

**DOCKET NO. D-2000-066 CP-2**

**DELAWARE RIVER BASIN COMMISSION**

**Avondale Borough  
Wastewater Treatment Plant  
Borough of Avondale, Chester County, Pennsylvania**

**PROCEEDINGS**

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) by Herbert E. MacCombie, Jr., P.E., Consulting Engineers and Surveyors, Inc. behalf of the Avondale Borough (docket holder) on June 27, 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. PA0025488 for this facility was issued by the Pennsylvania Department of Environmental Protection (PADEP), effective date August 1, 2013.

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 December 9, 2014.

**A. DESCRIPTION**

1. **Purpose.** The purpose of this docket is to renew approval of the docket holder's existing 0.50 million gallon per day (mgd) WWTP and its related discharge. There are no modifications to the WWTP proposed.

2. **Location.** The project WWTP is located off of West State Street in the Borough of Avondale, Chester County, Pennsylvania. The WWTP will continue to discharge to an unnamed tributary to East Branch White Clay Creek, which is tributary to White Clay Creek, which is tributary to the Christina River, at River Mile 70.2 – 10.0 – 15.9 – 7.6 – 0.1 (Delaware River – Christina River – White Clay Creek – East Branch White Clay Creek – UNT East Branch White Clay Creek).

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

<b>OUTFALL NO.</b>	<b>LATITUDE (N)</b>	<b>LONGITUDE (W)</b>
001	39° 49' 21"	75° 47' 6"

3. **Area Served.** The docket holder’s WWTP will continue to serve Avondale Borough and a portion of New Garden Township, both 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 WWTP will continue to utilize an oxidation ditch treatment system with chlorine contact disinfection. The WWTP is designed to treat an average annual flow of 0.50 mgd and has a monthly hydraulic design capacity of 0.65 mgd.

b. **Facilities.** The WWTP facilities consist of a solids grinding screen with grit removal, a three-ring Orbal reactor oxidation ditch that provides biological nutrient removal, two (2) final clarifiers, a chlorine contact tank, and post aeration. Sludge handling consists of an aerobic digester and a sludge holding tank.

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 groundwater wells owned and operated by the docket holder. The groundwater withdrawal is not approved by the DRBC. Condition II.n. in the DECISION section of this docket requires the docket holder to submit a docket application to the DRBC for approval of the existing water withdrawal within 90 days of this docket approval (by March 10, 2015).

d. **NPDES Permit / DRBC Docket.** PADEP issued NPDES Permit No. PA0025488 for the project discharge, effective date August 1, 2013, which includes final effluent limitations for the project discharge of 0.50 mgd to surface waters classified by the PADEP as high quality – cold water fishery (HQ-CWF). 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 (UNT East Branch White Clay Creek)</b>		
<b>PARAMETER</b>	<b>LIMIT</b>	<b>MONITORING</b>
pH (Standard Units)	6 to 9 at all times	As required by NPDES permit
Total Suspended Solids	18 mg/l	As required by NPDES permit
CBOD (5-Day at 20° C) 5/01-10/31	15 mg/l (85% minimum removal*)	As required by NPDES permit

OUTFALL 001 (UNT East Branch White Clay Creek)		
PARAMETER	LIMIT	MONITORING
11/01-4/30	25 mg/l (85% minimum removal*)	
Ammonia-Nitrogen		As required by NPDES permit
5/01-10/31	1.2 mg/l	
11/01-4/30	3.6 mg/l	
Fecal Coliform	200 colonies per 100 ml as a geo. avg.	As required by NPDES permit

\* DRBC Requirement

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

OUTFALL 001 (UNT East Branch White Clay Creek)		
PARAMETER	LIMIT	MONITORING
Total Dissolved Solids *	Monitor & Report	Quarterly

\* See DECISION Conditions II.q.

e. **Relationship to the Comprehensive Plan.** The WWTP was first added to the Comprehensive Plan on November 28, 1966 via Docket No. D-1966-224 CP-1. WWTP upgrades were approved via Docket Nos. D-1992-045 CP-2 and D-2000-066 CP-1 on December 9, 1992 and March 3, 2004, respectively. This docket (D-2000-066 CP-2) renews the WWTP approval.

## **B. FINDINGS**

The purpose of this docket is to renew the approval of the docket holder's existing 0.50 mgd WWTP. There are no modifications to the existing WWTP proposed.

At the project site, the unnamed tributary to East Branch White Clay Creek has an estimated seven-day low flow with a recurrence interval of ten years ( $Q_{7-10}$ ) of 0.84 mgd (1.3 cfs). The ratio of this low flow to the hydraulic design capacity of the WWTP (0.65 mgd) is approximately 1.3 to 1.

The nearest downstream surface water intake of record for public water supply is the City of Newark intake, located approximately 13 miles downstream of the docket holder's WWTP on White Clay Creek, and is located in the City of Newark, Delaware.

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-2000-066 CP-2 below:

a. The projects described in Docket Nos. D-1966-224, D-1987-024 CP-2, and D-2000-066 CP-1 are removed from the Comprehensive Plan to the extent that they are not included in Docket No. D-2000-066 CP-2; and

b. Docket Nos. D-1966-224, D-1987-024 CP-2, and D-2000-066 CP-1 are terminated and replaced by Docket No. D-2000-066 CP-2.

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*.

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 docket holder shall submit a docket application to the DRBC for approval of their exiting water withdrawal no later than March 10, 2015.

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.

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: December 10, 2014**

**EXPIRATION DATE: July 31, 2018**