reservoir releases. The Trenton low flow target is 2,500 cfs (1.62 billion gallons per day). The addition of the tidal tributaries upstream of the discharge location at their Q7-10 flow and the low flow Trenton target results in a low-flow of approximately 3,947 cfs (2.55 billion gallons per day) for the Delaware River at the discharge location (River Mile 85.28).

There are no surface water intakes of record for public water supply within a 5-mile tidal influence of the docket holder's discharge.

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-2014-014 CP-2 below, the project described in Docket No. D-2014-014 CP-1 is removed from the Comprehensive Plan to the extent that it is not included in Docket No. D-2014-014 CP-2 Docket No. D-2014-014 CP-1 is terminated and replaced by Docket No. D-2014-014 CP-2; 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](mailto: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**

<b>OUTFALL 001 (Treated Sewage Effluent)</b>		
<b>PARAMETER</b>	<b>LIMIT</b>	<b>MONITORING</b>
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 <sub>5</sub> (at 20° C) Raw Sewage Influent	Monitor and Report	As required by NPDES Permit
CBOD <sub>5</sub> (at 20° C)	16 mg/l, 183 lbs/day	As required by NPDES Permit
CBOD <sub>5</sub> (at 20° C)	89.25% Removal	As required by NPDES Permit
Ammonia Nitrogen	3.0 mg/l	As required by NPDES Permit

OUTFALL 001 (Treated Sewage Effluent)		
PARAMETER	LIMIT	MONITORING
Fecal Coliform	200 colonies per 100 ml as a geo. avg.	As required by NPDES Permit
Total Dissolved Solids	Monitor and Report	As required by NPDES Permit
PCBs	Monitor and Report	As required by NPDES Permit
Chronic WET Ceriodaphnia Survival	Monitor and Report	As required by NPDES Permit
Chronic WET Ceriodaphnia Reproduction	Monitor and Report	As required by NPDES Permit
Chronic WET Pimephales Survival	Monitor and Report	As required by NPDES Permit
Chronic WET Pimephales Reproduction	Monitor and Report	As required by NPDES Permit

\* See Condition C.4.

### **Other Conditions**

2. 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*.
3. 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.
4. 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.
5. 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.

- 6.** 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.
- 7.** The facility and operational records shall be available at all times for inspection by the DRBC.
- 8.** The facility shall be operated at all times to comply with the requirements of the Commission's WQR.
- 9.** 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.
- 10.** 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.
- 11.** 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.
- 12.** 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).
- 13.** 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.
- 14.** 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).
- 15.** 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).
- 16.** 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).

**17.** 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.

**18.** 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:        September 30, 2025**