

DOCKET NO. D-1995-006 CP-4

DELAWARE RIVER BASIN COMMISSION

**Valley Forge Sewer Authority
Wastewater Treatment Plant
Schuylkill 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 Buchart Horn, Inc., Consulting Engineers and Surveyors, Inc. behalf of the Valley Forge Sewer Authority (VFSA or docket holder) on May 13, 2013 (Application) for renewal of the docket holder's existing wastewater treatment plant (WWTP) and its related discharge, and renewal of approval to upgrade and expand the WWTP. National Pollutant Discharge Elimination System (NPDES) Permit No. PA0043974 for this facility was issued by the Pennsylvania Department of Environmental Protection (PADEP) on January 14, 2015. PADEP issued Water Quality Management (Part II) Permit No. 1599422-A2 for the project to upgrade and expand the WWTP on December 28, 2010.

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 (Compact)*. The Chester County Planning Commission has been notified of pending action. A public hearing on this project was held by the DRBC on March 10, 2015.

A. DESCRIPTION

1. Purpose. The purpose of this docket is to renew approval of the docket holder's existing WWTP and its related discharge. This docket also renews approval of the project to upgrade and expand the WWTP from 9.2 million gallon per day (mgd) to 11.75 mgd. The upgrade and expansion project was approved via DRBC Docket No. D-1995-006 CP-3 on December 8, 2010, but has not been completed as of the date of this renewal docket (D-1995-006 CP-4).

2. Location. The project WWTP is located approximately 1,000 feet northeast of Pawling Road, in between an existing railroad (now or formerly owned by Conrail) and the west bank of the Schuylkill River, in Schuylkill Township, Chester County, Pennsylvania. The WWTP will continue to discharge to the Schuylkill River at River Mile 92.47 – 32.0 (Delaware River – Schuylkill River).

The project outfall is located in the Schuylkill River Watershed as follows:

OUTFALL NO.	LATITUDE (N)	LONGITUDE (W)
001	40° 07' 06"	75° 28' 02"

3. Area Served. The docket holder's WWTP will continue to serve Charlestown Township, East Pikeland Township, Schuylkill Township, and Malvern Borough; and portions of East Whiteland Township, Eastown Township, Tredyffrin Township, and Willistown Township; all 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 11.75 mgd WWTP will continue to utilize an extended aeration activated sludge treatment process.

b. Facilities. The WWTP facilities consist of two (2) grit removal tanks, two (2) 80-foot diameter primary settling tanks, two (2) aeration tanks, two (2) 80-foot diameter and one 120-foot diameter secondary settling tanks, and an ultraviolet light (UV) disinfection system. Sludge handling facilities consist of two (2) sludge dewatering centrifuges, two (2) sludge thickeners, and a lime addition system for sludge stabilization.

The DRBC approved Docket No. D-1995-006 CP-3 on December 8, 2010, which approved: a new influent structure with ancillary piping; maintenance and improvements to the primary clarifiers; the addition of a third aeration tank, 95-foot wide by 160-feet long with a side water depth of 16 feet, with fine bubble diffused aeration and upgrades to the existing blowers; the addition of a fourth final clarifier, 120-foot diameter with side water depth of 14 feet; upgrades to the sludge handling facilities; and upgrades to the operations building and control monitoring system. The project is currently under construction as of the date of this docket approval. with an anticipated completion date of May 31, 2015.

Several of the WWTP facilities are located in the 100-year flood fringe. The docket holder has flood-proofed the facilities by raising the tops of the tanks above the flood protection elevation (one foot above the 100-year flood elevation). None of the WWTP facilities are located in the floodway.

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 Aqua Pennsylvania, approved via DRBC Docket Nos. D-1965-110 CP-1 and D-1966-221 CP-1 on October 7, 1965, and November 28, 1966, respectively, and Pennsylvania American Water Company, approved via DRBC Docket No. D-1986-059 CP-3 on September 12, 2012.

d. **NPDES Permit / DRBC Docket.** PADEP issued draft NPDES Permit No. PA0043974 for the project discharge, on October 30, 2014, which includes final effluent limitations for the project discharge of to surface waters classified by the PADEP as warm water fishery (WWF) and migratory fishery (MF). The following average monthly effluent limits are among those listed in the NPDES permit that meet or are more stringent than the effluent requirements of the DRBC. EFFLUENT TABLE A-1 is in effect until the project upgrade and expansion goes into operation (by May 31, 2015), and is based on a flow of 9.2 mgd. EFFLUENT TABLE A-2 goes into effect after the project upgrade and expansion is completed and goes into operation (by June 1, 2015), and is based on a flow of 11.75 mgd.

EFFLUENT TABLE A-1: DRBC Parameters Included in NPDES permit, for a WWTP flow of 9.2 mgd, in effect until the project upgrades are completed (by May 31, 2015)

OUTFALL 001 (Schuylkill River)		
PARAMETER	LIMIT	MONITORING
pH (Standard Units)	6 to 9 at all times	As required by NPDES permit
Total Suspended Solids	30 mg/l (85% minimum removal)	As required by NPDES permit
CBOD (5-Day at 20° C)	5/01-10/31 20 mg/l (85% minimum removal)	As required by NPDES permit
	11/01-4/30 25 mg/l (85% minimum removal)	
Ammonia-Nitrogen	5/01-10/31 8.0 mg/l	As required by NPDES permit
	11/01-4/30 16.0 mg/l	
Fecal Coliform	200 colonies per 100 ml as a geo. avg.	As required by NPDES permit
Total Dissolved Solids *	1,000 mg/l	As required by NPDES permit

* See DECISION Conditions II.s.

EFFLUENT TABLE A-2: DRBC Parameters Included in NPDES permit, for a WWTP flow of 11.75 mgd, in effect after the project upgrade goes into operation (June 1, 2015)

OUTFALL 001 (Schuylkill River)		
PARAMETER	LIMIT	MONITORING
pH (Standard Units)	6 to 9 at all times	As required by NPDES permit
Total Suspended Solids	30 mg/l (85% minimum removal)	As required by NPDES permit
CBOD (5-Day at 20° C)	5/01-10/31 16 mg/l (85% minimum removal)	As required by NPDES permit
	11/01-4/30 20 mg/l (85% minimum removal)	
Ammonia-Nitrogen	5/01-10/31 6.3 mg/l	As required by NPDES permit
	11/01-4/30 12.5 mg/l	
Fecal Coliform	200 colonies per 100 ml as a geo. avg.	As required by NPDES permit
Total Dissolved Solids *	1,000 mg/l	As required by NPDES permit

* See DECISION Conditions II.s.

e. **Relationship to the Comprehensive Plan.** The WWTP was first added to the Comprehensive Plan by DRBC Docket Nos. D-1971-117 CP-1 on July 28, 1971 and continued via Docket Nos. D-1995-006 CP-1, D-1995-006 CP-2, and D-1995-006 CP-3 on March 22,

1995, March 3, 2010, and December 8, 2010, respectively. This docket renews approval of the WWTP and the project to upgrade and expand the WWTP, and continues the project in the Comprehensive Plan.

B. FINDINGS

The purpose of this docket is to renew the approval of the docket holder's existing WWTP. This docket also renews approval of the project to upgrade and expand the WWTP from 9.2 million gallon per day (mgd) to 11.75 mgd approved via DRBC Docket No. D-1995-006 CP-3 on December 8, 2010, which has yet to be completed.

At the project site, the Schuylkill River has an estimated seven-day low flow with a recurrence interval of ten years (Q_{7-10}) of 250 mgd (387 cfs). The ratio of this low flow to the hydraulic design capacity of the WWTP (11.75 mgd) is approximately 21 to 1.

The nearest downstream surface water intake of record for public water supply is the Norristown intake, located approximately 8 miles downstream of the docket holder's WWTP on the Schuylkill River, and owned and operated by the Pennsylvania American Water Company.

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-1995-006 CP-4 below:
 - a. The project described in Docket No. D-1995-006 CP-3 is removed from the Comprehensive Plan to the extent it is not included in Docket No. 1995-006 CP-4; and
 - b. Docket Nos. D-1995-006 CP-3 is terminated and replaced by Docket No. D-1995-006 CP-4.
 - c. The project and the appurtenant facilities described in the Section A "Physical Features" of this docket shall be continued in the Comprehensive Plan.

II. The project and appurtenant facilities as described in the 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 and Part II permits, 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/application/index.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. Sound practices of excavation, backfill and reseedling shall be followed to minimize erosion and deposition of sediment in streams.

i. Upon completion of construction of the approved upgrade and expansion project, the docket holder shall submit a statement to the DRBC, signed by the docket holder's engineer or other responsible agent, advising the Commission that the construction has been completed in compliance with the approved plans, giving the final construction cost of the approved project and the date the project is placed into operation..

j. The WWTP upgrade and expansion shall be completed by May 31, 2015 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 by May 31, 2015 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 and all other conditions and requirements shall remain effective. The docket holder shall file a new application with the Commission and receive Commission approval prior to initiating construction of any modifications to the WWTP.

k. 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.

l. 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.

m. 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).

n. 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.

o. 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.

p. Unless an extension is requested and 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 12 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.

q. 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.

r. 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.

s. 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.

t. 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.

BY THE COMMISSION

DATE APPROVED: March 11, 2015

EXPIRATION DATE: January 31, 2020