DOCKET NO. D-1987-028 CP-2

DELAWARE RIVER BASIN COMMISSION

Upper Montgomery Joint Authority
Wastewater Treatment Plant Upgrade
Upper Hanover Township, Montgomery County, Pennsylvania

PROCEEDINGS

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) by Woodward & Curran, on behalf of the Upper Montgomery Joint Authority (UMJA or docket holder) on July 8, 2016 (Application) for an upgrade of the docket holder’s existing wastewater treatment plant (WWTP). National Pollutant Discharge Elimination System (NPDES) Permit No. PA0020532 for this facility was issued by the Pennsylvania Department of Environmental Protection (PADEP) on September 15, 2015. PADEP’s approval of the Water Quality Management (Part II) Permit for this proposed upgrade is pending.

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 (Compact). The Montgomery County Planning Commission has been notified of pending action. A public hearing on this project was held by the DRBC on November 9, 2016.

A. DESCRIPTION

1. **Purpose.** The purpose of this docket is to approve an upgrade to the docket holder’s existing WWTP, which consists of replacing the existing trickling filter/solid contact treatment system with a new biological nutrient removal (BNR) treatment system, and appurtenant improvements. The upgrade also includes increasing the hydraulic design capacity (monthly maximum average daily flow rate) of the WWTP from 2.5 million gallons per day (mgd) to 2.75 mgd. The WWTP will remain at an average annual design flow rate of 2.0 mgd.

2. **Location.** The project WWTP is located on Mensch Dam Road off of Montgomery Avenue in Upper Hanover Township, Montgomery County, Pennsylvania. The WWTP will continue to discharge to Green Lane Reservoir, which is located on Perkiomen Creek, which is tributary to the Schuylkill River, at River Mile 92.5 – 32.3 - 25.0 (Delaware River – Schuylkill River - Perkiomen Creek) via Outfall No. 001.

The project outfall is located in the Perkiomen Creek Watershed as follows:
3. **Area Served.** The docket holder’s WWTP will continue to serve the Boroughs of East Greenville, Red Hill, and Pennsburg, and portions of Upper Hanover Township, in Montgomery 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 utilizes a trickling filter/solid contact treatment system designed to treat an average annual design flow of 2.0 mgd and a maximum monthly average flow of 2.5 mgd. The proposed project upgrade consists of replacing the existing treatment system with a BNR treatment system, and increasing the hydraulic design capacity (monthly maximum average daily flow rate) from 2.5 mgd to 2.75 mgd. The average annual design flow rate will remain at 2.0 mgd. The project upgrade is being performed in order to eliminate primary and secondary treatment bypass events that occur as a result of wet weather high flows.

   b. **Facilities.** The WWTP facilities consist of two (2) mechanical bar screens, influent pumping, an aerated grit chamber, two (2) primary clarifiers, a first and second stage trickling filter, two (2) aeration basins, two (2) secondary clarifiers, chlorine contact disinfection, and post aeration. Sludge handling is provided by aerobic digesters, centrifuge dewatering, and thermal drying.

   The proposed upgrade consists of replacing the existing influent screens, upgrading the influent pumping, replacing the existing trickling filters with a new BNR treatment system, adding a third secondary clarifier, upgrading the existing chlorine contact tanks, adding a new chlorine contact tank, and improvements to the existing pumping, piping, utility buildings, and appurtenant structures.

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

   Wasted sludge will continue to be digested and dried for beneficial re-use offsite at a state approved facility.

   c. **Water withdrawals.** The potable water supply in the project service area is provided by ground water wells owned and operated by Upper Hanover Water Authority and Red Hill Water Authority, as described in detail in DRBC Docket No. D-2002-010 CP-3, approved on December 9, 2009.
d. NPDES Permit / DRBC Docket. PADEP issued NPDES Permit No. PA0020532 for the project discharge on October 1, 2015, which includes final effluent limitations for the project discharge of 2.0 mgd to surface waters classified by the PADEP as trout stocking fishery (TSF) and migratory fishery (MF). The following average monthly effluent limits are among those listed in the NPDES permit that meet or are more stringent than the effluent requirements of the DRBC.

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>LIMIT</th>
<th>MONITORING</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH (Standard Units)</td>
<td>6.0 to 9.0</td>
<td>As required by NPDES permit</td>
</tr>
<tr>
<td>Total Suspended Solids</td>
<td>30 mg/l</td>
<td>As required by NPDES permit</td>
</tr>
<tr>
<td>CBOD (5-Day at 20° C)</td>
<td>25 mg/l (85% minimum removal)</td>
<td>As required by NPDES permit</td>
</tr>
<tr>
<td>Ammonia-Nitrogen</td>
<td>10.0 mg/l</td>
<td>As required by NPDES permit</td>
</tr>
<tr>
<td>Fecal Coliform</td>
<td>200 colonies per 100 ml</td>
<td>As required by NPDES permit</td>
</tr>
<tr>
<td>Total Dissolved Solids*</td>
<td>1,000 mg/l</td>
<td>As required by NPDES permit</td>
</tr>
</tbody>
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*See DECISION Conditions II.t.

e. Cost. The overall cost of this project is estimated to be $23,017,400.00.


B. FINDINGS

The docket holder submitted an Application to upgrade their existing WWTP by replacing the existing trickling filter/solid contact treatment system with a new biological nutrient removal (BNR) treatment system, and appurtenant improvements. The upgrade also includes increasing the hydraulic design capacity (monthly maximum average daily flow rate) of the WWTP from 2.5 mgd to 2.75 mgd. The WWTP will remain at an average annual design flow rate of 2.0 mgd.

Just downstream of the project discharge at the Green Lane Reservoir Dam, Perkiomen Creek has an estimated seven-day low flow with a recurrence interval of ten years (Q_{7-10}) of 6.0 mgd (9.3 cfs). The ratio of this low flow to the proposed hydraulic design capacity of the WWTP (2.75 mgd) is approximately 2.2 to 1.

The nearest downstream surface water intake of record for public water supply is located approximately 24 miles downstream of the docket holder’s WWTP on Perkiomen Creek, and is owned and operated by Aqua, Pennsylvania.
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-1987-028 CP-2 below:

a. The projects described in Docket Nos. D-1970-091 CP-1 and D-1987-028 CP-1 are removed from the Comprehensive Plan to the extent that they are not included in Docket No. 1987-028 CP-2; and


c. The project and the appurtenant facilities described in the Section A “Physical Features” of this docket shall be continued in the Comprehensive Plan.

II. The project and appurtenant facilities as described in the 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 Part II 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 Flood Plain Regulations (FPR).

d. The docket holder shall comply with the requirements contained in the EFFLUENT TABLE 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 reseeding 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 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.

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 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.

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 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.

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 is required to perform quarterly TDS effluent sampling in accordance with EFFLUENT TABLE A-1 in Section A.4.d. of this docket. The Docket holder may also submit a written request to substitute 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 14, 2016
EXPIRATION DATE: September 30, 2020