

DOCKET NO. D-1974-061 CP-5

DELAWARE RIVER BASIN COMMISSION

**Borough of Spring City
Wastewater Treatment Plant
Spring City Borough, Chester County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) by Environmental Engineering & Management Associates, Inc. (EEM or engineer) on behalf of the Borough of Spring City (BSC or docket holder) on April 23, 2015 and amended June 29, 2015 (Application), for renewal of the docket holder's existing wastewater treatment plant (WWTP) and its discharge, as well as to approve an expansion to the WWTP. The Pennsylvania Department of Environmental Protection (PADEP) indicated that National Pollutant Discharge Elimination System (NPDES) Permit No. PA0028614 A-1 for the existing facility will be issued on or around December 8, 2015. The PADEP approved Water Quality Management (WQM) Permit No. 1598404 A-2 for the proposed expansion on September 11, 2015.

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 Chester County Planning Commission has been notified of pending action. A public hearing on this project was held by the DRBC on November 10, 2015.

A. DESCRIPTION

1. Purpose. The purpose of this docket is to renew approval of the docket holder's existing 0.6 million gallons per day (mgd) WWTP and its discharge. This docket also approves an expansion to the WWTP that will increase the hydraulic capacity to 0.787 mgd. The proposed expansion includes upgrading the trickling filters and constructing an aerobic digester, two (2) final clarifiers with reaction tanks, and an ultraviolet (UV) disinfection system.

2. Location. The WWTP will continue to discharge treated effluent to the Schuylkill River at River Mile 92.47 – 41.3 (Delaware River – Schuylkill River) via Outfall No. 001, in the Borough of Spring City, Chester County, Pennsylvania as follows:

| OUTFALL NO. | LATITUDE (N) | LONGITUDE (W) |
|-------------|--------------|---------------|
| 001 | 40° 10' 23" | 75° 32' 15" |

3. **Area Served.** The docket holder's WWTP will continue to serve the Borough of Spring City, 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 will continue to operate its existing 0.6 mgd WWTP, as well as expand the WWTP to a hydraulic capacity to 0.787 mgd.

b. **Facilities.** The existing WWTP consists of a grit removal area, bar screens, an equalization tank, two (2) primary clarifiers, one (1) first stage trickling filter, one (1) second stage trickling filter, two (2) final clarifiers, and two (2) chlorine contact tanks equipped with dechlorination. Additionally, several pump stations are utilized to maximize treatment during wet weather events at the facility.

The expanded WWTP will consist of a grit removal area, bar screens, an equalization tank, two (2) primary clarifiers, one (1) first stage trickling filter, one (1) second stage trickling filter, four (4) final clarifiers, an aerobic digester, and an ultraviolet (UV) disinfection system. Additionally, several pump stations will continue to be utilized to maximize treatment during wet weather events at the facility.

The project facilities are not 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 the Pennsylvania American Water Company (PAWC) and individual on-lot wells.

d. **NPDES Permit / DRBC Docket.** The PADEP indicated that NPDES Permit No. PA0028614 A-1 for the existing WWTP will be issued on or around December 8, 2015, which will include final effluent limitations for the project discharge to surface waters classified by the PADEP as warm water fisheries (WWF). The following average monthly effluent limits, in effect until November 30, 2018, are among those that will be 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, in effect until November 30, 2018

| OUTFALL 001 | | |
|---------------------------------|--|-----------------------------|
| 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 (at 20° C) | 25 mg/l (85% Minimum Removal) | As required by NPDES Permit |
| Ammonia Nitrogen (5-1 to 10-31) | 8 mg/l | As required by NPDES Permit |
| (11-1 to 4-30) | 12 mg/l | |
| Fecal Coliform | 200 colonies per 100 ml as a geo. avg. | As required by NPDES Permit |
| Total Dissolved Solids* | 1,000 mg/l | As required by NPDES Permit |

* See DECISION Condition II.t.

The following average monthly effluent limits go into effect on December 1, 2018, and are among those that will be listed in the NPDES Permit and meet or are more stringent than the effluent requirements of the DRBC.

EFFLUENT TABLE A-2: DRBC Parameters Included in NPDES Permit, in effect on December 1, 2018

| OUTFALL 001 | | |
|---|--|-----------------------------|
| 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 (at 20° C) (5-1 to 10-31) | 15 mg/l (85% Minimum Removal) | As required by NPDES Permit |
| (11-1 to 4-30) | 25 mg/l (85% Minimum Removal) | |
| Ammonia Nitrogen (5-1 to 10/31) | 6 mg/l | As required by NPDES Permit |
| (11-1 to 4-30) | 12 mg/l | |
| Fecal Coliform | 200 colonies per 100 ml as a geo. avg. | As required by NPDES Permit |
| Total Dissolved Solids* | 1,000 mg/l | As required by NPDES Permit |

* See DECISION Condition II.t.

e. **Cost.** The overall cost of this project is estimated to be \$4,356,000.

f. **Relationship to the Comprehensive Plan.** The docket holder's 0.345 mgd WWTP was included in the Comprehensive Plan on September 25, 1974 via Docket No. D-74-61 CP. Expansion of the WWTP to 0.6 mgd was included in the comprehensive Plan on February 28, 2007 via Docket No. D-74-61 CP-2. Issuance of this docket will continue approval of the docket holder's 0.6 mgd WWTP in the Comprehensive Plan and its expansion to 0.787 mgd (See DECISION Condition I.c.).

B. FINDINGS

The purpose of this docket is to renew approval of the docket holder's existing 0.6 mgd WWTP and its discharge. This docket also approves an expansion to the WWTP that will increase the hydraulic capacity to 0.787 mgd. The proposed expansion includes upgrading the trickling filters and constructing an aerobic digester, two (2) final clarifiers with reaction tanks, and an UV disinfection system.

According to the United States Geological Survey Streamstats program the Schuylkill River at the docket holder's WWTP discharge has an estimated seven-day low flow with a recurrence interval of ten years (Q_{7-10}) of 205 mgd (317 cfs). The ratio of this low flow to the hydraulic design wastewater discharge from the 0.787 mgd WWTP is 260.5 to 1.

The nearest surface water intake of record for public water supply is located on the Schuylkill River approximately 2 River Miles downstream of the docket holder's WWTP, and is operated by the Phoenixville 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 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)* and *Flood Plain Regulations (FPR)*.

C. DECISION

I. Effective on the approval date for Docket No. D-1974-061 CP-5 below:

a. The project described in Docket No. D-1974-061 CP-4 is removed from the Comprehensive Plan to the extent that it is not included in Docket No. D-1974-061 CP-5; and

b. Docket No. D-1974-061 CP-4 is terminated and replaced by Docket No. D-1974-061 CP-5; 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 and WQM Permits, 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* and *FPR*.

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. Sound practices of excavation, backfill and reseedling shall be followed to minimize erosion and deposition of sediment in streams.

i. Within 10 days of the date that construction of the project has started, the docket holder shall notify the DRBC of the starting date and scheduled completion date.

j. Within 30 days of completion of construction of the approved project, the docket holder is to submit to the attention of the Project Review Section of DRBC a Construction Completion Statement ("Statement") signed by the docket holder's professional engineer for the project. The Statement must (1) either confirm that construction has been completed in a manner consistent with any and all DRBC-approved plans or explain how the as-built project deviates from such plans; (2) report the project's final construction cost as such cost is defined by the project review fee schedule in effect at the time the application was made; and (3) indicate the

date on which the project was (or is to be) placed in operation. In the event that the final project cost exceeds the estimated cost used by the docket holder to calculate the DRBC project review fee, the statement must also include (4) the amount of any outstanding balance owed for DRBC review. The outstanding balance will equal the difference between the fee paid to the Commission and the fee calculated on the basis of the project's final cost, using the formula and definition of "project cost" set forth in the DRBC's project review fee schedule in effect at the time application was made.

k. The WWTP modifications shall be completed within three years of approval of this docket or the docket holder shall demonstrate to the Executive Director that it has expended substantial funds (in relation to the cost of the project) in reliance upon this docket approval. If the modifications have not been completed within three years of Docket Approval and the docket holder does not submit a cost analysis demonstrating substantial funds have been expended, Commission approval of the modifications to the existing WWTP shall expire. If the Commission's approval of the expansion expires under this condition, the docket holder shall file a new application with the Commission and receive Commission approval prior to initiating construction of any modifications.

l. 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.

m. 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.

n. 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).

o. 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.

p. 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.

q. 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.

r. 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.

s. 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.

t. 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.

u. 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 9, 2015

EXPIRATION DATE: April 30, 2021