

DOCKET NO. D-1974-039 CP-5

DELAWARE RIVER BASIN COMMISSION

**Borough of South Coatesville
Wastewater Treatment Plant
Borough of South Coatesville, Chester County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) by CDM Smith on behalf of Borough of South Coatesville (BSC or docket holder) on July 29, 2013 (Application), for renewal of the docket holder's existing wastewater treatment plant (WWTP) and its discharge. National Pollutant Discharge Elimination System (NPDES) Permit No. PA0036897 for this facility was issued by the Pennsylvania Department of Environmental Protection (PADEP) on September 8, 2014, effective October 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 has been notified of pending action. A public hearing on this project was held by the DRBC on December 9, 2014.

A. DESCRIPTION

1. Purpose. The purpose of this docket is to renew approval of the docket holder's existing 0.5 million gallons per day (mgd) WWTP and its discharge. The PADEP effluent limitations for this discharge were determined using an effluent discharge rate of 0.381 mgd.

2. Location. The WWTP discharge will continue to discharge treated effluent to West Branch Brandywine Creek at River Mile at River Mile 70.7 – 1.5 – 20.0 – 14.3 (Delaware River – Christine River – Brandywine Creek – West Branch Brandywine Creek) via Outfall No. 001 in the Borough of South Coatesville, Chester County, Pennsylvania as follows:

OUTFALL NO.	LATITUDE (N)	LONGITUDE (W)
001	39° 58' 1"	75° 48' 26"

3. **Area Served.** The docket holder's WWTP will continue to serve portions of the Boroughs of South Coatesville and Modena 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 existing South Coatesville WWTP utilizes a Sequencing Batch Reactor (SBR) treatment system process is designed for an average annual flow of 0.381 mgd and includes screening, chlorine disinfection, and post aeration. The WWTP has a hydraulic design capacity of 0.5 mgd. No modifications to the WWTP are proposed.

b. **Facilities.** The WWTP facilities consist of a mechanical bar screen, two (2) SBRs capable of biological treatment, clarification, biological phosphorous removal and nitrification, a chlorine contact tank for disinfection, and post aeration provided by two air spargers located in the last channel of the chlorine contact tank prior to discharge by gravity to the West Branch of the Brandywine Creek.

Back-up phosphorous removal is provided through a chemical feed system capable of pumping alum solution into the SBRs.

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

The existing chlorine contact tank is located in the 100-year flood zone; however the tank has been flood-proofed up to the flood protection elevation (one foot above the 100-year flood elevation). This was accomplished by constructing the top of the walls of the tank above the flood protection elevation. The remaining WWTP facilities are outside the 100-year flood zone.

c. **Water withdrawals.** The potable water supply in the project service area is provided by a surface water diversion from the West Branch Brandywine Creek to the Rock Run Reservoir owned and operated by the Pennsylvania American Water Company. The surface water withdrawal is described in detail in Docket No. D-96-16 CP, which was approved by the DRBC on October 23, 1996.

d. **NPDES Permit / DRBC Docket.** NPDES Permit No. PA0036897 was issued by PADEP on September 8, 2014 (effective October 1, 2014) and includes final effluent limitations for the project discharge of 0.381 mgd to surface waters classified by the PADEP as warm water fishery and 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 No. 001		
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)	25 mg/l (85% minimum removal)*	As required by NPDES Permit
Ammonia Nitrogen (5-1 to 10-31) (11-1 to 4-30)	7.0 mg/l 21.0 mg/l	As required by NPDES Permit
Fecal Coliform (5-1 to 9-30)	200 colonies per 100 ml as a geo. avg.	As required by NPDES Permit
Total Dissolved Solids**	1,000 mg/l	Quarterly

* DRBC Requirement

** See DECISION Condition II.q.

PADEP has required a Phosphorous limit of 2.0 mg/l for the South Coatesville WWTP. DRBC does not require Phosphorous effluent limits outside of Special Protection Waters.

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

f. **Relationship to the Comprehensive Plan.** The WWTP was first added to the Comprehensive Plan on June 23, 1965 via Docket No. D-1965-046 CP-1, which approved the construction of the WWTP. The WWTP approval was modified as described in the following dockets:

DOCKET NO.	APPROVAL DATE	WWTP MODIFICATION
D-1973-065 CP-1	June 26, 1974	Expanded service area
D-1974-039 CP-1	April 23, 1975	WWTP upgrade/expansion
D-1974-039 CP-2	July 18, 2007	WWTP re-rate (0.365 mgd to 0.381 mgd)
D-1974-039 CP-3	March 19, 2008	Revised effluent limits
D-1974-039 CP-4	December 8, 2011	No modifications – Renewal only

B. FINDINGS

The purpose of this docket is to approve the docket holder's existing South Coatesville WWTP. The WWTP is designed for an annual average flow of 0.381 mgd and has a hydraulic design capacity of 0.5 mgd. No modifications to the WWTP are proposed.

Near the discharge location, the West Branch Brandywine Creek has an estimated seven-day low flow with a recurrence interval of ten years of 9.0 mgd (14 cfs). The ratio of this low flow to the hydraulic capacity of the existing WWTP (0.5 mgd) is approximately 18 to 1.

The nearest surface water intake of record for public water supply is located on the Brandywine Creek approximately 31 River Miles downstream of the docket holder's WWTP, and is operated by City of Wilmington.

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-1974-039 CP-5 below:

a. The project described in Docket No. D-1974-039 CP-4 is removed from the Comprehensive Plan to the extent that it is not included in Docket No. D-1974-039 CP-5; and

b. Docket No. D-1974-039 CP-4 is terminated and replaced by Docket No. D-1974-039 CP-5; 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 TABLE 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. The discharge of wastewater shall not increase the ambient temperatures of the receiving waters by more than 5°F, nor shall such discharge result in stream temperatures exceeding 87°F.

i. 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.

j. 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.

k. 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).

l. 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.

m. 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.

n. 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.

o. 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.

p. 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.

q. 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.

BY THE COMMISSION

DATE APPROVED: December 10, 2014

EXPIRATION DATE: September 30, 2019