

DOCKET NO. D-1969-066 CP-4

DELAWARE RIVER BASIN COMMISSION

**Bristol Borough Water & Sewer Authority
Wastewater Treatment Plant
Bristol Borough, Bucks County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) by Gilmore & Associates, Inc., on behalf of the Bristol Borough Water & Sewer Authority (BBWSA or docket holder) on April 27, 2017, for renewal of a wastewater treatment plant (WWTP) and its discharge. National Pollutant Discharge Elimination System (NPDES) Permit No. PA0027294 for the project discharge was issued by the Pennsylvania Department of Environmental Protection (PADEP) on July 26, 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 Bucks County Planning Commission has been notified of pending action. A public hearing on this project was held by the DRBC on November 14, 2018.

A. DESCRIPTION

- Purpose.** The purpose of this docket is to renew approval of the docket holder's existing 2.7 million gallons per day (mgd) WWTP and its discharge.
- Location.** The docket holder's WWTP is located on Maple Beach Road in Bristol Township, Bucks County, Pennsylvania. The WWTP will continue to discharge treated effluent to Otter Creek, which is a tidal tributary to Delaware River Water Quality Zone 2 at River Mile 118.9 – 0.3 (Delaware River – Otter Creek).

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

OUTFALL NO.	LATITUDE (N)	LONGITUDE (W)
001	40° 05' 30"	74° 51' 47"

- Area Served.** The docket holder's WWTP will continue to serve Bristol Borough and a portion of Bristol Township, both located in Bucks 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 2.7 mgd WWTP utilizes a trickling filter / rotating biological contactor (RBC) treatment process.

b. **Facilities.** The existing WWTP facilities consist of grit removal, two primary clarifiers, four first stage trickling filters, six rotating biological contactors, two secondary clarifiers, and a chlorine contact system. Sludge handling is provided by two anaerobic sludge digestors.

The project facilities are not located in the 100-year floodplain.

Waste 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 a surface water withdrawal owned and operated by Aqua Pennsylvania, Inc., which is described in detail in Docket No. D-1989-087 CP-1, approved on April 25, 1990.

d. **Effluent Requirements.** EFFLUENT TABLES A-1 & A-2 below contain effluent requirements for DRBC parameters that must be met as a condition of this approval (See DECISION Condition C.II.d.). PADEP issued NPDES Permit No. PA0027294 for the project discharge on July 26, 2013, which includes final effluent limitations for the project discharge of 2.7 mgd to surface waters classified by the PADEP as supporting warm water fishes and migratory fishes (WWF/MF). The following average monthly effluent limits and monitoring requirements are for DRBC parameters 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

OUTFALL 001 (Otter Creek)		
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)	17 mg/l 366 lbs/day	As required by NPDES permit
Ammonia-Nitrogen	35 mg/l	As required by NPDES permit
Fecal Coliform	200 colonies per 100 ml as a geo. avg..	As required by NPDES permit
Acute WET Ceriodaphnia Survival	Monitor & Report	As required by NPDES permit
Chronic WET Ceriodaphnia Survival	Monitor & Report	As required by NPDES permit
Chronic WET Ceriodaphnia	Monitor & Report	As required by NPDES permit

OUTFALL 001 (Otter Creek)		
PARAMETER	LIMIT	MONITORING
Reproduction		
Acute WET Pimephales Survival	Monitor & Report	As required by NPDES permit
Chronic WET Pimephales Survival	Monitor & Report	As required by NPDES permit
Chronic WET Pimephales Growth	Monitor & Report	As required by NPDES permit
PCBs	Monitor & Report	As required by NPDES permit

The following average monthly effluent limits and monitoring requirements are for DRBC parameters not included in the NPDES permit.

EFFLUENT TABLE A-2: DRBC parameters not included in NPDES permit

Outfall No. 001 (Otter Creek)		
PARAMETER	LIMIT	MONITORING
CBOD (5-Day at 20° C)	88.5 % minimum removal	Monthly
Total Dissolved Solids*	1,000 mg/l	Quarterly

* See Condition C.II.r. in DECISION section

e. **Relationship to the Comprehensive Plan.** The Bristol Borough WWTP was included to the Comprehensive Plan by Resolution No. R-62-14. Expansion of the WWTP was incorporated into the Comprehensive Plan via Dockets Nos. D-1969-066 CP-1 and D-1969-066 CP (Revised), which were approved by the Commission on June 22, 1971 and September 30, 1976, respectively. The WWTP was renewed via Docket No. D-1969-066 CP-3 on May 8, 2013. Issuance of this docket will continue approval of the 2.7 mgd WWTP in the Comprehensive Plan.

B. FINDINGS

The docket holder submitted an Application to renew approval of the 2.7 mgd Bristol Borough WWTP. No modifications to the WWTP are proposed.

CBOD₂₀ Wasteload Allocation & Monitoring

The Commission's Water Quality Regulations (*WQR*) provide for the allocation of the stream assimilative capacity where waste discharges would otherwise result in exceeding such capacity. The DRBC determined in the late 1960's that discharges to the Delaware Estuary would be limited to a total of 322,000 lbs/day of carbonaceous biochemical (first stage) oxygen demand (later noted as CBOD₂₀). In accordance with the *WQR*, the assimilative capacity of each Delaware Estuary zone minus a reserve was originally allocated in 1968 among the individual dischargers based upon the concept of uniform reduction of raw waste in a zone (Zones 2, 3, 4 and 5). The totals and percent reduction for each zone are given in Table 1 of the Commission's *Status of CBOD₂₀ Wasteload Allocations* (Revised October 1, 2000). The Bristol Borough WWTP is located in Zone 2 at River Mile 118.9. Zone 2 is allocated at 18,600 lbs/day of CBOD and has a

total reduction requirement of 88.5%. Compliance with the 88.5% Zone 2 reduction requirement can be demonstrated by meeting the 88.5% CBOD₅ removal requirement included in EFFLUENT TABLE A-2 in Section A.4.d. of this docket.

The Commission approved a CBOD₂₀ allocation for the WWTP of 640 lbs/day in Docket No. D-1969-066 CP-1 (Revised), approved on June 22, 1971. The CBOD₅ effluent load limit is calculated as the CBOD₂₀ allocation divided by the CBOD₂₀/CBOD₅ ratio of 1.75:1. This docket continues the allocation of up to 640 lbs/day of CBOD₂₀ for the existing facility. Compliance with the CBOD₂₀ allocation can be demonstrated by meeting the CBOD₅ effluent load limit of 366 lbs/day.

At the WWTP discharge location, Otter Creek is tidal.

The nearest surface water intakes of record for public water supply from the project discharge are approximately 9 river miles downstream on the Delaware River (City of Philadelphia Water Department), and 1 mile upstream (Aqua Pennsylvania) on the Delaware River.

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.

The project is designed to produce a discharge meeting the effluent requirements as set forth in the Commission's *WQR*.

C. DECISION

- I. Effective on the approval date for Docket No. D-1969-066 CP-4 below:
 - a. The project described in Docket No. 1969-066 CP-3 is removed from the Comprehensive Plan to the extent that it is not included in Docket No. 1969-066 CP-4; and
 - b. Docket No. 1969-066 CP-3 is terminated and replaced by Docket No. 1969-066 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. The facility and operational records shall be available at all times for inspection by the DRBC.

b. The facility shall be operated at all times to comply with the requirements of the Commission's *WQR*.

c. 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/pr/info.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.

d. 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*.

e. 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.

f. 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.

g. The discharge of wastewater shall not increase the ambient temperatures of the receiving waters by more than 5°F above the average 24-hour temperature gradient displayed during the 1961-1966 period, nor shall such discharge result in stream temperatures exceeding 86°F.

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, wildlife, and/or other aquatic life 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. 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.

l. The docket holder is responsible for timely submittal to the DRBC of a docket renewal application on the appropriate application form including the appropriate docket application filing fee (see 18 CFR 401.43) at least 6 months in advance of the docket expiration date set forth below. The docket holder will be subject to late filed renewal surcharges 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, 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.

m. The docket holder shall be subject to applicable DRBC regulatory program fees, in accordance with duly adopted DRBC resolutions and/or regulations (see 18 CFR 401.43).

n. This approval is transferable by request to the DRBC Executive Director provided that the project purpose and area served approved by the Commission in this docket will not be materially altered because of the change in project ownership. The request shall be submitted on the appropriate form and be accompanied by the appropriate fee (see 18 CFR 401.43).

o. The docket holder shall request a name change of the entity to which this approval is issued if the name of the entity to which this approval is issued changes its name. The request for name change shall be submitted on the appropriate form and be accompanied by the appropriate fee (see 18 CFR 401.43).

p. 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.

q. 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.

r. 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.

s. 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:

EXPIRATION DATE: August 31, 2023

DRAFT