

DOCKET NO. D-1969-066 CP-3

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) on August 9, 2012 (Application), for renewal of an existing wastewater treatment plant (WWTP) and its discharge. National Pollutant Discharge Elimination System (NPDES) Permit No. PA0027294 for this project was issued by the Pennsylvania Department of Environmental Protection (PADEP) on October 11, 2007, amended February 1, 2011. Renewal of the NPDES 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 Bucks County Planning Commission has been notified of pending action. A public hearing on this project was held by the DRBC on May 7, 2013.

A. DESCRIPTION

1. **Purpose.** The purpose of this docket is to renew approval of the existing 2.7 million gallons per day (mgd) BBWSA WWTP and its related discharge.
2. **Location.** The WWTP will continue to discharge treated effluent to Otter Creek, a tidal tributary to Water Quality Zone 2, at River Mile 118.87 – 0.3 (Delaware River – Otter Creek) via Outfall No. 001, in Bristol Borough, Bucks County, Pennsylvania as follows:

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

3. **Area Served.** The existing WWTP will continue to service 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 operates an existing 2.7 mgd WWTP.
- b. Facilities. The WWTP consist of grit removal, two (2) primary clarifiers, four (4) first stage trickling filters, six (6) rotating biological contactors (RBCs), two (2) secondary clarifiers, a two (2) anaerobic sludge digestors, and a chlorine contact system.

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

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 Aqua Pennsylvania.

- d. NPDES Permit / DRBC Docket. NPDES Permit No. PA0027294 was approved by the PADEP on February 1, 2011 and includes final effluent limitations for the project discharge of 2.7 mgd to surface waters classified by the PADEP as a warm water fishery (WWF). Renewal of the NPDES Permit is expected shortly. The following average monthly effluent limits are among those listed in the current NPDES Permit that Commission staff do not anticipate changes to 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)	17 mg/l (88.5% minimum removal*)	As required by NPDES Permit
CBOD20	640 lbs/day *	As required by NPDES Permit
Fecal Coliform	200 colonies per 100 ml as a geo. avg.	As required by NPDES Permit
Acute & Chronic Toxicity	Monitor & Report *	As required by NPDES Permit
PCBs	Monitor & Report *	As required by NPDES Permit

* DRBC Requirement

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

OUTFALL 001 (WWTP)		
PARAMETER	LIMIT	MONITORING
Total Dissolved Solids*	Monitor & Report *	Quarterly **
Ammonia Nitrogen*	Monitor & Report *	Monthly*

* DRBC Requirement

** See DECISION Condition II.q.

e. **Cost.** There are no construction costs associated with the renewal of this discharge.

f. **Relationship to the Comprehensive Plan.** The BBWSA WWTP was included in the Comprehensive Plan by Resolution No. R-62-14. Expansion of the WWTP was incorporated into the Comprehensive Plan via Dockets Nos. D-69-66 CP and D-69-66 CP (Revised), which were approved by the Commission on June 22, 1971 and September 30, 1976, respectively. Issuance of this docket will continue approval of the 2.7 mgd WWTP in the Comprehensive Plan (See DECISION Condition I.c.).

B. **FINDINGS**

The purpose of this docket is to renew approval of the existing 2.7 mgd BBWSA WWTP and its related discharge.

CBOD₂₀ Wasteload Allocation

The Commission's Water Quality Regulations provide for the allocation of the stream assimilative capacity where waste discharges would otherwise result in exceeding such capacity. It was determined in the late 1960's that discharges to the Delaware Estuary be limited to a total of 322,000 lbs/day of carbonaceous biochemical (first stage) oxygen demand (CBOD₂₀). In accordance with the Regulations, 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 docket holder's WWTP discharges to Water Quality Zone 2 of the Delaware River at River Mile 118.6 – 0.2 (Delaware River – Otter Creek). Water Quality Zone 2 is currently over-allocated and reductions have occurred since the year 2000 in an attempt to balance the zone.

CBOD₂₀ Allocation History

Docket No. D-69-66 CP (Revised) approved an allocation of 640 lbs/day of CBOD₂₀ on June 22, 1971.

CBOD₂₀ Determination

Current effluent data suggests that the ratio between CBOD₅ and CBOD₂₀ has not changed since the original wasteload was assigned in 1971. Therefore, Commission staff recommend renewal of the wasteload assigned in 1971 of 640 lbs/day of CBOD₂₀.

Other

At the project site, Otter Creek is a tidal stream and has an estimated seven-day low flow with a recurrence interval of ten years of 0.123 mgd (0.19 cfs). The ratio of this low flow to the average design wastewater discharge from Outfall No. 001 is 0.05 to 1.

The nearest surface water intakes of record for public water supply from the project discharge are approximately 9 river miles below by the City of Philadelphia Water Department and 2.1 miles above by the Burlington City Water Department.

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 Commission's *WQR*.

C. DECISION

I. Effective on the approval date for Docket No. D-1969-066 CP-3 below:

a. The project described in Docket No. D-69-66 CP (Revised) is removed from the Comprehensive Plan to the extent that it is not included in Docket No. D-1969-066 CP-3; and

b. Docket No. D-69-66 CP (Revised) is terminated and replaced by Docket No. D-1969-066 CP-3; and

c. The project and the appurtenant facilities described in Section A "Physical Features" of this docket shall be added to 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 directly to the DRBC Project Review Section. 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 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.

i. 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.

j. 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.

k. 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).

l. 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.

m. 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.

n. 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.

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: May 8, 2013

EXPIRATION DATE: May 8, 2018