

**DOCKET NO. D-1990-028-3**

**DELAWARE RIVER BASIN COMMISSION**

**Discharge to a Tributary of Special Protection Waters**

**Pennsylvania American Water Company  
Marcel Lakes Wastewater Treatment Plant Upgrade  
Delaware Township, Pike County, Pennsylvania**

**PROCEEDINGS**

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) by Mott McDonald on behalf of the Pennsylvania American Water Company (PAWC or docket holder) on April 25, 2017 (Application), for review of a wastewater treatment plant (WWTP) upgrade project. National Pollutant Discharge Elimination System (NPDES) Permit No. PA0060313 for the WWTP discharge was issued by the Pennsylvania Department of Environmental Protection (PADEP) on January 10, 2014. The docket holder submitted a Water Quality Management (WQM) permit application has been submitted to the PADEP for the project upgrade construction, and that approval is pending.

The Application was reviewed for approval under Section 3.8 of the *Delaware River Basin Compact (Compact)*. The Pike County Planning Commission has been notified of pending action. A public hearing on this project was held by the DRBC on August 16, 2017.

**A. DESCRIPTION**

**1. Purpose.** The purpose of this docket is to approve an upgrade to the docket holder's existing Marcel Lakes WWTP and its discharge. The proposed upgrade consists of replacing the existing sequencing batch reactor (SBR) decanters and UV disinfection system, converting the tertiary clarifier to an effluent equalization basin, adding a polymer feed system and a re-aeration system, and replacing the existing aerobic digesters. The WWTP is designed and will remain designed for an annual average flow of 0.1 mgd.

**2. Location.** The docket holder's WWTP is located between Lake Renee and Marcel Lake at the intersection of Townsend Circle and Lake Drive in Delaware Township, Pike County, Pennsylvania. The facility will continue to discharge treated WWTP effluent to Dingmans Creek at River Mile 239.5 – 7.2 (Delaware River – Dingmans Creek) via Outfall No. 001, within the drainage area to the Middle Delaware Special Protection Waters (SPW).

The project outfall is located in the Dingmans Creek Watershed as follows:

OUTFALL NO.	LATITUDE (N)	LONGITUDE (W)
001	41° 15' 08"	74° 57' 26"

**3. Area Served.** The docket holder's WWTP will continue to receive wastewater flows from the Marcel Lake Estates residential development in Delaware Township, Pike 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 existing WWTP utilizes an Intermittent Cycle Extended Aeration System (ICEAS), which is a SBR treatment process, and additionally utilizes ultraviolet light (UV) and chlorine contact disinfection. The improvements are being performed to upgrade the existing system which has fallen into disrepair and is exhibiting poor performance. The existing WWTP is designed to treat an average annual flow up to 0.1 mgd and will remain designed for 0.1 mgd after the upgrades. Effluent limits contained in NPDES Permit No, PA0060313 for the WWTP are based on a discharge rate of 0.2 mgd; however, this docket approval is based on an annual average design flow of 0.1 mgd.

**b. Facilities.** The existing WWTP facilities consist of a grinder, an influent pump station, two ICEAS SBR tanks, a tertiary clarifier, and disinfection via UV banks. Sludge handling consists of two (2) aerobic digesters.

The proposed upgrade consists of: replacing the two existing SBR decanters; adding a polymer feed system for increased settling of solids during wet weather events, converting the existing tertiary clarifier into an effluent equalization basin in order to provide a continuous flow to the UV disinfection system, replacing the existing UV system; adding a re-aeration system to consistently meet dissolved oxygen effluent limits, and replacing the existing aerobic digesters.

The existing treatment facility was designed to treat an annual average flow up to 0.1 mgd. Due to inflow and infiltration that resulted from improper construction and maintenance of the sewer collection system, the WWTP has experienced upsets during high wet weather flows, resulting in failures to meet NPDES permit effluent limits. The proposed upgrade is the second phase (Phase II) of an overall three-phased upgrade to the Marcel Lakes WWTP. Phase I included improvements to the sewer collection system pumping, and headworks that was designed to decrease high wet weather flows. The Phase I improvements were approved via Docket No. D-1990-028-2 on June 15, 2016, and are currently under construction. Phase III is a potential expansion; however, according to the docket holder, Phase III is not planned to be

designed until Phase II goes into operation. See the FINDINGS section and DECISION Condition C.II.q of this docket.

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

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 an autodialer system installed that continuously monitors plant operations. (SPW)

The docket holder has prepared and implemented an emergency management plan (EMP) for the existing wastewater treatment facility in accordance with Commission SPW requirements. (SPW)

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

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

Waste 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 groundwater wells owned and operated by the docket holder. The wells are operated below the DRBC review threshold.

d. **NPDES Permit / DRBC Docket.** PADEP issued NPDES Permit No. PA0060313 for the project discharge on January 10, 2014, which includes effluent limits for the project discharge to surface waters classified by the PADEP as high quality, cold water fishery (HQ-CWF) and migratory fishery (MF). Effluent limits contained in the NPDES permit are based on a discharge rate of 0.2 mgd; however, the existing facility is designed for and this docket approval is based on an annual average design flow of 0.1 mgd. The following average monthly effluent limits and monitoring requirements listed in EFFLUENT TABLE A-1 are for DRBC parameters listed in the NPDES permit that meet or are more stringent than the effluent requirements of the DRBC.

**EFFLUENT TABLE A-1: DRBC Parameters Included in NPDES permit**

<b>OUTFALL 001 (Dingmans Creek)</b>		
<b>PARAMETER</b>	<b>LIMIT</b>	<b>MONITORING</b>
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-Day at 20° C)	10 mg/l	As required by NPDES permit
Ammonia-Nitrogen 5/01-10/31 11/01-4/30	3.0 mg/l; 5.0 lbs/day 9.0 mg/l; 15.0 lbs/day	As required by NPDES permit
Nitrate+Nitrite as N	15.0 mg/l; 25.0 lbs/day	As required by NPDES permit
Total Phosphorous	1.0 mg/l; 1.67 lbs/day	As required by NPDES permit
Fecal Coliform 5/01-9/30 10/01-4/30	200 colonies per 100 ml as a geo. avg. 2,000 colonies per 100 ml as a geo. avg.	As required by NPDES permit
Dissolved Oxygen	7.0 mg/l (minimum at all times)	As required by NPDES permit

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

**EFFLUENT TABLE A-2: DRBC parameters not included in NPDES permit**

<b>Outfall No. 001 (Dingmans Creek)</b>		
<b>PARAMETER</b>	<b>LIMIT</b>	<b>MONITORING</b>
Total Kjeldahl Nitrogen (TKN)	Monitor & Report	Monthly
CBOD (5-Day at 20° C)	85% minimum removal	Weekly
Total Dissolved Solids*	1,000 mg/l	Quarterly

\* See Condition C.II.y. in DECISION section

- e. **Cost.** The overall cost of this project is estimated to be \$2,240,000.00.

## **B. FINDINGS**

The docket holder submitted an Application to approve an upgrade to the existing Marcel Lakes WWTP, consisting of replacing the existing SBR decanters and UV disinfection system, converting the tertiary clarifier to an effluent equalization basin, adding a polymer feed system and a re-aeration system, and replacing the existing aerobic digesters. Effluent limits contained in the NPDES permit are based on a discharge rate of 0.2 mgd; however, the existing facility is designed for and this docket approval is based on an annual average design flow of 0.1 mgd.

The proposed upgrade is Phase II of an overall three-phased upgrade to the WWTP. Phase III is not planned to be designed until Phase II goes into operation. As a result of the Phase II improvements, the WWTP will not require an increase to its existing 0.1 mgd design flow or approved loadings. Prior to the docket holder initiating any substantial alterations or additions to

the existing WWTP beyond what is approved in this docket, an application must be submitted and approved by the Commission. (See DECISION section Condition Nos. C.II.q. & C.II.bb.).

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. (Upper/Middle SPW)

On July 16, 2008, the DRBC approved amendments to its *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 and clarity on definitions and terms were updated for the entire program. (Upper/Middle SPW)

The docket holder's WWTP discharges to the drainage area to the Middle 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. Since this project does entail additional construction and there are new or increased non-point source loads associated with this approval, the NPSPCP requirement is applicable at this time.

The municipality in which the service area expansion is located (Delaware Township) has not adopted a stormwater ordinance in accordance with the PADEP's current model stormwater ordinance. The docket holder is required to submit a NPSPCP for the construction associated with the project and to obtain Executive Director approval prior to the initiation of construction. Any future service area expansion in the WWTP's service area must have a NPSPCP in place prior to accepting wastewater flows from the expanded service area. Accordingly, DECISION Condition C.II.r. has been included in this docket.

Near the project WWTP discharge location, Dingmans Creek has an estimated seven-day low flow with a recurrence interval of ten years (Q7-10) of 0.1 mgd (0.14 cfs). The ratio of this low flow to the average design discharge (0.1 mgd) from the project WWTP is approximately 1:1.

The nearest surface water intake of record for public water supply downstream of the project discharge is the Easton City intake, located on the Delaware River approximately 60 miles downstream of the project discharge.

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 limits in the NPDES Permit are in compliance with Commission effluent quality requirements.

The project is designed to produce a discharge meeting the effluent requirements as set forth in the Commission's *WQR*.

### C. DECISION

I. Effective on the approval date for Docket No. D-1990-028-3 below, Docket No. D-1990-028-2 is terminated and replaced by Docket No. D-1990-028-3 and

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 Part II Permit.

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](mailto: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. Sound practices of excavation, backfill and reseeded 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; and (2) indicate the date on which the project was (or is to be) placed in operation.

k. The project construction 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 project construction 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.

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 make wastewater discharge in such a manner as to avoid injury or damage to fish, wildlife, and/or other aquatic life 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. This docket approves the construction of the Phase II modifications as outlined herein and included in the docket application. The docket holder will not proceed to construction with the proposed Phase III upgrade without first filing an application with the Commission and receiving written (docket) Commission approval for the upgrade.

r. Prior to the initiation of the proposed construction, the docket holder shall submit a NPSPCP for the project construction in accordance with Article 3.10.3A.2.e.1) of the Commission's *WQR* and obtain Executive Director approval. Prior to allowing connections from any new service areas, 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.

s. 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.

t. 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).

u. 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).

v. 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).

w. 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.

x. 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.

y. 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.

z. 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.

aa. 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.

bb. 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: September 13, 2017**

**EXPIRATION DATE: April 30, 2022**