

**DOCKET NO. D-1992-018 CP-3**

**DELAWARE RIVER BASIN COMMISSION**

**Delaware County Regional Water Quality Control Authority  
Western Regional Wastewater Treatment Plant  
City of Chester, Delaware County, Pennsylvania**

**PROCEEDINGS**

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) by the Delaware County Regional Water Quality Control Authority (DELCORA or docket holder) on July 28, 2015 (Application) for a review of a modification and hydraulic re-rate of the docket holder's existing wastewater treatment plant (WWTP). The project is under review by the Pennsylvania Department of Environmental Protection (PADEP) pending approval by the Commission. National Pollutant Discharge Elimination System (NPDES) Permit No. PA0027103 A-1 for this facility was issued by the PADEP on December 22, 2013.

The Application was reviewed for addition of the project in the Comprehensive Plan and approval under Section 3.8 of the *Delaware River Basin Compact (Compact)*. The Chester 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 renew the approval of the docket holder's existing 44 million gallons per day (mgd) Western Regional WWTP, and to renew the approval of a project to modify and re-rate the WWTP. The project consists of constructing an outfall extension to the existing WWTP and will allow for the re-rating of the WWTP from 44 mgd to 50 mgd. The re-rate is conditioned upon the construction of the proposed outfall, which is designed to accommodate the re-rated flow of 50 mgd. The project was approved by DRBC Docket No. D-1992-018 CP-2 on September 21, 2011, however, the project has yet to be constructed.

**2. Location.** The docket holder's Western Regional WWTP is located on West Front Street, adjacent to the Delaware River, approximately one (1) mile south of the Commodore Barry Bridge in the City of Chester, Delaware County, Pennsylvania. The WWTP will continue to discharge to Water Quality Zone 4 of the Delaware River at River Mile 80.7.

The existing outfall and proposed outfall extension are located in the Delaware River Watershed as follows:

<b>OUTFALL NO.</b>	<b>LATITUDE (N)</b>	<b>LONGITUDE (W)</b>
001 (Existing)	39° 49' 25"	75° 23' 22"
001 (Extension)	39° 49' 21"	75° 23' 18"

**3. Area Served.** The docket holder’s WWTP will continue to serve residential, commercial, and industrial users located within the City of Chester; the Boroughs of Marcus Hook, Brookhaven, Eddystone, Upland, Trainer, Parkside, and Rose Valley; the Townships of Nether Providence, Lower Chichester, and Chester; as well as users serviced by the Central Delaware County Authority, Southwest Delaware County Municipal Authority, Middletown Township Sewer Authority, and the Southern Delaware County Authority sewage collection systems.

The WWTP also receives municipal sludge and residual waste from several municipal treatments plants and industrial users outside the DELCORA WWTP’s service area: municipal WWTPs include Little Washington Media WWTP (Media, PA), Tinicum Township WWTP (Essington, PA), Rose Valley Borough WWTP (Rose Valley), and Bayside State Prison WWTP (Leesburg, NJ); industrial users include: Sellars Absorbent Materials (Atglen, PA), McAdoo & Allen Inc. Quaker Color (Quakertown, PA), and Perdue Farms Inc. (Salisbury, MD).

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 is designed to treat an average annual flow of up to 44 mgd utilizing an extended aeration / activated sludge treatment process. The proposed project to construct an extension to the exiting WWTP outfall will allow the WWTP to treat an average annual flow up to 50 mgd. The WWTP will continue to utilize the extended aeration / activated sludge treatment process.

**b. Facilities.** The WWTP treatment processes consist of grit removal/screening, primary settling, secondary biological treatment via activated sludge, secondary settling, and disinfection via chlorine contact. The existing facilities consist of two (2) grit chambers, a pre-aeration chamber, eight (8) primary settling tanks, four (4) aeration tanks, five (5) secondary settling tanks (final clarifiers), two (2) activated sludge pump stations, four (4) chlorine contact tanks, two (2) gravity belt thickeners, four (4) belt presses for sludge dewatering, and two (2) incinerators.

The existing WWTP outfall configuration consists of a 45-ft long, 11-ft wide by 6-ft high rectangular concrete culvert connecting the WWTP to an outfall chamber that is located in a concrete bulkhead on the shoreline of the Delaware River. The outfall chamber features

three (3) 42-inch diameter circular openings for discharge from the WWTP to the Delaware River. The invert elevation of the existing openings is -3.0 ft-NGVD. Mean Low Low Water (MLLW) elevation at the WWTP outfall is -1.8 ft-NGVD.

This proposed outfall extension consists of an approximately 450-ft long 72-inch diameter pipe extension to the existing outfall along the bottom of the Delaware River, perpendicular to the channel. The extension will connect to the existing outfall chamber and feature a reducer (nozzle) at the end of the pipe. The five (5) foot long reducer is six (6) feet in diameter tapering down to 5.7 feet in diameter at the end of the outfall extension. In order to reduce plume interaction with the bottom of the river, the end of the outfall pipe/nozzle will be elevated approximately 5.4 feet above the river bottom, at an invert elevation of -22.6 ft-NGVD. The ambient water depth is approximately 26.2 feet below MLLW. The proposed nozzle will increase the rate of diffusion and mixing of the effluent with the waters of the Delaware River. The final plans and specifications are required to be submitted to DRBC for approval by the Executive Director (see Condition II.j. in the Decision section).

Several of the project facilities are located in the vicinity of the 100-year floodplain. The Commission’s *Flood Plain Regulations* (FPR) has requirements for treatment facilities in the flood plain; however, the FPR only apply in the non-tidal portion of the Delaware River Basin. Since the project WWTP is located in the tidal portion of the basin, the FPR do not apply to the project WWTP.

Incinerated ash will continue to be hauled offsite 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 the Chester Water Authority, as described in detail in DRBC Docket No. D-1969-060 CP-1, approved on May 28, 1969.

**d. NPDES Permit / DRBC Docket.** PADEP issued NPDES Permit No. PA0027103 A-1 for the project discharge on December 17, 2013, which includes final effluent limitations for the project discharge to surface waters classified by the PADEP as Delaware River Estuary Zone 4 (Water Quality Zone 4). The following average monthly effluent limits, based on an effluent discharge rate of 44 mgd, are among those listed in the NPDES permit that meet or are more stringent than the effluent requirements of the DRBC, and are in effect until the proposed outfall extension goes into operation.

**EFFLUENT TABLE A-1:** DRBC Parameters Included in NPDES permit for existing Outfall No. 001 based on a flow of 44 mgd, to be in effect until the outfall extension goes into operation

<b>OUTFALL No. 001 (Existing)</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
Fecal Coliform	200 colonies per 100 ml	As required by NPDES permit

OUTFALL No. 001 (Existing)		
PARAMETER	LIMIT	MONITORING
CBOD (5-Day at 20° C)*	19 mg/l 7,000 lbs/day 85 % minimum removal	As required by NPDES permit
CBOD (20-Day at 20° C)*	10,500 lbs/day 89.25 % minimum removal	As required by NPDES permit
Ammonia Nitrogen	Monitor & Report **	As required by NPDES permit
Total Dissolved Solids	Monitor & Report **	As required by NPDES permit
Acute WET LC50 Stat 96 hr (P. promelas)	Monitor & Report***	As required by NPDES permit***
Acute WET LC50 Stat 48 hr (C. dubia)	Monitor & Report***	As required by NPDES permit***
Chronic WET IC25 Statre 7 day (P. promelas)	Monitor & Report	As required by NPDES permit***
Chronic WET IC25 Statre 7 day (C. dubia)	Monitor & Report	As required by NPDES permit***
Total Cadmium	Monitor & Report	As required by NPDES permit
Total Copper	Monitor & Report	As required by NPDES permit
Total Cyanide	Monitor & Report	As required by NPDES permit
Total Lead	Monitor & Report	As required by NPDES permit
Total Zinc	Monitor & Report	As required by NPDES permit
PCBs	Monitor & Report	As required by NPDES permit

\* See Condition II.w. in Decision section

\*\* The PADEP NPDES permit requires the WWTP discharge to monitor and report ammonia and total dissolved solids (TDS) prior to the re-rate from 44 to 50 mgd. DRBC requires average monthly effluent limits of 35 mg/l for Ammonia and 1,000 mg/l for TDS, as included in Docket No. D-1992-018 CP-2 and continued via this docket (See EFFLUENT TABLE A-2 below).

\*\*\* See FINDINGS section and DECISION Condition II.y.

The average monthly effluent limits in EFFLUENT TABLE A-2 are not listed in the NPDES Permit, but are Commission basin-wide requirements and are in effect until the proposed outfall extension goes into operation.

**EFFLUENT TABLE A-2:** DRBC Parameters Not Included in NPDES permit for existing Outfall No. 001, to be in effect until the outfall extension goes into operation

OUTFALL 001 (Existing)		
PARAMETER	LIMIT	MONITORING
Ammonia Nitrogen	35 mg/l	Twice per Month
Total Dissolved Solids *	1,000 mg/l	Twice per Month
Color (Platinum-Cobalt Scale)**	Monitor & Report	Quarterly**

\*See DECISION Conditions II.x.

\*\* See DECISION Condition II.z.

The following average monthly effluent limits, based on an effluent discharge rate of 50 mgd, are among those listed in the NPDES permit that meet or are more stringent than the effluent requirements of the DRBC, and go into effect after the proposed outfall extension goes into operation.

**EFFLUENT TABLE A-3: DRBC Parameters Included in NPDES permit for proposed Outfall No. 001 based on a flow of 50 mgd, to go into effect after the proposed outfall extension goes into operation**

<b>OUTFALL No. 001 (Proposed)</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
Fecal Coliform	200 colonies per 100 ml	As required by NPDES permit
CBOD (5-Day at 20° C)*	17 mg/l 7,000 lbs/day 85 % minimum removal	As required by NPDES permit
CBOD (20-Day at 20° C)*	10,500 lbs/day 89.25 % minimum removal	As required by NPDES permit
Ammonia Nitrogen (5/1 – 10/31) (11/1 – 4/30)**	23 mg/l 69 mg/l**	As required by NPDES permit
Total Dissolved Solids***	1,000 mg/l	As required by NPDES permit
Acute WET LC50 Stat 96 hr (P. promelas)	****	As required by NPDES permit
Acute WET LC50 Stat 48 hr (C. dubia)	****	As required by NPDES permit
Chronic WET IC25 Statre 7 day (P. promelas)	Monitor & Report	As required by NPDES permit
Chronic WET IC25 Statre 7 day (C. dubia)	Monitor & Report	As required by NPDES permit
Total Cadmium	Monitor & Report	As required by NPDES permit
Total Copper	0.027 mg/l (avg monthly) 0.053 mg/l (daily maximum)	As required by NPDES permit
Total Cyanide	Monitor & Report	As required by NPDES permit
Total Lead	Monitor & Report	As required by NPDES permit
Total Zinc	Monitor & Report	As required by NPDES permit
PCBs	Monitor & Report	As required by NPDES permit

\* See Condition II.x. in Decision section

\*\* PADEP requires the WWTP discharge to meet an ammonia effluent limit of 69 mg.l from 11/1 to 4/30. The DRBC basin-wide ammonia effluent limit is 35 mg/l, as included in Docket No. D-1992-018 CP-2 and continued via this docket (See EFFLUENT TABLE A-4 below)

\*\*\* See Condition II.x. in Decision section

\*\*\*\* See EFFLUENT TABLE A-4 below for DRBC acute whole effluent toxicity (WET) requirements

The average monthly effluent limits in EFFLUENT TABLE A-4, based on an effluent discharge rate of 50 mgd, are not listed in the NPDES Permit, but are Commission basin-wide requirements and go into effect after the proposed outfall extension goes into operation.

**EFFLUENT TABLE A-4: DRBC Parameters Not Included in NPDES permit for proposed Outfall No. 001 based on a flow of 50 mgd, to go into effect after the proposed outfall extension goes into operation**

<b>OUTFALL No. 001 (Proposed)</b>		
<b>PARAMETER</b>	<b>LIMIT</b>	<b>MONITORING</b>
Ammonia Nitrogen (11/1 – 4/30)	35 mg/l	Twice per Month
Acute WET LC50 Stat 96 hr ( <i>P. promelas</i> )	1.6 TUa (Daily Max)*	Quarterly
Acute WET LC50 Stat 48 hr ( <i>C. dubia</i> )	1.6 TUa (Daily Max)*	Quarterly
Color (Platinum-Cobalt Scale)**	Monitor & Report	Quarterly**

\* The NPDES permit requires quarterly acute WET monitoring only

\*\* See DECISION Condition II.y.

**e. Cost.** The overall cost of this project is estimated to be \$ 3,452,928.00.

**f. Relationship to the Comprehensive Plan.** The existing WWTP was added to the Comprehensive Plan by Docket No. D-1972-008 CP-1 on February 4, 1973. The WWTP was modified by Docket No. D-1973-031 CP-1 on February 28, 1973, Docket No. D-1992-018 CP-1 on April 28, 1993, and Docket No. D-1992-018 CP-2 on September 21, 2011. This docket (D-1992-018 CP-3) re-approves the proposed re-rate and WWTP modifications and continues the project in the Comprehensive Plan.

**B. FINDINGS**

This docket holder submitted an Application to renew the approval of the docket holder’s existing 44 mgd Western Regional WWTP and to renew the approval of a project to modify and re-rate the WWTP. The project consists of constructing an outfall extension to the existing WWTP and re-rating the WWTP from 44 mgd to 50 mgd. The project is pending the results of a Long Term Control Plan that is being performed by the docket holder for the PADEP. DECISION Condition II.j. of this docket requires the docket holder to submit plans of the outfall extension for Executive Director approval within one (1) year of receipt of PADEP approval of the Long Term Control Plan, and to complete construction and place into operation the proposed

outfall extension within three (3) years of receipt of PADEP approval of the Long Term Control Plan.

DRBC Water Quality Regulations (WQR) include stream quality objectives for Zone 4, including criteria to protect the taste and odor of ingested water and fish (Table 4 of WQR), to protect aquatic life (Table 5), and to protect human health (Tables 6 & 7). Toxicity in effluent is measured as Whole Effluent Toxicity (WET), and results from both acute and chronic exposures. The acute toxicity stream quality objective for Zone 4 is 0.3 Toxic Units (TU<sub>a</sub> = 0.3). The chronic toxicity stream quality objective for Zone 4 is 1.0 Toxic Units (TU<sub>c</sub> = 1.0).

During the review of the docket holder's application for Docket No. D-1992-018 CP-2 (Previous Application), the docket holder performed an evaluation of their discharge for compliance with DRBC's acute stream quality objectives in October, 2009, entitled "DELCORA Mixing Zone Analysis" (Report). The results of the Report concluded that, at both the current design flow conditions (44 mgd) and the proposed re-rate design flow conditions (50 mgd), the existing Western Regional WWTP discharge is unable to meet the acute stream quality objectives for copper and WET contained within Table 5.

In the Report, the docket holder evaluated the following three (3) alternatives to bring the WWTP discharge into compliance with DRBC regulations: 1) requesting an alternative mixing zone; 2) providing additional source control, including a Toxicity Reduction Evaluation; or 3) modifying the existing outfall configuration to provide improved mixing. In April, 2010, DRBC advised the docket holder that DRBC staff could not recommend the approval of an alternative mixing zone based on the size and extent of the mixing zone necessary. The docket holder did not pursue an alternative mixing zone. Due to the relatively low toxicity in the WWTP effluent, the docket holder also concluded that performing a Toxics Reduction Evaluation and providing source control was infeasible. The docket holder elected to modify the existing outfall, submitting a revised evaluation in February, 2011 entitled "DELCORA Mixing Zone Analysis Revision A" (Report Revision A).

On August 5, 2011, the docket holder amended the Previous Application to include the construction of an extension to the existing outfall, including a single outlet reducer (nozzle). The five (5) foot long reducer is six (6) feet in diameter tapering down to 5.7 feet in diameter and is designed to increase the rate of diffusion and mixing of the effluent with the waters of the Delaware River. The proposed discharge location is approximately 20 feet deeper than the current outfall. The proposed extended outfall is designed to bring the WWTP discharge into compliance with DRBC in-stream water quality requirements both for the existing WWTP, hydraulically rated at 44 mgd, and the re-rated WWTP, for a hydraulic design rate of 50 mgd.

In August, 2011, the docket holder submitted a second revised evaluation entitled "DELCORA Mixing Zone Analysis Revision B" (Report Revision B) that included the preliminary design of the proposed outfall extension. Report Revision B also included evaluations for the proposed diffuser design (see section entitled "Outfall Design Conditions" below).

**Regulatory Mixing Zone (RMZ) and Associated Dilution Factor**

Section 4.20.5.A.1. of the WQR states that:

*“In establishing wasteload allocations and other effluent requirements, exceedances of stream quality objectives for the protection of aquatic life from acute effects may be permitted in small areas near outfall structures, provided that all of the following requirements are met:*

*a. As a guideline, the dimensions of the area where objectives are exceeded should be limited to the more stringent of the following structures:*

- 1). A distance of 50 times the discharge length scale in any direction from the outfall structure, or*
- 2). A distance of 5 times the local water depth in any direction from the outfall structure.*

*b. Stream quality objectives shall not be exceeded in areas designated as critical habitat for fish and benthic organisms.*

*c. Stream quality objectives shall not be exceeded where effluent flows over exposed benthic habitat prior to mixing with the receiving waters.*

*d. A zone of passage for free-swimming and drifting organisms equal to 50% of the surface width of the river at the location of the discharge shall be provided.*

*e. The total surface area of the Delaware River Estuary where stream quality objectives for the protection of aquatic life from acute effects are exceeded shall be limited to: 5% of the total surface area of Zone 2, 3 & 4.”*

The discharge length scale referred to in Item a. above is defined in Section 4.20.5.B.2. of the WQR as the square root of the discharge cross-sectional area. The outlet for the nozzle to be installed at the end of the outfall extension is 5.7 feet in diameter. The discharge cross-sectional area of the nozzle is 25.5 ft<sup>2</sup>. The tidally averaged, local water depth in any direction from the outfall structure is 29.0 ft (8.85 meters). The resulting dimensions for the guideline mixing zone, referred to as the regulatory mixing zone, or RMZ, are calculated as the more stringent of:

- 1).  $50 * (\sqrt{25.5}) = 252 \text{ ft (77.0 meters)}$   
or
- 2).  $5 * 29 = 145 \text{ ft (44.3 meters)}$

Therefore, the local water depth is the controlling factor to the dimensions of the RMZ. The RMZ is a radius of 145 ft (44.3 meters) about the end of the nozzle. The total regulatory mixing area for the outfall is 66,052 ft<sup>2</sup> (or 6,165 m<sup>2</sup>) based on a circular area around the outfall; however, the actual predicted plume occupies half this area (the semicircle around the outfall located on the side of the direction of the discharge). DRBC staff concludes that the critical one



hour dilution factor of 5.2 to 1 (4.2 parts ambient and 1 part wastewater) will be achieved by the proposed outfall for a flow of 50 mgd at the edge of the RMZ. The critical one hour dilution is the minimum one hour dilution over the tidal cycle, and occurs at the mid-ebb tide during the summer condition (see Condition II.i. in the DECISION section).

**Hydraulic Re-rate Approval**

Approval of the hydraulic re-rate of the WWTP from 44 mgd to 50 mgd included in this docket is contingent upon the new outfall being constructed and placed into operation. In accordance with Condition II.j. in the DECISION section of this docket, the docket holder must then notify the DRBC after the outfall extension goes into operation and must obtain written approval from the Executive Director prior to increasing the discharge rate (monthly average) greater than 44 mgd.

**Outfall Design Plans Approval**

The docket holder has yet to submit final plan and specifications for the construction of the outfall. This docket includes a condition providing that the Executive Director must approve the plans and specifications for the new outfall construction prior to the construction of the outfall and subsequent re-rating of the WWTP from 44 mgd to 50 mgd (see Condition II.j. in the Decision section).

**Outfall Design Conditions**

Since the docket holder will be constructing the outfall extension to serve current and expected future needs of the Western Regional WWTP service area, the docket holder had requested that the DRBC review the docket holder's evaluations to establish a dilution factor at the edge of the RMZ for a design flow of 60 mgd, the proposed outfall's hydraulic design flow. These evaluations were included in Report Revision B. DRBC staff reviewed this analysis for informational purposes only. The outfall configuration included in the analysis at 60 mgd is the same outfall configuration approved under this docket (including extension). Since the dimensions of the RMZ are dependent on the outfall configuration, the dimensions of the RMZ for 60 mgd would not change from the evaluation at 50 mgd, unless the local water depth at the time of the future evaluation has changed. The associated dilution factor at the edge of the RMZ for a future build-out flow of 60 mgd under the proposed outfall configuration is 6.1 to 1 (5.1 parts ambient and 1 part wastewater). The dilution factor is greater for the higher flow (60 mgd vs. 50 mgd) due to increased exit velocities achieved from a larger flow over the same nozzle dimensions, resulting in increased mixing at the project discharge location and throughout the RMZ. However, prior to expanding beyond the approved design flow rate of 50 mgd, the docket holder must submit an application to the DRBC and receive Commission approval for the increased flow (see Condition II.k. in the DECISION section).

**Whole Effluent Toxicity (WET) Monitoring**

The docket holder is required to perform quarterly acute and chronic WET sampling for *Pimephales promelas* (fathead minnow) and *Ceriodaphnia dubia* (cladoceran). Prior to the proposed outfall extension going into operation, if the acute WET sample results exceed 1.6 TUa, the docket holder shall perform monthly acute and chronic WET sampling for one (1) following quarter. After the proposed outfall extension goes into operation, the docket holder is required to meet the effluent limits for acute WET contained in Effluent Table A-4 (See DECISION Condition II.y.)

**CBOD<sub>20</sub> Wasteload Allocation**

The Commission's WQR provide for the allocation of the stream assimilative capacity where waste discharges would otherwise result in exceeding such capacity. It was determined in the late 1960's that discharges to the Delaware Estuary be limited to a total of 322,000 lbs/day of carbonaceous biochemical (first stage) oxygen demand (CBOD<sub>20</sub>). In accordance with the Regulations, the assimilative capacity of each Delaware Estuary zone minus a reserve was originally allocated in 1968 among the individual dischargers based upon the concept of uniform reduction of raw waste in a zone (Zones 2, 3, 4 and 5). The totals and percent reduction for each zone are given in Table 1 of the Commission's *Status of CBOD<sub>20</sub> Wasteload Allocations* (Revised October 1, 2000). The DELCORA WWTP is located in Zone 4 at river mile 80.7. Zone 4 is allocated at 91,000 lbs/day of CBOD<sub>20</sub> and has a minimum percent removal requirement of CBOD<sub>20</sub> of 89.25%. The Commission approved a CBOD<sub>20</sub> allocation for the Western Regional WWTP of 10,500 lbs/day on December 10, 1976. This docket will continue the approval to discharge up to 10,500 lbs/day of CBOD<sub>20</sub>.

**CBOD<sub>20</sub> Monitoring**

The docket holder may request to establish a ratio between BOD<sub>5</sub> and CBOD<sub>20</sub> in order to reduce the required monitoring for CBOD<sub>20</sub> contained in the effluent tables in Section A.4.d. of this docket. The docket holder shall submit the request in writing to the Executive Director along with historical influent and effluent data for BOD<sub>5</sub> and CBOD<sub>20</sub> used to establish the ratio. Upon review, the Executive Director may modify the docket to require only BOD<sub>5</sub> monitoring or reduce the CBOD<sub>20</sub> monitoring frequency required within this docket (See Condition II.w. in the Decision Section).

There are no surface water intakes of record for public water supply located downstream of the docket holder's WWTP.

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 WQR.

**C. DECISION**

I. Effective on the approval date for Docket No. D-1992-018 CP-3 below:

a. The project described in Docket No. D-1992-018 CP-2 is removed from the Comprehensive Plan to the extent it is not included in Docket No. 1992-018 CP-3; and

b. Docket No. D-1992-018 CP-2 is terminated and replaced by Docket No. D-1992-018 CP-3.

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 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.

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. After the WWTP modification and outfall extension goes into operation, the docket holder shall comply with the requirements contained in EFFLUENT TABLES A-3 and A-4. 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. The discharge of wastewater shall not increase the ambient temperatures of the receiving waters by more than 5°F above the average 24-hour temperature gradient displayed during the 1961-1966 period, nor shall such discharge result in stream temperatures exceeding 86°F.

i. This docket approves a regulatory mixing zone (RMZ) consisting of a radius of 145 ft (44.3 meters) about the end of the reducer (nozzle) on the outfall extension. The total regulatory mixing area for the outfall is 66,052 ft<sup>2</sup> (or 6,165 m<sup>2</sup>). The dilution factor at the edge of the RMZ is 5.2:1.

j. The docket shall submit final constructions plans and specifications for the proposed outfall extension for Executive Director approval within one (1) year of receipt of PADEP approval of the Long Term Control Plan. The docket holder shall construct the outfall extension in accordance with the plans approved by the Executive Director and as described in the FINDINGS section of this docket. Subject to the receipt of all necessary permits and approvals, and assuming no delays beyond the docket holder's control, the construction of the proposed outfall extension shall be completed and placed in operation within three (3) years of receipt of PADEP approval of the Long Term Control Plan. Upon approval by the Executive Director and after the outfall goes into operation, the hydraulic flow rate increase from 44 mgd to 50 mgd is approved, the WWTP is permitted to discharge beyond the hydraulic design rate (monthly average) of 44 mgd, and the effluent limits in Effluent Table A-3 and A-4 shall apply.

k. This docket approves the project to construct an outfall extension to the existing WWTP and re-rate the WWTP from 44 mgd to 50 mgd. Prior to the docket holder constructing any additional modifications to the WWTP or discharging greater than the proposed hydraulic design rate (monthly average) of 50 mgd, an application must be submitted and approved by the Commission. The docket holder is encouraged to contact the Commission staff during the planning stages to identify the potential effluent limitations or other DRBC requirements.

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

m. 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.

n. 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.

o. 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.

p. 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.

q. 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).

r. 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.

s. 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.

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 to establish a ratio between BOD<sub>5</sub> and CBOD<sub>20</sub> in order to reduce the required monitoring contained within this docket approval. Upon review, the Executive Director may modify the docket to reduce or eliminate the CBOD<sub>20</sub> monitoring requirements contained in the effluent tables in Section A.4.d. of this docket.

x. The docket holder is required to perform TDS effluent sampling in accordance with EFFLUENT TABLES A-2 & A-3 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.

y. The docket holder is required to perform quarterly acute and chronic WET sampling. Prior to the proposed outfall extension going into operation, if the acute WET sample results exceed 1.6 TUa, the docket holder shall perform monthly acute and chronic WET sampling for one (1) following quarter. After the proposed outfall extension goes into operation, the docket holder is required to meet the effluent limits for acute WET contained in Effluent Table A-4.

z. After two (2) years of quarterly sampling for Color, the docket holder may request of the Executive Director in writing to modify the required Color monitoring contained in this docket approval. Upon review, the Executive Director may modify the docket to reduce or eliminate the Color monitoring requirement. Until receiving written approval from the Executive Director, the docket holder is required to perform the Color monitoring contained in EFFLUENT TABLES A-2 & A-4 in Section A.4.d. of this docket.

aa. 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.

bb. 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.

cc. The docket holder shall continue to submit PCB monitoring data and PMP Annual Reports to the Commission’s Modeling, Monitoring and Assessment Branch as required in the existing NPDES Permit.

**BY THE COMMISSION**

**DATE APPROVED: June 15, 2016**

**EXPIRATION DATE: April 30, 2023**