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DOCKET NO. D-1990-036 CP-2

DELAWARE RIVER BASIN COMMISSION

**County of Berks
Wastewater Treatment Plant
Bern Township, Berks County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) by Spots, Stevens and McCoy on behalf of the County of Berks (Berks County or docket holder) on April 4, 2018 (Application), for modification of the docket holder's existing wastewater treatment plant (WWTP) and its discharge. National Pollutant Discharge Elimination System (NPDES) Permit No. PA0033995 for this facility was issued by the Pennsylvania Department of Environmental Protection (PADEP) on November 22, 2017, effective December 1, 2017.

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 August 17, 2018.

A. DESCRIPTION

1. Purpose. The purpose of this docket is to renew the docket holder's existing 0.5 mgd WWTP and to approve a proposed construction upgrade of the existing headworks processes, oxidation ditch equipment replacement, and replacement of its chlorine disinfection with UV disinfection. The WWTP will maintain its sludge collection system and upgrade the existing sludge dewatering treatment and equipment. The WWTP will continue to discharge effluent at an average flow of 0.5 mgd and will not require an increase to its existing design flow.

2. **Location.** The WWTP discharge will continue to discharge treated effluent to Plum Creek at River Mile 92.47 – 76.8 – 4.8 – 0.35 (Delaware River – Schuylkill River – Tulpehocken Creek – Plum Creek) via Outfall No. 001, in the Bern Township, Berks County, Pennsylvania as follows:

OUTFALL NO.	LATITUDE (N)	LONGITUDE (W)
001	40° 22' 31"	76° 0' 44"

3. **Area Served.** The docket holder's WWTP will continue to serve Berm Township, County Welfare Tract, Blue Marsh Recreation Area, and Berks Career & Technology Center located in Berks County, Pennsylvania. The existing WWTP is able to accept and treat up to 44,000 gallons per day of municipal wastewater on-site. Wastes accepted are only located within the basin in Berks County. 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 0.5 mgd WWTP will continue to utilize an extended aeration secondary treatment process. The proposed construction will rehabilitate existing equipment to accommodate the existing WWTP's design capacity and increase the efficiency of its sludge dewatering system. The proposed actions include a new influent screening, replacement of diffusers, flow control modifications, replacement of the oxidation ditch system equipment, new ultraviolet (UV) disinfection to replace chlorine disinfection. The WWTP's hydraulic and organic treatment capacity will remain unchanged.

b. **Facilities.** The existing WWTP facilities consist of a rotating rake cylindrical bar screen, a duplex submersible pump station for in-line flow equalization with overflow to oxidation ditches, four aerated equalization tanks, two parallel oxidation ditches, two clarifier tanks, two aerated sludge holding tanks, a septage receiving station, two back-up holding tanks, a chlorine gas disinfection unit, a sludge dewatering system with belt filter press, chemical feeder and mixer for sludge stabilization.

The proposed modifications to the WWTP will include the construction a new influent screening chamber with a center flow band screen, with the existing screen remaining as a standby unit. The existing diffusers within the equalization tanks will be replaced for improved mixing. The existing flow control valve will be replaced and include the addition of a new automatic flow meter regulator. The modification of the oxidation ditch to improve the flow distribution across oxidation ditches. The oxidation ditch system will include new rotors, drives and clarifier mechanisms. The existing chlorine gas disinfection system will be replaced with two new non-contact UV disinfection units, however, remain operable for emergency use.

The proposed construction will include the replacement of the existing belt filter press with a new sludge dewatering system consisting of a volute screw press unit, two existing septage storage tanks, a flocculation tank, a new polymer feed system, a lime storage silo, and a new sludge-lime blending conveyor. The docket holder maintains a waste collection station

upstream of the location of where the WWTP waste sludge and dewatering press filtrate is transferred. The WWTP has the capacity to accept a daily maximum of up to 0.044 mgd.

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

Biosolids are produced on site and stored in a silo. The biosolids are either taken by local farmers for the use of land application, or 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 Western Berks Water Authority. The water withdrawal is described in detail in Docket No. D-1969-055 CP-4, which was approved on December 17, 2017.

d. Effluent Requirements. EFFLUENT TABLE A-1 below contains effluent requirements for DRBC parameters that must be met as a condition of this approval (See DECISION Condition C.II.c.). NPDES Permit No. PA0033995 was issued by the PADEP on November 22, 2017 (effective December 1, 2017) and includes final effluent limitations for the project discharge of 0.50 mgd to surface waters classified by the PADEP as supporting warm water fishes (WWF). 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 (Discharging to Plum 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 (at 20° C)	25 mg/l (85% (Minimum Removal)	As required by NPDES Permit
CBOD ₅ Influent	Monitor & Report	
Ammonia Nitrogen (5-1 to 10-31) (11-1 to 4-30)	16.5 mg/l 5.5 mg/l	As required by NPDES Permit
Fecal Coliform (5-1 to 9-30) (10-1 to 4-30)	200 colonies per 100 ml as a geo. avg. 2000 colonies per 100 ml as a geo. avg.	As required by NPDES Permit
Total Dissolved Solids*	Monitor & Report*	As required by NPDES Permit

*See DECISION Condition C.II.t

e. Cost. The overall cost of this project is estimated to be \$2,800,000.

f. Relationship to the Comprehensive Plan. The docket holder’s WWTP was included into the Comprehensive Plan upon the approval of Docket No. D-1975-068 CP on June 17, 1975 rated at 0.12 mgd. The docket holder’s WWTP with a capacity of 0.30 mgd was continued to the Comprehensive Plan upon the approval of Docket No. D-1990-036 CP on December 12, 1990. Docket No. D-1990-036 CP acknowledged the WWTP’s design capacity at 0.50 mgd and required DRBC and Act 537 plan approval to re-rate to 0.50 mgd. The docket holder was included in the 2002 Act 537 Sewage Facilities Planning for Bern Township and acknowledges the plant’s

discharge of 0.5 mgd. Issuance of this docket will continue its approval in the Comprehensive Plan (See DECISION Condition C.I.c.).

B. FINDINGS

The purpose of this docket is to renew the approval docket holder's 0.50 mgd WWTP and approve the docket holder's proposed construction improve the existing WWTP's treatment performance and its sludge handling efficiency. Improvements and upgrades to the facility are expected to include: headworks and screening modifications, repairs to an existing aeration equalization tank, retrofitting and replacing oxidation ditch equipment, replacement of chlorination disinfection with UV disinfection, and the replacement of the existing sludge dewatering system. The effluent discharge rate and hydraulic capacity of the WWTP will remain at 0.50 mgd.

The docket holder has previously accepted hauled-in wastes to its facilities from domestic and commercial users within Berks County. The docket holder has not accepted wastes since 2012; however, the docket holder wishes to retain its septage receiving facilities and its capacity to accept up to 44,000 gallons per day. The docket holder has only accepted wastes within the Delaware River basin and will not accept out-of-basin wastes.

Near the docket holder's WWTP discharge, Plum Creek has an estimated seven-day low flow with a recurrence interval of ten years (Q_{7-10}) of 0.58 mgd (0.91 cfs). The ratio of this low flow to the hydraulic design wastewater discharge from the 0.5 mgd WWTP is 1.2 to 1.

The nearest surface water intake of record for public water supply is located on the Schuylkill River approximately 26 River Miles downstream of the docket holder's WWTP, and is operated by Pottsville Borough 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 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-1990-036 CP-2 below:

- a. The project described in Docket Nos. D-1990-036 CP is removed from the Comprehensive Plan to the extent that they are not included in Docket No. D-1990-036 CP-2; and
- b. Docket No. D-1990-036 CP is terminated and replaced by Docket No. D-1990-036 CP-2; 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* and Flood Plain Regulations (*FPR*).
- 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. Sound practices of excavation, backfill and reseeded shall be followed to minimize erosion and deposition of sediment in streams.
- h. 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. Within

30 days of the date of project completion, the docket holder shall notify the DRBC of the project completion date.

i. The WWTP modifications shall be completed prior to the date of docket expiration (September 15, 2021) 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 prior to docket expiration 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 docket 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.

j. 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.

k. 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.

l. 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).

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. 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.

o. 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).

p. 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).

q. 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).

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. Nothing in this docket constitutes a defense to any penalty action for past conduct of the docket holder or ongoing activity not authorized by this approval. In particular, renewal of this docket does not resolve violations – whether in the past or continuing – of provisions of the Delaware River Basin Compact (“Compact”) or any rule, regulation, order or approval duly issued by the Commission or the Executive Director pursuant to the Compact. The Commission reserves its right to take appropriate enforcement action against the docket holder, including but not limited to recovery of financial penalties consistent with Section 14.17 of the Compact, for any and all such prior or continuing violations.

v. 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

APPROVAL DATE:

EXPIRATION DATE: November 30, 2027