

DOCKET NO. D-1990-074 CP-5

DELAWARE RIVER BASIN COMMISSION

**Gloucester County Utilities Authority
Wastewater Treatment Plant
West Deptford Township, Gloucester County, New Jersey**

PROCEEDINGS

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) by Remington & Vernick Engineers on behalf of the Gloucester County Utilities Authority (GCUA or docket holder) on June 27, 2014 and amended July 22, 2015 (Application), for renewal of an existing wastewater treatment plant (WWTP) and its discharge, as well as approval of modifications to the sludge handling facilities. New Jersey Pollutant Discharge Elimination System (NJPDES) Permit No. NJ0024686 for this project was issued by the New Jersey Department of Environmental Protection (NJDEP) on May 12, 2010, effective July 1, 2010, and last amended on November 12, 2010, effective January 1, 2011. The docket holder submitted a Treatment Works Approval (TWA) application to NJDEP for the sludge handling facilities work in June 2015. TWA approval is expected shortly.

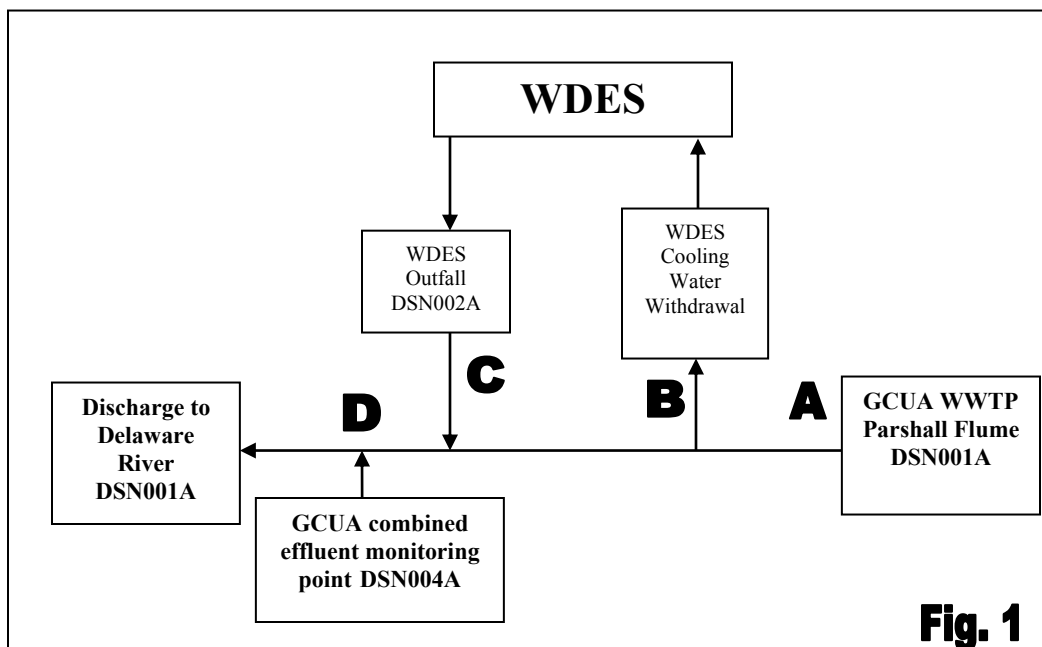
The Application was reviewed for continuation of the project in the Comprehensive Plan and approval under Section 3.8 of the *Delaware River Basin Compact*. The Gloucester County Planning Board has been notified of pending action. A public hearing on this project was held by the DRBC on September 15, 2015.

A. DESCRIPTION

1. Purpose. The purpose of this docket is to renew approval of the docket holder's existing 27.1 million gallons per day (mgd) WWTP and its discharge. This docket also approves modifications to the sludge handling facilities and other treatment plant modifications as described in Section A.4.a. of this docket.

2. Location. The docket holder's WWTP will continue to discharge treated effluent to Water Quality Zone 4 of the tidal Delaware River at River Mile 89.7 via Outfall No. DSN001A, in West Deptford Township, Gloucester County, New Jersey as follows:

OUTFALL NO.	LATITUDE (N)	LONGITUDE (W)
DSN001A	39° 51' 16.27"	75° 16' 34.66"
DSN004A	39° 51' 8.42"	75° 13' 31.49"



3. **Area Served.** The docket holder's WWTP will continue to receive wastewater flows from Clayton Borough, Deptford Township, Borough of Glassboro, Mantua Township, Borough of Paulsboro, Monroe Township, Borough of Wenonah, National Park Borough, Washington Township, Borough of Pittman, Township of West Deptford, Borough of Westville, City of Woodbury, and Woodbury Heights Borough, all in Gloucester County, New Jersey. Additionally, wastewater from the West Deptford Energy Station (WDES) is received by the docket holder's effluent stream (location C in Fig. 1), prior to discharge to the Delaware River via Outfall No. DSN001A.

Approximately 0.1 mgd of septage is hauled to the WWTP, typically from within the Delaware River Basin (DRB). The WWTP will continue to serve a portion of Monroe Township, which is partly out of the DRB. The amount of flow imported from the Atlantic Basin is approximately 1.5 mgd.

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 treats municipal and industrial wastewater principally via a plug-flow activated sludge process. The WWTP must be periodically operated in complete mix and contact stabilization modes in order to optimize efficiency and meet NJPDES Permit limits. Additional aeration is used to handle peak flow conditions during periods of nitrification. The plug-flow mode of operation is generally used in the spring and summer, while re-aeration is typically more efficient in the winter. Following secondary clarification and disinfection, GCUA effluent is discharged into a 6,025 foot long

pipe, at location A in Fig.1 above, that eventually discharges to the Delaware River via Outfall No. DSN001A.

The docket holder is proposing to construct two 1.6 million gallon egg-shaped anaerobic digesters (for a total digestion volume of 3.2 million gallons) and a 900,000 gallon sludge storage tank at the WWTP. The docket holder is also proposing to perform sixteen (16) other sludge handling facilities and other treatment plant modifications as follows: relocation of air pumps; Fats, Oils, and Greases (FOG) receiving and conditioning system upgrades; connections to future digester feed stocks; odor control system upgrades; solids dryer; digester feed thickening; combined heat and power; administrative building expansion and improvements; site lighting improvements; chemical feed systems; modification to plant disinfection and flow measurement systems; aeration system improvements; replacement of gas blowers; grit system replacement; clarification process upgrades; and stormwater collection, treatment and discharge. The docket holder is also proposing to discontinue the incineration of sludge and produce a material that will be suitable for reuse as landfill cover.

b. Facilities. The existing WWTP consists of bar screens, an aerated grit chamber, two (2) primary clarifiers, six (6) activated sludge tanks with fine bubble air diffusers, four (4) secondary clarifiers, a sodium hypochlorite disinfection system, a sludge thickening tank, a sludge blending tank, three (3) belt filter presses, a sludge incinerator, and an ash settling tank.

The modified WWTP will consist of bar screens, an aerated grit chamber, two (2) primary clarifiers, six (6) activated sludge tanks with fine bubble air diffusers, four (4) secondary clarifiers, a sodium hypochlorite disinfection system, a sludge thickening tank, a sludge blending tank, three (3) belt filter presses, two (2) anaerobic digesters, and a (1) sludge holding tank. Incineration of sludge will be discontinued and the product of the revised sludge treatment and handling system will be suitable for reuse as landfill cover.

The GCUA WWTP is not located in the 100-year floodplain.

c. Water Withdrawals. The potable water supply in the project service area is provided by individual on-lot wells or by the New Jersey American Water Company (NJAWC).

d. NJPDES Permit / DRBC Docket. NJPDES Permit No. NJ0024686 was modified by the NJDEP on November 12, 2010 (effective January 1, 2011) and includes final effluent limitations for the project discharge of 27 mgd to surface waters classified by the NJDEP as Mainstem Delaware Zone 4. Renewal of the NJPDES Permit is expected shortly. The following average monthly effluent limits are among those listed in the existing NJPDES Permit and meet or are more stringent than the effluent requirements of the DRBC. Commission staff have been informed that the effluent limit for acute toxicity will be modified upon permit renewal. Therefore, the limit time interval has been modified to reflect this anticipated change.

EFFLUENT TABLE A-1: DRBC Parameters Included in NJPDES Permit

Outfall No. DSN001A (At discharge Location A from GCUA WWTP)		
PARAMETER	LIMIT	MONITORING
pH (Standard Units)	6 to 9 at all times	As required by NJPDES permit
Total Suspended Solids (@ Q < 24.1 mgd)	30 mg/l	As required by NJPDES permit
Total Suspended Solids (@ Q > 24.1 mgd)	27 mg/l	
CBOD (5-Day at 20° C) (@ Q < 24.1 mgd)	25 mg/l (89.25% minimum removal, 4,725 lbs/day)	As required by NJPDES permit
CBOD (5-Day at 20° C) (@ Q > 24.1 mgd)	21 mg/l (89.25% minimum removal, 4,725 lbs/day)	
Ammonia Nitrogen	35 mg/l	As required by NJPDES permit
Fecal Coliform	200 colonies per 100 ml	As required by NJPDES permit
Acute Toxicity* (Issuance – Permit Renewal Date)	78 % Effluent	As required by NJPDES permit
(NJPDES Permit Issuance – End of Docket/Permit)	81% Effluent	
Chronic Toxicity*	Monitor & Report	As required by NJPDES permit

* See DECISION Condition II.n.

The requirements in EFFLUENT TABLE A-2 are not listed in the NJPDES Permit, were included in Docket No. D-1990-074 CP-4, and are Commission basin-wide and/or estuary specific parameters that must continue to be met as a condition of this docket approval (See DECISION Condition II.d.). Commission staff have requested NJDEP include these parameters in their next Permit.

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

Outfall No. DSN001A (At discharge Location A from GCUA WWTP)		
PARAMETER	LIMIT	MONITORING
Total Dissolved Solids*	1,250 mg/l (daily maximum)	Monthly
CBOD ₂₀	8,500 lbs/day	See FINDINGS Section
Chronic Toxicity (cladoceran)	Monitor & Report	semi-annually

* See DECISION Conditions II.o. & II.x.

The requirements in EFFLUENT TABLE A-3 are not listed in the NJPDES Permit, were included in Docket No. D-1990-074 CP-4, and are Commission basin-wide and/or estuary specific parameters that must continue to be monitored as a condition of this docket approval (See DECISION Condition II.d.). Monitoring for these parameters started in February 2015. Commission staff have requested NJDEP include these parameters in their next Permit.

EFFLUENT TABLE A-3: DRBC Parameters Not Included in NJPDES Permit

OUTFALL DSN004A (Combined Effluent Monitoring Point Location D)		
PARAMETER	LIMIT	MONITORING
Total Dissolved Solids*	Monitor & Report	Monthly
Toxicity (Chronic & Acute)**	Monitor & Report	Same as Internal Discharge
Temperature	Monitor & Report	Monthly

* See DECISION Condition II.o. & II.x.

** See DECISION Conditions II.n.

e. **Cost.** The overall cost of this project is estimated to be \$95,647,500.

f. **Relationship to the Comprehensive Plan.** The docket holder's WWTP was included in the Comprehensive Plan upon approval of Docket No. D-68-84 CP on August 27, 1969. Expansions of the GCUA WWTP were approved via Dockets Nos. D-78-34 CP, D-86-43 CP, D-90-74 CP, and D-1990-074 CP-2 on June 28, 1978, October 28, 1986, January 20, 1993, and May 10, 2006, respectively. Issuance of this docket will continue approval of the docket holder's 27 mgd WWTP in the Comprehensive Plan (See DECISION Condition I.c.).

B. **FINDINGS**

The purpose of this docket is to renew approval of the docket holder's existing 27 mgd WWTP and its related discharge. This docket also approves modifications to the sludge treatment and handling facilities as described in Section A.4.a. of this docket. All the modifications described in the Section A.4.a of this docket are expected to be initiated and completed in approximately 10 years. The construction of the anaerobic digesters and sludge holding tank are expected to be initiated this fall and completed prior to 2016.

Toxicity

Water Quality Zone 4 stream quality objectives exist for toxic pollutants. They include criteria to protect the taste and odor of ingested water and fish [Table 4 of DRBC's *Water Quality Regulations (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_a = 0.3). The chronic toxicity stream quality objective for Water Quality Zone 4 is 1.0 Toxic Units (TU_c = 1.0). Since toxicity can't be measured linearly, the docket holder shall continue to perform WET testing at locations A and D (See Fig. 1 above).

Chronic Toxicity

The chronic toxicity results must be reported as No Observed Effect Concentration (NOEC) and Chronic Toxic Units (TU_c) with a Percent Minimum Significant Difference (PMSD) reported. The results shall also be reported as Inhibitory Concentration, 25 percent (IC₂₅). The testing should follow USEPA guidance on Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (EPA 821-R-02-013, 4th Ed, 2002).

The docket holder is required to perform semi-annual WET tests to generate chronic toxicity data on the cladoceran (*Ceriodaphnia dubia*) and the fathead minnow (*Pimephales promelas*). Samples shall be taken concurrently with acute samples to develop a correlation. Results shall be submitted to the Commission annually with the report required in DECISION Condition II.d. of this docket.

Acute Toxicity

The docket holder is required to perform WET tests to generate acute toxicity data on the fathead minnow (*Pimephales promelas*) as part of their existing NJPDES Permit. This data shall be provided to the DRBC for review.

WDES has been required to monitor for both Acute Toxicity and Chronic Toxicity at internal Monitoring Point No. DSN002A semi-annually. All samples are to be taken semi-annually in conjunction with GCUA samples (Outfalls Nos. DSN001A and DSN004A).

All WET sampling from WDES and GCUA is to be coordinated to ensure that sampling is conducted by WDES and GCUA on the same day (See DECISION Condition II.n.).

The acute results shall be reported as a 48-hour and 96-hour lethal concentration (LC₅₀) and TUa. The testing should follow USEPA guidance on Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (EPA 821-R-02-012, 5th Ed, October 2002) or equivalent New Jersey guidance on effluent limits.

The docket holder has been informed that acute toxicity test results are already approaching the NJDEP NJPDES Permit limit of 1.28 TUa. The TDS variance approved in this docket is expected to potentially increase acute toxicity, especially after comingling with the effluent from WDES. If the docket holder experiences such results, modifications to the docket holder's discharge configuration will need to be analyzed prior to Commission consideration for an alternative mixing zone in the future. The docket holder was informed of the acute toxicity levels approaching their existing limit and their potential to modify the outfall configuration at a March 27, 2013 meeting held at the DRBC.

Total Dissolved Solids (TDS)

The Commission's basin-wide TDS effluent limit is 1,000 mg/l (Section 3.10.4D.2. of the Commission's WQR). In addition, the Commission's Water Quality Zone 4 in-stream TDS requirement provides the analysis of the instream conditions after the introduction of the project's effluent discharge demonstrate that the receiving stream's resultant TDS concentration be less than 133% of the background (Section 3.10.3B.1.b. of the Commission's WQR). The 133% of the background TDS requirement is for the protection of aquatic life.

Background TDS is to be the observed concentration of TDS during low flow conditions (Q₇₋₁₀) or, in the absence thereof, an estimate acceptable to the Commission (Section 3.10.6G. of the Commission's WQR). Observed TDS concentrations from the Delaware Estuary, from years 2000 to 2005 were provided by DRBC staff and the impact of effluent is evaluated at various quantities.

WDES provided a document for CORMIX model run analyses in September 2008 and a document responding to Commission staff's comments on November 25, 2008. Background TDS concentrations vary from 130.5 mg/l to 519.5 mg/l (at 25th and 95th percentile) in the based upon hydrologic and astronomical tidal conditions near River Mile 90 (where the combined GCUA and WDES effluent discharge is located). The high background TDS condition is

reasonably assumed to occur during low flow conditions. Therefore, the 95th percentile value, or 519.5 mg/l of TDS was used for background TDS concentration around river mile 90.

The estimated **daily maximum** TDS concentration for the combined effluent in 2008 was 1,400 mg/l (as measured at Location D) requiring a dilution factor of 5.1 to meet the 133% of background TDS concentration of 519.5 mg/l. The Commission's WQRs do not specifically provide criteria to evaluate TDS mixing zones, however, Section 4.20.5A.1.a of the Commission's WQR provides criteria for the evaluation of acute toxicity mixing zones. Based on CORMIX model runs, a dilution factor of 5.1 can be achieved within a guideline acute toxicity mixing zone. The guideline acute toxicity mixing zone is defined as the more stringent of the following restrictions:

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

The guideline acute toxicity mixing zone criteria for Outfall No. DSN001A (as measured at Location D) was used to evaluate TDS at that time and the second restriction (a distance of 5 times the local water depth) was found most limiting. WDES was granted a TDS variance of 5,000 mg/l at DSN002A (as measured at Location C) as part of Docket No. D-2008-027 CP-2. Using the acute toxicity guidelines as was performed in Docket No. D-1990-074 CP-3, the resulting TDS mixing zone centered on Outfall No. DSN001A is 1,561 feet in length (844 feet upstream and 717 feet downstream) by 217 feet wide.

In summary, this docket continues a variance for the GCUA discharge to the Commission's 1,000 mg/l basin-wide TDS effluent limit of 1,250 mg/l at Parshall Flume No. DSN001A (location A, Fig.1). Additionally, this docket continue the approval of a TDS mixing zone of 1,561 feet in length (844 feet upstream and 717 feet downstream) by 217 feet wide centered on Delaware River Outfall No. DSN001A (See DECISION Conditions II.o. and II.x.).

Heat Dissipation Area

Section 4.30.6C. of the Commission's WQR require that discharges to Zone 4 shall not result in an induced temperature increase of 5°F (2.8°C) above the average 24-hour temperature gradient displayed during the 1961-1966 period, or a maximum of 86°F (30.0°C), whichever is less.

Section 4.30.6F.3. of the Commission's WQR allows for heat dissipation areas (thermal mixing zone) up to 3,500 feet in length. WDES has provided data that supports that under the 1961-1966 condition a thermal mixing zone need not be larger than 994 feet (361 feet upstream and 633 feet downstream) by 144 feet wide centered on GCUA Outfall No. DSN001A when effluent temperatures do not exceed 34 °C at WDES Outfall No. DSN002A. The dilution factor was calculated to be 5.9 to 1. DRBC staff recommend the continuation of the heat dissipation

area previously approved as part of Docket No. D-1990-074 CP-4 (See DECISION Condition II.h.) as it conforms with the Commission's WQR.

CBOD₂₀ 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 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 (CBOD₂₀). 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 CBOD₂₀ Wasteload Allocations* (Revised October 1, 2000). The combined GCUA and WDES outfall is located in Water Quality Zone 4 at river mile 89.7. Water Quality Zone 4 has a reserve capacity of ~26%.

CBOD₂₀ Allocation History

A letter from the Executive Director on February 19, 1970 approved an allocation of 2,830 lbs/day of CBOD₂₀.

Docket No. D-1990-074 CP-2 approved an allocation of 4,320 lbs/day of CBOD₂₀ on June 28, 1978.

A letter from the Executive Director on December 8, 1992 approved an allocation of 7,000 lbs/day of CBOD₂₀ (3,900 lbs/day of BOD₅). That allocation was renewed in Docket No. D-90-74 CP, approved on January 20, 1993.

A letter from the Executive Director on September 21, 1998 approved an allocation of 8,200 lbs/day of CBOD₂₀ (4,575 lbs/day of BOD₅).

Docket No. D-1990-074 CP-2 approved an allocation of 8,500 lbs/day of CBOD₂₀ (4,725 lbs/day of BOD₅) on May 10, 2006.

Docket No. D-1990-074 CP-3 continued approval of an allocation of 8,500 lbs/day of CBOD₂₀ (4,725 lbs/day of BOD₅) on December 9, 2009.

Docket No. D-1990-074 CP-4 continued approval of an allocation of 8,500 lbs/day of CBOD₂₀ (4,725 lbs/day of BOD₅) on May 8, 2013.

CBOD₂₀ Determination

DMR data submitted by the docket holder continues to support the allocation of 8,500 lbs/day CBOD₂₀ for the existing 27 mgd WWTP and therefore Commission staff have recommended its continuance. The docket holder shall take three CBOD₂₀ samples with concurrent CBOD₅ samples between January 1, 2018 and December 31, 2018 to confirm that the ratio has not changed. These samples shall be submitted to the Commission's Project Review Section as part of the annual sampling (See DECISION Condition II.d.).

Other

At the project discharge site, the Delaware River is tidal and its flow is regulated by upstream reservoir releases. The Trenton low flow target is 2,500 cfs (1.62 billion gallons per day). The addition of the tidal tributaries upstream of the discharge location at their Q7-10 flow and the low flow Trenton target results in a low-flow of approximately 4,318 cfs (2.79 billion gallons per day) for the Delaware River at the discharge location (River Mile 89.7).

The ratio of this low flow to the hydraulic design of the 27 mgd GCUA WWTP is 103.3 to 1.

GCUA monitors its effluent at the point where it leaves the WWTP (location A, Fig. 1), prior to the withdrawal and subsequent discharge from WDES. In February 2016 the docket holder also started sampling Outfall No. DSN004A at location D (Fig. 1) as the WDES became fully operational and the process at the WDES became consistent.

There are no surface water intakes of record for public water supply within 5 tidally influenced river miles of Delaware River Outfall No. DSN001A.

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 NJPDES 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-1990-074 CP-5 below:

a. The project described in Docket No. D-1990-074 CP-4 is removed from the Comprehensive Plan to the extent that it is not included in Docket No. D-1990-074 CP-5; and

b. Docket No. D-1990-074 CP-4 is terminated and replaced by Docket No. D-1990-074 CP-5; and

c. The project and the appurtenant facilities described in Section A "Physical Features" of this docket shall be added to the Comprehensive Plan.

II. The project and appurtenant facilities as described in 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 NJDEP in its NJPDES 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 the EFFLUENT TABLES in Section A.4.d. of this docket. The docket holder shall submit the required monitoring results electronically to the DRBC Project Review Section via email aemr@drbc.state.nj.us on the **Annual Effluent Monitoring Report Form** located at this web address: <http://www.state.nj.us/drbc/programs/project/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. 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, except within an assigned heat dissipation area consisting of a 994 feet (361 feet upstream and 633 feet downstream) by 144 feet wide with a 5.9 to 1 dilution factor centered around Outfall No. DSN001A. Monthly temperature monitoring is required at Outfall No. DSN004A.

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

j. The docket holder shall submit Final Plans & Specifications for the anaerobic digesters, sludge holding tanks and each of the other 16 projects described in Section

A.4.a. of this docket to the Commission's Executive Director for review and approval prior to the start of construction.

k. 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.

l. 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.

m. The WWTP modifications described in Section A.4.a of this docket shall be initiated 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. The docket holder shall provide the Executive Director with an annual written status report by January 31 of each year on the progress of the construction of the modifications until completion.

n. The docket holder shall monitor Acute Toxicity and Chronic Toxicity at Outfalls Nos. DSN001A and DSN004A. After 24 months of sampling at both locations (February 2017), the docket holder may submit a written request for a modification of the toxicity monitoring to the Executive Director. The toxicity monitoring will continue as provided in this docket until the docket holder receives written approval from the Executive Director. The docket holder shall submit a summary of the first 24 months of toxicity monitoring results along with corresponding flow, specific conductivity, and TDS concentrations (if available) to the DRBC's Project Review Section. The report shall be submitted no later than January 31, 2018. All samples are to be taken semi-annually in conjunction with WDES samples from WDES's Outfall No. DSN002A.

o. This docket continues approval of a TDS mixing zone of 1,561 feet (844 feet upstream and 717 feet downstream) by 217 feet wide centered around Outfall No. DSN001A.

p. 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.

q. The docket holder shall make wastewater discharge in such a manner as to avoid injury or damage to fish or wildlife and shall avoid any injury to public or private property.

r. 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).

s. 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.

t. 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.

u. 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.

v. 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.

w. 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.

x. 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.

y. 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: **September 16, 2015**

EXPIRATION DATE: **September 16, 2020**