

**DOCKET NO. D-2013-006 CP-3**

**DELAWARE RIVER BASIN COMMISSION**

**Discharge to a Tributary of Special Protection Waters**

**Lehigh County  
Lehigh Valley Zoo Wastewater Treatment Plant  
North Whitehall, Lehigh County, Pennsylvania**

**PROCEEDINGS**

This docket is issued in response to an application submitted to the Delaware River Basin Commission (DRBC or Commission) on June 10, 2022 (Application), for renewal of the docket holder's existing wastewater treatment plant (WWTP) and its discharge. The Pennsylvania Department of Environmental Protection issued National Pollutant Discharge Elimination System (NPDES) Permit No. PA0055131 for this discharge.

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 Lehigh Valley Planning Commission has been notified of pending action. A public hearing on this project was held by the DRBC on August 9, 2023.

**A. DESCRIPTION**

- Purpose.** The purpose of this docket is to renew approval of the docket holder's existing 0.021 million gallons per day (mgd) WWTP and its discharge.
- Location.** The docket holder's WWTP is located in North White Hall Township, Lehigh County, Pennsylvania. The WWTP will continue to discharge treated effluent to Jordan Creek, at River Mile 183.7 – 16.3 – 18.0 (Delaware River – Lehigh River– Jordan Creek) and is located in the drainage area to the Lower Delaware Special Protection Waters (SPW).

The location of the WWTP outfall is as follows:

<b>OUTFALL NO.</b>	<b>LATITUDE (N)</b>	<b>LONGITUDE (W)</b>
001	40° 39' 40.77"	75° 37' 32.66"

- Area Served.** The docket holder's WWTP will continue to serve the onsite Lehigh Valley Zoo located in North Whitehall Township in Lehigh County, Pennsylvania. For the purpose of defining the Area Served, the Type of Discharge and the Service Area sections from the docket holder's Application are incorporated herein by reference, to the extent consistent with all other conditions contained in Section C. DECISION of this docket.

4. **Design Criteria.** The docket holder's 0.021 mgd WWTP utilizes an extended aeration treatment process with chlorine disinfection.

5. **Facilities.** The WWTP facilities consist of a comminutor unit, extended aeration units with air blower, a clarifier unit, a sludge tank, and chlorine contact tank.

The docket holder's WWTP discharges to waters classified as SPW and is required to have available standby power. The existing WWTP has on-site portable generators available capable of providing standby power.

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

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

The project facilities are not located in the 100-year floodplain.

Wasted sludge will continue to be hauled off-site for disposal in accordance with the NPDES Permit No. PA0055131.

6. **Water Withdrawals.** The potable water supply in the project service area is provided by on-site wells owned by the docket holder. The well is operated at a withdrawal rate below the DRBC groundwater withdrawal review threshold and is not subject to Commission review and approval.

7. **NPDES Permit / DRBC Effluent Requirements.** NPDES Permit No. PA0055131 issued by the PADEP includes final effluent limitations for the project discharge to surface waters classified by the PADEP as supporting trout stocking (TSF) and migratory fishes (MF). EFFLUENT TABLE C-1 included in Section C. DECISION condition C.1. of this docket, contains 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 0.021 mgd.

8. **Relationship to the Comprehensive Plan.** The existing WWTP was included in the Comprehensive Plan by Docket No. D-2013-006 CP-1 on December 4, 2013. The WWTP approval was renewed by Docket No. D-2013-006 CP-2 on March 14, 2018. Issuance of this docket will continue the WWTP and its discharge in the Comprehensive Plan.

## **B. FINDINGS**

The docket holder applied to renew approval of their existing 0.021 mgd WWTP and its discharge.

### **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.

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 not entail additional construction and/or expansion of facilities and service area and there are no new or increased non-point source loads associated with this approval, the NPSPCP requirement is not applicable at this time. Accordingly, Section C. DECISION condition C.2 has been included in this docket.

### **2. Other**

At the docket holder's WWTP discharge, the Jordan Creek has an estimated seven-day low flow with a recurrence interval of ten years ( $Q_{7-10}$ ) of 1.42 mgd (2.20 cfs). The ratio of this low flow to the design wastewater discharge rate from the 0.021 mgd WWTP is 68 to 1 (1.42 mgd/0.021 mgd).

The nearest surface water intake of record for public water supply is located on the Delaware River approximately 69 River Miles downstream of the docket holder's WWTP and is operated by Bucks County Water and Sewer 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-2013-006 CP-3 below, the project described in Docket No. D-2013-006 CP-2 is removed from the Comprehensive Plan to the extent that it is not included in Docket No. D-2013-006 CP-3; Docket No. D-2013-006 CP-2 is terminated and replaced by Docket No. D-2013-006 CP-3; and the project and the appurtenant facilities described in Section A "DESCRIPTION" of this docket shall be included 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 TABLE 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 (Discharging to Jordan Creek)</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	15 mg/l	As required by NPDES Permit
Dissolved Oxygen	Monitor & Report	As required by NPDES Permit
CBOD <sub>5</sub> (at 20° C)    5-1 to 10-31 11-1 to 4-30	10 mg/l 20 mg/l	As required by NPDES Permit
Ammonia Nitrogen (5-1 to 10-31) (11-1 to 4-30)	3 mg/l 9 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

OUTFALL 001 (Discharging to Jordan Creek)		
PARAMETER	LIMIT	MONITORING
Phosphorus	Monitor & Report	As required by NPDES Permit
Total Dissolved Solids*	1,000 mg/l *	As required by NPDES Permit
Nitrate as N	Monitor & Report	As required by NPDES Permit
Total Nitrogen	Monitor & Report	As required by NPDES Permit

\* See DECISION Condition C.5.

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

OUTFALL 001 (Discharging to Jordan Creek)		
PARAMETER	LIMIT	MONITORING
CBOD <sub>5</sub> (at 20° C) influent	Monitor & Report Influent and Percent Removal	Monthly, paired with CBOD <sub>5</sub> effluent monitoring sample

### **Other Conditions**

2. 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 complies with a DRBC-approved NPSPCP.

3. 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.

4. 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*.

5. 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.

6. Section 2.3.10 of the Commission's *Rules of Practice and Procedure (RPP)* (18 C.F.R. 401.41), limiting the Commission's approval to three years in the absence of an expenditure of substantial funds by the project sponsor in reliance on the approval, is hereby waived for good cause shown in accordance with Section 2.9.3 (18 C.F.R. 401.123) of the same regulations. This approval shall expire on the expiration date set forth below unless prior thereto the docket holder has applied to the Commission to renew or extend this approval.

7. 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 C.F.R. 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. If 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 pending the grant or denial of the application for docket approval.

8. 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 the Type of Discharge and Service Area sections of the docket holder's Application to the extent consistent with all other conditions of this section.

9. In accordance with the Commission's regulations at 18 C.F.R. Part 440, the docket holder is prohibited from discharging wastewater from high volume hydraulic fracturing ("HVHF") or HVHF-related activities to waters or land within the Basin. The docket holder is further prohibited from discharging hydraulic fracturing wastewater, whether treated or untreated, from sources within or outside the Basin, without obtaining the Commission's prior review and express approval in the form of a revised docket. Violation of this or any condition of this docket approval may result in enforcement, including the risk of financial penalties, pursuant to Section 14.17 of the Delaware River Basin Compact and Section 2.7.8 (18 CFR 401.98) of the Commission's Rules of Practice and Procedure.

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

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

12. 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.

13. 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.

- 14.** 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.
- 15.** 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).
- 16.** 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, to ensure proper control, use and management of the water resources of the Basin.
- 17.** The docket holder shall be subject to applicable DRBC regulatory program fees, in accordance with duly adopted DRBC resolutions and/or regulations (see 18 C.F.R. 401.43).
- 18.** 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 C.F.R. 401.43).
- 19.** 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 C.F.R. 401.43).
- 20.** 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.
- 21.** 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 (RPP)*. 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 7, 2023**

**EXPIRATION DATE: January 31, 2029**