

# Issue Analysis Form

**Date:** June 23, 2020

**Item:** Status of VPDES Permit Application for Sewer Discharge to Blackwater Swamp

**Lead Department:** Engineering & Utilities

**Contact Persons:** Frank Haltom, Director



## Description and Current Status

WW Associates was procured to assist the County to obtain a Virginia Pollutant Discharge Elimination System (VPDES) permit for a wastewater treatment facility. The potential discharge location is along the Blackwater Swamp near Prince George Drive on a parcel known as the Yancey Property.

The permit application was submitted in October 2019. A draft permit was issued to the County in April. On June 8<sup>th</sup>, the Department of Environmental Quality (DEQ) issued a Public Notice of our intent to receive a permit to solicit comments from the general public. The comment period ends on July 9<sup>th</sup>. After the public comment period, DEQ may decide to hold a public hearing or issue the final permit.

Herb White, President of WW associates, will present the requirements of the draft permit and address questions and concerns regarding the potential impacts to the environment. A copy of his presentation, the public notice, and the draft permit is attached.

## The Government Path

**Does this require IDA action?** ☐ Yes ☒ No

**Does this require BZA action?** ☐ Yes ☒ No

**Does this require Planning Commission action?** ☐ Yes ☒ No

**Does this require Board of Supervisors action?** ☐ Yes ☒ No

**Board Action Requested:**

Receive the presentation.

## Fiscal Impact Statement

None.

## Prince George County Impact

None.

## Notes

None.



# *COMMONWEALTH of VIRGINIA*

## *DEPARTMENT OF ENVIRONMENTAL QUALITY*

Permit No. VA0093068

Effective Date: **TBD**

Expiration Date: **TBD**

AUTHORIZATION TO DISCHARGE UNDER THE  
VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM  
AND  
THE VIRGINIA STATE WATER CONTROL LAW

In compliance with the provisions of the Clean Water Act as amended and pursuant to the State Water Control Law and regulations adopted pursuant thereto, the following owner is authorized to discharge in accordance with the information submitted with the permit application, and with this permit cover page, and Parts I and II of this permit, as set forth herein.

Owner:	Prince George County
Facility Name:	Prince George Wastewater Treatment Plant (WWTP)
County:	Prince George
Facility Location:	Prince George Drive, Prince George, VA 23875

The owner is authorized to discharge to the following receiving stream:

Stream:	Blackwater Swamp
River Basin:	Chowan River and Dismal Swamp
River Subbasin:	Blackwater
Section:	2
Class:	VII
Special Standards:	None

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Deputy Regional Director, Piedmont Regional Office

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Date

**A. Effluent Limitations and Monitoring Requirements**

1. Beginning with issuance of the Certificate to Operate (CTO) for the 2.0 MGD facility and lasting until the issuance of a Certificate to Operate (CTO) for either the 4.0 MGD facility or the 6.0 MGD facility or until the permit expiration, whichever occurs first, the permittee is authorized to discharge from Outfall 001 or 002.

- a. This discharge shall be limited and monitored as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS	
	MONTHLY AVERAGE	WEEKLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY SAMPLE TYPE
Flow (MGD) <sup>(1)</sup>	NL	NA	NA	NL	Continuous TIRE
pH	NA	NA	6.0 SU	8.0 SU	1 per Day Grab
Hardness (mg/L)	NA	NA	NA	NL	1 per Month Grab
cBOD <sub>5</sub> <sup>(2) (3)</sup>	10 mg/L	76 kg/d	15 mg/L	110 kg/d	5 Days per Week 24 HC
Total Suspended Solids (TSS) <sup>(2) (3)</sup>	10 mg/L	76 kg/d	15 mg/L	110 kg/d	5 Days per Week 24 HC
Ammonia as N <sup>(2)</sup>	0.39 mg/L	0.49 mg/L	NA	NA	5 Days per Week 24 HC
December - April <sup>(3)</sup>	0.49 mg/L	0.63 mg/L	NA	NA	5 Days per Week 24 HC
Dissolved Oxygen (DO)	NA	NA	5.0 mg/L	NA	1 per Day Grab
<i>E. coli</i>	126 N / 100 mL (Geometric Mean)	NA	NA	NL	5 Days per Week (between 10am and 4pm) Grab
Acute Toxicity – <i>C. dubia</i> (% NOAEC)	NA	NA	NA	NL	1 per Quarter <sup>(4)</sup> 24 HC
Acute Toxicity – <i>P. promelas</i> (%NOAEC)	NA	NA	NA	NL	1 per Quarter <sup>(4)</sup> 24 HC
Chronic Toxicity – <i>C. dubia</i> (TU <sub>c</sub> )	NA	NA	NA	NL	1 per Quarter <sup>(4)</sup> 24 HC
Chronic Toxicity – <i>P. promelas</i> (TU <sub>c</sub> )	NA	NA	NA	NL	1 per Quarter <sup>(4)</sup> 24 HC

"NL" means no limitation is established. Monitoring and reporting however are required.

"NA" means not applicable.

"TIRE" means totalizing, indicating and recording equipment.

"24 HC" means twenty-four hour composite.

- (1) The design flow of this treatment facility is **2.0 MGD**. See Part I.C.2 for additional flow requirements.
- (2) These limitations are expressed in two significant figures.
- (3) See Part I.C.10 for compliance reporting requirements. The permittee shall submit DMRs annually until the issuance of the CTO, at which time DMR submittal shall be monthly in accordance with Part II.C. The annual DMR shall be no later than January 10<sup>th</sup> of the following year.
- (4) See Part I.B for biological reporting requirements. Quarterly toxicity testing shall be conducted until 10 sets of quarterly tests have been performed; subsequently, if it is determined that no limit is needed, annual toxicity testing shall be conducted.

- b. There shall be no discharge of floating solids or visible foam in other than trace amounts.
- c. At least 85% removal for cBOD<sub>5</sub> and TSS must be attained for this effluent.
- d. Final effluent samples shall be taken after post aeration.

A. Effluent Limitations and Monitoring Requirements

2. Beginning with issuance of the Certificate to Operate (CTO) for the 4.0 MGD facility and lasting until the issuance of a Certificate to Operate (CTO) for the 6.0 MGD facility, or until the permit expiration, the permittee is authorized to discharge from Outfall 001 or 002.

- a. This discharge shall be limited and monitored as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS	
	MONTHLY AVERAGE	WEEKLY AVERAGE	MINIMUM	FREQUENCY	SAMPLE TYPE
Flow (MGD) <sup>(1)</sup>	NL	NA	NA	Continuous	TIRE
pH	NA	NA	6.0 SU	1 per Day	Grab
Hardness (mg/L)	NA	NA	NA	1 per Month	Grab
cBOD <sub>5</sub> <sup>(2) (3)</sup>	10 mg/L	150 kg/d	15 mg/L	230 kg/d	24 HC
Total Suspended Solids (TSS) <sup>(2) (3)</sup>	10 mg/L	150kg/d	15 mg/L	230 kg/d	24 HC
Ammonia as N <sup>(2)</sup>	0.39 mg/L		0.49 mg/L		24 HC
<sup>(3)</sup>	0.59 mg/L		0.74 mg/L		24 HC
Dissolved Oxygen (DO)	NA	NA	5.0 mg/L	1 per Day	Grab
<i>E.coli</i>	126 N / 100 mL (Geometric Mean)	NA	NA	1 per Day (between 10am and 4pm)	Grab
Acute Toxicity – <i>C. dubia</i> (% NOAEC)	NA	NA	NA	1 per Quarter <sup>(4)</sup>	24 HC
Acute Toxicity – <i>P. promelas</i> (% NOAEC)	NA	NA	NA	1 per Quarter <sup>(4)</sup>	24 HC
Chronic Toxicity – <i>C. dubia</i> (TU <sub>c</sub> )	NA	NA	NA	1 per Quarter <sup>(4)</sup>	24 HC
Chronic Toxicity – <i>P. promelas</i> (TU <sub>c</sub> )	NA	NA	NA	1 per Quarter <sup>(4)</sup>	24 HC

"NL" means no limitation is established. Monitoring and reporting however are required.

"NA" means not applicable.

"TIRE" means totalizing, indicating and recording equipment.

"24 HC means twenty-four hour composite.

- (1) The design flow of this treatment facility is **4.0 MGD**. See Part I.C.2 for additional flow requirements.

- (2) These limitations are expressed in two significant figures.

- (3) See Part I.C.10 for compliance reporting requirements.

- (4) See Part I.B for biological reporting requirements. Quarterly toxicity testing shall be conducted until 4 sets of quarterly tests have been performed; subsequently, if it is determined that no limit is needed, annual toxicity testing shall be conducted.

- b. There shall be no discharge of floating solids or visible foam in other than trace amounts.

- c. At least 85% removal for cBOD<sub>5</sub> and TSS must be attained for this effluent.

- d. Final effluent samples shall be taken after post aeration.

A. Effluent Limitations and Monitoring Requirements

3. Beginning with issuance of the Certificate to Operate (CTO) for the 6.0 MGD facility and lasting until the permit expiration, the permittee is authorized to discharge from Outfall 001 or 002.

- a. This discharge shall be limited and monitored as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS	
	MONTHLY AVERAGE	WEEKLY AVERAGE	MINIMUM	FREQUENCY	SAMPLE TYPE
Flow (MGD) <sup>(1)</sup>	NL	NA	NA	Continuous	TIRE
pH	NA	NA	6.0 SU	1 per Day	Grab
Hardness (mg/L)	NA	NA	NA	1 per Month	Grab
cBOD <sub>5</sub> <sup>(2) (3)</sup>	10 mg/L	230 kg/d	15 mg/L	5 Days per Week	24 HC
Total Suspended Solids (TSS) <sup>(2) (3)</sup>	10 mg/L	230 kg/d	15 mg/L	5 Days per Week	24 HC
Ammonia as N <sup>(2)</sup>	0.39 mg/L	0.49 mg/L	NA	5 Days per Week	24 HC
Ammonia as N <sup>(3)</sup>	0.58 mg/L	0.74 mg/L	NA	5 Days per Week	24 HC
Dissolved Oxygen (DO)	NA	NA	5.0 mg/L	1 per Day	Grab
<i>E.coli</i>	126 N / 100 mL (Geometric Mean)	NA	NA	1 per Day (between 10am and 4pm)	Grab
Acute Toxicity – <i>C. dubia</i> (% NOAEC)	NA	NA	NA	1 per Quarter <sup>(4)</sup>	24 HC
Acute Toxicity – <i>P. promelas</i> (% NOAEC)	NA	NA	NA	1 per Quarter <sup>(4)</sup>	24 HC
Chronic Toxicity – <i>C. dubia</i> (TU <sub>c</sub> )	NA	NA	NA	1 per Quarter <sup>(4)</sup>	24 HC
Chronic Toxicity – <i>P. promelas</i> (TU <sub>c</sub> )	NA	NA	NA	1 per Quarter <sup>(4)</sup>	24 HC

"NL" means no limitation is established. Monitoring and reporting however are required.

"NA" means not applicable.

"TIRE" means totalizing, indicating and recording equipment.

"24 HC means twenty-four hour composite.

- (1) The design flow of this treatment facility is **6.0 MGD**. See Part I.C.2 for additional flow requirements.
- (2) These limitations are expressed in two significant figures.
- (3) See Part I.C.10 for compliance reporting requirements. Quarterly toxicity testing shall be conducted until 4 sets of quarterly tests have been performed; subsequently, if it is determined that no limit is needed, annual toxicity testing shall be conducted.
- (4) See Part I.B for biological reporting requirements. Quarterly toxicity testing shall be conducted until 4 sets of quarterly tests have been performed; subsequently, if it is determined that no limit is needed, annual toxicity testing shall be conducted.

- b. There shall be no discharge of floating solids or visible foam in other than trace amounts.

- c. At least 85% removal for cBOD<sub>5</sub> and TSS must be attained for this effluent.

- d. Final effluent samples shall be taken after post aeration.

**B. Whole Effluent Toxicity (WET) Monitoring Program****1. Biological Monitoring:**

- a. In accordance with the schedule in Part I.B.2 below, and commencing no later than six months following issuance of the Certificate to Operate (CTO) for the 2.0 MGD flow tier, the permittee shall conduct quarterly acute and chronic toxicity tests until 10 sets of quarterly tests have been performed, using 24-hour flow-proportioned composite samples of final effluent from outfall 001. Commencing no later than six months following issuance of the CTO for the 4.0 MGD and 6.0 MGD flow tiers, the permittee shall conduct quarterly acute and chronic toxicity tests until 4 sets of quarterly tests have been performed, using 24-hour flow-proportioned composite samples of final effluent from outfall 001.

- b. The acute multi-dilution NOAEC to use are:

48-Hour Static Acute Test using *Ceriodaphnia dubia*

48-Hour Static Acute Test using *Pimephales promelas*

These acute tests shall be conducted using 5 geometric dilutions of effluent with a minimum of 4 replicates, with 5 organisms in each. The NOAEC (No Observed Adverse Effect Concentration), as determined by hypothesis testing, shall be reported on the DMR. The  $LC_{50}$  should also be determined and noted on the submitted report. Tests in which control survival is less than 90% are not acceptable. A retest of a non-acceptable test must be performed during the same compliance period as the test it is replacing.

- c. The chronic tests to use are:

Chronic 3-Brood Survival and Reproduction Static Renewal Test using *Ceriodaphnia dubia*

Chronic 7-Day Survival and Growth Static Renewal Test using *Pimephales promelas*

These chronic tests shall be conducted in such a manner and at sufficient dilutions (minimum of five dilutions, derived geometrically) to determine the "No Observed Effect Concentration" (NOEC) for survival and reproduction or growth. Results which cannot be quantified (i.e., a "less than" NOEC value) are not acceptable, and a retest will have to be performed. A retest of a non-acceptable test must be performed during the same compliance period as the test it is replacing. Express the test NOEC as  $TU_c$  (Chronic Toxic Units), by dividing  $100/NOEC$  for reporting. Report the  $LC_{50}$  at 48 hours and the  $IC_{25}$ , with the NOEC in the test report.

The permittee may provide additional samples to address data variability during the period of initial data generation. These data shall be reported and may be included in the evaluation of effluent toxicity. Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3.

- d. The test dilutions should be able to determine compliance with the following endpoints:
- Acute NOAEC = 100%
  - Chronic NOEC  $\geq 69\%$ , equivalent to a  $TU_c \leq 1.44$
- e. The test data will be evaluated by STATS.EXE for reasonable potential at the conclusion of the test period. The data may be evaluated sooner if requested by the permittee, or if toxicity has been noted. Should evaluation of the data indicate that a limit is needed, a WET limit and compliance schedule will be required and the toxicity tests of B.1. may be discontinued.
- f. If after evaluating the ten sets of data for the 2.0 MGD flow tier, it is determined that no limit is needed, the permittee shall continue acute and chronic toxicity testing (both species) of the outfall annually for the duration of the permit or upon issuance of the CTO for the 4.0 MGD or 6.0 MGD flow tier. After issuance of the CTO for the 4.0 MGD and 6.0 MGD flow tiers, four sets of quarterly data shall be submitted to DEQ as described in B.1.a above. If after evaluating the four sets of quarterly data, it is determined that no limit is needed, the permittee shall continue acute and chronic toxicity testing (both species) of the outfall annually for the duration of the permit or upon issuance of a CTO for a new flow tier.

- g. The permit may be modified or revoked and reissued to include pollutant specific limits in lieu of a WET limit should it be demonstrated that toxicity is due to specific parameters. The pollutant specific limits must control the toxicity of the effluent.

2. Reporting Schedule:

The permittee shall report the acute and chronic test results on the DMR and submit a copy of each toxicity test report to the Piedmont Regional Office concurrent with the DMR by the 10<sup>th</sup> of the month following the quarter in which the tests were performed. Quarters are defined as January to March, April to June, July to September, and October to December.

C. Other Requirements or Special Conditions

1. Additional Chlorine Limitations and Monitoring Requirements:

If chlorine is chosen as a disinfection method instead of ultraviolet, TRC shall be limited and monitored by the permittee as specified below:

- a. The permittee shall monitor the TRC at the outlet of each operating chlorine contact tank by collecting four samples per day at four hour intervals by grab sample for the 2.0 MGD facility, and one sample every two hours by grab sample for the 4.0 and 6.0 MGD facilities.
- a. For the 2.0 MGD facility, no more than 12 of all samples taken at the outlet of each operating chlorine contact tank shall be less than 1.0 mg/L for any one calendar month. For the 4.0 and 6.0 MGD facilities, no more than 36 of all samples taken at the outlet of each operating chlorine contact tank shall be less than 1.0 mg/L for any one calendar month (*DMR #157*).
- b. No TRC sample collected at the outlet of any operating chlorine contact tank shall be less than 0.60 mg/L (*DMR # 213*).
- c. If dechlorination facilities exist, all samples above shall be collected prior to dechlorination.
- d. If chlorination is chosen as a disinfection method, effluent TRC shall be limited and monitored, following dechlorination, by the permittee as specified below:

**2.0 MGD Flow Tier**

	MONTHLY AVERAGE	WEEKLY AVERAGE	FREQUENCY	SAMPLE TYPE
TRC (µg/L) ( <i>DMR #005</i> )	1.86	2.04	4 per Day at 4 Hour Intervals	Grab
<i>E. coli</i> (N/100 ml)	126*	NA	4 per Month (weekly) 10am-4pm	Grab

**4.0 and 6.0 MGD Flow Tiers**

	MONTHLY AVERAGE	WEEKLY AVERAGE	FREQUENCY	SAMPLE TYPE
TRC (µg/L) ( <i>DMR #005</i> )	1.78	1.89	1 per 2 Hours	Grab
<i>E. coli</i> (N/100 ml)	126*	NA	4 per Month (weekly) 10am-4pm	Grab

\*Monthly Geometric Mean

2. 95% Capacity Reopener:

A written notice and a plan of action for ensuring continued compliance with the terms of this permit shall be submitted to the Department of Environmental Quality (DEQ) Piedmont Regional Office, when the monthly average flow influent to the sewage treatment plant reaches 95 percent of the design capacity authorized in this permit for each month of any three consecutive month period. The written notice shall be submitted within 30 days and the plan of action shall be received at the DEQ Piedmont Regional Office no later than 90 days from the third consecutive month for which the flow reached 95 percent of the design capacity. The plan shall include the necessary steps and a prompt schedule of implementation for controlling any current or reasonably

anticipated problem resulting from high influent flows. Failure to submit an adequate plan in a timely manner shall be deemed a violation of this permit.

3. Indirect Dischargers:

The permittee shall provide adequate notice to the DEQ Piedmont Regional Office of the following:

- a. Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Section 301 or 306 of the Clean Water Act and the State Water Control Law if it were directly discharging those pollutants; and
- b. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of this permit.

Adequate notice shall include information on (i) the quality and quantity of effluent introduced into the treatment works, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the treatment works.

4. CTC, CTO Requirement:

The permittee shall, in accordance with the DEQ Sewage Collection and Treatment Regulation (9VAC25-790), obtain a Certificate to Construct (CTC), and a Certificate to Operate (CTO) from the Department. The request for a CTC or CTO shall be submitted by the design engineer and owner to the DEQ Regional Office prior to constructing the wastewater treatment works and operating the treatment works, respectively. Non-compliance with the CTC or CTO shall be deemed a violation of the permit.

5. Operation and Maintenance Manual Requirement:

The permittee shall maintain a current Operations and Maintenance (O&M) Manual for the treatment works that is in accordance with Virginia Pollutant Discharge Elimination System Regulations, 9VAC25-31 and (for sewage treatment plants) Sewage Collection and Treatment Regulations, 9 VAC 25-790.

The O&M Manual and subsequent revisions shall include the manual effective date and meet Part II.K.2 and Part II.K.4 Signatory Requirements of the permit. Any changes in the practices and procedures followed by the permittee shall be documented in the O&M Manual within 90 days of the effective date of the changes. The permittee shall operate the treatment works in accordance with the O&M Manual and shall make the O&M manual available to Department personnel for review during facility inspections. Within 30 days of a request by DEQ, the current O&M Manual shall be submitted to the DEQ Regional Office for review and approval.

The O&M manual shall detail the practices and procedures which will be followed to ensure compliance with the requirements of this permit. This manual shall include, but not necessarily be limited to, the following items, as appropriate:

- a. Permitted outfall locations and techniques to be employed in the collection, preservation, and analysis of effluent, stormwater and sludge samples;
- b. Procedures for measuring and recording the duration and volume of treated wastewater discharged;
- c. Discussion of Best Management Practices, if applicable;
- d. Procedures for handling, storing, and disposing of all wastes, fluids, and pollutants characterized in Part I.C.11 (Materials Handling/Storage) that will prevent these materials from reaching state waters. List type and quantity of wastes, fluids, and pollutants (e.g. chemicals) stored at this facility.
- e. Discussion of treatment works design, treatment works operation, routine preventative maintenance of units within the treatment works, critical spare parts inventory and record keeping;
- f. Plan for the management and/or disposal of waste solids and residues.



- g. Hours of operation and staffing requirements for the plant to ensure the effective operation of the treatment works and to maintain permit compliance.
- h. List of facility, local and state emergency contacts; and,
- i. Procedures for reporting and responding to any spills/overflows/treatment works upsets.

The manual shall be developed within 90 days of the effective date of the permit.

6. **Licensed Operator Requirements:**  
The permittee shall employ or contract at least one Class 2 licensed wastewater works operator for the 2.0 MGD facility and at least one Class 1 licensed wastewater works operator for the 4.0 MGD and 6.0 MGD facilities. The license shall be issued in accordance with Title 54.1 of the Code of Virginia and Board for Waterworks and Wastewater Works Operators and Onsite Sewage System Professionals Regulations. The permittee shall notify the Department in writing whenever he is not complying, or has grounds for anticipating he will not comply with this requirement. The notification shall include a statement of reasons and a prompt schedule for achieving compliance.
7. **Reliability Class:**  
The permitted treatment works shall meet Reliability Class I.
8. **Sludge Reopener:**  
The Board may promptly modify or revoke and reissue this permit if any applicable standard for sewage sludge use or disposal promulgated under Section 405(d) of the Clean Water Act is more stringent than any requirements for sludge use or disposal in this permit, or controls a pollutant or practice not limited in this permit.
9. **Total Maximum Daily Load (TMDL) Reopener:**  
This permit shall be modified or alternatively revoked and reissued if any approved wasteload allocation procedure, pursuant to Section 303(d) of the Clean Water Act, imposes wasteload allocations, limits or conditions on the facility that are not consistent with the permit requirements.
10. **Compliance Reporting:**
  - a. The quantification levels (QL) shall be less than or equal to the following concentrations:

<u>Effluent Characteristic</u>	<u>Quantification Level</u>
cBOD <sub>5</sub>	2 mg/L
Total Suspended Solids	1.0 mg/L
Ammonia-N	0.20 mg/L

The QL is defined as the lowest concentration used to calibrate a measurement system in accordance with the procedures published for the method. It is the responsibility of the permittee to ensure that proper quality assurance/quality control (QA/QC) protocols are followed during the sampling and analytical procedures. QA/QC information shall be documented to confirm that appropriate analytical procedures have been used and the required QLs have been attained. The permittee shall use any method in accordance with Part II A of this permit.

- b. **Monthly Average**  
Compliance with the monthly average limitations and/or reporting requirements for the parameters listed in subsection a. of this permit condition shall be determined as follows: All concentration data below the QL used for the analysis (QL must be less than or equal to the QL listed in a. above) shall be treated as zero. All concentration data equal to or above the QL used for the analysis (QL must be less than or equal to the QL listed in a. above) shall be treated as it is reported. An arithmetic average shall be calculated using all reported data for the month, including the defined zeros. This arithmetic average shall be reported on the Discharge Monitoring Report (DMR) as calculated. If all data are below the QL used for the analysis (QL must be less than or equal to the QL listed in a. above), then the average shall be reported as "<QL". If reporting for quantity is required on the DMR and the reported monthly average concentration is <QL, then report "<QL" for the quantity. Otherwise use the reported concentration data (including the defined zeros)

and flow data for each sample day to determine the daily quantity and report the monthly average of the calculated daily quantities.

#### Weekly Average

Compliance with the weekly average limitations and/or reporting requirements for the parameters listed in subsection a. of this permit condition shall be determined as follows: All concentration data below the QL used for the analysis (QL must be less than or equal to the QL listed in a. above) shall be treated as zero. All concentration data equal to or above the QL used for the analysis (QL must be less than or equal to the QL listed in a. above) shall be treated as reported. An arithmetic average shall be calculated using all reported data, including the defined zeros, collected within each complete calendar week and entirely contained within the reporting month. The maximum value of the weekly averages thus determined shall be reported on the DMR. If all data are below the QL used for the analysis (QL must be less than or equal to the QL listed in a. above), then the weekly average shall be reported as "<QL". If reporting for quantity is required on the DMR and the reported weekly average concentration is <QL, then report "<QL" for the quantity. Otherwise use the reported concentration data (including the defined zeros) and flow data for each sample day to determine the daily quantity and report the maximum weekly average of the calculated daily quantities.

- c. Single Datum - Any single datum required shall be reported as "<QL" if it is less than the QL used for the analysis (QL must be less than or equal to the QL listed in a. above). Otherwise the numerical value shall be reported.
- d. Significant Digits - The permittee shall report at least the same number of significant digits as the permit limit for a given parameter. Regardless of the rounding convention used by the permittee (i.e., 5 always rounding up or to the nearest even number), the permittee shall use the convention consistently, and shall ensure that consulting laboratories employed by the permittee use the same convention.

#### 11. Sludge Use and Disposal:

The permittee shall conduct all sewage sludge use or disposal activities in accordance with the Sludge Management Plan (SMP) approved with the issuance of this permit. Any proposed changes in the sewage sludge use or disposal practices or procedures followed by the permittee shall be documented and submitted for DEQ approval 90 days prior to the effective date of the changes. Upon approval, the revised SMP becomes an enforceable part of the permit. The permit may be modified or alternatively revoked and reissued to incorporate limitations or conditions necessitated by substantive changes in sewage sludge use or disposal practices.

#### 12. Materials Handling/Storage:

Any and all product, materials or wastes shall be handled, disposed of, and/or stored in such a manner and consistent with Best Management Practices, so as not to permit a discharge of such product, materials, or other wastes to State waters, except as expressly authorized.

#### 13. Closure Plan:

If the permittee plans an expansion or upgrade to replace the existing treatment works, or if facilities are permanently closed, the permittee shall submit to the DEQ Piedmont Regional Office a closure plan for the existing treatment works. The plan shall address the following information as a minimum: Verification of elimination of sources and/or alternate treatment scheme; treatment, removal and final disposition of residual wastewater and solids; removal/demolition/disposal of structures, equipment, piping and appurtenances; site grading, and erosion and sediment control; restoration of site vegetation; access control; fill materials; and proposed land use (post-closure) of the site. The plan should contain proposed dates for beginning and completion of the work. The plan must be approved by the DEQ prior to implementation. Once approved, the plan shall become an enforceable part of this permit and closure shall be implemented in accordance with the approved plan. No later than 14 calendar days following closure completion, the permittee shall submit to the DEQ Piedmont Regional Office written notification of the closure completion date and a certification of closure in accordance with the approved plan.

#### 14. Water Quality Criteria Monitoring:

The permittee shall monitor the effluent at Outfalls 001 or 002 for the substances noted in Attachment A, "Water Quality Criteria Monitoring" according to the indicated analysis number, quantification level, sample type and

frequency. Using the Attachment A form in Part III of this permit as the reporting form, the data shall be submitted no later than two years following the commencement of discharge, or with the permit reissuance application, if the application due date is less than two years after the commencement of discharge. No later than six months following issuance of the CTO for the 4.0 MGD and 6.0 MGD flow tiers, the permittee shall resubmit data using the Attachment A form in Part III of this permit as the reporting form. Monitoring and analysis shall be conducted in accordance with 40 CFR Part 136 or alternative EPA approved methods. It is the responsibility of the permittee to ensure that proper QA/QC protocols are followed during the sample gathering and analytical procedures. The DEQ will use these data for making specific permit decisions in the future. This permit may be modified or, alternatively, revoked and reissued to incorporate limits for any of the substances listed in Attachment A.

15. Notification of Commencement of Discharge for New Facilities:

The dates of issuance of the respective CTOs for the 2.0 MGD, 4.0 MGD and 6.0 MGD flow tiers will be used as the trigger dates for the permit conditions that become effective upon the commencement of discharge at the respective tiers.

D. Pretreatment Program

1. Within 180 days of the effective or modification date of this permit, the permittee shall submit to the DEQ Regional Office a survey of all Industrial Users discharging to the POTW. The information shall be submitted on the DEQ Discharger Survey Form, or an equivalent form that includes the quantity and quality of the wastewater. Survey results shall include the identification of significant industrial users of the POTW.
2. Should evaluation by the DEQ of results of the Industrial User survey conducted in accordance with (1) above indicate that the permittee is not required to implement a pretreatment program, the requirements for program development described in (4) below may be suspended by the DEQ.
3. If Categorical Industrial User(s) are identified, or if the permittee or DEQ determines that the industrial user(s) have potential to adversely affect the operation of the POTW or cause violation(s) of federal, state or local standards or requirements, the permittee shall develop and submit to the DEQ Regional Office within one year of written notification by DEQ a pretreatment program for approval. The program shall enable the permittee to control by permit the Significant Industrial Users\* discharging wastewater to the treatment works.
4. The approvable pretreatment program submission shall at a minimum contain the following parts:
  - a. Legal authority,
  - b. Program procedures,
  - c. Funding and resources,
  - d. Local limits evaluation, and local limits if needed,
  - e. Enforcement response plan, and
  - f. List of Significant Industrial Users \*.
5. Where the permittee is required to develop a pretreatment program, they shall submit to the DEQ Regional Office an annual report no later than January 31 of each year and must include:
  - a. An updated list of the Significant Industrial Users\* noting all of the following:
    - 1) facility address, phone, email and contact name
    - 2) explanation of SIUs deleted from the previous year's list
    - 3) identify which IUs are subject to Categorical Standards and note which Standard (ie. metal finishing)
    - 4) specify which 40 CFR part(s) is/are applicable
    - 5) indicate which IUs are subject to local standards that are more stringent than Categorical Pretreatment Standards
    - 6) indicate which IUs are subject only to local requirements
    - 7) identify which IUs are subject to Categorical Pretreatment Standards that are subject to reduced reporting requirements under 9 VAC 25-31-840 E.3.
    - 8) identify which IUs are non-significant Categorical Industrial Users
  - b. A summary of the compliance status of each Significant Industrial User with pretreatment standards and permit requirements.

- c. A summary of the number and types of Significant Industrial User sampling and inspections performed by the POTW.
  - d. All information concerning any interference, upset, VPDES permit or Water Quality Standards violations directly attributable to Significant Industrial Users and enforcement actions taken to alleviate said events.
  - e. A description of all enforcement actions taken against Significant Industrial Users over the previous 12 months.
  - f. A summary of any changes to the submitted pretreatment program that have not been previously reported to the DEQ Regional Office.
  - g. A summary of the permits issued to Significant Industrial Users since the last annual report.
  - h. POTW and self-monitoring results for Significant Industrial Users determined to be in significant non-compliance during the reporting period.
  - i. Results of the POTW's influent/effluent/sludge sampling, not previously submitted to DEQ.
  - j. Copies of newspaper publications of all Significant Industrial Users in significant non-compliance during the reporting period. This is due no later than March 31 of each year.
  - k. Signature of an authorized representative.
6. The DEQ may require the POTW to institute changes to the legal authority regarding Significant Industrial User permit(s):
- a. If the legal authority does not meet the requirements of the Clean Water Act, Water Control Law or State regulations;
  - b. If problems such as interferences, pass-through, violations of water quality standards or sludge contamination develop or continue; and
  - c. If federal, state or local requirements change.

**\*A significant industrial user is one that:**

- Has an average flow of 25,000 gallons or more per workday of process\*\* wastewater;
- Contributes a process wastestream which makes up 5.0-percent or more of the average dry weather hydraulic or organic capacity of the POTW;
- Is subject to the categorical pretreatment standards; or
- Has significant impact, either singularly or in combination with other Significant Dischargers, on the treatment works or the quality of its effluent.

\*\* Excludes sanitary, non-contact cooling water and boiler blowdown.

## CONDITIONS APPLICABLE TO ALL VPDES PERMITS

A. Monitoring

1. Samples and measurements required by this permit shall be taken at the permit designated or approved location and be representative of the monitored activity.
  - a. Monitoring shall be conducted according to procedures approved under Title 40 Code of Federal Regulations Part 136 or alternative methods approved by the U.S. Environmental Protection Agency, unless other procedures have been specified in this permit.
  - a. The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will insure accuracy of measurements.
  - b. Samples taken shall be analyzed by a laboratory certified under 1VAC30-45, Certification for Noncommercial Environmental Laboratories, or 1VAC30-46, Accreditation for Commercial Environmental Laboratories.
2. Any pollutant specifically addressed by this permit that is sampled or measured at the permit designated or approved location more frequently than required by this permit shall meet the requirements in A 1 a through c above and the results of this monitoring shall be included in the calculations and reporting required by this permit.
3. Operational or process control samples or measurements shall not be taken at the designated permit sampling or measurement locations. Operational or process control samples or measurements do not need to follow procedures approved under Title 40 Code of Federal Regulations Part 136 or be analyzed in accordance with 1VAC30-45, Certification for Noncommercial Environmental Laboratories, or 1VAC30-46, Accreditation for Commercial Environmental Laboratories.

B. Records

1. Records of monitoring information shall include:
  - a. The date, exact place, and time of sampling or measurements;
  - b. The individual(s) who performed the sampling or measurements;
  - c. The date(s) and time(s) analyses were performed;
  - d. The individual(s) who performed the analyses;
  - e. The analytical techniques or methods used; and
  - f. The results of such analyses.
2. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years, the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the permittee, or as requested by the Board.

C. Reporting Monitoring Results

1. The permittee shall submit the results of the monitoring required by this permit by hard copy or by E-DMR not later than the 10th day of the month after the monitoring period, unless another reporting schedule is specified elsewhere in this permit. Monitoring results sent by hard copy shall be submitted to:

**DEQ - Piedmont Regional Office**

**4949-A Cox Road  
Glen Allen, VA 23060**

2. Monitoring results shall be reported on a Discharge Monitoring Report (DMR) or on forms provided, approved, or specified by the Department.
3. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

**D. Duty to Provide Information**

The permittee shall furnish to the Department, within a reasonable time, any information which the Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Board may require the permittee to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from his discharge on the quality of state waters, or such other information as may be necessary to accomplish the purposes of the State Water Control Law. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

**E. Compliance Schedule Reports**

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

**F. Unauthorized Discharges**

Except in compliance with this permit, or another permit issued by the Board, it shall be unlawful for any person to:

1. Discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances; or
2. Otherwise alter the physical, chemical or biological properties of such state waters and make them detrimental to the public health, or to animal or aquatic life, or to the use of such waters for domestic or industrial consumption, or for recreation, or for other uses.

**G. Reports of Unauthorized Discharges**

Any permittee who discharges or causes or allows a discharge of sewage, industrial waste, other wastes or any noxious or deleterious substance into or upon state waters in violation of Part II F; or who discharges or causes or allows a discharge that may reasonably be expected to enter state waters in violation of Part II F, shall notify the Department of the discharge immediately upon discovery of the discharge, but in no case later than 24 hours after said discovery. A written report of the unauthorized discharge shall be submitted to the Department, within five days of discovery of the discharge. The written report shall contain:

1. A description of the nature and location of the discharge;
2. The cause of the discharge;
3. The date on which the discharge occurred;
4. The length of time that the discharge continued;
5. The volume of the discharge;
6. If the discharge is continuing, how long it is expected to continue;
7. If the discharge is continuing, what the expected total volume of the discharge will be; and
8. Any steps planned or taken to reduce, eliminate and prevent a recurrence of the present discharge or any future discharges not authorized by this permit. Discharges reportable to the Department under the immediate reporting requirements of other regulations are exempted from this requirement.

**H. Reports of Unusual or Extraordinary Discharges**

If any unusual or extraordinary discharge including a bypass or upset should occur from a treatment works and the discharge enters or could be expected to enter state waters, the permittee shall promptly notify, in no case later than 24 hours, the Department by telephone after the discovery of the discharge. This notification shall provide all available details of the incident, including any adverse effects on aquatic life and the known number of fish killed. The permittee shall reduce the report to writing and shall submit it to the Department within five days of discovery of the discharge in accordance with Part II I 2. Unusual and extraordinary discharges include but are not limited to any discharge resulting from:

1. Unusual spillage of materials resulting directly or indirectly from processing operations;
2. Breakdown of processing or accessory equipment;
3. Failure or taking out of service some or all of the treatment works; and
4. Flooding or other acts of nature.

**I. Reports of Noncompliance**

The permittee shall report any noncompliance which may adversely affect state waters or may endanger public health.

1. An oral report shall be provided within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which shall be reported within 24 hours under this paragraph:
  - a. Any unanticipated bypass; and
  - b. Any upset which causes a discharge to surface waters.
2. A written report shall be submitted within 5 days and shall contain:
  - a. A description of the noncompliance and its cause;
  - b. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
  - c. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The Board may waive the written report on a case-by-case basis for reports of noncompliance under Part II I. if the oral report has been received within 24 hours and no adverse impact on state waters has been reported.

3. The permittee shall report all instances of noncompliance not reported under Parts II I.1 or 2, in writing, at the time the next monitoring reports are submitted. The reports shall contain the information listed in Part II I.2.

**NOTE: The immediate (within 24 hours) reports required in Parts II G, H and I shall be made to the Department's Regional Office at [pro.SSO-UD@deq.virginia.gov](mailto:pro.SSO-UD@deq.virginia.gov) or (804) 527-5020. For telephone reports outside normal working hours (before 8:30 am and after 5:00 pm Monday through Friday and anytime Saturday through Sunday), follow the instructions on the voicemail to reach the appropriate staff. For emergencies, the Virginia Department of Emergency Management maintains a 24-hour telephone service at 1-800-468-8892.**

**J. Notice of Planned Changes**

1. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
  - a. The permittee plans alteration or addition to any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:
    - (1) After promulgation of standards of performance under Section 306 of Clean Water Act which are applicable to such source; or

- (2) After proposal of standards of performance in accordance with Section 306 of Clean Water Act which are applicable to such source, but only if the standards are promulgated in accordance with Section 306 within 120 days of their proposal;
- b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations nor to notification requirements specified elsewhere in this permit; or
  - c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
2. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

K. Signatory Requirements

1. Applications. All permit applications shall be signed as follows:
- a. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
  - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
  - c. For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a federal agency includes: (i) The chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.
2. Reports, etc. All reports required by permits, and other information requested by the Board shall be signed by a person described in Part II K 1, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
- a. The authorization is made in writing by a person described in Part II K 1;
  - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and
  - c. The written authorization is submitted to the Department.
3. Changes to authorization. If an authorization under Part II K 2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part II K 2 shall be submitted to the Department prior to or together with any reports, or information to be signed by an authorized representative.



4. Certification. Any person signing a document under Parts II K 1 or 2 shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

L. Duty to Comply

The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the State Water Control Law and the Clean Water Act, except that noncompliance with certain provisions of this permit may constitute a violation of the State Water Control Law but not the Clean Water Act. Permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if this permit has not yet been modified to incorporate the requirement.

M. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit. All permittees with a currently effective permit shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Board. The Board shall not grant permission for applications to be submitted later than the expiration date of the existing permit.

N. Effect of a Permit

This permit does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorize any injury to private property or invasion of personal rights, or any infringement of federal, state or local law or regulations.

O. State Law

Nothing in this permit shall be construed to preclude the institution of any legal action under, or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any other state law or regulation or under authority preserved by Section 510 of the Clean Water Act. Except as provided in permit conditions on "bypassing" (Part II U), and "upset" (Part II V) nothing in this permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

P. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Sections 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

Q. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes effective plant performance, adequate funding, adequate staffing, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

R. Disposal of Solids or Sludges

Solids, sludges or other pollutants removed in the course of treatment or management of pollutants shall be disposed of in a manner so as to prevent any pollutant from such materials from entering state waters.

S. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

T. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

U. Bypass

1. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts II U 2 and U 3.

2. Notice

a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, prior notice shall be submitted, if possible at least ten days before the date of the bypass.

b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Part II I.

3. Prohibition of bypass.

a. Bypass is prohibited, and the Board may take enforcement action against a permittee for bypass, unless:

(1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(3) The permittee submitted notices as required under Part II U 2.

b. The Board may approve an anticipated bypass, after considering its adverse effects, if the Board determines that it will meet the three conditions listed above in Part II U 3 a.

V. Upset

1. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of Part II V 2 are met. A determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is not a final administrative action subject to judicial review.

2. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An upset occurred and that the permittee can identify the cause(s) of the upset;

b. The permitted facility was at the time being properly operated;

c. The permittee submitted notice of the upset as required in Part II I 2; and

d. The permittee complied with any remedial measures required under Part II S.

3. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

W. Inspection and Entry

The permittee shall allow the Director, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act and the State Water Control Law, any substances or parameters at any location.

For purposes of this section, the time for inspection shall be deemed reasonable during regular business hours, and whenever the facility is discharging. Nothing contained herein shall make an inspection unreasonable during an emergency.

X. Permit Actions

Permits may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Y. Transfer of Permits

1. Permits are not transferable to any person except after notice to the Department. Except as provided in Part II Y 2, a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued, or a minor modification made, to identify the new permittee and incorporate such other requirements as may be necessary under the State Water Control Law and the Clean Water Act.
2. As an alternative to transfers under Part II Y 1, this permit may be automatically transferred to a new permittee if:
  - a. The current permittee notifies the Department at least 30 days in advance of the proposed transfer of the title to the facility or property;
  - b. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
  - c. The Board does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Part II Y 2 b.

Z. Severability

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

ATTACHMENT A  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY CRITERIA MONITORING

All analyses shall be in accordance with 1VAC30-45, Certification for Noncommercial Environmental Laboratories, or 1VAC30-46, Accreditation for Commercial Environmental Laboratories.

A listing of Virginia Environmental Laboratory Accreditation Program (VELAP) certified and/or accredited laboratories can be found at the following website:

<http://dgs.virginia.gov/DivisionofConsolidatedLaboratoryServices/Services/EnvironmentalLaboratoryCertification2/tabid/1503/Default.aspx>

A specific analytical method is not specified; however, an appropriate method to meet the QL shall be selected from (i) any approved method presented in 40 CFR Part 136 or (ii) any alternative EPA approved method, provided that all analyses are in accordance with 1VAC30-45, Certification for Noncommercial Environmental Laboratories, or 1VAC30-46, Accreditation for Commercial Environmental Laboratories.

Units for the quantification level are micrograms/liter unless otherwise specified.

Quality control and quality assurance information (i.e. laboratory certificates of analysis) shall be submitted to document that the required quantification level has been attained.

Please be advised that additional water quality analyses may be necessary and/or required for permitting purposes.

CASRN	PARAMETER	QUANTIFICATION LEVEL <sup>(1)</sup>	REPORTING RESULTS <sup>(2)</sup>	RESULTS UNIT	SAMPLE TYPE <sup>(3)</sup>
<b>METALS</b>					
7440-36-0	Antimony, Dissolved	1.4 ug/L			C
7440-38-2	Arsenic, Dissolved	1.0 ug/L			C
7440-43-9	Cadmium, Dissolved	0.3 ug/L			C
16065-83-1	Chromium III, Dissolved <sup>(5)</sup>	3.6 ug/L			C
18540-29-9	Chromium VI, Dissolved <sup>(5)</sup>	1.6 ug/L			C
7440-50-8	Copper, Dissolved	0.50 ug/L			C
7439-92-1	Lead, Dissolved	0.50 ug/L			C
7439-97-6	Mercury, Dissolved	1.0 ug/L			C
7440-02-0	Nickel, Dissolved	0.94 ug/L			C
7782-49-2	Selenium, Total Recoverable	2.0 ug/L			C
7440-22-4	Silver, Dissolved	0.20 ug/L			C
7440-28-0	Thallium, Dissolved	(4)			C
7440-66-6	Zinc, Dissolved	3.6 ug/L			C
<b>PESTICIDES/PCBs</b>					
309-00-2	Aldrin	0.05 ug/L			G or C
63-25-2	Carbaryl <sup>(9)</sup>	(4)			G or C
57-74-9	Chlordane	0.2 ug/L			G or C
2921-88-2	Chlorpyrifos (synonym = Dursban)	(4)			G or C
72-54-8	DDD	0.1 ug/L			G or C

CASRN	PARAMETER	QUANTIFICATION LEVEL <sup>(1)</sup>	REPORTING RESULTS <sup>(2)</sup>	RESULTS UNIT	SAMPLE TYPE <sup>(3)</sup>
72-55-9	DDE	0.1 ug/L			G or C
50-29-3	DDT	0.1 ug/L			G or C
8065-48-3	Demeton (synonym = Dementon-O,S)	(4)			G or C
333-41-5	Diazinon	(4)			G or C
60-57-1	Dieldrin	0.1 ug/L			G or C
959-98-8	Alpha-Endosulfan (synonym = Endosulfan I)	0.1 ug/L			G or C
33213-65-9	Beta-Endosulfan (synonym = Endosulfan II)	0.1 ug/L			G or C
1031-07-8	Endosulfan Sulfate	0.1 ug/L			G or C
72-20-8	Endrin	0.1 ug/L			G or C
7421-93-4	Endrin Aldehyde	(4)			G or C
86-50-0	Guthion (synonym = Azinphos Methyl)	(4)			G or C
76-44-8	Heptachlor	0.05 ug/L			G or C
1024-57-3	Heptachlor Epoxide	(4)			G or C
319-84-6	Hexachlorocyclohexane Alpha-BHC	(4)			G or C
319-85-7	Hexachlorocyclohexane Beta-BHC	(4)			G or C
58-89-9	Hexachlorocyclohexane Gamma-BHC (syn. = Lindane)	(4)			G or C
608-73-1	Hexachlorocyclohexane (HCH) – Technical	(4)			G or C
143-50-0	Kepone	(4)			G or C
121-75-5	Malathion	(4)			G or C
72-43-5	Methoxychlor	(4)			G or C
2385-85-5	Mirex	(4)			G or C
56-38-2	Parathion (synonym = Parathion Ethyl)	(4)			G or C
1336-36-3	PCB, total	7.0 ug/L			G or C
8001-35-2	Toxaphene	5.0 ug/L			G or C
<b>BASE NEUTRAL EXTRACTABLES</b>					
83-32-9	Acenaphthene	10.0 ug/L			C
120-12-7	Anthracene	10.0 ug/L			C
92-87-5	Benzidine	(4)			C
56-55-3	Benzo(a)anthracene	10.0 ug/L			C
205-99-2	Benzo (b) fluoranthene (synonym = 3,4-Benzo(b)fluoranthene)	10.0 ug/L			C
207-08-9	Benzo(k)fluoranthene	10.0 ug/L			C

CASRN	PARAMETER	QUANTIFICATION LEVEL <sup>(1)</sup>	REPORTING RESULTS <sup>(2)</sup>	RESULTS UNIT	SAMPLE TYPE <sup>(3)</sup>
50-32-8	Benzo(a)pyrene	10.0 ug/L			C
542-88-1	Bis (chloromethyl) Ether	(4)			C
111-44-4	Bis 2-Chloroethyl Ether	(4)			C
108-60-1	Bis 2-Chloroisopropyl Ether	(4)			C
117-81-7	Bis 2-Ethylhexyl Phthalate (syn. = Di-2-Ethylhexyl Phthalate)	10.0 ug/L			C
85-68-7	Butyl Benzyl Phthalate	10.0 ug/L			C
91-58-7	2-Chloronaphthalene	(4)			C
218-01-9	Chrysene	10.0 ug/L			C
53-70-3	Dibenzo(a,h)anthracene	20.0 ug/L			C
95-50-1	1,2-Dichlorobenzene	10.0 ug/L			C
541-73-1	1,3-Dichlorobenzene	10.0 ug/L			C
106-46-7	1,4-Dichlorobenzene	10.0 ug/L			C
91-94-1	3,3-Dichlorobenzidine	(4)			C
84-66-2	Diethyl Phthalate	10.0 ug/L			C
131-11-3	Dimethyl Phthalate	(4)			C
84-74-2	Di-n-butyl Phthalate (synonym = Dibutyl Phthalate)	10.0 ug/L			C
121-14-2	2,4-Dinitrotoluene	10.0 ug/L			C
122-66-7	1,2-Diphenylhydrazine	(4)			C
206-44-0	Fluoranthene	10.0 ug/L			C
86-73-7	Fluorene	10.0 ug/L			C
118-74-1	Hexachlorobenzene	(4)			C
87-68-3	Hexachlorobutadiene	(4)			C
77-47-4	Hexachlorocyclopentadiene	(4)			C
67-72-1	Hexachloroethane	(4)			C
193-39-5	Indeno(1,2,3-cd)pyrene	20.0 ug/L			C
78-59-1	Isophorone	10.0 ug/L			C
98-95-3	Nitrobenzene	10.0 ug/L			C
62-75-9	N-Nitrosodimethylamine	(4)			C
86-30-6	N-Nitrosodiphenylamine	(4)			C
621-64-7	N-Nitrosodi-n-propylamine	(4)			C
608-93-5	Pentachlorobenzene	(4)			C

CASRN	PARAMETER	QUANTIFICATION LEVEL <sup>(1)</sup>	REPORTING RESULTS <sup>(2)</sup>	RESULTS UNIT	SAMPLE TYPE <sup>(3)</sup>
129-00-0	Pyrene	10.0 ug/L			C
95-94-3	1,2,4,5-Tetrachlorobenzene	(4)			C
120-82-1	1,2,4-Trichlorobenzene	10.0 ug/L			C
<b>VOLATILES</b>					
107-02-8	Acrolein	(4)			G
107-13-1	Acrylonitrile	(4)			G
71-43-2	Benzene	10.0 ug/L			G
75-25-2	Bromoform	10.0 ug/L			G
56-23-5	Carbon Tetrachloride	10.0 ug/L			G
108-90-7	Chlorobenzene (synonym = Monochlorobenzene)	50.0 ug/L			G
124-48-1	Chlorodibromomethane	10.0 ug/L			G
67-66-3	Chloroform	10.0 ug/L			G
75-27-4	Dichlorobromomethane	10.0 ug/L			G
107-06-2	1,2-Dichloroethane	10.0 ug/L			G
75-35-4	1,1-Dichloroethylene	10.0 ug/L			G
156-60-5	1,2-trans-dichloroethylene	(4)			G
78-87-5	1,2-Dichloropropane	(4)			G
542-75-6	1,3-Dichloropropene	(4)			G
100-41-4	Ethylbenzene	10.0 ug/L			G
74-83-9	Methyl Bromide (synonym = Bromomethane)	(4)			G
75-09-2	Methylene Chloride (synonym = Dichloromethane)	20.0 ug/L			G
79-34-5	1,1,2,2-Tetrachloroethane	(4)			G
127-18-4	Tetrachloroethylene (synonym = Tetrachloroethene)	10.0 ug/L			G
10-88-3	Toluene	10.0 ug/L			G
71-55-6	1,1,1-Trichloroethane	(4)			G
79-00-5	1,1,2-Trichloroethane	(4)			G
79-01-6	Trichloroethylene (synonym = Trichloroethene)	10.0 ug/L			G
75-01-4	Vinyl Chloride	10.0 ug/L			G
<b>ACID EXTRACTABLES</b>					
95-57-8	2-Chlorophenol	10.0 ug/L			G or C
120-83-2	2,4 Dichlorophenol	10.0 ug/L			G or C

CASRN	PARAMETER	QUANTIFICATION LEVEL <sup>(1)</sup>	REPORTING RESULTS <sup>(2)</sup>	RESULTS UNIT	SAMPLE TYPE <sup>(3)</sup>
105-67-9	2,4 Dimethylphenol	10.0 ug/L			G or C
51-28-5	2,4-Dinitrophenol	(4)			G or C
25550-58-7	Dinitrophenols	(4)			G or C
534-52-1	2-Methyl-4,6-Dinitrophenol (synonym = 4,6-Dinitro-o-cresol)	(4)			G or C
59-50-7	3-Methyl-4-Chlorophenol	(4)			G or C
84852-15-3	Nonylphenol	(4)			G or C
87-86-5	Pentachlorophenol	50.0 ug/L			G or C
108-95-2	Phenol	10.0 ug/L			G or C
95-95-4	2,4,5-Trichlorophenol	(4)			G or C
88-06-2	2,4,6-Trichlorophenol	10.0 ug/L			G or C
<b>MISCELLANEOUS</b>					
16887-00-6	Chloride (mg/L)	(4)			C
57-12-5	Total Cyanide <sup>(6)</sup>	10.0 ug/L			G
18496-25-8	Total Sulfide <sup>(7)</sup>	100 ug/L			G or C
60-10-5	Tributyltin	(4)			G or C
471-34-1	Hardness (mg/L as CaCO <sub>3</sub> )	(4)			C

\_\_\_\_\_  
Name of Principal Executive Officer or Authorized Agent/Title

\_\_\_\_\_  
Signature of Principal Executive Officer or Authorized Agent/Date

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. Sec. 1001 and 33 U.S.C. Sec. 1319. (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 months and 5 years.)



**Footnotes to Water Quality Monitoring**

- (1) Quantification level (QL) means the minimum levels, concentrations, or quantities of a target variable (e.g. target analyte) that can be reported with a specified degree of confidence in accordance with 1VAC30-45, Certification for Noncommercial Environmental Laboratories, or 1VAC30-46, Accreditation for Commercial Environmental Laboratories.

The quantification levels indicated for the metals are actually Specific Target Values developed for this permit. The Specific Target Value is the approximate value that may initiate a wasteload allocation analysis. Target values are not wasteload allocations or effluent limitations. The Specific Target Values are subject to change based on additional information such as hardness data, receiving stream flow, and design flows.

- (2) If the reporting result is greater than or equal to the QL, then include the reporting result. If the reporting result is less than the QL, then report "< [lab QL]". For example, if the reporting result is below the QL with a QL of 25 micrograms/liter, then report "<25".

- (3) Sample Type

G = Grab = An individual sample collected in less than 15 minutes. Substances specified with "grab" sample type shall only be collected as grabs. The permittee may analyze multiple grabs and report the average results provided that the individual grab results are also reported. For dissolved metals samples, the samples shall be filtered and preserved immediately upon collection.

C = Composite = A 24-hour composite unless otherwise specified. The composite shall be a combination of individual samples, taken proportional to flow, obtained at hourly or smaller time intervals. The individual samples may be of equal volume for flows that do not vary by +/- 10 percent over a 24-hour period. For dissolved metals, the sample must be filtered within 15 minutes after completion of collection and before adding preservatives. If it is known or suspected that dissolved sample integrity will be compromised during collection of a composite sample collected automatically over time (e.g., by interchange of a metal between dissolved and suspended forms), collect and filter grab samples to be composited in place of a composite sample collected automatically.

- (4) The QL is at the discretion of the permittee.
- (5) Both Chromium III and Chromium VI may be measured by the total chromium analysis. The total chromium analytical test QL shall be less than or equal to the lesser of the Chromium III or Chromium VI method QL listed above. If the result of the total chromium analysis is less than the analytical test QL, both Chromium III and Chromium VI can be reported as "<[QL]", where the actual analytical test QL is substituted for [QL].
- (6) The total cyanide analytical test QL shall be less than or equal to the QL listed above. If the result of the total cyanide analysis is greater than the analytical test QL, then the effluent must be retested for free cyanide with an analytical test QL less than or equal to the total cyanide QL listed above.
- (7) The total sulfide analytical test QL shall be less than or equal to the QL listed above. If the result of the total sulfide analysis is greater than the analytical test QL, then the effluent must be retested for dissolved sulfide with an analytical test QL less than or equal to the total sulfide QL listed above.
- (8) Analytical Methods: Analysis of Butyltins in Environmental Systems by the Virginia Institute of Marine Science, dated November 1996 (currently the only Virginia Environmental Laboratory Accreditation Program (VELAP) accredited method).
- (9) If a VELAP certified laboratory does not exist for a required parameter or method, then the responsible party should consider use of an alternative method under the regulatory requirements if applicable and they should request that a laboratory obtain VELAP accreditation for the required parameter or method, but can continue to use a non-VELAP certified laboratory until a laboratory is certified for the required parameter or method. The responsible party should ensure prior to each sampling event that a VELAP-certified laboratory is not available prior to using a non-VELAP certified laboratory.

PUBLIC NOTICE BILLING INFORMATION

I hereby authorize the Department of Environmental Quality to have the cost of publishing a public notice billed to the Agent/Department shown below. The public notice will be published once a week for two consecutive weeks in the Petersburg Progress-Index in accordance with 9 VAC 25-31-290.C.2.

Agent/Department to be billed: Prince George County

Owner: Same as above

Agent/Department Address: PO Box 68

Prince George, Virginia 23875

Agent's Telephone No.: (804) 722-8600

Printed Name: Percy C. Ashcraft

Authorizing Agent – Signature: 

Date: 10.25.19

VPDES Permit No. VA0000000

Facility Name



# COUNTY OF PRINCE GEORGE, VIRGINIA



## WASTEWATER TREATMENT PLANT VPDES PERMIT NO. VA0093068

### PRESENTATION TO BOARD OF SUPERVISORS



Legend  
Water Line  
Sewer Line - Gravity  
Sewer Line - Force Main  
Sewer Line - Private

968 Olympia Drive, Suite 1  
Charlottesville, VA 22911  
Phone: 434-984-2700

June 23, 2020

[www.wvassociates.net](http://www.wvassociates.net)

P.O. Box 4119  
Lynchburg, VA 24502  
Phone: 434-316-6080

## OVERVIEW



- **2016 Water & Wastewater Master Plan**
- **2018 Southpoint Business Park Utilities Evaluation**
  - Conclusion – Inadequate wastewater collection and disposal for the Southpoint Business Park
  - Identified a need for an additional wastewater capacity of 2.0 MGD to serve future users
  - Recommendation – Construct a new Wastewater Treatment Plant



## **TIMELINE**



- **Contracted with WW Associates to prepare VPDES Application – August 2019**

- Submitted Application
- Draft Permit – April 29, 2020
- Public Notice – June 2020
- Estimated Issuance Date – August 2020





## VPDES PERMIT OVERVIEW



- **Stream – Blackwater Swamp**
- **River Basin – Chowan River & Dismal Swamp**

### Limits

- **CBOD<sub>5</sub> – 10 mg/l**
- **TSS – 10 mg/l**
- **Ammonia – 0.39 mg/l (May – November)  
0.49 mg/l (December – April)**
- **Characterized as “High Quality Effluent”**
- **DEQ – Standards are protective of all aquatic life**



## WWTP SITE CONSIDERATIONS



- **Aeration – Biological treatment eliminates odors**
- **Buffer Zones – 400-600 FT**
  - **Vegetative Buffers**
  - **Wind Breaks**
  - **Soil Berms**





# COUNTY OF PRINCE GEORGE, VIRGINIA



## WASTEWATER TREATMENT PLANT VPDES PERMIT NO. VA0093068

### PRESENTATION TO BOARD OF SUPERVISORS

## QUESTIONS



968 Olympia Drive, Suite 1  
Charlottesville, VA 22911  
Phone: 434-984-2700

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