

DOCKET NO. D-2006-031 CP-3

DELAWARE RIVER BASIN COMMISSION

**Downingtown Municipal Water Authority
Water Filtration Plant
Downingtown Borough, Chester County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an application submitted to the Delaware River Basin Commission (DRBC or Commission) on March 16, 2018 (Application), for renewal of the docket holder's existing water filtration plant (WFP) and its discharge. National Pollutant Discharge Elimination System (NPDES) Permit No. PA0058556 for this discharge was issued by the Pennsylvania Department of Environmental Protection (PADEP) on October 1, 2018.

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 Chester County Planning Commission has been notified of pending action. A public hearing on this project was held by the DRBC on May 15, 2019.

A. DESCRIPTION

- 1. Purpose.** The purpose of this docket is to renew approval of the docket holder's existing 2.5 million gallons per day (mgd) WFP and its discharge of up to 0.466 mgd of water filtration backwash and supernatant.
- 2. Location.** The docket holder's WFP is located at Water Plant Way in Downingtown Borough, Chester County, Pennsylvania. The WFP will continue to discharge filtration backwash and supernatant to Beaver Creek, at River Mile 70.73 – 1.5 – 20.0 – 9.0 – 0.4 (Delaware River – Christina River – Brandywine Creek – East Branch Brandywine Creek – Beaver Creek) via Outfall No. 001.

The WFP outfall is located in the Brandywine Creek Watershed as follows:

OUTFALL NO.	LATITUDE (N)	LONGITUDE (W)
001	40° 0' 40"	75° 43' 0"

3. **Area Served.** The docket holder's WFP will continue to provide potable water to Downingtown Borough, Caln, East Caln, East Brandywine, and West Bradford Townships located in Chester 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 WFP treats up to 2.5 mgd of raw surface and groundwater. The docket holder's WFP discharges up to 0.466 mgd of water filtration backwash and supernatant from an overflow weir connected to a stormwater retention basin. Maximum daily flows from Outfall 001 are influenced by high turbidity conditions of the retention basin from stormwater conditions, high snow melts, and nearby reservoir releases.

5. **Facilities.** Withdrawn raw water from the East Branch Brandywine Creek is treated at the WFP by oxidation, coagulation, flocculation, settling, adsorption, filtration and disinfection processes. The resultant sludge and washing components from the inclined plate settlers, adsorption clarifiers and filters flow to a sludge thickener/holding tank. The sludge flows to drying beds where filtrate is recycled to the holding tank and where the supernatant is sent to an on-site stormwater retention basin and is discharged through an overflow weir, referred to as Outfall 001.

Several of the WFP facilities are located in the 100-year floodplain and have been elevated one foot above the 100-year flood elevation.

Wasted sludge will continue to be hauled off-site by a licensed hauler for disposal at a state approved facility.

6. **Water withdrawals.** The potable water supply in the project service area is provided by the docket holder. The docket holder's water withdrawal is described in detail in Docket No. D-1989-063 CP-2, which was approved on March 6, 2013.

7. **NPDES Permit / DRBC Effluent Requirements.** NPDES Permit No. PA0058556 was issued by the PADEP on October 1, 2018 and includes final effluent limitations for the project discharge to surface waters classified by the PADEP as supporting migratory fishes (MF) and warm water fishes (WWF). EFFLUENT TABLES C-1 & C-2 included in the DECISION section of this docket, contain effluent requirements for DRBC parameters that must be met as a condition of this approval (See DECISION Condition C.1.). Effluent requirements for Outfall No. 001 are based on a discharge rate of 0.466 mgd.

8. **Relationship to the Comprehensive Plan.** The existing WFP was added to the Comprehensive Plan by Docket No. D-2006-031 CP on February 28, 2007. The WFP approval was renewed by Docket Nos. D-2006-031 CP-2 on March 12, 2014. Issuance of this docket will renew and continue the approval for the existing WFP and its discharge in the Comprehensive Plan.

B. FINDINGS

The purpose of this docket is to renew approval of the existing 2.5 mgd WWTP and its discharge of up to 0.466 of treated filter backwash, clarifier backwash and sludge drying beds filtrate.

The docket holder's facility typical influent characteristics are associated with the intake from filtration and backwash processes and do not represent a typical wastewater influent sample. The Commission has concluded that due to substantially lower than standard influent concentration values, the secondary treatment requirements of a minimum of 85 percent removal for TSS and CBOD₅ are not applicable to the intended type of treatment at the facility. In accordance with Commission's *Water Quality Regulations (WQR)* Section 3.10.4D.1.a.2), the waiver to meet the Commission's percent removal requirements for TSS and CBOD₅ is continued by the approval of this docket.

At the docket holder's WFP discharge, Beaver Creek has an estimated seven-day low flow with a recurrence interval of ten years (Q₇₋₁₀) of 0.071 mgd (0.11 cfs). The ratio of this low flow to the WFP discharge of 0.466 mgd is 0.15 to 1.

The nearest surface water intake of record for public water supply is located on approximately 5 River Miles downstream of the docket holder's WFP and is operated by Aqua Pennsylvania.

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 are in compliance with Commission effluent quality requirements, where applicable.

The project is designed to produce a discharge meeting 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-2006-031 CP-3 below, the project described in Docket No. D-2006-031 CP-2 is removed from the Comprehensive Plan to the extent that they are not included in Docket No. D-2006-031 CP-3; Docket No. D-2006-031 CP-2 is terminated and replaced by Docket No. D-2006-031 CP-3; 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: <http://www.state.nj.us/drbc/programs/project/pr/info.html>. 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 Beaver Creek)		
PARAMETER	LIMIT	MONITORING
Flow	Monitor & Report	As required by NPDES Permit
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
Total Dissolved Solids	1,000 mg/l	SEE EFFLUENT TABLE C-2

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

OUTFALL 001 (Discharging to Beaver Creek)		
PARAMETER	LIMIT	MONITORING
Total Dissolved Solids*	1,000 mg/l	Quarterly

*See Condition C.3

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: June 12, 2019

EXPIRATION DATE: October 31, 2023