

DOCKET NO. D-1987-045 CP-5

DELAWARE RIVER BASIN COMMISSION

**Antietam Valley Municipal Authority
Wastewater Treatment Plant
St. Lawrence Borough, 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 Consulting, Inc. on behalf of Antietam Valley Municipal Authority (AVMA) on November 4, 2013 (Application), for approval of a wastewater treatment plant (WWTP). National Pollutant Discharge Elimination System (NPDES) Permit No. PA0026646 A-1 for this project was previously approved by the Pennsylvania Department of Environmental Protection (PADEP) on November 29, 2011.

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 December 9, 2014.

A. DESCRIPTION

1. **Purpose.** The purpose of this docket is to renew the approval of the docket holder's existing 2.45 million gallons per day (mgd) WWTP and its related discharge.

2. **Location.** The AVMA WWTP will continue to discharge treated effluent to Antietam Creek, a tributary of the Schuylkill River, at River Mile 92.47 - 66.1 - 4.4 (Delaware River – Schuylkill River – Antietam Creek), via Outfall No. 001, in St. Lawrence Borough, Berks County, Pennsylvania as follows:

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

OUTFALL NO.	LATITUDE (N)	LONGITUDE (W)
001	40° 19' 51"	75° 52' 24"

3. **Area Served.** The AVMA WWTP will continue to serve the predominantly residential portions of St. Lawrence Borough, Mount Penn Borough, and Exeter and Lower Alsace Townships, all within Berks County, Pennsylvania.

For the purpose of defining the Area Served, sections 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 2.45 mgd AVMA WWTP will continue to treat domestic, commercial and industrial sanitary wastewater through three (3) treatment systems. System 1, which utilizes a complete mix activated sludge treatment process, is in parallel with System 2, which utilizes a contact stabilization process. Treated effluent from Systems 1 and 2 combine and are treated by System 3, which utilizes an oxidation ditch treatment system which provide for nitrification, and is followed by disinfection via chlorination prior to discharge. Solids generated by the facility are both anaerobically (primary) and aerobically (waste activated) digested.

b. **Facilities.** The AVMA WWTP treatment facilities consist of a headworks featuring grinding, fine screening, comminution and grit removal. System 1 contains two primary clarifiers, four aeration tanks in parallel, two secondary clarifiers and one anaerobic primary digester. System 2 contains two aeration tanks in parallel, one secondary clarifier and an aerobic digester. System 3 contains two oxidation ditches followed by clarification, and disinfection via chlorine contact tanks. Dewatering of the digested sludge is by a belt filter press.

The project facilities aren't located in the 100-year floodplain.

Emergency power is provided by a standby diesel powered generator.

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 wells and intakes owned and operated by Mount Penn Borough Municipal Authority approved via DRBC Docket No. D-1969-161 CP on October 29, 1969.

d. **NPDES Permit / DRBC Docket.** The NPDES Permit No. PA0026646 A-1, effective on November 29, 2011 includes final effluent limitations for the project discharge of 2.45 mgd to surface waters classified by PADEP as Cold Water Fishery (CWF). 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 the Antietam Creek)		
PARAMETER	LIMIT	MONITORING
pH (Standard Units)	6 to 9 at all times	As required in NPDES permit
Total Suspended Solids	30 mg/l (85% minimum removal*)	As required in NPDES permit
CBOD (5-Day at 20o C)	25 mg/l (85% minimum removal*)	As required in NPDES permit

OUTFALL 001 (Discharge to the Antietam Creek)		
PARAMETER	LIMIT	MONITORING
Ammonia Nitrogen (5-1 to 10-11-1 to 4-9-30)	2.5 mg/l 7.5 mg/l	As required in NPDES permit
Fecal Coliform (5-1 to 9-30)	200 colonies per 100 ml 2,000 colonies per 100 ml	As required in NPDES permit

* DRBC Requirement

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

OUTFALL 001 (Discharge to the Antietam Creek)		
PARAMETER	LIMIT	MONITORING
Total Dissolved Solids**	Monitor and Report**	One Per Quarter **

** See Condition II.p. in the Decision Section

e. **Relationship to the Comprehensive Plan.** The original WWTP was included in the Comprehensive Plan by Resolution R-62-14 adopted on July 25, 1962. The expansion of the plant to treat 1.205 mgd was approved by Docket No. D-1968-004 CP-1 on April 24, 1968. The plant was upgraded and rerated to process 1.225 mgd by Docket No. D-1987-045 CP-1 on September 22, 1987. The plant was modified to handle wet weather flows by Docket No. D-1987-045 CP-2 on September 27, 2006. The plant was re-rated from 1.225 mgd to 2.45 mgd by Docket No. D-1987-045 CP-4 on September 12, 2012. Issuance of this docket will continue the WWTP in the Comprehensive Plan.

B. FINDINGS

The purpose of this docket is to renew approval of the docket holder's existing 2.45 mgd AVMA WWTP and its related discharge and to update the approval to reflect the current facility description. No modifications to the WWTP are proposed.

Directly upstream of the project site, the Antietam Creek has an estimated seven day low flow with a recurrence interval of ten years (Q7-10) of 2.55 mgd (3.96 cfs). The ratio of this low flow to the average design wastewater discharge (2.45 mgd / 3.79 cfs) from the new plant is 1.04 to 1.

The nearest surface water intake of record for public water supply is located on the Schuylkill River approximately 14 river miles downstream of the project discharge and is owned and operated by 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 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 *Water Quality Regulations (WQR)* of the DRBC.

C. DECISION

I. Effective on the approval date for Docket No. D-1987-045 CP-5 below:

a. The project described in Docket No. D-1987-045 CP-4 is removed from the Comprehensive Plan to the extent that it is not included in Docket No. D-1987-045 CP-5; and

b. Docket No. D-1987-045 CP-4 is terminated and replaced by Docket No. D-1987-045 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 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. 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 make wastewater discharge 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: December 10, 2014

EXPIRATION DATE: December 10, 2019