

**DOCKET NO. D-1993-074 CP-4**

**DELAWARE RIVER BASIN COMMISSION**

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

**PROCEEDINGS**

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) by Arro Engineering & Environmental Consultants on behalf of Shoemakersville Municipal Authority (SMA or docket holder) on June 19, 2014 (Application), for renewal of the docket holder's existing wastewater treatment plant (WWTP) and its discharge. National Pollutant Discharge Elimination System (NPDES) Permit No. PA0024074 for this facility was issued by the Pennsylvania Department of Environmental Protection (PADEP) on May 25, 2010, effective June 1, 2010. Renewal of the Permit is expected shortly.

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 Berks County Planning Commission has been notified of pending action. A public hearing on this project was held by the DRBC on June 9, 2015.

**A. DESCRIPTION**

- Purpose.** The purpose of this docket is to renew approval of the docket holder's existing 0.75 million gallons per day (mgd) WWTP and its discharge.
- Location.** The WWTP will continue to discharge treated effluent to the Schuylkill River at River Mile 92.47 – 92.3 (Delaware River – Schuylkill River) via Outfall No. 001, in the Borough of Shoemakersville, Berks County, Pennsylvania as follows:

<b>OUTFALL NO.</b>	<b>LATITUDE (N)</b>	<b>LONGITUDE (W)</b>
001	40° 29' 35"	75° 58' 14"

- Area Served.** The docket holder's WWTP will continue to serve the Borough of Shoemakersville and portions of Perry Township, both located 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 will continue to operate its existing 0.75 mgd WWTP.

b. Facilities. The existing WWTP consists of two (2) grinder and three (3) raw sewage pumps, two (2) aeration tanks, two (2) final settling tanks, two (2) chlorine contact tanks, two (2) aerobic digesters, a belt filter press, and two (2) vertical loop reactors.

The project facilities are located within the flood fringe portion of the Schuylkill River, with a small portion located within the floodway. All facilities are built at least one foot above the 100-year flood elevation as required by the DRBC's *Flood Plain Regulations (FPR)*.

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 supplied by the docket holder's water distribution system, which was approved by the Commission via Docket No. D-90-7 CP-3 on March 1, 2006.

d. NPDES Permit / DRBC Docket. NPDES Permit No. PA0024074 was issued by the PADEP on May 25, 2010 (effective June 1, 2010) and includes final effluent limitations for the project discharge of 0.75 mgd to surface waters classified by the PADEP as warm water fisheries (WWF). 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 (WWTP)		
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-Day at 20° C)	25 mg/l (85% minimum removal)	As required by NPDES permit
Ammonia Nitrogen	20 mg/l	As required by NPDES permit
Fecal Coliform (5-1 to 9-30) (10-1 to 4-30)	200 colonies per 100 ml 2000 colonies per 100 ml	As required by NPDES permit
Total Dissolved Solids*	3,300 mg/l (monthly avg.) 4,000 mg/l (instantaneous max.)	As required by NPDES permit

\* See DECISION Condition II.p.

The requirement in EFFLUENT TABLE A-2 is not listed in the NPDES Permit, but is a Commission parameter that was included in Docket No. D-1993-074 CP-3 and must continue to

be met as a condition of this docket approval (See DECISION Condition II.d.). Commission staff have requested PADEP include this parameter in their next Permit.

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

OUTFALL 001 (WWTP)		
PARAMETER	LIMIT	MONITORING
Color	200 units on the platinum cobalt scale	Monthly

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

f. **Relationship to the Comprehensive Plan.** The Shoemakersville WWTP was originally included in the Comprehensive Plan as part of the approval of Docket No. D-72-105 CP on July 26, 1972. Expansions to the WWTP resulting in the current hydraulic capacity of 0.75 mgd were approved by the Commission via Dockets Nos. D-93-74 CP and D-93-74 CP-2 on March 23, 1994 and July 15, 2009, respectively. Issuance of this docket will continue approval of the docket holder's WWTP in the Comprehensive Plan (See DECISION Condition I.c.).

## B. **FINDINGS**

The purpose of this docket is to renew approval of the docket holder's existing 0.75 mgd WWTP and its discharge.

### **Total Dissolved Solids (TDS)**

The Commission's basin-wide TDS effluent limit is 1,000 mg/l [Section 3.10.4D.2. of the Commission's *Water Quality Regulations (WQR)*]. The Commission's basin-wide in-stream TDS criteria is that 1) the receiving stream's resultant TDS concentration be less than 133% of the background (Section 3.10.3B.1.b. of the Commission's *WQR*), and 2) the receiving stream's resultant TDS concentration be less than 500 mg/l (Section 3.10.3B.2. of the Commission's *WQR*).

The 133% of the background TDS requirement is for the protection of aquatic life. The 500 mg/l TDS requirement is to protect the use of the receiving stream as a drinking water source. The EPA's Safe Drinking Water Act's secondary standard for TDS is 500 mg/l.

Docket No. D-93-74 CP-2 approved a TDS variance of 4,000 mg/l (daily maximum) and 3,300 mg/l (monthly average) for Outfall No. 001 on July 15, 2009. Docket No. D-1993-074 CP-3 required the docket holder to sample TDS at the Berne, Pennsylvania United States Geological Survey (USGS) Gage (No. 01470500) as well as their effluent so that TDS analysis could be performed to ensure that both the in-stream criteria were being met on December 8, 2010. The data supplied to the Commission on December 22, 2011 confirmed that the variance did not violate the two in-stream requirements. Therefore, continuance of the TDS variance is recommended.

### Color

Section 4.30.5A. of the Commission's *WQR* requires a monthly average color effluent limitation of 100 units on the platinum cobalt scale or its equivalent unless natural color of the receiving stream is higher. Section 4.30.5A.2.c. allows for a true color effluent limitation greater than 100 if it is demonstrated that:

- 1) the maximum practicable treatment will be provided, and
- 2) rapid dispersion will take place, and
- 3) the natural color characteristics of the receiving waters will be protected

Docket No. D-93-74 CP was approved on March 23, 1994 and included an effluent color limit of 100 units on the platinum cobalt scale. On March 18, 1997 Acer Engineers & Consultants, Inc. sent a letter to the DRBC on behalf of the docket holder requesting an increase to their color limit. By letter dated April 9, 1997, the Executive Director approved the request of a 200 unit on the platinum cobalt scale monthly average effluent limit. The docket holder provided information explaining that all three parameters for an increase were being met. Wolfe Dye & Bleach (the docket holder's primary color source) had installed a new pre-treatment system to remove color; rapid dispersion into a larger water body was explained; and the natural color characteristics of the receiving stream were found to not be affected. Therefore, continuance of the color variance is recommended.

### Other

According to the USGS Gage data for Berne, Pennsylvania (No. 01470500) the Schuylkill River 3.1 river miles upstream of the docket holder's WWTP discharge has an estimated seven-day low flow with a recurrence interval of ten years ( $Q_{7-10}$ ) of 53.2 mgd (82.3 cfs). The ratio of this low flow to the hydraulic design wastewater discharge from the 0.75 mgd WWTP is 71 to 1.

The nearest surface water intake of record for public water supply is located on the Schuylkill River approximately 36 River Miles downstream of the docket holder's WWTP, and is operated by the Borough of Pottstown.

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 *WQR* and is in conformance with the *FPR*.

### C. DECISION

- I. Effective on the approval date for Docket No. D-1993-074 CP-4 below:
- a. The project described in Docket No. D-1993-074 CP-3 is removed from the Comprehensive Plan to the extent that it is not included in Docket No. D-1993-074 CP-4; and
  - b. Docket No. D-1993-074 CP-3 is terminated and replaced by Docket No. D-1993-074 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](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. 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: June 10, 2015**

**EXPIRATION DATE: May 31, 2020**