

**DOCKET NO. D-1990-028-2**

**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 Hatch Mott McDonald on behalf of the Pennsylvania American Water Company (PAWC or docket holder) on April 1, 2016 (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. PADEP indicated that 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 May 11, 2016.

**A. DESCRIPTION**

- 1. Purpose.** The purpose of this docket is to approve an upgrade to the docket holder's existing 0.2 million gallons per day (mgd) Marcel Lakes WWTP and its sewage collection system. The proposed upgrade consists of replacing the existing influent pumping, headworks and gravity collection system for the WWTP. No other modifications to the WWTP facilities are proposed. The WWTP will remain designed for an annual average flow of 0.2 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:

<b>OUTFALL NO.</b>	<b>LATITUDE (N)</b>	<b>LONGITUDE (W)</b>
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001	41° 15' 08"	74° 57' 26"
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**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. The service area is indicated on the Plan entitled “Marcel Lakes Collection System, General Overall Proposed Topographic Map, Pennsylvania American Water Company Marcel Lakes Wastewater Service Area” by Hatch Mott MacDonald, dated 4/22/2016, as included in the Application.

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 0.2 mgd WWTP utilizes an Intermittent Cycle Extended Aeration System (ICEAS) which is a sequencing batch reactor (SBR) treatment process and ultraviolet light (UV) and chlorine contact disinfection.

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

The WWTP’s existing sewer collection system is comprised of two (2) parts; a gravity collection system serving the east and north sections of the WWTP’s service area, and a low pressure/grinder pump collection system serving the western portion of the WWTP’s service area. The proposed upgrade includes the replacement of the WWTP’s existing gravity sewer collection system which is not operating effectively due to construction and design issues, and also experiences excessive inflow and infiltration during wet weather events. The WWTP’s influent pump station does not have adequate capacity during peak flows and is at an inadequate elevation for the proposed new collection system, and will be replaced as a part of the proposed project, along with the existing influent piping and headworks. The proposed new influent pumping and gravity collection system will consist of approximately 2,500 feet of force main, 30,000 feet of gravity sewer, three (3) pump stations, and new headworks.

The proposed upgrades to replace the gravity collection system, influent pumping, and headworks are the first phase (Phase I) of a planned phased upgrade to the Marcel Lakes WWTP. See the FINDINGS section and DECISION Condition 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'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 six (6) months of approval of this docket or upon completion of the WWTP upgrade, whichever occurs first. (See DECISION Condition II.s.). (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 of 0.2 mgd to surface waters classified by the PADEP as high quality, cold water fishery (HQ-CWF) and migratory fishery (MF). 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	3.0 mg/l; 5.0 lbs/day	As required by NPDES permit
11/01-4/30*	9.0 mg/l; 15.0 lbs/day	
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	200 colonies per 100 ml as a geo. avg.	As required by NPDES permit
10/01-4/30	2,000 colonies per 100 ml as a geo. avg.	
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) Influent	Monitor & Report	Weekly
Total Dissolved Solids*	Monitor & Report	Quarterly

\* See Condition II.w. in DECISION section

- e. **Cost.** The overall cost of this project is estimated to be \$8,946,000.00.

## **B. FINDINGS**

The docket holder submitted an Application to renew the approval of the docket holder's existing 0.2 mgd Marcel Lakes WWTP and its discharge, and to approve an upgrade consisting of the replacement of the existing influent pumping, headworks and gravity collection system for the WWTP. This docket renews the docket approval and approves the upgrade project. The WWTP will not require an increase to its existing design flow or approved loadings as a result of this upgrade.

The project upgrade to replace the influent pumping, headworks, and gravity collection system is the first phase (Phase I) of a planned phased upgrade to the WWTP. Phase II consists of a future project to upgrade the ICEAS SBR tanks, aerobic digesters, and UV disinfection system. A future Phase III potentially involves an expansion of the WWTP. This docket approves Phase I of the upgrade only. 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. II.q & y).

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)

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 II.r. has been included in this docket.

#### **Docket Transfer of Ownership**

This docket also approves the transfer of ownership from Clean Treatment Sewage Company to Pennsylvania American Water Company. The transfer occurred in August, 2013.

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 (0.2 mgd) from the project WWTP is approximately 0.5:1.

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-1990-028-2 below, Docket No. D-1990-028-1 is terminated and replaced by Docket No. D-1990-028-2 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, 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 EFFLUENT TABLES A-1 and A-2 contained 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; (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 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 I modifications as outlined herein and included in the docket application. The docket holder will not proceed to construction with the proposed Phase II 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 shall prepare an emergency management plan (EMP) within six (6) months of docket approval (or upon completion of the WWTP upgrade, whichever occurs first.) The docket holder shall submit the EMP and certify in writing to the Commission that it has complied with this condition by December 11, 2016.

t. Unless an extension is requested and 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.

u. 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.

v. 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.



w. 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.

x. 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.

y. 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: June 15, 2016**

**EXPIRATION DATE: April 30, 2022**