

**DOCKET NO. D-1974-126 CP-3**

**DELAWARE RIVER BASIN COMMISSION**

**Birdsboro Municipal Authority  
Wastewater Treatment Plant  
Borough of Birdsboro, Berks County, Pennsylvania**

**PROCEEDINGS**

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) by SSM Group, Inc., on behalf of the Birdsboro Municipal Authority (docket holder) on March 24, 2014 (Application) for renewal of the docket holder's existing wastewater treatment plant (WWTP) and its related discharge. National Pollutant Discharge Elimination System (NPDES) Permit No. PA0021709 for this facility was issued by the Pennsylvania Department of Environmental Protection (PADEP) on July 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 Berks County Planning Commission has been notified of pending action. A public hearing on this project was held by the DRBC on September 15, 2015.

**A. DESCRIPTION**

- Purpose**. The purpose of this docket is to renew approval of the docket holder's existing 1.35 million gallon per day (mgd) WWTP and its related discharge. No modifications to the WWTP are proposed.
- Location**. The project WWTP is located at the intersection of Armorcast Road and Perry Lane in the Borough of Birdsboro, Berks County, Pennsylvania. The WWTP will continue to discharge to Hay Creek, which is tributary to the Schuylkill River, at River Mile 92.47 – 63.1 – 0.3 (Delaware River – Schuylkill River – Hay Creek).

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

<b>OUTFALL NO.</b>	<b>LATITUDE (N)</b>	<b>LONGITUDE (W)</b>
001	40° 16' 9.7"	75° 48' 17.6"

3. **Area Served.** The docket holder's WWTP will continue to serve the Borough of Birdsboro and a portion of Union Township in Berks 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 will continue to utilize a vertical loop reactor / activated sludge treatment process. The WWTP is designed to treat an average annual design flow of 1.35 mgd and has a design hydraulic capacity of 1.89 mgd.

b. **Facilities.** The WWTP facilities consist of an aerated grit chamber, a manually cleaned bar screen, four (4) raw sewage pumps, four (4) primary settling tanks, two (2) vertical loop reactors, two (2) final clarifiers, two (2) chlorine contact tanks, and two (2) post aeration tanks. The WWTP sludge handling facilities consist of two (2) aerobic digesters and a centrifuge.

The vertical loop reactor is an activated sludge process with a horizontal baffle plate located at mid depth. Wastewater, together with returned sludge, enters the reactor and flows the entire length of the tank above the baffle plate. At the end of the tank the flow turns down, flows past the end of the baffle plate and reverses direction. It then flows the entire length of the tank below the baffle plate. At the end of the tank the flow turns upward and reverses direction. Oxygen is provided by two methods - the first by an aerator rotor, consisting of several nubby plastic discs mounted on a horizontal shaft located above the liquid surface and the second method by conventional aeration by diffusers. The increased length of time required for the air bubbles to reach the surface improves the efficiency of oxygen transfer into the wastewater. Higher oxygen transfer efficiency will reduce the power costs required to provide oxygen. The vertical loop configuration of the aeration tank reduces the required surface area and the total volume of concrete for tank construction.

Prior facilities and processes for the WWTP have been described in DRBC Docket Nos. D-1974-126 CP-1 and D-1974-126 CP-2, approved by the DRBC on July 31, 1974 and February 28, 2007, respectively.

The existing WWTP facilities are located outside the 100-year flood zone as a result of an existing dike that is located around the WWTP. The dike was constructed prior to 1961 and extended in 2008. The top of the dike is one (1) 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 surface water sources owned and operated by the docket holder, which are not

currently approved by the DRBC via a docket. The docket holder submitted an application for DRBC approval of the water withdrawals on June 8, 2012. The water withdrawal application is currently under review.

d. **NPDES Permit / DRBC Docket.** PADEP issued NPDES Permit No. PA0021709 for the project discharge on July 28, 2010, which includes final effluent limitations for the project discharge of 1.35 mgd to surface waters classified by the PADEP as cold water fishery (CWF) 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: DRBC Parameters Included in NPDES permit**

<b>OUTFALL 001 (Cacoosing Creek)</b>		
<b>PARAMETER</b>	<b>LIMIT</b>	<b>MONITORING</b>
pH (Standard Units)	6.0 to 9.0	As required by NPDES permit
Total Suspended Solids	30 mg/l	As required by NPDES permit
CBOD (5-Day at 20° C)	25 mg/l (85% minimum removal)	As required by NPDES permit
Ammonia-Nitrogen		As required by NPDES permit
5/01-10/31	7.0 mg/l	
11/01-4/30	20.0 mg/l	
Fecal Coliform		As required by NPDES permit
5/1 – 9/30	200 colonies per 100 ml	
10/1 – 4/30	2,000 colonies per 100 ml	

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

<b>OUTFALL 001 (Cacoosing Creek)</b>		
<b>PARAMETER</b>	<b>LIMIT</b>	<b>MONITORING</b>
Total Dissolved Solids *	1,000 mg/l	Quarterly

\* DECISION Conditions II.p.

e. **Relationship to the Comprehensive Plan.** The WWTP was first added to the Comprehensive Plan by DRBC Docket No. D-1974-126 CP-1 on July 31, 1974 and modified via D-1974-126 CP-2 on February 28, 2007. This docket (D-1974-126 CP-3) renews approval of 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 1.35 mgd (average annual flow) WWTP. The WWTP has a hydraulic capacity of 1.89 mgd. No modifications to the WWTP are proposed.

At the project site, Hay Creek has an estimated seven-day low flow with a recurrence interval of ten years ( $Q_{7-10}$ ) of 1.8 mgd (2.8 cfs). The ratio of this low flow to the hydraulic design capacity of the WWTP (1.89 mgd) is approximately 1 to 1.

The nearest downstream surface water intake of record for public water supply is located approximately 7 miles downstream of the docket holder's WWTP on the Schuylkill River, and is owned and operated by the Pottstown Water 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 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-1974-126 CP-3 below:

a. The project described in Docket No. D-1974-126 CP-2 is removed from the Comprehensive Plan to the extent it is not included in Docket No. 1974-126 CP-3; and

b. Docket No. D-1974-126 CP-2 is terminated and replaced by Docket No. D-1974-126 CP-3.

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 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* and Flood Plain Regulations (*FPR*).

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](mailto: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 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 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.

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. Nothing in this docket constitutes a defense to any penalty action for past conduct of the docket holder or ongoing activity not authorized by this approval. In particular, renewal of this docket does not resolve violations – whether in the past or continuing – of provisions of the Delaware River Basin Compact (“Compact”) or any rule, regulation, order or approval duly issued by the Commission or the Executive Director pursuant to the Compact. The Commission reserves its right to take appropriate enforcement action against the docket holder, including but not limited to recovery of financial penalties consistent with Section 14.17 of the Compact, for any and all such prior or continuing violations.

r. 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: September 16, 2015**

**EXPIRATION DATE: July 31, 2020**