

This DRAFT Docket has been prepared for the purposes of the scheduled public hearing and may be substantially modified as a result of the public hearing process prior to Commission action.

1/29/2019 1:12 PM

DOCKET NO. D-1990-054-2

DELAWARE RIVER BASIN COMMISSION

**Knight's Bridge Corporation
Wastewater Treatment Plant Upgrade
Chadds Ford Township, Delaware County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an application submitted to the Delaware River Basin Commission (DRBC or Commission) on November 21, 2018 (Application), for approval for modifications and construction to the docket holder's existing wastewater treatment plant (WWTP) and its discharge. National Pollutant Discharge Elimination System (NPDES) Permit No. PA0052633 for this discharge was issued by the Pennsylvania Department of Environmental Protection (PADEP) on July 29, 2014. The PADEP issued

The application was reviewed for approval under Section 3.8 of the *Delaware River Basin Compact*. The Delaware County Planning Commission has been notified of pending action. A public hearing on this project was held by the DRBC on February 13, 2019.

A. DESCRIPTION

1. Purpose. The purpose of this docket is to approve an upgrade and expansion to the docket holder's existing 0.045 million gallons per day (mgd) WWTP and its discharge. The proposed upgrade and expansion consists of increasing the facility's discharge to 0.090 mgd, abandoning the existing treatment facilities, replacing the existing treatment process with a new Membrane Bioreactor (MBR) system, new headworks facilities, including new grit removal and screening systems, replacing chlorine contact units with ultraviolet (UV) disinfection and appurtenant upgrades.

2. Location. The docket holder's WWTP is located at Brandywine Drive in Chadds Ford Township, Delaware County, Pennsylvania. The WWTP will continue to discharge treated effluent

to an unnamed tributary (UNT) to Harvey Run, at River Mile 70.7 – 1.5 – 14.7 – 2.0 – 0.9 (Delaware River – Christina River – Brandywine Creek – Harvey Run – UNT Harvey Run) via Outfall No. 001, within the drainage area to the Zone C7.

The WWTP outfall discharges in the Brandywine Creek-Christina River Watershed as follows:

OUTFALL NO.	LATITUDE (N)	LONGITUDE (W)
001	39° 52' 56"	75° 33' 10"

3. **Area Served.** The docket holder's WWTP will continue to serve commercial businesses and residential areas in Chadds Ford Township within Delaware 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. **Design Criteria.** The docket holder's existing 0.045 mgd WWTP utilizes an activated sludge treatment process. The existing facility operates as a Biological Nutrient Removal (BNR) facility. The facility's age and decreased efficacy require modifications to the WWTP to allow for Enhanced Nutrient Removal (ENR) operations and new treatment processes.

The facility was previously issued approval to discharge up to 0.090 mgd, pending the construction of a previously planned upgrade, which was never executed. After the completion of the following proposed construction project, the average discharge from the WWTP will be increased to 0.090 mgd from 0.045 mgd. The proposed WWTP will utilize a MBR treatment process, with UV disinfection. The majority of existing facilities will either be repurposed or demolished and the docket holder will continue to utilize the existing outfall location.

5. **Facilities.** The existing WWTP facilities consist of a coarse bar screen, two trains of process tanks, operating in a four-stage parallel treatment process. The facilities include 4 aerobic tanks. The facilities also utilize a sludge handling tank, and a chlorination/dichlorination disinfection system.

The proposed WWTP facilities will consist of a new primary treatment process including static coarse bar screens, a new 5,500-gallon grease interceptor, and new mechanical fine screens. The proposed project will include the installation of a new pre-fabricated building to house 2 MBR treatment trains, each consisting of 2 anoxic tanks, an aerobic tank, and a membrane tank. Three of the existing 4 aerobic tanks will be refurbished and repurposed as equalization tanks, the remaining aerobic tank will be repurposed into a sludge holding tank. The existing chlorine disinfection system will be replaced with a new UV disinfection system.

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

Wasted sludge will continue to be hauled off-site for disposal at a state approved facility.

6. **Water withdrawals.** The potable water supply in the project service area is provided by Chester Water Authority, whose water withdrawal is described in detail in Docket No. D-1984-055 CP, which was approved on May 28, 2018.

7. **NPDES Permit / DRBC Effluent Requirements.** NPDES Permit No. PA0052663 was issued by the PADEP on July 29, 2014, and includes final effluent limitations for the project discharge of 0.090 mgd to surface waters classified by the PADEP as supporting migratory fishes (MF) and warm water fishes (WWF). EFFLUENT TABLES C-1 & C-2 included in the Section C.1. contains effluent requirements for DRBC parameters that must be met as a condition of this approval. Effluent requirements for Outfall No. 001 are based on a discharge rate of 0.090 mgd.

B. FINDINGS

The purpose of this docket is to renew the existing Knight's Bridge WWTP and its discharge to approve the proposed increase the facility's average discharge from 0.045 mgd to 0.090 mgd, and replacement of the existing activated sludge treatment process with MBR technology and UV disinfection.

Near the WWTP discharge location, UNT Harvey Run has an estimated seven-day low flow with a recurrence interval of ten years (Q_{7-10}) of less than 0.1 cubic feet per second (cfs) and therefore is classified by the Commission as an intermittent stream.

The nearest surface water intake of record for public water supply is located on Brandywine Creek approximately 16 River Miles downstream of the docket holder's WWTP and is operated by the City of Wilmington.

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

Effective on the approval date for Docket No. D-1990-054-2 below; Docket No. D-1990-054-1 is terminated and replaced by Docket No. D-1990-054-2. The project and appurtenant facilities as described in Section A of this docket are approved pursuant to Section 3.8 of the *Compact*, subject to the following conditions:

Monitoring and Reporting

1. The docket holder shall comply with the requirements contained in the EFFLUENT TABLES below. 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. 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 C-1: DRBC Parameters Included in NPDES Permit

OUTFALL 001 (Discharging to UNT to Harvey Run)		
PARAMETER	LIMIT	MONITORING
pH (Standard Units)	6 to 9 at all times	As required by NPDES Permit
Total Suspended Solids	10.0 mg/l	As required by NPDES Permit
CBOD ₅ (at 20° C) (5-1 to 10-31) (11-1 to 4-30)	10.0 mg/l 20.0 mg/l	As required by NPDES Permit
Ammonia Nitrogen (5-1 to 10-31) (11-1 to 4-30)	1.0 mg/l 3.0mg/l	As required by NPDES Permit
Fecal Coliform	200 colonies per 100 ml as a geo. avg.	As required by NPDES Permit

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

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

OUTFALL 001 (Discharging to UNT to Harvey Run)		
PARAMETER	LIMIT	MONITORING
Total Dissolved Solids	Monitor & Report	Quarterly
CBOD ₅ (at 20° C)	Monitor & Report Influent and Percent Removal	Monthly, paired with CBOD ₅ effluent monitoring sample
CBOD ₅ (at 20° C) Removal	85% Minimum Removal	Monthly, paired with CBOD ₅ effluent monitoring sample

2. 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.

3. 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; and (2) indicate the date on which the project was (or is to be) placed in operation.

Other Conditions

4. 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.

5. 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).

6. 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).

7. The docket holder is permitted to treat and discharge wastewater 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.

8. The discharge of wastewater shall not increase the ambient temperatures of the receiving waters by more than 5°F, nor shall such discharge result in stream temperatures exceeding 87°F.

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

10. 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.

- 11.** 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.
- 12.** 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.
- 13.** 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.
- 14.** 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).
- 15.** 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.
- 16.** 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).
- 17.** 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.
- 18.** 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*.
- 19.** 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.
- 20.** 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.
- 21.** 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.

BY THE COMMISSION

APPROVAL DATE:

EXPIRATION DATE: March 31, 2024

DRAFT