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1/27/2017 2:12 PM

DOCKET NO. D-2016-006 CP-1

DELAWARE RIVER BASIN COMMISSION

Discharge to a Tributary of Special Protection Waters

Upper Makefield Township

Dutchess Farms Wastewater Treatment Plant

Upper Makefield Township, Bucks County, Pennsylvania

PROCEEDINGS

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) by CKS Engineers, Inc. on behalf of Upper Makefield Township (docket holder) on August 29, 2016 (Application), for approval of the existing Dutchess Farms wastewater treatment plant (WWTP) and its discharge. National Pollutant Discharge Elimination System (NPDES) Permit No. PA0058858 for this facility was issued by the Pennsylvania Department of Environmental Protection (PADEP) on May 4, 2015, effective June 1, 2015.

The Application was reviewed for inclusion 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 February 15, 2017.

A. DESCRIPTION

- 1. Purpose.** The purpose of this docket is to approve the docket holder's existing 0.020225 million gallons per day (mgd) Dutchess Farms WWTP (also referred to as Reeve Tract WWTP) and its discharge.
- 2. Location.** The WWTP discharge will continue to discharge treated effluent to an Unnamed Tributary (UNT) to Jericho Creek at River Mile 144.1 – 3.7 – 0.9 (Delaware River – Jericho Creek – UNT Jericho Creek) via Outfall No. 001, within the drainage area to the Lower

Delaware Special Protection Waters (SPW), in the Upper Makefield Township, Bucks County, Pennsylvania as follows:

OUTFALL NO.	LATITUDE (N)	LONGITUDE (W)
001	40° 17' 2.67"	74° 57' 13.35"

3. **Area Served.** The docket holder's WWTP will continue to serve the Dutchess Farms Estates residential housing development, also referred to as Reeve Tract located in Upper Makefield Township, 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 WWTP is designed to treat an existing 0.020225 mgd, utilizing an activated sludge treatment process with tertiary filtration and ultraviolet (UV) disinfection.

b. **Facilities.** The WWTP facilities consist of aerated equalization tanks, a sewage grinder, an activated sludge process that includes an aeration tank, aeration/anoxic/reaeration tanks with anoxic mixers, a final settling/clarification tank, a post aeration tank with tertiary filters and UV disinfection. Effluent is discharged to a manmade wetland prior to discharging to an unnamed tributary Jericho Creek.

The docket holder's wastewater treatment facility discharges to waters classified as SPW and is required to have available standby power. The existing WWTP has a generator installed capable of providing standby power.

The docket holder's wastewater treatment facility is not staffed 24 hours per day, and shall have a remote alarm system that continuously monitors plant operations in accordance with the Commission's SPW requirements. The existing WWTP has a remote alarm system installed that continuously monitors plant operations.

The docket holder's existing wastewater treatment facility has not prepared and implemented an emergency management plan (EMP) in accordance with Commission SPW requirements. The docket holder is required as part of this docket approval to prepare and implement an EMP within 6 months of approval of this docket (See DECISION Condition C.II.n.).

The docket holder's existing wastewater treatment facility does not discharge to Outstanding Basin Waters (OBW), and is not required to have a nonvisible discharge plume in accordance with the Commission's SPW requirements.

The docket holder’s existing wastewater treatment facility is not required to provide “Best Demonstrable Technology” (BDT) as a minimum level of treatment in accordance with the Commission’s SPW requirements. (SPW)

The project facilities are not located in the 100-year flood hazard area.

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 provided by private wells. The wells are operated at a withdrawal rate below the DRBC groundwater withdrawal review threshold and are not subject to Commission review and approval.

d. **NPDES Permit / DRBC Docket.** NPDES Permit No. PA0058858 was issued by the PADEP on May 4, 2015 (effective June 1, 2015) and includes final effluent limitations for the project discharge of 0.020225 mgd to surface waters classified by the PADEP as Warm Water Fishery and Migratory Fishery (WWF/MF). 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 (Discharge to UNT to Jericho Creek)		
PARAMETER	LIMIT	MONITORING
pH (Standard Units)	6 to 9 at all times	As required by NPDES Permit
Total Suspended Solids	10 mg/l	As required by NPDES Permit
Dissolved Oxygen	6.0 mg/l (minimum at all times)	As required by NPDES Permit
CBOD ₅ (at 20° C)	10 mg/l (85% minimum removal)	As required by NPDES Permit
Ammonia Nitrogen (5-1 to 10-31) (11-1 to 4-30)	1.5 mg/l 3.0 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. 200 colonies per 100 ml as a geo. avg.	As required by NPDES Permit
Phosphorus	1.0 mg/l	As required by NPDES Permit
Nitrate as N (5-1 to 9-30)	Monitor & Report	As required by NPDES Permit
Total Nitrogen	10 mg/l	As required by NPDES Permit
Total Dissolved Solids*	1000 mg/l	As required by NPDES Permit

* See DECISION Condition C.I.r.

The requirements in EFFLUENT TABLE A-2 are not listed in the NPDES Permit, but are Commission SPW specific parameters that must be met as a condition of this docket approval. Monitoring shall begin April 1, 2017 for the following parameter (See DECISION Condition C.II.d.).

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

OUTFALL 001 (Discharge to UNT to Jericho Creek)		
PARAMETER	LIMIT	MONITORING
Nitrate as N (10-1 to 4-30)	Monitor & Report	Monthly

e. **Cost.** There are no construction costs associated with this WWTP approval.

f. **Relationship to the Comprehensive Plan.** Issuance of this docket will include the docket holder's 0.020225 mgd WWTP in the Comprehensive Plan.

B. FINDINGS

The purpose of this docket is to approve the docket holder's existing 0.020225 mgd WWTP and its discharge. No modifications to the WWTP are proposed.

In 1992, the DRBC adopted SPW requirements, as part of the DRBC *Water Quality Regulations (WQR)*, designed to protect existing high water quality in applicable areas of the Delaware River Basin. One hundred twenty miles of the Delaware River from Hancock, New York downstream to the Delaware Water Gap has been classified by the DRBC as SPW. This stretch includes the sections of the river federally designated as "Wild and Scenic" in 1978 -- the Upper Delaware Scenic and Recreational River and the Delaware Water Gap National Recreation Area -- as well as an eight-mile reach between Milrift and Milford, Pennsylvania which is not federally designated. The SPW regulations apply to this 120-mile stretch of the river and its drainage area.

On July 16, 2008, the DRBC approved amendments to its *Water Quality Regulations (WQR)* that provide increased protection for waters that the Commission classifies as SPW. The portion of the Delaware River and its tributaries within the boundary of the Lower Delaware River Management Plan Area was approved for SPW designation.

The docket holder's WWTP discharges to the drainage area to the Lower Delaware River SPW. The docket holder's WWTP discharge is required to comply with the SPW requirements, as outlined in Article 3.10.3A.2. of the *WQR*.

Article 3.10.3A.2.e.1). and 2). of the Commission's *WQR* states that projects subject to review under Section 3.8 of the Compact that are located in the drainage area of SPW must submit for approval a Non-Point Source Pollution Control Plan (NPSPCP) that controls the new or increased non-point source loads generated within the portion of the docket holder's service area which is also located within the drainage area of SPW. The service area of the docket holder is located within in the drainage area to the SPW. Since this project does not entail additional construction and expansion of facilities and there are not any new or increased non-point source loads associated with this approval, the NPSPCP requirement is not applicable at this time. Accordingly, DECISION Condition C.II.m. has been included in this docket.

Upper Makefield Township is regulated by the PADEP as a Stormwater Phase II municipality and is permitted by PADEP as such. Additionally, Upper Makefield Township was included in the “Delaware River South” Act 167 Stormwater Management Plan. The PADEP approved the “Delaware River South” Act 167 Stormwater Management Plan in 2004. Upper Makefield Township adopted and implemented a stormwater ordinance in accordance with the PADEP Act 167 requirements on March 16, 2005. The PADEP Stormwater Phase II requirements satisfy the NPSPCP requirements of the Commission.

At the docket holder’s WWTP discharge, the unnamed tributary to Jericho Creek 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 the Delaware River approximately 12 River Miles downstream of the docket holder’s WWTP, and is operated by Pennsylvania American Water Company - Yardley District.

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-2016-006 CP-1 below, 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* and Flood Plain Regulations (*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/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.

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 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 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.

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. 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.

l. 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.

m. Prior to allowing connections from any new service areas or any new developments, the docket holder shall either submit and have approved by the Executive Director of the DRBC a NPSPCP in accordance with Section 3.10.3.A.2.e, or receive written

confirmation from the Executive Director of the DRBC that the new service area is in compliance with a DRBC approved NPSPCP.

n. The docket holder shall provide for standby power, install remote alarm controls and prepare an emergency management plan (EMP) within 6 months of docket approval. The docket holder shall submit the EMP and certify in writing to the Commission that it has complied with this condition by September 30, 2017.

o. Unless the docket holder requests an application submittal extension, and the extension is 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.

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.

t. Prior to the docket holder initiating any substantial alterations or additions to the existing WWTP as defined in Section 3.10.3A2.a.16) of the Commission's *WQR*, an

application must be submitted and approved by the Commission. Such an application shall be submitted prior to final design to ensure that the Commission can provide the docket holder with draft effluent limitations for SPW specific parameters as guidance for design as to not require duplication of work or cause a substantial expenditure of public funds without Commission approval. The docket holder is encouraged to contact the Commission staff during the planning stages to identify the potential effluent limitations required to meet the no measurable change parameters under SPW.

BY THE COMMISSION

DATE APPROVED:

EXPIRATION DATE: May 31, 2020

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