

DOCKET NO. D-1998-033 CP-4

DELAWARE RIVER BASIN COMMISSION

**Downingtown Area Regional Authority
Downingtown Regional Water Pollution Control Center
East Caln Township, Chester County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) by Downingtown Area Regional Authority (DARA or docket holder) on August 10, 2015 (Application), for renewal of the existing Downingtown Regional Water Pollution Control Center (DRWPCC) wastewater treatment plant (WWTP) and its discharge. National Pollutant Discharge Elimination System (NPDES) Permit No. PA0026531 A-1 for this facility was issued by the Pennsylvania Department of Environmental Protection (PADEP) on July 28, 2014, effective August 1, 2014.

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 county agency has been notified of pending action. A public hearing on this project was held by the DRBC on date.

A. DESCRIPTION

- 1. Purpose.** The purpose of this docket is to renew approval of the docket holder's existing 7.5 million gallons per day (mgd) WWTP and its discharge.
- 2. Location.** The WWTP discharge will continue to discharge treated effluent to East Branch Brandywine Creek, which is a tributary to Brandywine Creek, which is a tributary to Christina River at River Mile 70.73 – 1.5 – 20.0 – 7.65 (Delaware River – Christina River – Brandywine Creek – East Branch Brandywine Creek) via Outfall No. 001, in East Caln Township, Chester County, Pennsylvania as follows:

OUTFALL NO.	LATITUDE (N)	LONGITUDE (W)
001	39° 59' 44.49"	75° 42' 16.59"

- 3. Area Served.** The docket holder's WWTP will continue to serve the Borough of Downingtown and portions of Caln, East Caln, Uwcaln, and West Whiteland Townships, all 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. Physical Features.

a. **Design Criteria.** The docket holder's WWTP is designed to treat an average annual flow of 7.5 mgd and maximum monthly average flow of 10.88 mgd, utilizing an activated sludge treatment system with nitrification, tertiary filtration, and post aeration.

b. **Facilities.** The WWTP facilities consist of a mechanically-cleaned bar screen, a manually-cleaned bar screen, an aerated grit chamber, a grit holding tank, two (2) primary clarifiers, two (2) equalization tanks, six (6) aeration tanks, three (3) secondary clarifiers, four (4) mixed media filtration units, a phosphorus removal system, a post-aeration tank, a sludge holding tank, two (2) sludge thickening tanks, and a chlorine contact disinfection system.

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 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 by a licensed hauler for disposal at a state approved facility.

c. **Water withdrawals.** The potable water supply in the project service area is provided by the Downingtown Municipal Water Authority (DMWA) and Aqua Pennsylvania, Inc. The water withdrawals are described in detail in Docket Nos. D-1989-63 CP-2 and D-75-19 CP, which were approved on March 6, 2013 and August 24, 1977, respectively.

d. **NPDES Permit / DRBC Docket.** NPDES Permit No. PA0026531 A-1 was issued by the PADEP on July 28, 2014 (effective August 1, 2014) and includes for final effluent limitations for the existing discharge of 7.5 mgd to surface waters classified by the PADEP as Warm Water, Migratory Fishery (WWF/MF). 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 A-1: DRBC Parameters Included in NPDES Permit

OUTFALL 001 (Discharge to East Branch Brandywine 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) (5-1 to 10-31) (11-1 to 4-30)	10 mg/l (85% minimum removal) 20 mg/l (85% minimum removal)	As required by NPDES Permit
Ammonia Nitrogen (5-1 to 10-31) (11-1 to 4-30)	2.0 mg/l 6.0 mg/l	As required by NPDES Permit
Fecal Coliform	200 colonies per 100 ml as a geo. avg.	As required by NPDES Permit

OUTFALL 001 (Discharge to East Branch Brandywine Creek)		
PARAMETER	LIMIT	MONITORING
Total Dissolved Solids*	1000 mg/l	As required by NPDES Permit

*See DECISION Condition C.II.p.

The requirements in EFFLUENT TABLE A-2 are not listed in the NPDES Permit, but are Commission basin-wide parameters that must be met as a condition of this docket approval.

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

OUTFALL 001 (Discharge to East Branch Brandywine Creek)		
PARAMETER	LIMIT	MONITORING
Color (Platinum-Cobalt Scale)*	Monitor & Report	Quarterly

*See DECISION Condition C.II.r.

e. **Cost.** There are no construction costs associated with this WWTP renewal.

f. **Relationship to the Comprehensive Plan.** The first DRWPCC WWTP was included into the comprehensive Plan as a part of Addendum No. 1 adopted July 25, 1962. The DARA replaced the first DRWPCC WWTP with the construction of a new facility included in Docket No. D-70-109 CP, approved on July 22, 1970. An expansion of the WWTP to treat 7.0 mgd from 3.8 mgd was approved on November, 25, 1986 via Docket No. D-84-43 CP. An upgrade and re-rate of the WWTP were approved on March 27, 1991 and January 27, 1999 via Docket Nos. D-1991-008 CP and D-1998-033 CP, respectively. A re-rate of the WWTP from 7.134 mgd to 7.5 mgd was approved on May 10, 2007 via Docket No. D-1998-033 CP-2. The approval of this treatment facility was continued on May 10, 2012 via Docket No. D-1998-033 CP-3. Issuance of this docket will continue the discharge project in the Comprehensive Plan (See DECISION Condition C.I.c.).

B. FINDINGS

The purpose of this docket is to renew approval of the docket holder's existing 7.5 mgd WWTP and its discharge. No modifications to the WWTP are proposed.

At the docket holder's WWTP discharge, the East Branch Brandywine Creek has an estimated seven-day low flow with a recurrence interval of ten years (Q_{7-10}) of 10.9 mgd (16.9 cfs). The ratio of this low flow to the hydraulic design wastewater discharge from the 10.88 mgd WWTP is 1 to 1.

The nearest surface water intake of record for public water supply is located on East Branch Brandywine Creek approximately 3.6 River Miles downstream of the docket holder's WWTP, and is operated by Aqua Pennsylvania, Inc.

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

I. Effective on the approval date for Docket No. D-1998-033 CP-4 below:

a. The project described in Docket No. D-1998-033 CP-3 is removed from the Comprehensive Plan to the extent that it is not included in Docket No. D-1998-033 CP-4; and

b. Docket No. D-1998-033 CP-3 is terminated and replaced by Docket No. D-1998-033 CP-4; and

c. The project and the appurtenant facilities described in Section A "Physical Features" of this docket shall be continued in the Comprehensive Plan.

II. The project and appurtenant facilities as described in Section A "Physical Features" of this docket are approved pursuant to Section 3.8 of the *Compact*, subject to the following conditions:

a. Docket approval is subject to all conditions, requirements, and limitations imposed by the PADEP in its NPDES Permit, and such conditions, requirements, and limitations are incorporated herein, unless they are less stringent than the Commission's.

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

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

d. The docket holder shall comply with the requirements contained in the EFFLUENT TABLES in Section A.4.d. of this docket. The docket holder shall submit the required monitoring results electronically to the DRBC Project Review Section via email aemr@drbc.state.nj.us 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.

e. 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*.

f. 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.

g. 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.

h. The docket holder is permitted to treat and discharge wastewaters 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.

i. 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.

j. 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).

k. Nothing in this docket approval shall be construed as limiting the authority of DRBC to adopt and apply charges or other fees to this discharge or project.

l. 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.

m. Unless the docket holder requests an application submittal extension, and the extension is approved by the Commission in advance, in accordance with paragraph 11 of the Commission's Project Review Fee schedule (Resolution No. 2009-2), the docket holder is responsible for timely submittal of a docket renewal application on the appropriate DRBC application form at least six (6) months in advance of the docket expiration date set forth below. The docket holder will be subject to late charges 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 (or the later date established by an extension that has been timely requested and approved), 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.

n. 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.

o. 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.

p. 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.

q. 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.

r. The docket holder is required to monitor Outfall No. 001 quarterly for Color in accordance with EFFLUENT TABLE A-2 contained in Section A.4.d of this docket. After completing a minimum of eight (8) tests, the docket holder may request in writing to the Executive Director that Color effluent monitoring be modified, based on the results.

BY THE COMMISSION

DATE APPROVED: March 15, 2017

EXPIRATION DATE: December 31, 2022