

DOCKET NO. D-2002-032 CP-2

DELAWARE RIVER BASIN COMMISSION

Discharge to a Tributary of Special Protection Waters

**Waymart Area Authority
Wastewater Treatment Plant Upgrade & Re-rate
Canaan Township, Wayne County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) by Entech Engineering, Inc. on behalf of the Waymart Area Authority (docket holder) on August 23, 2013 (Application), for review of a wastewater treatment plant (WWTP) upgrade and re-rate project. Draft National Pollutant Discharge Elimination System (NPDES) Permit No. PA0046353-A1 for the project discharge was issued by the Pennsylvania Department of Environmental Protection (PADEP) on July 28, 2014.

The Application was reviewed for inclusion of the project in the Comprehensive Plan and approval under Section 3.8 of the *Delaware River Basin Compact (Compact)*. The Wayne County Planning Commission has been notified of pending action. A public hearing on this project was held by the DRBC on September 9, 2014.

A. DESCRIPTION

1. Purpose. The purpose of this docket is to renew and approve a modification to the docket holder's existing WWTP and its associated discharge. The proposed modifications consists of adding a mechanical fine screen, upgrading the existing ultraviolet light (UV) disinfection system and sludge thickening system, and appurtenant improvements. This docket also approves a re-rate of the existing WWTP from 0.715 million gallons per day (mgd) to 0.815 mgd, which will be facilitated by the proposed modifications.

2. Location. The docket holder's WWTP is located off of Railroad Lane, just east of the intersection of South and Belmont Streets in Canaan Township, just south of the border of Waymart Borough, in Wayne County, Pennsylvania. The facility will continue to discharge treated WWTP effluent to Van Auken Creek, which is tributary to the Lackawaxen River at River Mile 277.7 – 30.0 – 3.2 (Delaware River – Lackawaxen River – Van Auken Creek) via

Outfall No. 001, within the drainage area to the Upper Delaware Special Protection Waters (SPW). The WWTP outfall is located on Van Auken Creek approximately three (3) miles downstream of the WWTP, just downstream of Keen Lake, in Canaan Township.

The project outfall is located in the Lackawaxen River Watershed as follows:

| OUTFALL NO. | LATITUDE (N) | LONGITUDE (W) |
|-------------|--------------|---------------|
| 001 | 41° 35' 27" | 75° 22' 14" |

3. Area Served. The docket holder's WWTP will continue to serve Waymart Borough and portions of Canaan Township in Wayne County, Pennsylvania, including the State Correctional Institute Waymart (SCI Waymart) and the Federal Bureau of Prisons United States Penitentiary Canaan prison (FBOP Canaan). The service area is not proposed to be modified. The increase in flow from 0.715 mgd to 0.815 mgd is a result of increased populations at the SCI Waymart and the FBOP Canaan. 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 will continue to utilize a sequencing batch reactor (SBR) treatment system and ultraviolet light (UV) disinfection. The WWTP is currently designed to treat an average annual flow of up to 0.715 mgd; however, the WWTP has become hydraulically overloaded due to higher flows than anticipated from the SCI and the FBOP. This docket approves a re-rate of the WWTP from 0.715 mgd to 0.815 mgd, including improvements to the WWTP to facilitate the re-rate.

b. Facilities. The existing WWTP facilities consist of an automatic fine screen with manual bypass bar rack, a pre-aeration unit, an alum mixing tank for phosphorus removal, three (3) SBRs, and a UV disinfection unit. Sludge handling consists of two (2) sludge thickening tanks, two (2) aerobic digestors, and a belt filter press.

The docket holder proposes to upgrade the existing facilities in order to re-rate the WWTP from 0.715 mgd to 0.815 mgd. The improvements, designed to accommodate the higher flow, consist of: installing a fine screen at the existing headworks; upgrading the UV disinfection system; installing a new sludge pump and belt filter press hopper; and upgrading the effluent pumps, pipes, and valves.

Waste sludge will continue to be hauled off-site by a licensed hauler for disposal at a state approved facility.

The proposed modifications and re-rate of the existing WWTP from 0.715 to 0.815 mgd constitute a plant expansion and meet the definition of a substantial alteration or addition under Section 3.10.3 of the Commission Water Quality Regulations (WQR).

The docket holder submitted preliminary site plans for the project upgrades. The final plans and specifications are required to be submitted to DRBC for approval by the Executive Director prior to the initiation of construction of the WWTP modifications approved in this docket (see Condition II.i. in the Decision section).

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 a SCADA remote alarm system installed that continuously monitors plant operations. (SPW)

The docket holder has not prepared and implemented an emergency management plan (EMP) for the project WWTP in accordance with Commission requirements. The docket holder is required as part of this docket approval to prepare and implement an EMP within 6 months of approval of this docket (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 docket holder has satisfactorily proved the financial infeasibility of using natural wastewater treatment technologies. A report was submitted as part of the Application that evaluated natural treatment alternatives and concluded that available land was not available and soil conditions were not favorable (See FINDINGS section). (SPW)

Direct dischargers to OBW or significant resource waters (SRW) performing "Substantial Alterations or Additions" or expanding their wastewater treatment plant are required to provide "Best Demonstrable Technology" (BDT) as a minimum level of treatment. The facility is not a direct discharger to OBW or SRW.

The existing and proposed project 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 a spring and groundwater wells owned and operated by Aqua, Pennsylvania. The water withdrawal is described in detail in Docket No. D-1975-078 CP-3, which was approved on May 10, 2012.

d. **NPDES Permit / DRBC Docket.** PADEP issued draft NPDES Permit No. PA0046353-A1 for the project discharge on July 28, 2014, which includes interim and final effluent limits for the project discharge to surface waters classified by the PADEP as high quality, cold water fishery (HQ-CWF). Interim effluent limitations are for the current annual average flow of up to 0.715 mgd. The final effluent limits are effective after the plant upgrade goes into operation for the proposed re-rated annual average flow of up to 0.815 mgd. The following average monthly effluent limits and monitoring requirements, based on a flow of 0.715 mgd, are for DRBS parameters listed in the draft NPDES permit that meet or are more stringent than the effluent requirements of the DRBC, and are in effect until the project upgrade is completed.

EFFLUENT TABLE A-1: DRBC Parameters Included in NPDES permit, to be in effect until plant upgrades are completed

| OUTFALL 001 (Van Auken Creek) | | |
|--|--|-----------------------------|
| PARAMETER | LIMIT | MONITORING |
| pH (Standard Units) | 6 to 9 at all times | As required by NPDES permit |
| Total Suspended Solids | 15 mg/l; 90 lbs/day 85 % minimum removal | As required by NPDES permit |
| CBOD (5-Day at 20° C) | 10 mg/l; 60 lbs/day 85% minimum removal | As required by NPDES permit |
| Ammonia-Nitrogen 5/01-10/31 11/01-4/30 | 2.0 mg/l; 12 lbs/day 6.0 mg/l; 36 lbs/day | As required by NPDES permit |
| Fecal Coliform 5/01-9/30 10/01-4/30 | 200 colonies per 100 ml as a geo. avg. 2,000 colonies per 100 ml as a geo. avg. | As required by NPDES permit |
| Dissolved Oxygen | 5.0 mg/l (minimum at all times) | As required by NPDES permit |
| Total Phosphorous | 2.0 mg/l; 12 lbs/day | As required by NPDES permit |
| Nitrate+Nitrite as N | Monitor & Report | As required by NPDES permit |
| Total Kjeldahl Nitrogen (TKN) | Monitor & Report | As required by NPDES permit |
| Total Nitrogen | Monitor & Report | As required by NPDES permit |

The following average monthly effluent limits are for DRBS parameters not included in the NPDES permit and are in effect until the project upgrade is completed, based on a flow of 0.715 mgd:

EFFLUENT TABLE A-2: DRBC monitoring requirements not included in NPDES permit, to be in effect until plant upgrades are completed

| Outfall No. 001 (Van Auken Creek) | | |
|--|--------------|-------------------|
| PARAMETER | LIMIT | MONITORING |
| Total Dissolved Solids* | 1,000 mg/l | Quarterly |

* See Condition II.w. in DECISION section

The following average monthly effluent limits and monitoring requirements, based on a flow of 0.815 mgd, are for DRBS parameters listed in the draft NPDES permit that

meet or are more stringent than the effluent requirements of the DRBC, and are in effect after the project upgrade is completed and the proposed re-rate goes into operation.

EFFLUENT TABLE A-3: DRBC Parameters Included in NPDES permit,, to be in effect after the plant re-rate and modifications are operational

| Outfall No. 001 (Van Auken Creek) | | |
|--|---|-----------------------------|
| PARAMETER | LIMIT | MONITORING |
| pH (Standard Units) | 6 to 9 at all times | As required by NPDES permit |
| Total Suspended Solids | 14.2 mg/l; 96.5 lbs/day 85 % minimum removal | As required by NPDES permit |
| CBOD (5-Day at 20° C) | 10.0 mg/l; 67.9 lbs/day 85% minimum removal | As required by NPDES permit |
| Ammonia-Nitrogen | | As required by NPDES permit |
| 5/01-10/31 | 1.7 mg/l; 11.5 lbs/day | |
| 11/01-4/30 | 5.2 mg/l; 35.3 lbs/day | |
| Fecal Coliform | | As required by NPDES permit |
| 5/01-9/30 | 200 colonies per 100 ml as a geo. avg. | |
| 10/01-4/30 | 2,000 colonies per 100 ml as a geo. avg. | |
| Dissolved Oxygen | 5.0 mg/l (minimum at all times) | As required by NPDES permit |
| Total Phosphorous | 1.7 mg/l; 11.5 lbs/day | As required by NPDES permit |
| Nitrate + Nitrite as N | 8.7 mg/l 59.1 lbs/day* | As required by NPDES permit |
| Total Kjeldahl Nitrogen (TKN) | Monitor & Report | As required by NPDES permit |
| Total Nitrogen | Monitor & Report | As required by NPDES permit |

* DRBC Requirement. NPDES permit requires concentration limit only

The following average monthly effluent limits are for DRBS parameters not included in draft NPDES permit and are in effect after the project upgrade is completed and the proposed re-rate goes into operation.

EFFLUENT TABLE A-4: DRBC effluent limits to be in effect after the plant re-rate goes into operation

| Outfall No. 001 (Van Auken Creek) | | |
|--|--------------|-------------------|
| PARAMETER | LIMIT | MONITORING |
| Total Dissolved Solids* | 1,000 mg/l | Quarterly |

* See Condition II.w. in DECISION section

- e. **Cost.** The total project cost is estimates as \$1,629, 000.00.
- f. **Relationship to the Comprehensive Plan.** The docket holder's WWTP was added to the Comprehensive Plan via Docket No. D-1974-100 CP-1 on October 30, 1974. Docket No. D-2002-032 CP-1, approved on October 16, 2002, approved an upgrade and expansion of the WWTP. This docket (D-2002-032 CP-2) approves an upgrade and re-rate of the WWTP.

B. FINDINGS

The docket holder applied to renew the DRBC approval and to upgrade and re-rate the docket holder's existing WWTP. The proposed modifications are being performed to facilitate the re-rate of the existing WWTP from 0.715 million gallons per day (mgd) to 0.815 mgd.

In 1992, the DRBC adopted SPW requirements, as part of the DRBC *Water Quality Regulations (WQR)*, designed to protect existing high water quality in applicable areas of the Delaware River Basin. One hundred twenty miles of the Delaware River from Hancock, New York downstream to the Delaware Water Gap has been classified by the DRBC as SPW. This stretch includes the sections of the river federally designated as "Wild and Scenic" in 1978 -- the Upper Delaware Scenic and Recreational River and the Delaware Water Gap National Recreation Area -- as well as an eight-mile reach between Milrift and Milford, Pennsylvania which is not federally designated. The SPW regulations apply to this 120-mile stretch of the river and its drainage area. (Upper/Middle SPW)

On July 16, 2008, the DRBC approved amendments to its *WQR* that provide increased protection for waters that the Commission classifies as SPW. The portion of the Delaware River and its tributaries within the boundary of the Lower Delaware River Management Plan Area was approved for SPW designation and clarity on definitions and terms were updated for the entire program. (Upper/Middle SPW)

The project discharge is located in the drainage area to the Upper Delaware SPW. Section 3.10.3.A.2.d.8) of the Commission's *WQR* requires that new wastewater treatment facilities and existing wastewater treatment facilities located in SPW that are proposing substantial alterations and additions demonstrate "...that the project will cause no measurable change to Existing Water Quality..." Section 3.10.3.A.2.d.9) of the Commission's *WQR* states that "For wastewater treatment facility projects subject to the no measurable change requirement, the demonstration of no measurable change to existing water quality shall be satisfied if the applicant demonstrates that the new or incremental increase in the facility's flow or load will cause no measurable change at the relevant water quality control point for the parameters denoted by asterisks in Tables 1 and 2 of this section: ammonia (NH₃-N); dissolved oxygen (DO); fecal coliform (FC); nitrate (NO₃-N) or nitrite + nitrate (NO₂-N+ NO₃-N); total nitrogen (TN) or total Kjeldahl nitrogen (TKN); total phosphorous (TP); total suspended solids (TSS); and biological oxygen demand (BOD) (Table 1 only)."

The project WWTP is an existing wastewater treatment facility that is proposing a substantial alteration and addition and is subject to the no measurable change (NMC) to existing water quality (EWQ) requirement. NMC to EWQ is to be demonstrated at the Lackawaxen River Boundary Control Point (Lackawaxen BCP), which is located on the Lackwaxen River just prior to its confluence with the Delaware River.

Section 3.10.3A.2.a.4) of the Commission's *WQR* defines "Measurable Change" as "an actual or estimated change in a seasonal or non-seasonal mean (for SPW waters upstream of and including River Mile 209.5) or median (for SPW waters downstream of River Mile 209.5) in-

stream pollutant concentration that is outside the range of the two-tailed upper and lower 95 percent confidence intervals that define existing water quality.”

EWQ is defined as the actual concentration of a water constituent at an in-stream site or sites, as determined through field measurements and laboratory analysis of data collected over a time period determined by the Commission to adequately reflect the natural range of the hydraulic and climatologic factors which affect water quality. EWQ is described in terms of:

- (a) an annual or seasonal mean of the available water quality data,
- (b) two-tailed upper and lower 95 percent confidence limits around the mean, and
- (c) the 10th and 90th percentiles of the data set from which the mean was calculated.

The determination of NMC is based on a comparison of historical water quality observations at the Lackawaxen BCP with the modeled (predicted) EWQ at the Lackawaxen BCP. EWQ for the Lackawaxen BCP (listed in Table B-1 below) was derived from in-stream water quality data collected by Commission staff and PADEP between the years 1998-2011.

Table B-1: EWQ for Lackawaxen BCP

| | BOD₅ (mg/l) | TSS (mg/l) | Total P (mg/l) | Nitrite – Nitrate N (mg/l) | Ammonia – N (mg/l) | TKN (mg/l) | DO ** (mg/l) |
|----------|-----------------------------------|-----------------------|-------------------------------|---|-----------------------------------|-----------------------|-----------------------------|
| EWQ Mean | * | 3.60 | 0.028 | 0.106 | 0.021 | 0.275 | 9.26 |
| 95% C.L. | * | 4.50 | 0.033 | 0.118 | 0.026 | 0.293 | 9.03 |

* BOD₅ EWQ not established at Lackawaxen BCP

**DO objective is the lower 95% C.L.

Section 3.10.3.A.2.d.9) of the *WQR* states

“In making the demonstration required in (Section 3.10.3.A.2.d.8) the applicant shall use a DRBC-approved model of the tributary or main stem watershed if available. Where a DRBC-approved model is not available, the applicant shall use other methodologies submitted to and approved in advance by the Commission to estimate cumulative effect at the applicable control point.”

A DRBC-approved model is not available, and therefore DRBC staff used a mass-balance approach to evaluate whether a measurable change to EWQ would be predicted as a result of the project to upgrade and re-rate the Waymart Area WWTP from 0.715 mgd to 0.815 mgd. DRBC staff performed the analysis at the Lackawaxen BCP, using the following equation:

$$Q_{\text{WWTP}} \times \text{Conc}_{\text{WWTP}} + Q_{\text{stream}} \times \text{Conc}_{\text{stream}} = Q_{\text{total}} \times \text{Conc}_{\text{streamresult}}$$

Where:

$$Q_{\text{WWTP}} = \text{Proposed WWTP flow} = 0.815 \text{ mgd}$$

$Conc_{WWTP}$ = WWTP effluent concentration limit (in mg/l) for each parameter
(See EFFLUENT TABLE A-3)

Q_{stream} = Lackawaxen River mean in-stream flow at BCP = 439 mgd*

$Conc_{stream}$ = Lackawaxen River EWQ concentration, in mg/l (See Table B-1 above)

Q_{total} = Lackawaxen mean flow plus WWTP flow = 439 + 0.815 = 439.815 mgd

$Conc_{streamresult}$ = In-stream concentration (in mg/l) at Lackawaxen BCP as a result of the proposed project discharging at effluent limits from EFFLUENT TABLE A-3

* Lackawaxen River mean in-stream flow at point of WWTP discharge was calculated using USGS stream stats

Using this mass balance approach, the in-stream concentration (in mg/l) at Lackawaxen BCP as a result of the proposed project discharging at effluent limits from EFFLUENT TABLE A-3 is as follows:

Table B-2: Mass balance analysis resultant in-stream

| | TSS (mg/l) | Total P (mg/l) | Nitrite – Nitrate N (mg/l) | Ammonia – N (mg/l) | TKN (mg/l) | DO * (mg/l) |
|-------------|-----------------------|-------------------------------|---|-----------------------------------|-----------------------|------------------------|
| EWQ Mean | 3.60 | 0.028 | 0.106 | 0.021 | 0.275 | 9.26 |
| 95% C.L. | 4.50 | 0.033 | 0.118 | 0.026 | 0.293 | 9.03 |
| In-stream | 3.62 | 0.031 | 0.122** | 0.024 | <0.293 ** | 9.25 |

* D.O. objective is greater than 95% C.L. (9.03 mg/l)

** See below

As indicated in Table B-2 above, based on a mass balance approach, the upper 95 % C.L. is not predicted to be exceeded for TSS, Total Phosphorus, and Ammonia; and the lower 95% C.L. for dissolved oxygen (DO) is not predicted to be exceeded. Therefore, DRBC staff do not predict a measurable change to EWQ for TSS, Total Phosphorus, and Ammonia, and DO as a result of the project.

The results of the mass balance calculation indicate that Nitrite + Nitrate as N exceeds the upper 95 % C.L. by 0.003 mg/l (0.122 mg/l vs. 0.118 mg/l). The mass balance approach does not take into account degradation of Nitrite + Nitrate as N that takes place in-stream in the 33 mile-stretch between the WWTP discharge point and the Lackawaxen BCP. Considering the time of travel, hydrologic factors, and the assimilative capacity of the stream in this stretch, DRBC staff do not predict a measurable change to EWQ for Nitrite + Nitrate as N as a result of the project.

Although this docket does not set an effluent limit for TKN, DRBC staff do not predict a measurable change to EWQ for TKN as a result of the project, due to the following assumptions that can be made about expectant WWTP effluent TKN. Using the same mass balance approach above, in order for upper 95 % C.L. for TKN of 0.293 mg/l to be exceeded, TKN

would need to exceed 10 mg/l. TKN is the measure of Ammonia and organic nitrogen (ON). Since the Ammonia limit is set by this docket at 1.7 mg/l, ON would need to exceed 8.3 mg/l in order for the upper 95% C.L. to be exceeded using a mass balance approach. DRBC staff evaluated typical discharge data for similar domestic WWTPs, and concluded that ON is not expected to exceed 8.3 mg/l for the project WWTP. Therefore, DRBC staff do not predict a measurable change to EWQ for TKN as a result of the project.

In order to demonstrate NMC to EWQ, after the WWTP modification and expansion is completed and goes into operation, the WWTP discharge is limited to the effluent limits for each NMC parameter, as listed in EFFLUENT TABLE A-3 in Section A.4.d. of this docket. Table B-3 below lists grandfathered flow and load, the non-grandfathered (incremental) flow and load, and the total flow and load for the upgraded and re-rated WWTP, which is calculated from historic WWTP average monthly effluent data from 1990-1995 as provided by the docket holder. Grandfathered and non-grandfathered load data is for informational purposes only; the docket holder is required to meet the effluent limits and monitoring requirement of the effluent tables in Section A.4.d. of this docket.

Table B-3: Grandfathered and Non-Grandfathered Flow/Load*

| | Flow | CBOD5 * | TSS * | TP * | Nitrate + Nitrate ** | Ammonia * |
|--|-----------------|-------------------|-----------------|-----------------|---|---------------------|
| Grandfathered (GF) Concentration | GF Flow = | 2.94 mg/l | 3.36 mg/l | 0.35 mg/l | 8.7 mg/l | 1.66 mg/l |
| Grandfathered (GF) Load | 0.146 mgd | 3.6 lbs/day | 4.1 lbs/day | 0.4 lbs/day | 10.6 lbs/day | 2.0 lbs/day |
| Non-Grandfathered (NGF) Concentration | NGF Flow = | N/A | N/A | N/A | 8.7 mg/l | N/A |
| Non-Grandfathered (NGF) Load | 0.669 mgd | 64.3 lbs/day | 92.4 lbs/day | 11.1 lbs/day | 48.5 lbs/day | 9.5 lbs/day |
| Total Concentration | Total Flow = | 10.0 mg/l | 14.2 mg/l | 1.7 mg/l | 8.7 mg/l | 1.7 mg/l |
| Total Load | 0.815 mgd | 67.9 lbs/day | 96.5 lbs/day | 11.5 lbs/day | 59.1 lbs/day | 11.5 lbs/day |

* Grandfathered loads based on historic WWTP effluent data. Total load calculated as total flow (0.815 mgd) multiplied by effluent concentration limits from EFFLUENT TABLE A-3. Non-grandfathered loads calculated as difference between Total load and grandfathered load

** No historic WWTP effluent data available for this parameter. Grandfathered, non-grandfathered, and total loads calculated as flow multiplied by effluent concentration limits from EFFLUENT TABLE A-3

Docket No, D-2002-032 CP-1 approved an upgrade of the Waymart Area Authority WWTP and an expansion of the WWTP from 0.21 mgd to 0.715 mgd. The upgrade and

expansion from 0.21 to 0.715 mgd was considered a substantial alteration and addition. During the review of Docket No, D-2002-032 CP-1, DRBC staff determined that the WWTP effluent limits contained in EFFLUENT TABLE A-1 for CBOD₅, Total Suspended Solids, Total Phosphorous, and Ammonia fulfilled the NMC to EWQ requirements for the previous upgrade and expansion from 0.21 to 0.715 mgd. This docket (D-2002-032 CP-2) maintains the effluent load limits in pounds per day for Total Phosphorous and Ammonia for the proposed upgrade and expansion from 0.715 to 0.815 mgd.

Construction Plan Approval

The docket holder has yet to submit final plans and specifications for the construction of the project upgrades. This docket includes a condition providing that the Executive Director must approve the plans and specifications for the proposed construction prior to initiation of construction of the WWTP modifications (See Condition II.i. in the Decision section).

Natural Treatment Alternatives (NTA) Analysis

Section 3.10.3.A.2.c.2) of the Commission's *WQR* requires that new wastewater treatment facilities and existing wastewater treatment facilities that are proposing substantial alterations and additions "may be approved only after the applicant demonstrates that it has fully evaluated all natural wastewater treatment system alternatives and is unable to implement these alternatives because of technical and/or financial infeasibility." The docket holder has satisfactorily proved the technical infeasibility of using natural wastewater treatment technologies. A report was submitted as part of the Application that concluded that due to the lack of available land with suitable soils, treatment methods such as constructed wetlands, overland flow, rapid infiltration, slow rate infiltration, reed beds, and aquatic plant systems are not technically nor economically feasible. Commission staff agree with this conclusion.

Non-Point Source Pollution Control Plan (NPSPCP)

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. The service area of the docket holder is located within in the drainage area to the SPW; however, the service area will not be expanding as a result of the project. The increase in flow from 0.715 mgd to 0.815 mgd is a result of increased populations at the SCI Waymart and the FBOP Canaan. Since this project does entail additional construction (i.e., there are new or increased non-point source loads associated with this approval), the NPSPCP requirement is applicable at this time.

Canaan Township has adopted and implemented a stormwater ordinance in accordance with the PADEP's model stormwater ordinance. Waymart Borough does not have a stormwater ordinance. The docket holder is required to submit a NPSPCP for the construction associated with the WWTP modifications prior to the modifications being constructed. Also, any future

service area expansion in Waymart Borough 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.

Near the project WWTP discharge location, the Van Auken Creek has an estimated seven-day low flow with a recurrence interval of ten years (Q7-10) of 1.0 mgd (1.55 cfs). The ratio of this low flow to the average design discharge (0.815 mgd) from the project WWTP is 1.2:1.

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 126 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, 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-2002-032 CP-2 below:

a. The projects described in Docket Nos. D-1974-100 CP-1 and D-2002-032 CP-1 are removed from the Comprehensive Plan to the extent that they are not included in Docket No. D-2002-032 CP-2; and

b. Docket Nos. D-1974-100 CP-1 and D-2002-032 CP-1 are terminated and replaced by Docket No. D-2002-032 CP-2 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 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. Commission approval of the project upgrade is contingent upon PADEP's approval of the NPDES and Part II permits.

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 *FPR*.

d. The docket holder shall comply with the requirements contained in the EFFLUENT TABLES in Section A.4.d. of this docket. The docket holder shall submit the required monitoring results electronically to the DRBC Project Review Section via email aemr@drbc.state.nj.us on the **Annual Effluent Monitoring Report Form** located at this web address: <http://www.state.nj.us/drbc/programs/project/application/index.html>. The monitoring results shall be submitted annually, absent any observed limit violations, by January 31. If a DRBC effluent limit is violated, the docket holder shall submit the result(s) to the DRBC within 30 days of the violation(s) and provide a written explanation that states the action(s) the docket holder has taken to correct the violation(s) and protect against any future violations.

e. Except as otherwise authorized by this docket, if the docket holder seeks relief from any limitation based upon a DRBC water quality standard or minimum treatment requirement, the docket holder shall apply for approval from the Executive Director or for a docket revision in accordance with Section 3.8 of the *Compact* and the *Rules of Practice and Procedure*.

f. If at any time the receiving treatment plant proves unable to produce an effluent that is consistent with the requirements of this docket approval, no further connections shall be permitted until the deficiency is remedied.

g. Nothing herein shall be construed to exempt the docket holder from obtaining all necessary permits and/or approvals from other State, Federal or local government agencies having jurisdiction over this project.

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

i. The docket shall submit final constructions plans and specifications for the proposed upgrades and have the plans approved by the Executive Director prior to the initiation of construction of the WWTP modifications approved in this docket. The docket holder shall construct the WWTP modifications in accordance with the plans approved by the Executive Director.

j. 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.

k. 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.

l. The WWTP modifications shall be completed within three years of approval of this docket or the docket holder shall demonstrate to the Executive Director that it has expended substantial funds (in relation to the cost of the project) in reliance upon this docket approval. If the modifications have not been completed within three years of Docket Approval and the docket holder does not submit a cost analysis demonstrating substantial funds have been expended, Commission approval of the modifications to the existing WWTP shall expire. If the docket expires under this condition, the docket holder shall file a new application with the Commission and receive Commission approval prior to initiating construction of any modifications.

m. 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.

n. 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.

o. 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).

p. 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.

q. 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.

r. Prior to the proposed modifications being constructed, 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*. Prior to allowing connections from any new service areas or any new developments, 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 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 March 10, 2014.

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.

BY THE COMMISSION

DATE APPROVED: September 10, 2014

EXPIRATION DATE: April 30, 2021