COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Permit No.:	VA0063177
Effective Date:	September 1, 2025
Expiration Date:	August 31, 2030

AUTHORIZATION TO DISCHARGE UNDER THE

VIRGINIA POLLUTION 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, II, III, IV and V of this permit, as set forth herein.

Owner:	City of Richmond
Facility Name:	City of Richmond Wastewater Treatment Plant (WWTP), Combined Sewer System (CSS), and Municipal Separate Storm Sewer System (MS4)
City:	Richmond
Facility Location:	1400 Brander Street, Richmond, VA 23224

The owner is authorized to discharge from the wastewater treatment plant, combined sewer system, and municipal separate storm sewer system to surface waters. The wastewater treatment plant discharges to the following receiving stream:

	Outfalls 001, 901, 902 and 903
Name:	James River
Basin:	James River
Subbasin:	Lower James River
Section:	1
Class:	II
Special Standards:	bb

Jaime B. Robb

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Deputy Regional Director, Piedmont Regional Office

August 28, 2025

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Date

PART I – CITY OF RICHMOND DEPARTMENT OF UTILITIES (DPU) TOTAL ANNUAL LOAD LIMITS AND OTHER CONDITIONS

A. City of Richmond Department of Public Utilities (DPU) Total Loadings

1. DPU operates facilities and systems that include discharges from the wastewater treatment plant (WWTP), combined sewer system (CSS) and municipal separate storm sewer system (MS4). All of these discharges are included in the allocations that are part of the Chesapeake Bay Total Maximum Daily Load (TMDL) calculations. The following table provides the loads assigned to the total discharges for DPU.

2. During the period beginning with the permit's effective date and lasting until the permit's expiration, the permittee has been allocated the following annual loads based upon the Chesapeake Bay TMDL. The permittee shall monitor discharges contributing to the aggregated annual load allocation for the combined discharges associated with the permittee's WWTP, CSS, and MS4. Monitoring data will include sampling and analysis of the wastewater treatment plant effluent, modeling results for the combined sewer system and modeling for BMP reductions associated with the MS4:

PARAMETER	TOTAL AGGREGATED ANNUAL LOAD THROUGH 12/31/2025 (lbs)	TOTAL AGGREGATED ANNUAL LOAD BEGINNING 01/01/2026 (lbs)
Total Nitrogen (TN)	1,658,110	1,658,110
Total Phosphorus (TP)	104,658	76,042
Total Suspended Solids (TSS)	9,467,508	9,467,508

a. The permittee's performance against loadings for each of the above parameters shall be determined on a calendar year basis.

b. The Total Nitrogen and Total Phosphorus calendar year load limits associated with the WWTP are included in the current Registration List under registration number VAN040085 and are separately enforceable under the General VPDES Watershed Permit Regulation for Total Nitrogen and Total Phosphorus Dischargers and Nutrient Trading in the Chesapeake Watershed in Virginia. If the discharged load from the WWTP is greater than the annual limit in the Watershed General Permit, the permittee shall acquire credits necessary to comply with the Watershed General Permit.

c. The permittee's MS4 is subject to the CWA § 402(p) "maximum extent practicable" (MEP) standard and shall develop, implement, and enforce a program to implement best management practices (BMPs) to the MEP. The permittee cohesively administers its CSS and MS4 to meet all applicable requirements while achieving the greatest net pollutant reductions and has developed the RVAH2O Clean Water Plan, which establishes a framework for addressing drainage and wet weather volume in the combined and separate sewer areas. In recognition of the permittee's distinct stormwater administration, and in order to optimize the permittee's stormwater pollutant reductions, MEP factors include, but are not limited to:

(1) Adequate funding from the City of Richmond Stormwater Utility;

(2) Other stormwater funding allocated to the permittee, such as funding from the City of Richmond Wastewater Utility for the CSS and funding from the Virginia Stormwater Local Assistance Fund;

(3) The benefit-cost ratio of CSS projects compared to the benefit-cost ratio of MS4 projects; and,
(4) The relative spatial and pollutant reduction benefit of CSS projects compared to MS4 projects based upon the outfall location affected.

3. The permittee shall conduct surface water monitoring on the James River upstream and downstream of the area subject to the requirements of this permit in order to document spatial and temporal variability in water quality of the James River and tributary streams located within the City of Richmond. The purpose of this monitoring program is to characterize the effects on water quality arising from nutrients, sediment and bacteria, and to document long-term recovery following remediation. The permittee shall coordinate with DEQ to ensure the data collected can be used for water quality assessments under CWA § 303(d) and 305(b). The permittee shall submit annual assessment reports as part of I.A.4 (Integrated CSS and MS4 Annual Reporting).

4. Integrated CSS and MS4 Annual Reporting:
The permittee shall submit an annual report by March 31 of each year after the year in which the permit becomes effective to the Department of Environmental Quality's Piedmont Regional Office. The report shall contain, at a minimum, the information specified in Appendix A of this permit for the previous calendar year.

B. Conditions in Parts II-IV of this permit apply only to the facilities and systems listed in these respective parts. Part V of this permit applies to all of the facilities and systems listed in this permit.

PART II – WASTEWATER TREATMENT PLANT (WWTP)

A. Limitations and Monitoring Requirements

1. During the period beginning with the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to discharge from Outfall 001 (combined discharge(s) from Outfalls 101 and 102).

a. Such discharges shall be limited and monitored specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
	MONTHLY AVERAGE (4)	WEEKLY AVERAGE	MINIMUM (4)	MAXIMUM (4)	FREQUENCY	SAMPLE TYPE
Flow (MGD) (1) (3)	NL	NA	NA	NL	Continuous	Totalizing, Indicating & Recording
pH (standard units) (3)	NA	NA	6.0	9.0	1 per Day	Grab
Dissolved Oxygen (DO) (3)	NA	NA	5.6 mg/L	NA	1 per Day	Grab
E.coli (2) (3)	126 N/100mL (Geometric Mean)	NA	NA	NL	1 per Day	Grab (between 7:30 am - 1:30 pm)

"NL" means no limitation is established. Monitoring and reporting, however, are required.
"NA" means not applicable.

(1) The dry-weather design flow is 45 MGD and the minimum wet weather design flow is 75 MGD. The maximum combined wet-weather design flow from Outfalls 101 and 102 is 140 MGD.
(2) See Part II.B for alternate disinfection requirements.
(3) When Outfall 102 is not discharging, sampling at Outfall 101 may be used to satisfy the monitoring requirements for Outfall 001.
(4) See Part II.C.4 for additional monitoring and reporting instructions.

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

2. During the period beginning with the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to discharge from Outfall 101 (internal outfall).

   a. Such discharges shall be limited and monitored specified below:

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS						MONITORING REQUIREMENTS (9)	
		MONTHLY AVERAGE (12)		WEEKLY AVERAGE (12)		MINIMUM (12)	MAXIMUM (12)	FREQUENCY	SAMPLE TYPE
Flow (MGD) (1)		NL		NA		NA	NL	Continuous	TIRE
pH (standard units)		NA		NA		6.0	9.0	1 per Day	Grab
Dissolved Oxygen (DO)		NA		NA		5.6 mg/L	NA	1 per Day	Grab
Hardness (mg/L)		NA		NA		NA	NL	1 per Month	Grab
Five Day Carbonaceous Biochemical Oxygen Demand ($CBOD_5$) (5) (12)	June - October	5 mg/L	1,361 kg/d	7 mg/L	2,042 kg/d	NA	NA	5 Days per Week	24 HC
	November - May	9 mg/L	2,434 kg/d	13 mg/L	3,651 kg/d				
Total Suspended Solids (TSS) (5) (12)	June - October	5 mg/L	1,361 kg/d	7 mg/L	2,042 kg/d	NA	NA	1 per Month	24 HC
	November - May	9 mg/L	2,434 kg/d	13 mg/L	3,651 kg/d				
Ammonia as N (5) (12)	June - October	5.0 mg/L (6)	1,090 kg/d (8)	6.2 mg/L (6)		NA	NA	5 Days per Week	24 HC
	November - May	14.9 mg/L (7)	2,588 kg/d	22.3 mg/L (7)					
$CBOD_5$, Influent (mg/L) (10) (12)		NL		NA		NA	NA	5 Days per Week (10)	Grab
$CBOD_5$, Percent Removal (10)		NA		NA		85%	NA	1 per 3 Months (11)	Calculated
TSS, Influent (mg/L) (10) (12)		NL		NA		NA	NA	1 per 3 Months (11)	Grab
TSS, Percent Removal (10)		NA		NA		85%	NA	1 per 3 Months (11)	Calculated
Total Phosphorus (as P) - Calendar Year Average (2) (5)		0.50 mg/L		NA		NA	NA	1 per Year	Calculated
Total Nitrogen (as N) - Calendar Year Average (2) (4) (5)		8.0 mg/L		NA		NA	NA	1 per Year	Calculated
Total Phosphorus (as P) - Calendar Year to Date Average (2)		NL		NA		NA	NA	1 per Month	Calculated

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS [9]	
	MONTHLY AVERAGE [12]	WEEKLY AVERAGE [12]	MINIMUM [12]	MAXIMUM [12]	FREQUENCY	SAMPLE TYPE
Total Nitrogen (as N) - Calendar Year to Date Average [2] [4]	NL	NA	NA	NA	1 per Month	Calculated
E.coli [3]	126 N/100mL (Geometric Mean)	NA	NA	NL	1 per Day	Grab (between 7:30 am - 1:30 pm)

"NL" means no limitation is established. Monitoring and reporting, however, are required.
"NA" means not applicable.
"24 HC" means twenty-four hour composite.
"TIRE" means Totalizing, Indicating & Recording

[1] The design flow of this treatment facility is 75 MGD (minimum wet weather design flow).
[2] See Parts II.C.9 and II.C.10 for nutrient reporting requirements.
[3] See Part II.B for alternate disinfection requirements.
[4] Total Nitrogen, which is the sum of TKN and Nitrate plus Nitrite, shall be derived from the results of those tests.
[5] Concentration and loading results shall be reported regardless of flow. Effluent flow from Outfall 101 shall be used to calculate the loadings. If the effluent flow from Outfall 101 is >75 MGD, then 75 MGD shall be used in the loading calculation.
[6] This limitation is expressed in two significant digits.
[7] This limitation is expressed in three significant digits.
[8] This limitation is expressed in four significant digits.
[9] Effluent samples shall be collected immediately following treatment and disinfection prior to comingling with Outfall 102.
[10] At least 85% removal for $CBOD_5$ and TSS shall be attained. $CBOD_5$ influent shall be sampled five days per week for one month once per quarter. TSS shall be sampled once per quarter. See Part II.C.14 for additional requirements related to demonstration of secondary treatment.
[11] "1 per 3 Months" means sampling each calendar quarter with the results submitted with the DMR due January 10th, April 10th, July 10th, and October 10th of each year
[12] See Part II.C.4 for additional monitoring and reporting instructions.

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

c. In addition to any Total Nitrogen or Total Phosphorus concentration limits (or monitoring requirements without associated limits) listed above, this facility has Total Nitrogen and Total Phosphorus calendar year load limits associated with this outfall included in the current Registration List under registration number VAN040085, enforceable under the General VPDES Watershed Permit Regulation for Total Nitrogen and Total Phosphorus Dischargers and Nutrient Trading in the Chesapeake Bay Watershed in Virginia.

3. Discharge from Outfall 102 (internal outfall) is approved, provided the permittee has maximized the treatment of the influent flow through the WWTP, and is in compliance with the Long Term Control Plan (LTCP) implementation schedule requirements of the March 17, 2005, Consent Order and any supplements or modifications thereto and subject to the following conditions, discharge limitations, and monitoring requirements. Beginning from the effective date of this permit and lasting through the expiration date, influent flow discharged from Outfall 102 shall receive at a minimum treatment as follows: screening, grit removal, primary sedimentation, and disinfection.

   a. Such discharges shall be limited and monitored as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS						MONITORING REQUIREMENTS (3)	
	MONTHLY AVERAGE (5)		WEEKLY AVERAGE (5)		MINIMUM (5)	MAXIMUM (5)	FREQUENCY	SAMPLE TYPE (4)
Flow (MGD) (1)	NL		NA		NA	NL	Continuous	TIRE
pH (standard units)	NA		NA		NL	NL	1 per Day	Grab
Five Day Carbonaceous Biochemical Oxygen Demand ($CBOD_5$) (5)	NL mg/L	NL kg/d	NL mg/L	NL kg/d	NA	NA	1 per Day	24 HC (2)
Total Suspended Solids (TSS) (5)	NL mg/L	NL kg/d	NL mg/L	NL kg/d	NA	NA	1 per Day	24 HC (2)
Ammonia as N (5)	NL mg/L	NL kg/d	NL mg/L		NA	NA	1 per Day	24 HC (2)
Total Phosphorus (TP)	NL mg/L		NA		NA	NA	1 per Month	24 HC (2)
Total Nitrogen (TN)	NL mg/L		NA		NA	NA	1 per Month	24 HC (2)
E.coli	NL N/100mL (Geometric Mean)		NA		NA	NL	1 per Day	Grab

"NL" means no limitation is established. Monitoring and reporting, however, are required.
"NA" means not applicable.
"TIRE" means Totalizing, Indicating & Recording

(1) Conditions and limitations for influent flow discharged from Outfall 102 shall be as follows:

FLOW CONDITION AND PERIOD	MEASURED FLOW RATES FOR OUTFALL 102
Influent Flow ≤ 75* MGD	No discharge permitted. Complete treatment required for all influent. The permittee is required to fully treat as much flow as possible before diverting to Outfall 102. The hydraulic peak design flow in the latest PER is 90 MGD.
Influent Flow > 75* MGD during wet weather events. Flow emptied from retention basins is not authorized to be discharged through Outfall 102.	Up to 65 MGD**.

* The 75 MGD threshold applies during normal operating conditions. See Part III.A.1.d.1.b for the definition of abnormal conditions, under which the 75 MGD threshold may be adjusted.

** Total influent flow to the plant shall be authorized up to 140 MGD.

(2) Take consecutive 24 hour flow-proportioned composite samples for the duration of the discharge. For discharges less than 24 hours, flow-proportioned composite samples for the duration of the discharge event.

(3) Effluent samples at Outfall 102 shall be collected immediately following disinfection.

(4) All pollutant sampling shall commence no later than two hours after a discharge has begun to occur at Outfall 102. Samples are not required for discharges lasting less than two hours. The two hour delay does not apply to flow monitoring.

(5) See Part II.C.4 for additional monitoring and reporting instructions.

b. The permittee shall submit a log with each monthly Discharge Monitoring Report that identifies all days in which a discharge from Outfall 102 occurred.

c. The permittee shall evaluate performance of this CSO control method in accordance with Part III.A.1.d.3.

4. During the period beginning with the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to discharge stormwater from Outfalls 901, 902 and 903.

   a. Such discharges shall be limited and monitored as specified below:

PARAMETERS	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS (1)	
	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
Flow (MG)	NA	NL	1 per 3 Months (2)	Estimate
pH (standard units)	NL	NL	1 per 3 Months (2)	Grab
E.coli (N/100mL)	NA	NL	1 per 3 Months (2)	Grab
Total Suspended Solids (TSS) (mg/L) (3)	NA	NL	1 per 3 Months (2)	Grab

"NL" = No Limitation, monitoring only
"NA" = Not Applicable

(1) See Part VI.A and Part VI.B.1-5 for additional monitoring requirements.
(2) "1 per 3 Months" = Sampling each complete calendar quarter following the effective date of the permit with the results submitted with the DMR due January 10th, April 10th, July 10th and October 10th of each year.
(3) See Part II.C.4 for additional monitoring and reporting instructions.

   b. In addition to the analytical results, the permittee shall provide the date and duration (in hours) of the storm event(s) sampled; rainfall total (in inches) of the storm event that generated the sampled runoff; and the duration between the storm sampled and the end of the previous measurable storm event (a "measurable storm event" is defined as a storm event that results in an actual discharge from the site).

   c. There shall be no discharge of waste, garbage, or floating debris in other than trace amounts.

B. Alternate Disinfection Limitations and Monitoring Requirements

1. If chlorine is chosen as a disinfection method, total residual chlorine (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 every two hours by grab sample.

   b. 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 parameter 157).

   c. No TRC sample collected at the outlet of each operating chlorine contact tank shall be less than **0.60 mg/L** (DMR parameter 213) unless the *E. coli* in the final effluent is also less than 126 N/100mL. When the TRC concentration after the contact tank and prior to dechlorination is less than 0.60 mg/L, an *E. coli* sample of the final effluent may be taken within 15 minutes. If the *E. coli* sample is taken within fifteen minutes and is less than 126 N/100 mL, then the original TRC samples shall not be reported as one of the 36 allowable excursions identified in B.1.b above.

   d. If dechlorination facilities exist, the samples above shall be collected prior to dechlorination.

2. If chlorine is chosen as a disinfection method, effluent TRC shall be limited and monitoring, following dechlorination, by the permittee as specified below:

PARAMETER	MONTHLY AVERAGE	WEEKLY AVERAGE	FREQUENCY	SAMPLE TYPE
TRC (mg/L)	25 µg/L	27 µg/L	1 per 2 hours	Grab (between 7:30 am-1:30 pm)

C. Other Requirements or Special Conditions

1. Operation and Maintenance Manuals Requirement
   The permittee shall maintain current Operations and Maintenance (O&M) Manuals for the treatment works including retention basins and tunnels used for storage that is in accordance with Virginia Pollutant Discharge Elimination System Regulations, 9VAC25-31 and Sewage Collection and Treatment Regulations, 9VAC25-790. Within 90 days of the effective date of this permit, the O&M Manuals shall be submitted to the DEQ Piedmont Regional Office for approval. Upon approval of the O&M Manuals, they shall become an enforceable part of the permit.

   The O&M Manuals and subsequent revisions shall include the manual effective date and meet Part V.K.2 and Part V.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 Manuals 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 manuals shall detail the practices and procedures, which shall be followed to ensure compliance with the requirements of this permit and to maximize storage capacity to prevent overflows to the maximum extent practicable.

   The manual for the treatment works 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 II.C.5 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 effective operation of the treatment works and 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 for the retention basins and tunnels used for storage shall include, but not necessarily be limited to, the following items, as appropriate:

j. Operation and maintenance procedures employed to maximize and ensure adequate storage capacity to prevent overflows to the maximum extent practicable; and

k. Schedule for removal of accumulated sediment and debris and cleaning of trash racks leading to retention basins.

2. Licensed Operator Requirement
The permittee shall employ or contract at least one Class 1 licensed wastewater works operator for this facility. The license shall be issued in accordance with Title 54.1 of the Code of Virginia and the 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.

3. Reliability Class
The permitted treatment works shall meet Reliability Class I.

4. Compliance Reporting

a. The quantification levels (QLs) shall be less than or equal to the following concentrations:

EFFLUENT CHARACTERISTIC	QUANTIFICATION LEVEL (QL)
$CBOD_5$	2 mg/L
TSS	1.0 mg/L
Ammonia as N	0.20 mg/L
TRC	0.10 mg/L (100 µg/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 V.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.

c. Weekly Average -- Compliance with the weekly average limitations and/or reporting requirements for the parameters listed in Part I.C.4.a 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 Part I.C.4.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 Part I.C.4.a) 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 Part I.C.4.a), 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.

d. 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 Part I.C.4.a above). Otherwise, the numerical value shall be reported.

e. 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 (i.e. 5 always rounding up or to the nearest even number) by the permittee, the permittee shall use the convention consistently and shall ensure that consulting laboratories employed by the permittee use the same convention.

f. All data, including flagged or qualified data, shall be reported and used in applicable calculations on the DMR, unless disclosed to the Department with technical justification (e.g., laboratory documentation). The permittee shall make a reasonable attempt to notify the Department in advance of submitting the DMR.

The permittee shall provide the certificate of analysis or an equivalent document in a format approved by the Department establishing the basis for qualifying or flagging data due to any reason such as, but not limited to, failing any aspect of QA/QC criteria; improper preservation or holding times; or presentation of “>” or “<” numerical results.

Upon finalization of guidance by the Department on managing flagged or qualified data, the permittee shall submit flagged or qualified data in accordance with the procedures established in such guidance. Prior to finalization of such guidance, the permittee may include the flagged or qualified data in the specified calculation on the DMR or, if the DMR has already been submitted to the Department, amend the DMR to include such data.

The inclusion of flagged or qualified data in the DMR under this provision shall not be considered a violation of the certification that the DMR is true, accurate, and complete.

g. Nutrient reporting calculations – The reporting calculations below shall be performed using the concentration monitoring required by the general permit, VAN040085.

For each calendar month, the DMR shall show the calendar year-to-date average concentration (mg/L) calculated in accordance with the following formula:

AC_{avg}-YTD = ($\Sigma_{(Jan\text{-}current\ month)}$ MC_{avg}) ÷ (# of months)

where:
AC_{avg}-YTD = calendar year-to-date average concentration (mg/L)
MC_{avg} = monthly average concentration (mg/L)

The TN and TP average concentrations (mg/L) for each calendar year (AC) shall be shown on the December DMR due January 10th of the following year. These values shall be calculated in accordance with the following formula:

AC_{avg} = ($\Sigma_{(Jan\text{-}Dec)}$ MC_{avg}) ÷ 12

where:
AC_{avg} = calendar year average concentration (mg/L)
MC_{avg} = monthly average concentration (mg/L)

For TP, all daily concentration data below the QL for the analytical method used shall be treated as half the QL. All daily concentration data equal to or above the QL for the analytical method used shall be treated as it is reported.

For TN, if none of the daily concentration data for the respective species (i.e., TKN, Nitrates/Nitrites) are equal to or above the QL for the respective analytical methods used, the daily TN concentration value reported shall equal one half of the largest QL used for the respective species. If one of the data is equal to or above the QL, the daily TN concentration value shall be treated as that data point is reported. If more than one of the data is above the QL, the daily TN concentration value shall equal the sum of the data points as reported.

5. Materials Handling and 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.

6. Reopeners

This permit may be modified, or alternatively, revoked and reissued:

a. 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; or
b. Should effluent monitoring indicate the need for any water quality-based limitations, and to incorporate appropriate limitations;
c. To incorporate technology-based effluent concentration limitations for nutrients in conjunction with the installation of nutrient control technology, whether by new construction, expansion or upgrade; or
d. To include new or alternative nutrient limitations and/or monitoring requirements, should:
   (1) The State Water Control Board adopt nutrient standards for the water body receiving the discharge, or
   (2) A future water quality regulation or statute require new or alternative nutrient control.

7. Indirect Dischargers
The permittee shall provide adequate notice to the Department 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.

8. 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) prior to constructing and operating wastewater treatment works. Non-compliance with the CTC or CTO shall be deemed a violation of the permit.

If the CTC proposes new or expanded nutrient loads, the permittee shall provide a nutrient offset plan to DEQ prepared in accordance with 9VAC25-820-70 Part II. The plan shall include the nutrient loads that are projected to be discharged on an annual basis for a minimum of five years and any nutrient allocations acquired from other sources. Any acquired nutrient allocations shall be subject to public notice and included on the registration list for the General Virginia Pollutant Discharge Elimination System (VPDES) Watershed Permit Regulation for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Bay Watershed in Virginia prior to issuance of a CTC.

Upon approval of a CTC for the installation of nutrient removal technology, DEQ staff shall initiate modification or, alternatively, revocation and reissuance of this permit, to include annual concentration limits based on the technology proposed in the CTC.

9. Suspension of Annual Average Concentration Limitations for E3/E4 Facilities
The annual average concentration limitations for Total Nitrogen and/or Total Phosphorus are suspended during any calendar year in which the facility is considered by DEQ to be a participant in the Virginia Environmental Excellence Program in good standing at either the Exemplary Environmental Enterprise (E3) level or the Extraordinary Environmental Enterprise (E4) level, provided that the following conditions have also been met:

a. The facility has applied for (or renewed) participation, been accepted, maintained a record of sustained compliance and submitted an annual report according to the program guidelines;

b. The facility has demonstrated that they have in place a fully implemented environmental management system (EMS) with an alternative compliance method that includes operation of installed nutrient removal technologies to achieve the annual average concentration limitations, and

c. The E3/E4 designation from DEQ and implementation of the EMS has been in effect for the full calendar year.

The annual average concentration limitations for Total Nitrogen and/or Phosphorus, as applicable, are not suspended in any calendar year following a year in which the facility failed to achieve the annual average concentration limitations as required by Part I.C.9.b.

10. Treatment Works 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. The permittee may continue discharging until the effluent no longer meets the permit limits or the permit expires, whichever occurs first. 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.

11. Permit Maintenance Fees
Any owner whose permit is effective as of April 1st of a given calendar year (including permits that have been administratively continued) shall pay the applicable permit maintenance fee(s) to DEQ by October 1st of that same calendar year. No permit will be reissued or administratively continued without payment of the required fee(s).

12. Water Quality Criteria Monitoring
The permittee shall monitor the effluent at Outfall 101 for the substance(s) noted in Attachment A, "Water Quality Criteria Monitoring" of this permit according to the indicated analysis number, quantification level, sample type and frequency. Monitoring shall be initiated after the start of the third year from the permit's effective date and the samples shall be collected during dry weather when stormwater is not being treated by the plant. Using Attachment A as the reporting form, the data shall be submitted with the next permit reissuance application, which is due at least 180 days prior to the expiration date of this permit. 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. Monitoring and analyses 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. This permit may be modified or, alternatively, revoked and reissued to incorporate limits for any of the substances listed in Attachment A.

13. Demonstration of Secondary Treatment
    a. The permittee shall monitor and report the influent $CBOD_5$ and TSS concentrations, and calculated percent removal on a quarterly basis. The quarterly monitoring periods shall be January – March, April – June, July – September, and October – December.
    b. During the months that influent sampling is performed for percent removal reporting purposes, influent sampling shall be performed at the same frequency as the corresponding effluent samples.
    c. Monthly average influent and effluent concentrations shall be used to calculate monthly average percent removal values. The monthly average percent removal values shall be reported on the DMR by the 10^{th} of the month following the monitoring period.

14. Maintenance Plan and Reporting for the Retention Basins and Tunnels Used for Storage
Within 90 days of the effective date of the permit, the permittee shall submit a Retention Basin and Tunnel Maintenance Plan, which will include information for maximizing the storage volume at the Shockoe Retention Basins and the tunnels used for storing wastewater and maximizing the treatment of the stored wastewater at the WWTP. The plan shall include, but not necessarily be limited to, the following items:

    a. O&M Plan for the Retention Basins and Tunnels used for storage of wastewater, including the items specified in Part II.C.1.j-k;
    b. A list of all maintenance activities that will be performed to maximize storage volume and treatment through the WWTP;
    c. Schedule for the planned initial cleaning of the retention basins and tunnels;
    d. Schedule for continuous cleaning of retention basins and tunnels and cleaning of trash racks leading to retention basins;
    e. Methods for monitoring debris accumulation in the basins and tunnels.
    f. Disposal methods and destination for debris removed.
    g. Method for estimating the amount of debris removed each time storage areas are cleaned.
    h. Best Management Practices (BMPs) that may be used to maximize the storage volume during wet weather events and the treatment of the stored wastewater through the WWTP.

Once the Maintenance Plan is approved, it will become an enforceable part of this permit.

Annual reports outlining the maintenance activities that have occurred during the previous year are due on February 10th each year and shall include:

a. Dates and descriptions of all maintenance activities that have occurred during the previous year.
b. Estimated volume of debris removed and destination for the debris.
c. Any changes to the maintenance activities or any BMPs used or planned.

15. Determination of Design Flow
At least 1 year before this permit expires, the permittee shall submit to DEQ the maximum flow that can be fully treated by the WWTP and meet the current limits of this permit. This submittal shall be certified by a Professional Engineer (P.E.) and shall include an explanation of how the flow was determined. The permittee must maximize the flow to the WWTP for full treatment as stipulated in Part III.A.1.d (Maximize Flow to the WWTP for Treatment).

16. Reporting Daily Flow
Starting with the effective date of this permit, the permittee shall provide an Excel spreadsheet by January 10th of each year to the DEQ Piedmont Regional Office that reports the daily flows for the influent and effluent discharged from Outfalls 101, 102, and 001. Additionally, the permittee will document each day for which flow from retention basins or storage tunnels is included in the influent. These data will be used to analyze how flow is being managed and to determine appropriate conditions for the next reissuance.

17. Bacteria Minimization Plan
No later than 90 days following the effective date of this permit, the permittee shall submit to the DEQ Piedmont Regional Office an approvable Bacteria Minimization Plan. The purpose of this plan will be to locate and reduce sources of bacteria (e.g. *E.coli*) in the facility's stormwater discharges utilizing best management practices (BMPs). This plan shall include a summary of the potential sources of bacteria in stormwater runoff and a list and schedule of BMPs that will be implemented during the permit term. The plan shall also include a map of all of the stormwater outfalls, including the direction of stormwater flow throughout the property, all drop inlets and where the drop inlets discharge, and the location of potential sources of bacteria in stormwater. Once approved, the Bacteria Minimization Plan becomes an enforceable part of this permit.

Once the Bacteria Minimization Plan is approved, semiannual progress reports shall be submitted to the DEQ Piedmont Regional office no later than July 10th of each year for the period of January 1 through June 30 and January 10th each year for the period of July 1 through December 31. The semiannual progress reports shall include a description of the BMPs implemented, summary of applicable maintenance activities performed on BMPs during the reporting period, and a description of the effectiveness of those BMPs, including an evaluation of quarterly *E.coli* data collected in accordance with Part II.A.4. If any of the BMPs listed in the plan are not implemented as scheduled, the permittee shall provide with the semiannual report, an explanation and a description of the proposed actions to implement the BMPs in accordance with the DEQ approved Bacteria Minimization Plan.

D. Pretreatment Program

The permittee's pretreatment program has been approved. The program is an enforceable part of this permit. The permittee shall:

1. Implement a pretreatment program that complies with the Clean Water Act, Water Control Law, State regulations and the approved program.

2. Submit to the DEQ Piedmont Regional Office an annual report that describes the permittee's program activities over the previous year. The annual report shall be submitted no later than January 31 of each year and shall include:

a. An updated list of the Significant Industrial Users* (SIUs) noting all of the following:

(1) facility address (mailing and physical), phone and contact name, title and email;

(2) explanation of SIUs deleted from the previous year's list;

(3) identify which Industrial Users (IUs) are subject to Categorical Standards and note which Standard (i.e. 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 9VAC25-31-840 E.3;

(8) identify which IUs are non-significant Categorical Industrial Users;

(9) applicable Standard Industrial Classification (SIC) and North American Industry Classification System (NAICS) codes;

b. A summary of the compliance status of each Significant Industrial User with pretreatment standards and permitrequirements.

c. A summary of the number and types of Significant Industrial User sampling and inspections performed by the Publicly Owned Treatment Works (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 during the reporting period.

f. A summary of any changes to the submitted pretreatment program that have not been previously reported to the DEQ Piedmont 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 that are published during the reporting period.

k. Signature of an authorized representative.

3. Submit any changes to the approved pretreatment program to the DEQ Piedmont Regional Office and obtain approval before implementation of the changes.

4. Ensure all Significant Industrial Users' permits are issued and reissued in a timely manner and that the Significant Industrial User permits issued by the POTW are effective and enforceable.

5. Inspect and sample all Significant Industrial Users at a minimum of once a year.

a. Sampling shall include all regulated parameters, and shall be representative of the wastewater discharged. All Significant Industrial Users requiring sampling shall be sampled at the end of any categorical process or at the entrance to the treatment works.

b. Inspection of the Significant Industrial Users shall cover all areas which could result in wastewater discharge to the treatment works including manufacturing, chemical storage, pretreatment facilities, spill prevention and control procedures, hazardous waste generation and Significant Industrial User's self monitoring and records.

c. If an industry claims a no discharge status, a certification of the no discharge status shall be submitted to the Control Authority 30 days following the status change; within 90 days of receiving the no discharge status certification, the Control Authority shall terminate the pretreatment permit or modify the pretreatment permit to incorporate a clause ensuring that the Control Authority receives timely and proper notification in the event of an episodic or unforeseen discharge to the POTW. This notification shall allow sampling to occur if the industrial user discharges to the Control Authority; additionally, the modified permit shall include a requirement to notify the Control Authority 90 days prior to reverting from a no discharge status to a discharging status. Documentation to support the disposition of waste or wastewater shall be available to the Control Authority or Approval Authority upon request or during inspections. The no discharge status certification shall be submitted annually to the Control Authority. The status of the no discharge industries shall be reported with the supporting information in the Control Authority's annual report. This certification may satisfy the sampling requirements of Part II.D.5.a above.

6. Implement the reporting requirements of Part VII of the VPDES Permit Regulation.

7. Review the existing Enforcement Response Plan (ERP) to ensure it meets state and federal regulatory requirements and notify the DEQ Piedmont Regional Office, in writing within 90 days of the effective date of this permit, whether it is still accurate and complete. If the ERP is no longer accurate and complete, a revised ERP shall be submitted for approval to the DEQ Piedmont Regional Office within 90 days of the effective date of this permit. The approved ERP is an enforceable part of this permit and shall be implemented.

8. Develop local limits or reevaluate local limits using current influent, effluent and sludge monitoring data and submit the data and results of the evaluation to the DEQ Piedmont Regional Office within one year following the effective date of this permit.

9. Ensure that adequate resources are available to implement the approved program.

10. Meet all public participation requirements and annually public notice Significant Industrial Users in significant non-compliance with pretreatment standards and requirements for the previous 12 months, or since publication of the previous annual public notice, whichever is longer.

11. Within 180 days of the effective date of this permit, submit to the DEQ Piedmont Regional Office a survey of all Industrial Users discharging to the POTW. The information shall be submitted on the DEQ's 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. In lieu of the survey, the permittee may elect to develop, submit for DEQ Piedmont Regional Office approval, and implement a plan to survey (using internal work processes and systems controls), on pre-established intervals throughout the term of this permit, the industrial community in their jurisdiction; if an alternative plan is developed, the permittee shall submit the plan to the DEQ Piedmont Regional Office for approval 90 days after the effective date of this permit.

12. The DEQ may require the POTW to institute changes to its pretreatment program:

    a. If implementation of the approved program is determined by DEQ to not meet the requirements of the Clean Water Act, Water Control Law or State regulations;

    b. If problems such as pass-through, interference, water quality standards violations or sludge

contamination develop or continue; or

c. If federal, state or local requirements change.

*A significant industrial user is one that:

a. Has an average flow of 25,000 gallons or more per workday of process (**) wastewater;

b. Contributes a process waste stream which makes up 5.0-percent or more of the average dry weather hydraulic or organic capacity of the POTW;
c. Is subject to the categorical pretreatment standards; or

d. 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.

E. Whole Effluent Toxicity (WET) Monitoring Program

1. Biological Monitoring

a. In accordance with the schedule in Part II.E.2 below, the permittee shall perform annual chronic toxicity testing on Outfall 001 using 24-hour flow-proportioned composite samples for the duration of the permit. The chronic tests to use are:
- Chronic 3-Brood Survival and Reproduction Static Renewal Test with *Ceriodaphnia dubia*
- Chronic 7-Day Survival and Growth Static Renewal Test with *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 TUc (Chronic Toxic Units), by dividing 100/NOEC for DMR reporting. Report the LC_{50} at 48 hours and the IC_{25} with the NOEC’s in the test report.

b. The test dilutions should be able to determine compliance with the following endpoint(s):
Outfall 001:
- Chronic NOEC ≥ 12 %, equivalent to a TUc ≤ 8.33

c. The permittee may provide additional samples to address data variability. 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 data will be statistically evaluated by DEQ 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 DEQ evaluation of the data indicate that a limit is needed, the permit may be modified or, alternatively, revoked and reissued to include a WET limit and compliance schedule. Following written notification from DEQ of the need for including a WET limitation, the toxicity tests of Part II.E.1.a. may be discontinued.

e. 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 submit the toxicity test reports with the DMR for the tests specified in accordance with the following schedule:

PERIOD	COMPLIANCE DATE	SUBMITTAL DATE
Annual 1	January 1, 2026 – December 31, 2026	January 10, 2027
Annual 2	January 1, 2027 – December 31, 2027	January 10, 2028
Annual 3	January 1, 2028 – December 31, 2028	January 10, 2029
Annual 4	January 1, 2029 – December 31, 2029	January 10, 2030

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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[1]	REPORTING RESULTS[2]	RESULTS UNIT	SAMPLE TYPE[3]
METALS					
7429-90-5	Aluminum, Total Recoverable	(4)			C
7440-36-0	Antimony, Dissolved	4 mg/L			C
7440-38-2	Arsenic, Dissolved	0.31 mg/L			C
7440-43-9	Cadmium, Dissolved	1.3 ug/L			C
16065-83-1	Chromium III, Dissolved [5]	0.18 mg/L			C
18540-29-9	Chromium VI, Dissolved [5]	0.015 mg/L			C
7440-50-8	Copper, Dissolved	9.6 ug/L			C
7439-92-1	Lead, Dissolved	23 ug/L			C
7439-97-6	Mercury, Dissolved	1.2 ug/L			C
7440-02-0	Nickel, Dissolved	47 ug/L			C
7782-49-2	Selenium, Total Recoverable	14 ug/L			C
7440-22-4	Silver, Dissolved	2 ug/L			C
7440-28-0	Thallium, Dissolved	3.6 ug/L			C
7440-66-6	Zinc, Dissolved	86 ug/L			C
PESTICIDES/PCBs					
309-00-2	Aldrin	0.05 ug/L			G or C
63-25-2	Carbaryl	(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

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CASRN	PARAMETER	QUANTIFICATION LEVEL[1]	REPORTING RESULTS[2]	RESULTS UNIT	SAMPLE TYPE[3]
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[9]		NA		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
	BASE NEUTRAL EXTRACTABLES				
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-Benzofluoranthene)	10.0 ug/L			C

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CASRN	PARAMETER	QUANTIFICATION LEVEL[1]	REPORTING RESULTS[2]	RESULTS UNIT	SAMPLE TYPE[3]
207-08-9	Benzo(k)fluoranthene	10.0 ug/L			C
50-32-8	Benzo(a)pyrene	10.0 ug/L			C
542-88-1	Bis (chloromethyl) Ether[9]		NA		C
111-44-4	Bis 2-Chloroethyl 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

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CASRN	PARAMETER	QUANTIFICATION LEVEL[1]	REPORTING RESULTS[2]	RESULTS UNIT	SAMPLE TYPE[3]
108-60-1	2,2'-oxybis(1-chloropropane)	(4)			C
608-93-5	Pentachlorobenzene	(4)			C
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
	VOLATILES				
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

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CASRN	PARAMETER	QUANTIFICATION LEVEL(1)	REPORTING RESULTS(2)	RESULTS UNIT	SAMPLE TYPE(3)
ACID EXTRACTABLES					
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
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(9)		NA		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
MISCELLANEOUS					
16887-00-6	Chloride (mg/L)	(4)			C
57-12-5	Total Cyanide (6)	10.0 ug/L			G
N/A	Dissolved Organic Carbon (mg/L)	(4)			C
18496-25-8	Total Sulfide (7)	100 ug/L			G or C
60-10-5	Tributyltin	(4)			G or C
471-34-1	Hardness (mg/L as $CaCO_3$)	(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.)

DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY CRITERIA MONITORING

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 or other method approved by DEQ.

(9) No analysis is currently required for hexachlorocyclohexane (HCH) – Technical, bis(chloromethyl)ether and dinitrophenols based on the absence of acceptable test methods for these analytes.

PART III – COMBINED SEWER SYSTEM (CSS)

A. Combined Sewer System

The permittee operates a Combined Sewer System (CSS). The CSS includes combined sewer overflow (CSO) outfalls (Outfalls 004-007, 009-012, 014-021, 024-026, 031, 033-035, 039, 040; see Appendix B). During the period beginning with the permit effective date and lasting until the permit expiration date, the permittee is authorized to discharge from the CSO outfalls listed in Appendix B. Such discharges shall be limited and conditioned by the permittee as specified in the following paragraphs.

The permittee has implemented CSO control measures in accordance with previous permits and consent order agreements issued by the Board. Continued operation of these CSO control measures along with adherence to the Nine Minimum Controls outlined below, will constitute continued compliance with the technology based components of the National CSO Policy. Consistent with the CWA Section 301(b)(1)(C), the permittee must not discharge in excess of any limitation necessary to meet water quality standards established pursuant to State law. The Board has determined that the requirements outlined below constitute BCT/BAT/BPJ for the CSS and are limitations necessary to meet water quality standards.

1. Nine Minimum Controls
   The permittee has implemented measures throughout the CSS to meet the technology-based requirements (nine minimum controls) of EPA's Combined Sewer Overflow (CSO) Policy, April 1994 and incorporated into the Clean Water Act pursuant to the Wet Weather Water Quality Act, Section 402(q) of the Clean Water Act, 33 U.S.C. §1342. The permittee shall continue to implement documented activities, procedures, management practices and operations related to the CSS as follows:

   a. Operation and Maintenance.

      (1) Inspect and preventatively maintain CSS control structures (e.g. regulators and tide gates) at least once per month.

      (2) Inspect, remove screenings and preventatively maintain pumping stations daily.

      (3) Flush sewers regularly, frequency depending on Best Professional Judgment (i.e., higher frequencies in areas more prone to impacts of fats, oils and grease).

      (4) Retention Basin Maintenance - When the permittee identifies the need to maintain any retention basin, a request shall be submitted to the DEQ Piedmont Regional Office to temporarily isolate the retention basin from the sewer system. The request shall be submitted 60 days prior to the proposed start date. The request shall include:

         (a) Proposed start date for isolating the basin, and

         (b) Estimated time to maintain the retention basin.

         Every effort shall be made to select a period for maintenance that will minimize potential bypass of the basin during wet weather flow. The city shall notify the regional office in writing of bypasses occurring during the operation and upon completion of the maintenance operation.

   b. Use Collection System for Storage.

      (1) Set regulator controls to optimize storage in collection system.

      (2) Discharges from outfall 006 (Shockoe Creek CSO) shall, to the maximum extent practicable, be minimized until the entire capacity of the Shockoe Retention Basin and the Shockoe Creek Combined Sewer has been used to store combined sewer flow for later treatment at the plant. The permittee shall measure the flow entering into and leaving the Shockoe Retention Basin

daily. Such data shall be included with the monthly DMR along with an indication of days during the month that the system overflowed through outfall 006.

(3) Discharges from outfalls 019 (Hampton Street and Colorado) and 020 (McCloy Street Sewage Regulator) shall, to the maximum extent practicable, be minimized until the entire capacity of the Hampton/McCloy Retention System has been used to store combined sewer flow for later treatment at the plant. The permittee shall measure and include with the monthly DMR the flow entering into and leaving the Hampton/McCloy Retention System daily.

(4) Reline sewers for reducing Infiltration/Inflow (I/I) to the extent that such procedures prove to be effective.

(5) Adjust WWTP influent pumping operations during wet weather events to fill the intercepting system to the level of the lowest overflow.

(6) Inspect tide gates monthly, and adjust and repair to control tidal intrusion as needed.

(7) Use public and private stormwater holding facilities in CSS area.

c. Pretreatment Program.

(1) Use a pretreatment ordinance and program to control any industrial discharges that may be identified as impacting CSOs.

(2) Use a pretreatment ordinance and program to require significant industrial users discharging to the CSS to establish management practices to control batch discharges during wet weather conditions whenever possible.

(3) Discontinue (as determined to be necessary) discharge of water treatment plant residuals to CSS during wet weather events.

d. Maximize Flow to the WWTP for Treatment.

(1) During the period beginning with the permit's effective date and lasting until the permit's expiration date the permittee shall maximize flow to the WWTP as follows:

(a) To maximize treatment under combined sewer overflow conditions, the permittee shall operate, to the maximum extent and duration practical, its WWTP to provide treatment to flow rates above 75 MGD during normal conditions. Combined sewer overflow treatment conditions prevail on any calendar day on which the daily flow entering the Richmond WWTP exceeds the dry-weather flow by more than 30 MGD during normal conditions. These conditions also prevail on the day after any calendar day when the flow to the Richmond WWTP exceeds the dry-weather flow by more than 40 MGD during normal conditions. The permitted dry-weather flow (DWF) capacity is 45 MGD. Dry weather flow consists of sanitary sewage, industrial wastewater, and Infiltration/Inflow (I/I), exclusive of stormwater.

(i) The permittee shall treat retained flow to permit effluent concentration limits. When there is wastewater stored in the Shockoe Retention System, the permittee shall treat at a rate of at least 75 MGD or more to maximum extent practicable, during normal conditions until the Shockoe System is empty.

(ii) When there is wastewater stored only in the Hampton/McCloy retention system, the permittee shall dewater at a rate of no less than 3.6 MGD until the Hampton/McCloy system is empty.

(b) Abnormal Conditions: Abnormal conditions at the WWTP shall exist when (1) process facilities are out of service; (2) the final sedimentation tank has effluent solids greater than the value identified in the Operating and Reporting Plan for Maximizing Treatment During CSO Conditions at the WWTP; or (3) a plant upset occurs as demonstrated by the permittee in accordance with Part V.V.2 of this permit. The permittee shall operate the WWTP in accordance with the approved Operating and Reporting Plan for Maximizing Treatment During CSO Conditions at the WWTP when abnormal conditions exist. An approvable Operating and Reporting Plan for Maximizing Treatment During CSO Conditions at the WWTP shall be submitted for DEQ review and approval no later than three months after the effective date of this permit. Subsequent changes to the plan shall be subject to DEQ review and approval prior to implementation.

(2) CSO-Related Bypass

(a) A “CSO-Related Bypass” means the intentional diversion of waste streams from any portion of a treatment facility to increase the overall treatment of combined sewer overflow.

(b) The permittee shall operate the WWTP in accordance with the approved Operating and Reporting Plan for Maximizing Treatment During CSO Conditions at the WWTP. These bypasses are not subject to the provisions of Part V.U.

(c) The CSO-related bypass provision may be modified or terminated if there is a substantial increase in the volume or character of pollutants being introduced to the WWTP.

(d) All wet weather flows passing the headworks of the WWTP shall receive at least primary clarification and solids and floatables removal and disposal, and disinfection, where necessary, and any other treatment that can reasonably be provided.

(3) Monitoring and Evaluation:
The Operating and Reporting Plan for Maximizing Treatment during CSO Conditions at the WWTP shall be revised to incorporate monitoring and performance assessment of the increased wet weather flow against predictions established as part of the LTCP. An approvable revised plan shall be submitted to the Department of Environmental Quality for review and approval within one year of the effective date of the CTO for the increased wet weather flow.

e. Eliminate Dry Weather Overflows (DWOs).

(1) Preserve existing intercepting system diversion capacity to assure conveyance of DWF peak rates to WWTP.

(2) Inspect and preventatively maintain (PM) diversion facilities daily.

(3) Monitor pumping stations for DWOs daily.

(4) Man the Shockoe Retention Facility daily for optimizing operations.

(5) Maintain a 24-hour on call team to respond to reported DWOs.

(6) Dry weather overflows from CSO outfalls are prohibited. Each dry weather overflow must be reported to the Department of Environmental Quality's Piedmont Regional Office as soon as the permittee becomes aware of the overflow. When the permittee detects a dry weather overflow, the permittee shall begin corrective action immediately. The permittee shall inspect the dry weather overflow each subsequent day until the overflow has been eliminated.

(7) No new combined sewers shall be built inside or outside of the presently existing combined sewer service areas of the City, but this requirement shall not be construed to prevent the

connection of new sanitary sewers to existing combined sewers for the purpose of conveying sewage to the City's treatment plant or the replacement/enlargement of existing sewer pipes for maintenance. The foregoing notwithstanding, no new connections shall be made to the combined sewers where those connections would cause overflows during dry-weather flow conditions.

f. Control Solid and Floatable Materials in the CSS.

(1) Screen flows at the Shockoe Retention Facility daily.

(2) Maintain the wet weather flow regulators on the CSO conveyance pipelines.

(3) Increase screen cleaning during the fall.

(4) Conduct an effective leaf program.

(5) Conduct annual catch basin cleaning for and clean other basins as needed. The annual goal for catch basin cleaning is at least 40%.

(6) Conduct regular litter cleanup programs.

(7) Conduct a regular street and sidewalk cleaning program.

g. Pollution Prevention.

(1) Conduct regular public education programs with facility tours and advice on proper disposal of substances (e.g. household wastes, leaves and the use of fertilizer). Facility tours may be suspended when the United States Government’s National Terrorism Advisory System announces elevated or imminent threat levels.

(2) Use the pretreatment program for awareness programs that encourage industrial waste reduction through recycling and improved housekeeping.

(3) Operate and maintain a septage receiving station.

(4) Enforce ordinances that prohibit entrance of any substance that may impair or damage the function and performance of collection treatment systems.

h. Public Notification.

(1) The permittee shall maintain warning signs at all CSOs that are predicted to discharge more frequently than once per summer on average.

(2) Publish information on the City’s web site pertaining to the CSO Control Program.

(3) Attend community meetings to inform citizens of proposed control facilities.

(4) Encourage local press coverage of CSO program developments.

i. Monitoring.
The permittee shall use a combination of outfall inspection and modeling to monitor CSOs to effectively characterize CSO impacts and the efficacy of CSO controls. These CSO monitoring events will be used in conjunction with river monitoring described in Part I to assess implementation of controls.

2. CSS Reporting

Annual CSS reporting shall be performed in accordance with Part I.A.4 (*Integrated CSS and MS4 Annual Reporting*) of this permit.

3. Long Term Control Plan (LTCP)
   The permittee has submitted to DEQ a proposed LTCP in conformance with the CSO Policy. The proposed LTCP referred to as CSO Control Plan E in the Long Term CSO Control Plan Reevaluation – Final Report submitted to DEQ in January 2002 was made available for public review and comment. This control plan has been submitted by the permittee to meet state water quality standards in conformance with the Demonstration approach criteria at Section II.C.4.b of the CSO Policy. The Board has accepted the permittee's January 2002 LTCP and has approved Control Plan E as described in the LTCP subject to the Board completing its ongoing water quality standards coordination process pursuant to Section III of the CSO Policy. Implementation of CSO Control Plan E is designed to provide capture of approximately 87% volume and achieve removals of BOD and TSS that exceed the 85% rule in the average year.

PART IV – MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

Discharge Authorization and Special Conditions

A. During the period beginning with the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to discharge stormwater and those authorized nonstormwater discharges described in 9VAC25-875-970 D.2.c(3) in accordance with this permit from the small municipal separate storm sewer system identified in and consistent with the permit application into surface waters within the boundaries of the Commonwealth of Virginia.

B. The permittee shall develop, implement, and enforce an MS4 program designed to reduce the discharge of pollutants from the MS4 in accordance with this permit, to protect water quality, and to satisfy the appropriate water quality requirements of the State Water Control Law and its attendant regulations. The permittee shall utilize the legal authority provided by the laws and regulations of the Commonwealth of Virginia to control discharges to and from the MS4. This legal authority may be a combination of statute, ordinance, permit, policy, specific contract language, order, or interjurisdictional agreements. The MS4 program shall include the minimum control measures (MCM) described in Part IV.E. For the purposes of this permit term, implementation of MCMs in Part IV.E and the Chesapeake Bay and local TMDL requirements in Part IV.F – H (as applicable) consistent with the provisions of an iterative MS4 program required pursuant to this general permit constitutes compliance with the standard of reducing pollutants to the MEP, provides adequate progress in meeting water quality standards, and satisfies the appropriate water quality requirements of the State Water Control Law and its attendant regulations.

C. The MS4 program plan.
   1. The MS4 program plan shall include, at a minimum, the following written items:

      a. The roles and responsibilities of each of the permittee's divisions and departments in the implementation of the requirements of the permit tasked with ensuring that the permit requirements are met;

      b. If the permittee utilizes another entity to implement portions of the MS4 program, a copy of the written agreement. The description of each party's roles and responsibilities, including any written agreements with third parties, shall be updated as necessary;

      c. For each MCM in Part IV.E, the following information shall be included:

         (1) Each specific requirement as listed in Part IV.E for each MCM;

         (2) A description of the BMPs or strategies that the permittee anticipates will be implemented to demonstrate compliance with the permit conditions in Part IV.E;

         (3) All standard operating procedures or policies necessary to implement the BMPs;

         (4) The measurable goal by which each BMP or strategy will be evaluated; and

         (5) The persons, positions, or departments responsible for implementing each BMP or strategy.

      d. A list of documents incorporated by reference including the version and date of the document being incorporated.

   2. The permittee shall update the MS4 program plan to meet the requirements of this permit no later than six months after the effective date of this permit unless otherwise specified in another permit conditions and shall post the most up-to-date version of the MS4 program plan on the permittee's website or location where the MS4 program plan can be obtained as required by Part IV.E.2 within 30 days of updating the MS4 program plan. Until such time that the MS4 program plan is updated in accordance with Part IV.E, the permittee shall continue to implement the MS4 program plan in effect at the time that coverage was issued under this permit.

3. Revisions to the MS4 program plan are expected throughout the life of this permit as part of the iterative process to reduce pollutant loading and protect water quality to the MEP. As such, revisions made in accordance with this permit as a result of the iterative process do not require modification of this permit. The permittee shall summarize revisions to the MS4 program plan as part of the annual report as described in Part I.A.4.

4. The permittee may demonstrate compliance with one or more MCMs in Part IV.E through implementation of separate statutory or regulatory programs provided that the permittee's MS4 program plan identifies and fully describes any program that will be used to satisfy one or more of the minimum control measures of Part IV.E. If the program that the permittee is using requires the approval of a third party, the program shall be fully approved by the third party, or the permittee shall be working toward getting full approval. Documentation of the program's approval status, or the progress toward achieving full approval, shall be included in the annual report required by Part I.A.4. The permittee shall remain responsible for compliance with the permit requirements if the other entity fails to implement one or more components of the control measures.

5. The permittee may rely on another entity to satisfy the permit requirements to implement a minimum control measure if:

   a. The other entity, in fact, implements the control measure;

   b. The particular control measure, or component thereof, is at least as stringent as the corresponding permit requirement;

   c. The other entity agrees to implement the control measure on behalf of the permittee; and

   d. The agreement between the parties is documented in writing and retained by the permittee with the MS4 program plan for as long as the agreement is active.

   The permittee shall remain responsible for compliance with requirements of the permit and shall document in the annual reports required in accordance with Part I.A.4 that another entity is being relied on to satisfy all or part of the state permit requirements. The permittee shall provide the information required in Part I.A.4.

6. If the permittee relies on another governmental entity regulated under 9VAC25-870-380 to satisfy all of the state permit obligations, including the obligation to file periodic reports required by Part I.A.4, the permittee must note that fact in the registration statement, but is not required to file the periodic reports. The permittee remains responsible for compliance with the state permit requirements if the other entity fails to implement the control measures or components thereof.

D. Annual reporting requirements.
The annual report shall be performed in accordance with Part I.A.4 (Integrated CSS and MS4 Annual Reporting) of this permit.

E. Minimum control measures.

1. Public education and outreach.

   a. The permittee shall implement a public education and outreach program designed to:

      (1) Increase the public's knowledge of how to reduce stormwater pollution, placing priority on reducing impacts to impaired waters and other local water pollution concerns;

      (2) Increase the public's knowledge of hazards associated with illegal discharges and improper disposal of waste, including pertinent legal implications; and

(3) Implement a diverse program with strategies that are targeted toward individuals or groups most likely to have significant stormwater impacts.

b. The permittee shall identify no fewer than three high-priority stormwater issues to meet the goal of educating the public in accordance with Part IV.E.1.a. High-priority issues may include the following examples: Chesapeake Bay nutrients, pet wastes, local receiving water impairments, TMDLs, high-quality receiving waters, litter control, BMP maintenance, anti-icing and deicing agent application, planned green infrastructure redevelopment, planned ecosystem restoration projects, and illicit discharges from commercial sites.

c. The high-priority public education and outreach program, as a whole, shall:

(1) Clearly identify the high-priority stormwater issues;
(2) Explain the importance of the high-priority stormwater issues;
(3) Include measures or actions the public can take to minimize the impact of the high-priority stormwater issues; and
(4) Provide a contact name and telephone number, website or location where the public can find out more information.

TABLE 1
STRATEGIES FOR PUBLIC OUTREACH AND EDUCATION

STRATEGIES	EXAMPLES (provided as examples and are not meant to be all inclusive or limiting)
Traditional written materials	Informational brochures, newsletters, fact sheets, utility bill inserts, or recreational guides for targeted groups of citizens
Alternative materials	Bumper stickers, refrigerator magnets, t-shirts, or drink koozies
Signage	Temporary or permanent signage in public places or facilities, vehicle signage, bill boards, or storm drain stenciling
Media materials	Information disseminated through electronic media, radio, televisions, movie theater, newspaper, or GIS story maps
Speaking engagements	Presentations to school, church, industry, trade, special interest, or community groups
Curriculum materials	Materials developed for school-aged children, students at local colleges or universities, or extension classes offered to local citizens
Training materials	Materials developed to disseminate during workshops offered to local citizens, trade organization, or industrial officials
Public education activities	Booth at community fair, demonstration of stormwater control projects, presentation of stormwater materials to schools to meet applicable education Standards of Learning or curriculum requirements, or watershed walks
Public meetings	Public meetings on proposed community stormwater management retrofits, green infrastructure redevelopment, ecosystem restoration projects, TMDL development, voluntary residential low impact development, climate change's effects on stormwater management, or other stormwater issues

d. The permittee shall use two or more of the strategies listed in Table 1 per year to communicate to the target audience the high-priority stormwater issues identified in accordance with Part IV.E.1.b including how to reduce stormwater pollution.

e. The permittee may coordinate its public education and outreach efforts with other MS4 permittees; however, the permittee shall be individually responsible for meeting all of its state permit requirements.

f. The MS4 program plan shall include:

(1) A list of the high-priority stormwater issues the permittee will communicate to the public as part of the public education and outreach program;

(2) The rationale for selection of each high-priority stormwater issue and an explanation of how each education or outreach strategy is intended to have a positive impact on stormwater discharges;

(3) Identification of the target audience to receive each high-priority stormwater message;

(4) The permittee may identify staff and students as part of the target audience for education and outreach strategies; however, staff shall not be the majority of the target audience;

(5) Staff training required in accordance with Part IV.E.6.d does not qualify as a strategy for public education and outreach;

(6) The strategies from Table 1 of Part IV.E.1.d to be used to communicate each high-priority stormwater message; and

(7) The anticipated time periods the messages will be communicated or made available to the public.

2. Public involvement and participation.

a. The permittee shall develop and implement procedures for the following:

(1) The public to report potential illicit discharges, improper disposal, or spills to the MS4, complaints regarding land disturbing activities, or other potential stormwater pollution concerns;

(2) The public to provide comments on the permittee's MS4 program plan;

(3) Responding to public comments received on the MS4 program plan; and

(4) Maintaining documentation of public comments received on the MS4 program and associated MS4 program plan and the permittee's response.

b. No later than three months after the effective date of this permit, the permittee shall update and maintain a webpage dedicated to the MS4 program and stormwater pollution prevention. The following information shall be posted on this webpage:

(1) The effective VPDES integrated permit and coverage transmittal letter;

(2) The most current MS4 program plan or location where the MS4 program plan can be obtained;

(3) The annual report for each year of the term covered by this permit no later than 30 days after submittal to the department;

(4) The most current Chesapeake Bay TMDL action plan or location where the Chesapeake Bay TMDL action plan can be obtained;

(5) The Chesapeake Bay TMDL implementation annual status reports for each year of the term covered by this permit no later than 30 days after submittal to the department;

(6) A mechanism for the public to report potential illicit discharges, improper disposal, or spills to the MS4, complaints regarding land disturbing activities, or other potential stormwater pollution concerns in accordance with Part IV.E.2.a.(1); and

(7) Methods for how the public can provide comments on the permittee's MS4 program plan in accordance with Part IV.E.2.a.(2) and if applicable, the Chesapeake Bay TMDL action plan in accordance with Part IV.F 12;

c. The permittee shall implement no fewer than four activities per year from two or more of the categories listed in Table 2 to provide an opportunity for public involvement to improve water quality and support local restoration and clean-up projects.

TABLE 2
PUBLIC INVOLVEMENT OPPORTUNITIES

Public involvement opportunities	Examples (provided as example and are not meant to be all inclusive or limiting)
Monitoring	Establish or support citizen monitoring group
Restoration	Stream, watershed, shoreline, beach, or park clean-up day, adopt-a-waterway program, tree plantings, and riparian buffer plantings.
Public education activities	Booth at community fair, demonstration of stormwater control projects, presentation of stormwater materials to schools to meet applicable education Standards of Learning or curriculum requirements, or watershed walks
Public meetings	Public meetings on proposed community stormwater management retrofits, green infrastructure redevelopment, ecosystem restoration projects, TMDL development, voluntary residential low impact development, climate change's effects on stormwater management, or other stormwater issues
Disposal or collection events	Household hazardous chemicals collection, vehicle fluids collection
Pollution prevention	Adopt-a-storm drain program, implement a storm drain marking program, promote use of residential stormwater BMPs, implement pet waste stations in public areas, adopt-a-street program.

d. The permittee may coordinate the public involvement opportunities listed in Table 2 with other MS4 permittees; however, each permittee shall be individually responsible for meeting all of the permit requirements.

e. The permittee may include staff and students in public participation events; however, the activity cannot solely include or be limited to staff participants with stormwater, groundskeeping, and maintenance duties in order for an event to qualify as a public participation event.

f. Staff training required in accordance with Part IV.E.6.d does not qualify as a public participation event unless the training activity solicits participation from target audiences beyond staff or contractors with stormwater, groundskeeping, and maintenance duties.

g. The MS4 program plan shall include:

(1) The webpage address where mechanisms for the public to report (i) potential illicit discharges, improper disposal, or spills to the MS4, (ii) complaints regarding land disturbing activities, or (iii) other potential stormwater pollution concerns;

(2) The webpage address that contains the methods for how the public can provide input on the permittee's MS4 program; and

(3) A description of the public involvement activities to be implemented by the permittee, the anticipated time period the activities will occur, and a metric for each activity to determine if the activity is beneficial to water quality. An example of metrics may include the weight of trash collected from a stream cleanup, the number of participants in a hazardous waste collection event.

3. Illicit discharge detection and elimination.

a. The permittee shall develop and maintain an accurate MS4 map and information table as follows:

(1) An updated map of the MS4 owned or operated by the permittee within the MS4 regulated service area, as defined in 9VAC25-890-1, no later than 24 months after the permit effective date that includes, at a minimum:

(a) MS4 outfalls discharging to surface waters, except as follows:

(i) In cases where the outfall is located outside of the MS4 permittee's legal responsibility, the permittee may elect to map the known point of discharge location closest to the actual outfall; and

(ii) In cases where the MS4 outfall discharges to receiving water channelized underground, the permittee may elect to map the point downstream at which the receiving water emerges above ground as an outfall discharge location. If there are multiple outfalls discharging to an underground channelized receiving water, the map shall identify that an outfall discharge location represents more than one outfall. This is an option a permittee may choose to use and recognizes the difficulties in accessing outfalls to underground channelized stream conveyances for purposes of mapping, screening or monitoring;

(b) A unique identifier for each mapped item required in Part IV.E.3;

(c) The name and location of receiving waters to which the MS4 outfall or point of discharge discharges;

(d) MS4 regulated service area;

(e) Pipe and open channel conveyances that are upstream of MS4 outfalls; and

(f) Stormwater management facilities owned or operated by the permittee.

(2) The permittee shall maintain an outfall information table associated with the MS4 map that includes the following information for each outfall or point of discharge for those cases in which the permittee elects to map the known point of discharge in accordance with Part IV.E.3.a.(1)(a). The outfall information table may be maintained as a shapefile attribute table. The outfall information table shall contain the following:

(a) A unique identifier as specified on the MS4 map;

(b) The latitude and longitude of the outfall or point of discharge;

(c) The estimated regulated acreage draining to the outfall or point of discharge;

(d) The name of the receiving water;

(e) The 6th Order Hydrologic Unit Code of the receiving water;

(f) An indication as to whether the receiving water is listed as impaired in the Virginia 2024 305(b)/303(d) Water Quality Assessment Integrated Report; and

(g) The name of any EPA approved TMDLs for which the permittee is assigned a wasteload allocation.

(3) No later than 24 months after permit issuance, the permittee shall submit to DEQ a format file geodatabase or two shapefiles that contain at a minimum:

(a) A point feature class or shapefile for outfalls with an attribute table containing outfall data elements required in accordance with Part IV.E.3.a(2); and

(b) A polygon feature class or shapefile for the MS4 service area as required in accordance with Part IV.E.3.a(1) (d) with an attribute table containing the following information:
(i) MS4 operator name;
(ii) MS4 permit number; and
(iii) MS4 service area total acreage rounded to the nearest hundredth.

(4) All file geodatabase feature classes or shapefiles shall be submitted in the following data format standards:
(a) Point data in NAD83 or WGS84 decimal degrees global positional system coordinates;
(b) Data projected in Virginia Lambert Conformal Conic format;
(c) Outfall location accuracy shall be represented in decimal degrees rounded to at least the fifth decimal place for latitude and longitude to ensure point location accuracy (e.g., 37.61741, -78.15279); and
(d) Metadata that shall provide a description of each feature class or shapefile dataset, units of measure as applicable, coordinate system, and projection.

(5) No later than December 31 of each year, the permittee shall update the MS4 map and outfall information table to include any new outfalls constructed or TMDLs approved or both during the immediate preceding reporting period.

(6) The permittee shall provide written notification to any downstream adjacent MS4 of any known physical interconnection established or discovered after the effective date of this permit.

b. The permittee shall prohibit, through ordinance, policy, standard operating procedures, or other legal mechanism, to the extent allowable under federal, state, or local law, regulations, or ordinances, unauthorized non-stormwater discharges into the MS4. Non-stormwater discharges or flows identified in 9VAC25-890-20 D 3 shall only be addressed if they are identified by the permittee as a significant contributor of pollutants discharging to the MS4. Flows that have been identified by the department as de minimis discharges are not significant sources of pollutants to surface water.

c. The permittee shall maintain, implement and enforce illicit discharge detection and elimination (IDDE) written procedures designed to detect, identify, and address unauthorized non-stormwater discharges, including illegal dumping, to the small MS4 to effectively eliminate the unauthorized discharge. Written procedures shall include:

(1) A description of the legal authorities, policies, standard operating procedures or other legal mechanisms available to the permittee to eliminate identified sources of ongoing illicit discharges including procedures for using legal enforcement authorities.

(2) Dry weather field screening protocols to detect, identify, and eliminate illicit discharges to the MS4. The protocol shall include:

(a) A prioritized schedule of field screening activities and rationale for prioritization determined by the permittee based on such criteria as age of the infrastructure, land use, historical illegal discharges, dumping or cross connections;

(b) A schedule to screen a minimum of 50 outfalls annually such that no more than 50% are screened in the previous 12-month period;

(c) The permittee may adopt a risk-based approach to dry weather screening identifying observation points based upon illicit discharge risks upstream of an outfall. Observation points may include

points of interconnection, manholes, points of discharge, conveyances, or inlets suspected to have a high likelihood of receiving illicit discharges;

(d) Each observation point screened may be counted as one outfall screening activity equivalent and counted towards the requirements of Part IV E 3 c (2) (b) or (2) (c); however, at least 50% of the minimum annual screening events must include outfall screening;

(e) Illicit discharges reported by the public and subsequent investigations may not be counted as screening events; however once the resolution of the investigation and the date the investigation was closed has been documented, an observation point may be established for future screening events; and

(f) A checklist or mechanism to track the following information for dry weather screening events:

(i) The unique identifier for the outfall or observation point;

(ii) Time since the last precipitation event;

(iii) The estimated quantity of the last precipitation event;

(iv) Site descriptions (e.g., conveyance type and dominant watershed land uses);

(v) Observed indicators of possible illicit discharge events, such as floatables, deposits, stains, and vegetative conditions (e.g., dying or dead vegetation, excessive vegetative growth);

(vi) Whether or not a discharge was observed;

(vii) If a discharge was observed, the estimated discharge rate and visual characteristics of the discharge (e.g., odor, color, clarity) and the physical condition of the outfall; and

(viii) For observation points, the location, downstream outfall unique identifier, and risk factors or rationale for establishing the observation point.

(3) A timeframe upon which to conduct an investigation to identify and locate the source of any observed unauthorized non-stormwater discharge. Priority of investigations shall be given to discharges of sanitary sewage and those believed to be a risk to human health and public safety. Discharges authorized under a separate VPDES or state permit require no further action under this permit.

(4) Methodologies to determine the source of all illicit discharges. If the permittee is unable to identify the source of an illicit discharge within six months of beginning the investigation then the permittee shall document that the source remains unidentified. If the observed discharge is intermittent, the permittee shall document that attempts to observe the discharge flowing were unsuccessful.

(5) Methodologies for conducting a follow-up investigation for illicit discharges that are continuous or that the permittee expects to occur more frequently than a one-time discharge to verify that the discharge has been eliminated except as provided for in Part I E 3 c (4);

(6) A mechanism to track all illicit discharge investigations to document the following:

(a) The dates that the illicit discharge was initially observed, reported, or both;

(b) The results of the investigation, including the source, if identified;

(c) Any follow-up to the investigation;

(d) Resolution of the investigation; and

(e) The date that the investigation was closed.

d. The MS4 program plan shall include:

(1) The MS4 map and outfall information table required by Part IV.E.3.a. The map and outfall information table may be incorporated into the MS4 program plan by reference. The map shall be made available to the department within 14 days upon request;

(2) Copies of written notifications of physical interconnections given by the permittee to other MS4s; and

(3) The IDDE procedures described in Part IV.E.3.c.

4. Construction site stormwater runoff and erosion and sediment control.

a. The permittee shall utilize its legal authority, such as ordinances, permits, orders, specific contract language, and inter-jurisdictional agreements, to address discharges entering the MS4 from regulated construction site stormwater runoff. The permittee shall control construction site stormwater runoff by implementing the Virginia Erosion and Sediment Control Program (VESCP) consistent with the Virginia Erosion and Sediment Control Law (§ 62.1-44.15:51 et seq. of the Code of Virginia) and Virginia Erosion and Sediment Control Regulations (9VAC25-840).

b. The permittee shall require implementation of appropriate controls to prevent nonstormwater discharges to the MS4, such as wastewater, concrete washout, fuels and oils, and other illicit discharges identified during land disturbing activity inspections. The discharge of nonstormwater discharges other than those identified in 9VAC25-890-20 D through the MS4 is not authorized by this state permit.

c. Employees and contractors serving as plan reviewers, inspectors, program administrators, and construction site operators shall obtain the appropriate certifications as required under the Virginia Erosion and Sediment Control Law and its attendant regulations;

d. The permittee's MS4 program plan shall include:

(1) The local ordinance citations for the Virginia Erosion and Sediment Control Program (VESCP) program;

(2) A description of the legal authorities utilized to ensure compliance with Part IV.E.4.a for erosion and sediment control and construction site stormwater runoff control, such as ordinances, permits, orders, specific contract language, policies, and inter-jurisdictional agreements;

(3) Written inspection procedures to ensure VESCP requirements are maintained in accordance with 9VAC25-840-90 A and onsite erosion and sediment controls are properly implemented in accordance with 9VAC25-840-60 B;

(4) The permittee shall maintain written procedures for requiring VESCP compliance through corrective action or enforcement action in accordance with § 62.1-44.15:58 of the Code of Virginia; and

(5) The roles and responsibilities of each of the permittee's departments, divisions, or subdivisions in implementing erosion and sediment control and construction site stormwater runoff control requirements in Part IV.E.4.

5. Post-construction stormwater management for new development and development on prior developed lands.

a. The permittee shall address post-construction stormwater runoff that enters the MS4 from the following land-disturbing activities by implementing an approved Virginia Stormwater Management Program (VSMP) consistent with the Virginia Stormwater Management Act (§ 62.1-44.15:24 et seq. of the Code of Virginia) and VSMP Regulations (9VAC25-870) as well as maintain an inspection and maintenance program in accordance with Part IV.E.5.b and c.

b. The permittee shall implement an inspection and maintenance program for those stormwater management facilities owned or operated by the permittee as follows:

(1) Within six months of the permit effective date, the permittee shall develop and maintain written inspection and maintenance procedures in order to ensure adequate long-term operation and maintenance of its stormwater management facilities. The permittee may use inspection and maintenance specifications available from the Virginia Stormwater BMP Clearinghouse or inspection and maintenance plans developed in accordance with the department's Stormwater Local Assistance Fund (SLAF) guidelines;

(2) Employees and contractors implementing the stormwater program shall obtain the appropriate certifications as required under the Virginia Stormwater Management Act and its attendant regulations;

(3) The permittee shall inspect stormwater management facilities owned or operated by the permittee no less frequently than once per year. The permittee may choose to implement an alternative schedule to inspect these stormwater management facilities based on facility type and expected maintenance needs provided that the alternative schedule and rationale is included in the MS4 program plan; The alternative inspection frequency shall be no less often than once per five years; and

(4) If during the inspection of the stormwater management facility conducted in accordance with Part IV.E.5.b.(3), it is determined that maintenance is required, the permittee shall conduct the maintenance in accordance with the written procedures developed under Part IV.E.5.b.(1).

c. The permittee shall:

(1) Implement an inspection and enforcement program for stormwater management facilities not owned by the permittee (i.e., privately owned) that includes:

(a) An inspection frequency of no less often than once per five years for all privately owned stormwater management facilities that discharge into the MS4; and

(b) Adequate long-term operation and maintenance by the owner of the stormwater management facility by requiring the owner to develop and record a maintenance agreement, including an inspection schedule to the extent allowable under state or local law or other legal mechanism;

(2) Utilize its legal authority for enforcement of the maintenance responsibilities in accordance with 9VAC25-870-112 if maintenance is neglected by the owner;

(3) The permittee may develop and implement a progressive compliance and enforcement strategy provided that the strategy is included in the MS4 program plan; and

(4) The permittee may utilize the inspection reports provided by the owner of a stormwater management facility as part of an inspection and enforcement program in accordance with 9VAC25-870-114 C.

d. The MS4 program plan shall include:

(1) A copy of the VSMP approval letter issued by the department;

(2) Written inspection procedures and all associated documents utilized in the inspection of privately owned stormwater management facilities; and

(3) Written procedures for compliance and enforcement of inspection and maintenance requirements for privately owned stormwater management facilities.

(4) A description of the legal authorities utilized to ensure compliance with Part IV.E.5.a for post-construction stormwater runoff control such as ordinances, permits, orders, specific contract language, and inter-jurisdictional agreements;

(5) Written inspection and maintenance procedures and other associated template documents utilized during inspection and maintenance of stormwater management facilities owned or operated by the permittee; and

(6) The roles and responsibilities of each of the permittee's departments, divisions, or subdivisions in implementing the post-construction stormwater runoff control program.

6. Pollution prevention and good housekeeping for facilities owned or operated by the permittee within the MS4 service area.

a. The permittee shall maintain and implement written good housekeeping procedures for those activities listed in Part IV.E.6.b at facilities owned or operated by the permittee designed to meet the following objectives:

(1) Prevent illicit discharges;

(2) Ensure permittee staff or contractors properly dispose of waste materials, including landscape wastes and prevent waste materials from entering the MS4;

(3) Prevent the discharge of wastewater or wash water not authorized in accordance with 9VAC25-890-20 D 3 u into the MS4 without authorization under a separate VPDES permit; and

(4) Minimize the pollutants in stormwater runoff;

b. The permittee shall develop and implement written good housekeeping procedures that meet the objectives established in Part IV E 6 a for the following activities:

(1) Road, street, sidewalk, and parking lot maintenance and cleaning:

(a) Within 24 months of permit issuance, the permittee shall update and implement procedures in accordance with Part IV E to include implementation of best management practices for anti-icing and deicing agent application, transport, and storage;

(b) Procedures developed in accordance with Part IV E shall prohibit the application of any anti-icing or deicing agent containing urea or other forms of nitrogen or phosphorus;

(2) Renovation and significant exterior maintenance activities (e.g., painting, , roof resealing, and HVAC coil cleaning) not covered under a separate VSMP construction general permit. The permittee shall develop and implement procedures no later than 36 months after permit issuance;

(3) Discharging water pumped from construction and maintenance activities not covered by another permit covering such activities;

(4) Temporary storage of landscaping materials;

(5) Maintenance of permittee owned or operated vehicles and equipment (i.e., prevent pollutant discharges from leaking permittee vehicles and equipment);

(6) Application of materials, including pesticides and herbicides shall not exceed manufacturer's recommendations; and

(7) Application of fertilizer shall not exceed maximum application rates established by applicable nutrient management plans. For areas not covered under nutrient management plans where fertilizer is applied, application rates shall not exceed manufacturer's recommendations.

c. The permittee shall require through the use of contract language, training, written procedures, or other measures within the permittee's legal authority that contractors employed by the permittee and engaging in activities described in Part IV.E.6.b follow established good housekeeping procedures and use appropriate control measures to minimize the discharge of pollutants to the MS4.

d. The written procedures established in accordance with Part IV.E.6.a and b shall be utilized as part of the employee training program and the permittee shall develop a written training plan for applicable field personnel that ensures the following:

(1) Applicable field personnel shall receive training in the prevention, recognition, and elimination of illicit discharges no less often than once per 24 months;

(2) Employees performing road, street, sidewalk, and parking lot maintenance shall receive training in good housekeeping procedures required under Part IV E 6 b (1) no less often than once per 24 months;

(3) Employees working in and around facility maintenance, public works, or recreational facilities shall receive training in applicable Part IV E 6 a and b good housekeeping procedures required no less often than once per 24 months;

(4) Employees working in and around high-priority facilities with a stormwater pollution prevention plan (SWPPP) shall receive training in applicable site specific SWPPP procedures no less often than once per 24 months;

(5) Employees whose duties include emergency spill control and response shall be trained in spill control and response. Emergency responders, such as firefighters and law-enforcement officers, trained on the handling of spill control and response as part of a larger emergency response training shall satisfy this training requirement and be documented in the training plan; and

(6) Employees and contractors hired by the permittee who apply pesticides and herbicides shall be trained and certified in accordance with the Virginia Pesticide Control Act (§ 3.2-3900 et seq. of the Code of Virginia). Certification by the Virginia Department of Agriculture and Consumer Services (VDACS) Pesticide and Herbicide Applicator program shall constitute compliance with this requirement. Contracts for the application of pesticide and herbicides executed after the effective date of this permit shall require contractor certification.

e. The permittee shall maintain documentation of each training activity conducted by the permittee to fulfill the requirements of Part I E 6 d for a minimum of three years after training activity completion. The documentation shall include the following information:

(1) The date when applicable employees have completed the training activity;

(2) The number of employees who have completed the training activity; and

(3) The training objectives and good housekeeping procedures required under Part I E 6 a covered by training activity.

f. The permittee may fulfill the training requirements in Part IV E 6 d, in total or in part, through regional training programs involving two or more MS4 permittees; however, the permittee shall remain responsible for ensuring compliance with the training requirements.

g. Within 12 months of permit coverage, the permittee shall identify any new high-priority facilities located in expanded 2020 census urban areas with a population of at least 50,000.

h. The permittee shall maintain and implement a site-specific SWPPP for each high-priority facility as defined in 9VAC25-890-1 that does not have or require separate VPDES permit coverage, and which any of the following materials or activities occur and are expected to have exposure to stormwater resulting from rain, snow, snowmelt or runoff:

(1) Areas where residuals from using, storing or cleaning machinery or equipment remain and are exposed to stormwater;

(2) Materials or residuals on the ground or in stormwater inlets from spills or leaks;

(3) Material handling equipment;

(4) Materials or products that would be expected to be mobilized in stormwater runoff during loading or unloading or transporting activities (e.g., rock, salt, fill dirt);

(5) Materials or products stored outdoors (except final products intended for outside use where exposure to stormwater does not result in the discharge of pollutants);

(6) Materials or products that would be expected to be mobilized in stormwater runoff contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers;

(7) Waste material except waste in covered, nonleaking containers (e.g., dumpsters);

(8) Application or disposal of process wastewater (unless otherwise permitted); or

(9) Particulate matter or visible deposits of residuals from roof stacks, vents or both not otherwise regulated (i.e., under an air quality control permit) and evident in the stormwater runoff.

i. Each SWPPP as required in Part IV.E.6.h shall include the following:

(1) A site description that includes a site map identifying all outfalls, direction of stormwater flows, existing source controls, and receiving water bodies;

(2) A description and checklist of the potential pollutants and pollutant sources;

(3) A description of all potential nonstormwater discharges;

(4) A description of all structural control measures, such as stormwater management facilities and other pollutant source controls, applicable to SWPPP implementation (e.g., permeable pavement or oil-water separators that discharge to sanitary sewer are not applicable to the SWPPP), such as oil-water separators, and inlet protection designed to address potential pollutants and pollutant sources at risk of being discharged to the MS4;

(5) A maintenance schedule for all stormwater management facilities and other pollutant source controls applicable to SWPPP implementation described in Part IV.E.6.i(4);

(6) Site specific written procedures designed to reduce and prevent pollutant discharge that incorporate by reference applicable good housekeeping procedures required under Part IV.E.6.a and b;

(7) A description of the applicable training as required in Part IV.E.6.d(4);

(8) An inspection frequency of no less often than once per year and maintenance requirements for site-specific source controls. The date of each inspection and associated findings and follow-up shall be logged in each SWPPP;

(9) A log of each unauthorized discharge, release, or spill incident reported in accordance with Part V.G including the following information:

(a) Date of incident;

(b) Material discharged, released, or spilled; and

(c) Estimated quantity discharged, released or spilled;

(10) A log of modifications to the SWPPP made as the result of any unauthorized discharge, release, or spill in accordance Part IV.E.6.k or changes in facility activities and operation requiring SWPPP modification; and

(11) The point of contact for SWPPP implementation.

j. No later than December 31 of each year, the permittee shall review any high-priority facility owned or operated by the permittee for which an SWPPP has not been developed to determine if the facility meets any of the conditions described in Part IV.E.6.h. If the facility is determined to need a SWPPP the permittee shall develop an SWPPP meeting the requirements of Part IV.E.6.i no later than June 30 of the following year. The permittee shall maintain a list of all high-priority facilities owned or operated by the permittee not required to maintain an SWPPP in accordance with Part IV.E.6.h and this list shall be available upon request.

k. The permittee shall review the contents of any site specific SWPPP no later than 30 days after any unauthorized discharge, release, or spill reported in accordance with Part V.G to determine if additional measures are necessary to prevent future unauthorized discharges, releases, or spills. If necessary, the SWPPP shall be updated no later than 90 days after the unauthorized discharge.

l. The SWPPP shall be kept at the high-priority facility and utilized as part of employee SWPPP training required in Part IV.E.6.d(4). The SWPPP and associated documents may be maintained as a hard copy or electronically as long as the documents are available to employees at the applicable site.

m. If activities change at a facility such that the facility no longer meets the definition of a high-priority facility, the permittee may remove the facility from the list of high-priority facilities with a high potential to discharge pollutants.

n. If activities change at a facility such that the facility no longer meets the criteria requiring SWPPP coverage as described in Part IV.E.6.h, the permittee may remove the facility from the list of high-priority facilities that require SWPPP coverage.

o. The permittee shall maintain and implement turf and landscape nutrient management plans that have been developed by a certified turf and landscape nutrient management planner in accordance with § 10.1-104.2 of the Code of Virginia on all lands owned or operated by the permittee where nutrients are applied to a contiguous area greater than one acre. If nutrients are being applied to achieve final stabilization of a land disturbance project, application shall follow the manufacturer's recommendations.

p. If nutrients are being applied to achieve final stabilization of a land disturbance project, application shall follow the manufacturer's recommendations. For newly established turf where nutrients are applied to a contiguous area greater than one acre, the permittee shall implement a nutrient management plan no later than six months after the site achieves final stabilization.

q. Nutrient management plans developed in accordance with Part IV.E.6.o shall be submitted to the Department of Conservation and Recreation (DCR) for approval.

r. Nutrient management plans that are expired as of the effective date of this permit shall be submitted to DCR for renewal within six months after the effective date of this permit. Thereafter, all nutrient management plans shall be submitted to DCR at least 30 days prior to nutrient management plan expiration. Within 36 months of permit coverage, no nutrient management plans maintained by the permittee in accordance with Part IV.E.6.o shall be expired due to DCR documented noncompliance with 4VAC50-85-130 provided to the permittee.

s. Nutrient management plans may be maintained as a hard copy or electronically as long as the documents are available to employees at the applicable site.

t. The MS4 program plan shall include:

(1) A list of written good housekeeping procedures for the operations and maintenance activities as required by Part IV.E.6.a and b;

(2) A list of all high-priority facilities owned or operated by the permittee required to maintain a SWPPP in accordance with Part IV.E.6.h that includes the facility name, facility location, and the location of the SWPPP hardcopy or electronic document being maintained. The SWPPP for each high-priority facility shall be incorporated by reference;

(3) A list of locations for which turf and landscape nutrient management plans are required in accordance with Part IV.E.6.o, including the following information:

(a) The total acreage covered by each nutrient management plan;

(b) The DCR approval date and expiration date for each nutrient management plan;

(c) The location of the nutrient management plan hardcopy or electronic document being maintained;

(4) A summary of mechanisms the permittee uses to ensure contractors working on behalf of the permittee implements the necessary good housekeeping and pollution prevention procedures, and stormwater pollution plans as appropriate; and

(5) The written training plan as required in Part IV.E.6.d.

F. Chesapeake Bay TMDL Special Condition.

1. The following definitions apply to Part IV.F and G of this permit for the purpose of the Chesapeake Bay TMDL special condition for discharges in the Chesapeake Bay Watershed:

"Existing sources" means pervious and impervious urban land uses served by the MS4 as of June 30, 2009.

"New sources" means pervious and impervious urban land uses served by the MS4 developed or redeveloped on or after July 1, 2009.

"Pollutants of concern" or "POC" means total nitrogen and total phosphorus.

"Transitional sources" means regulated land disturbing activities that are temporary in nature and discharge through the MS4.

2. No later than the expiration date of this permit, the permittee shall implement measures to reduce the load of total nitrogen and total phosphorus from existing developed lands served by the MS4 as of June 30, 2009,

within the 2010 Census Urbanized Area by at least 100% of the Level 2 (L2) Scoping Run Reductions. The 100% reduction is the sum of (i) the first phase reduction of 5.0% of the L2 Scoping Run Reductions based on the lands located within the 2000 Census Urbanized Areas required by June 30, 2018; (ii) the second phase reduction of at least 35% of the L2 Scoping Run based on lands within the 2000 Census Urbanized Areas required by June 30, 2023; (iii) the second phase reduction of at least 40% of the L2 Scoping Run, which shall only apply to the additional lands that were added by the 2010 expanded Census Urbanized Areas required by June 30, 2023; and (iv) the third phase reduction of least 60% of the L2 Scoping Run based on lands within the 2000 and 2010 expanded Census urbanized areas required by October 31, 2028. The required reduction shall be calculated using Table 3 as applicable:

Table 3
Calculation Sheet for Estimating Existing Source Loads and Reduction Requirements for the James River Basin

		A	B	C	D	E	F
Pollutant	Subsource	Loading rate (lbs/ac/yr)[1]	Existing developed lands as of 6/30/09 served by the MS4 within the 2010 CUA (acres)[2]	Load (lbs/yr)[3]	Percentage of MS4 required Chesapeake Bay total L2 loading reduction	100% cumulative reduction Required by 10/31/2028 (lbs/yr)[4]	Sum of 100% cumulative reduction (lb/yr)[5]
Nitrogen	Regulated urban impervious	9.39			9%		
	Regulated urban pervious	6.99			6%		
Phosphorus	Regulated urban impervious	1.76			16%		
	Regulated urban pervious	0.5			7.25%		

[1]Edge of stream loading rate based on the Chesapeake Bay Watershed Model Progress Run 5.3.2.

[2]To determine the existing developed acres required in Column B, permittees should first determine the extent of their regulated service area based on the 2010 Census urbanized area (CUA). Next, permittees will need to delineate the lands within the 2010 CUA served by the MS4 as pervious or impervious as of the baseline date of June 30, 2009.

[3]Column C = Column A x Column B.

[4]Column E = Column C x Column D

[5]Column F = The sum of the subsource cumulative reduction required by 10/31/2028 (lbs/yr) as calculated in Column E.

3. No later than the expiration date of this permit, the permittee shall offset 100% of the increased loads from new sources initiating construction between July 1, 2009, and expiration date of this permit, and designed in accordance with 9VAC25-870 Part II C (9VAC25-870-93 et seq.) if the following conditions apply:

   a. The activity disturbed one acre or greater; and

   b. The resulting total phosphorous load was greater than 0.45 lb/acre/year, which is equivalent to an average land cover condition of 16% impervious cover.

   The permittee shall utilize Table 4 of Part IV.F.4 to develop the equivalent pollutant load for new sources of nitrogen meeting the requirements of this condition.

4. No later than the expiration date of this permit, the permittee shall offset the increased loads from projects grandfathered in accordance with 9VAC25-870-48 that began construction after July 1, 2014, if the following conditions apply:

   a. The activity disturbs one acre or greater; and

b. The resulting total phosphorous load was greater than 0.45 lb/acre/year, which is equivalent to an average land cover condition of 16% impervious cover.

The permittee shall utilize Table 4 below to develop the equivalent pollutant load for nitrogen for grandfathered sources meeting the requirements of this condition.

TABLE 4
RATIO OF PHOSPHORUS LOADING RATE TO NITROGEN LOADING RATES FOR CHESAPEAKE BAY BASINS

Ratio of Phosphorus to Other POCs (Based on All Land Uses 2009 Progress Run)	Phosphorus Loading Rate (lbs/acre)	Nitrogen Loading Rate (lbs/acre)
James River Basin	1.0	5.2

5. Reductions achieved in accordance with the 2013 General VPDES Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems and the VPDES individual permit effective October 1, 2018, shall be applied to the total reduction requirements to demonstrate compliance with Part IV.F.2, F.3, and F.4.

6. 40% of L2 reductions for total nitrogen and total phosphorus shall at a minimum, be maintained by the permittee during the permit term.

7. Reductions shall be achieved in each river basin as calculated in Part IV.F.2 or for reductions in accordance with Part IV.F.3 and F.4 in the basin in which the new source or grandfathered project occurred.

8. Loading and reduction values greater than or equal to 10 pounds calculated in accordance with Part IV.F.2, F.3, and F.4 shall be calculated and reported to the nearest pound without regard to mathematical rules of precision. Loading and reduction values of less than 10 pounds reported in accordance with Part IV.F.2, F.3, and F.4 shall be calculated and reported to two significant digits.

9. Reductions required in Part IV.F.2, F.3, and F.4 shall be achieved through one or more of the following:

   a. BMPs approved by the Chesapeake Bay Program;

   b. BMPs approved by the department; or

   c. A trading program described in Part IV.F.10.

10. The permittee may acquire and use total nitrogen and total phosphorus credits in accordance with § 62.1-44.19:21 of the Code of Virginia for purposes of compliance with the required reductions in Part IV.F.2.a through F.2.d, F.3, and F.4, provided the use of credits has been approved by the department. The exchange of credits is subject to the following requirements:

    a. The credits are generated and applied to a compliance obligation in the same calendar year;

    b. The credits are generated and applied to a compliance obligation in the same tributary;

    c. The credits are acquired no later than June 1 immediately following the calendar year in which the credits are applied;

    d. No later than June 1 immediately following the calendar year in which the credits are applied, the permittee certifies on a credit exchange notification form supplied by the department that the permittee has acquired the credits; and

e. Total nitrogen and total phosphorus credits shall be either point source credits generated by point sources covered by the Watershed Permit for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Bay Watershed general permit issued pursuant to § 62.1-44.19:14 of the Code of Virginia, or nonpoint source credits certified pursuant to § 62.1-44.19:20 of the Code of Virginia;

11. Chesapeake Bay TMDL action plan requirements.

a. No later than 12 months after the permit effective date, the permittee shall submit a third phase Chesapeake Bay TMDL action plan for the reductions required in Part IV.F.2, F.3, and F.4 that includes the following information:
   (1) Any new or modified legal authorities, such as ordinances, permits, policy, specific contract language, orders, and interjurisdictional agreements, implemented or needing to be implemented to meet the requirements of Part IV.F.2, F.3, and F.4.
   (2) The load and cumulative reduction calculations for each river basin calculated in accordance with Part IV.F.2, F.3, and F.4.
   (3) The total reductions achieved as of November 1, 2023, for each pollutant of concern in each river basin.
   (4) A list of BMPs implemented prior to November 1, 2023, to achieve reductions associated with the Chesapeake Bay TMDL, including:
      (a) The date of implementation; and
      (b) The reductions achieved.
   (5) The BMPs to be implemented by the permittee within 60 months of the effective date of this permit to meet the cumulative reductions calculated in Part IV.F.2, F.3, and F.4, including as applicable:
      (a) Type of BMP;
      (b) Project name;
      (c) Location;
      (d) Percent removal efficiency for each pollutant of concern; and
      (e) Calculation of the reduction expected to be achieved by the BMP calculated and reported in accordance with the methodologies established in Part IV.F.9 for each pollutant of concern; and
   (6) A summary of any comments received as a result of public participation required in Part IV F 13, the permittee's response, identification of any public meetings to address public concerns, and any revisions made to Chesapeake Bay TMDL action plan as a result of public participation.

12. Prior to submittal of the action plan required in Part IV.F.11.a, the permittee shall provide an opportunity for public comment for no fewer than 15 days on the additional BMPs proposed in the third phase Chesapeake Bay TMDL action plan.

a. The permittee shall submit a Chesapeake Bay TMDL implementation annual status report in a method (i.e., how the permittee must submit) and format (i.e., how the report shall be laid out) as specified by the department no later than October 1 of each year. The report shall cover the previous year from July 1 to June 30.

b. Following notification from the department of the start date for the required electronic submission of Chesapeake Bay TMDL implementation annual status reports, as provided for in 9VAC25-31-1020, such forms and reports submitted after that date shall be electronically submitted to the department in compliance with 9VAC25-31-1020 and this section. There shall be at least a three-month notice provided between the notification from the department and the date after which such forms and reports must be submitted electronically.

c. The year two Chesapeake Bay TMDL implementation annual status report shall contain a summary of any public comments on the Chesapeake Bay TMDL action plan received and how the permittee responded.

d. Each Chesapeake Bay TMDL implementation annual status report shall include the following information:
   (1) A list of Chesapeake Bay TMDL action plan BMPs, not including annual practices, implemented prior to the reporting period that includes the following information for reported BMP;
      (a) The number of BMPs for each BMP type;
      (b) The estimated reduction of pollutants of concern achieved by each BMP type and reported in pounds of pollutant reduction per year; and
      (c) A confirmation statement that the permittee electronically reported Chesapeake Bay TMDL action plan BMPs inspected using the DEQ BMP Warehouse in accordance with Part IV.I.2.e 5.

   (2) A list of newly implemented BMPs including annual practices implemented during the reporting period that includes the following information for each reported BMP or a statement that no BMPs were implemented during the reporting period:
      (a) The BMP type and a description of the location for each BMP;
      (b) The estimated reduction of pollutants of concern achieved by each BMP and reported in pounds of pollutant reduction per year; and
      (c) A confirmation statement that the permittee electronically reported BMPs using the DEQ BMP Warehouse in accordance with Part IV.I.2.c.

e. If the permittee acquired credits during the reporting period to meet all or a portion of the required reductions in Part IV.F.2, F.3, or F.4, a statement that credits were acquired.

f. Pollutant load reductions generated by annual practices, such as street and storm drain cleaning, shall only be applied to the compliance year in which the annual practice was implemented.

g. The progress, using the final design efficiency of the BMPs, toward meeting the required cumulative reductions for total nitrogen and total phosphorus.

h. Any revisions made to the Chesapeake Bay TMDL action plan.

i. A list of BMPs that are planned to be implemented during the next reporting period.

G. Local TMDL special condition

1. The permittee shall develop and maintain a local TMDL action plan designed to reduce loadings for pollutants of concern if the permittee discharges the pollutants of concern to an impaired water for which a TMDL has been approved by the U.S. Environmental Protection Agency (EPA) as described in Part IV.G.1.a and 1.b:

   a. For TMDLs approved by EPA prior to July 1, 2018, and in which an individual or aggregate wasteload has been allocated to the permittee, the permittee shall develop and initiate or update as applicable, the local TMDL action plans to meet the conditions of Part IV.G.3, G.4, G.5, G.6, and G.7 as applicable, no later than 18 months after the permit effective date and continue implementation of the action plan. Updated action plans shall include:
      (1) An evaluation of the results achieved by the previous action plan; and
      (2) Any adaptive management strategies incorporated into updated action plans based on action plan evaluation.

   b. For TMDLs approved by EPA on or after July 1, 2018, and prior to October 31, 2023, and in which an individual or aggregate wasteload has been allocated to the permittee, the permittee shall develop and initiate implementation of action plans to meet the conditions of Part IV.G.3, G.4, G.5, G.6, and G.7 as applicable no later than 30 months after the permit effective date.

2. The permittee shall complete implementation of the TMDL Action Plans as soon as possible. TMDL action plans may be implemented in multiple phases over more than one permit cycle using the adaptive iterative approach provided adequate progress is achieved in the implementation of BMPs designed to reduce pollutant discharges to the MEP and in a manner that is consistent with the assumptions and requirements of the applicable TMDL.

3. Each local TMDL action plan developed by the permittee shall include the following:

   a. The TMDL project name;

   b. The EPA approval date of the TMDL;

   c. The wasteload allocated to the permittee (individually or in aggregate), and the corresponding percent reduction, if applicable;

   d. Identification of the significant sources of the pollutants of concern discharging to the permittee's MS4 and are not covered under a separate VPDES permit. For the purposes of this requirement, a significant source of pollutants of concern means a discharge where the expected pollutant loading is greater than the average pollutant loading for the land use identified in the TMDL;

   e. The BMPs designed to reduce the pollutants of concern in accordance with Part IV.G.4 and G.5;

   f. Any calculations required in accordance with Part IV.G.4 or G.5;

   g. For action plans developed in accordance with Part IV.G.4 and G.5, an outreach strategy to enhance the public's education (including employees) on methods to eliminate and reduce discharges of the pollutants; and

   h. A schedule of anticipated actions planned for implementation during this permit term.

4. Bacterial TMDLs.

   a. The permittee shall select and implement at least three of the strategies listed in Table 5 designed to reduce the load of bacteria to the MS4. Selection of the strategies shall correspond to sources identified in Part IV.G.3.d.

TABLE 5
STRATEGIES FOR BACTERIA REDUCTION STORMWATER CONTROL/MANAGEMENT

Source	Strategies (provided as an example and not meant to be all inclusive or limiting)
Domestic pets (dogs and cats)	Provide signage to pick up dog waste, providing pet waste bags and disposal containers. Adopt and enforce pet waste ordinances or policies, or leash laws or policies. Place dog parks away from environmentally sensitive areas. Maintain dog parks by removing disposed of pet waste bags and cleaning up other sources of bacteria. Protect riparian buffers and provide un-manicured vegetative buffers along streams to dissuade stream access.
Urban wildlife	Educate the public on how to reduce food sources accessible to urban wildlife (e.g., manage restaurant dumpsters and grease traps, residential garbage, feed pets indoors). Install storm drain inlet or outlet controls. Clean out storm drains to remove waste from wildlife. Implement and enforce urban trash management practices. Implement rooftop disconnection programs or site designs that minimize connections to reduce bacteria from rooftops

TABLE 5 STRATEGIES FOR BACTERIA REDUCTION STORMWATER CONTROL/MANAGEMENT	
Source	Strategies (provided as an example and not meant to be all inclusive or limiting)
	Implement a program for removing animal carcasses from roadways and properly disposing of the same (either through proper storage or through transport to a licensed facility).
Illicit connections or illicit discharges to the MS4	Implement an enhanced dry weather screening and illicit discharge, detection, and elimination program beyond the requirements of Part IV.E.3 to identify and remove illicit connections and identify leaking sanitary sewer lines infiltrating to the MS4 and implement repairs. Implement a program to identify potentially failing septic systems. Educate the public on how to determine whether their septic system is failing. Implement septic tank inspection and maintenance program. Implement an educational program beyond any requirements in Part IV.E.1 though E.6 to explain to citizens why they should not dump materials into the MS4.
Dry weather urban flows (irrigations, car washing, power washing, etc.)	Implement public education programs to reduce dry weather flows from storm sewers related to lawn and park irrigation practices, car washing, power washing and other non-stormwater flows. Provide irrigation controller rebates. Implement and enforce ordinances or policies related to outdoor water waste. Inspect commercial trash areas, grease traps, wash-down practices, and enforce corresponding ordinances or policies.
Birds (Canadian geese, gulls, pigeons, etc.)	Identify areas with high bird populations and evaluate deterrents, population controls, habitat modifications and other measures that may reduce bird-associated bacteria loading. Prohibit feeding of birds.
Other sources	Enhance maintenance of stormwater management facilities owned or operated by the permittee. Enhance requirements for third parties to maintain stormwater management facilities. Develop BMPs for locating, transporting, and maintaining portable toilets used on permittee-owned sites. Educate third parties that use portable toilets on BMPs for use. Provide public education on appropriate recreational vehicle dumping practices.

5. Local sediment, phosphorus, and nitrogen TMDLs.

   a. The permittee shall reduce the loads associated with sediment, phosphorus, or nitrogen through implementation of one or more of the following:

      (1) One or more of the BMPs from the Virginia Stormwater BMP Clearinghouse listed in 9VAC25-870-65 or other approved BMPs found on the Virginia Stormwater BMP Clearinghouse website;

      (2) One or more BMPs approved by the Chesapeake Bay program. Pollutant load reductions generated by annual practices, such as street and storm drain cleaning, shall only be applied to the compliance year in which the annual practice was implemented; or

      (3) Land disturbance thresholds lower than Virginia's regulatory requirements for erosion and sediment control and post development stormwater management.

   b. The permittee may meet the local TMDL requirements for sediment, phosphorus, or nitrogen through BMPs implemented or sediment, phosphorus, or nitrogen credits acquired. BMPs implemented and

nutrient and sediment credits acquired to meet the requirements of the Chesapeake Bay TMDL in Part IV.F may also be utilized to meet local TMDL requirements as long as the BMPs are implemented or the credits are generated in the watershed for which local water quality is impaired.

c. The permittee shall calculate the anticipated load reduction achieved from each BMP and include the calculations in the action plan required in Part IV.G.3.f.

d. No later than 36 months after the effective date of this permit, the permittee shall submit to the department an update on the progress made toward achieving action plan goals and the anticipated end dates by which the permittee will meet each wasteload allocation for sediment, phosphorus, or nitrogen. The proposed end date may be developed in accordance with Part IV.G.2.

6. Prior to submittal of the action plan required in Part IV.G.1, the permittee shall provide an opportunity for no fewer than 15 days on the proposal public comment proposed to meet the local TMDL action plan requirements.

7. The MS4 program plan as required by Part IV.B of this permit shall incorporate each local TMDL action plan. Local TMDL action plans may be incorporated by reference into the MS4 program plan, provided that the program plan includes the date of the most recent local TMDL action plan and identification of the location where a copy of the local TMDL action plan may be obtained.

8. The MS4 program plan as required by Part IV.B of this permit shall incorporate each local TMDL action plan. Local TMDL action plans may be incorporated by reference into the MS4 program plan provided that the program plan includes the date of the most recent local TMDL action plan and identification of the location where a copy of the local TMDL action plan may be obtained.

9. For each reporting period, each annual report shall include a summary of actions conducted to implement each local TMDL action plan.

H. Inspection and maintenance of ecosystem restoration projects used for TMDL compliance.

1. Within 36 months of permit issuance the permittee shall develop and maintain written inspection and maintenance procedures in order to ensure adequate long-term operation and maintenance of ecosystem restoration projects as defined in 9VAC25-890-1 and implemented as part of a TMDL action plan developed in accordance with Part IV.F and G. The permittee may utilize inspection and maintenance protocols developed by the Chesapeake Bay Program or inspection and maintenance plans developed in accordance with the department's Stormwater Local Assistance Fund (SLAF) guidelines.
2. The permittee shall inspect ecosystem restoration projects owned or operated by the permittee and implemented as part of a current TMDL action plan developed in accordance with Part IV.F and G no less than once every 60 months.

I. DEQ BMP Warehouse Reporting

1. For the purpose of Part IV.I of this permit, "best management practice" or "BMP" means a practice that achieves quantifiable nitrogen, phosphorus, or total suspended solids reductions, including stormwater management facilities, ecosystem restoration projects, annual practices, and other practices approved by the department for reducing nitrogen, phosphorus, and total suspended solids pollutants.
2. No later than October 1 of each year the permittee shall electronically report BMPs implemented and inspected as applicable between July 1 and June 30 of each year using the DEQ BMP Warehouse.
   a. The permittee shall use the DEQ Construction Stormwater Database or other application as specified by the department to report each stormwater management facility installed after July 1, 2014, to address the control of post-construction runoff from land disturbing activities for which the permittee is required to obtain a General VPDES Permit for Discharges of Stormwater from Construction Activities.
   b. The permittee shall use the associated reporting template for stormwater management facilities not reported in accordance with Part IV.I.2.a, including stormwater management facilities installed to control post-development stormwater runoff from land disturbing activities less than one acre in accordance with

the Chesapeake Bay Preservation Area Designation and Management Regulations (9VAC25-830), if applicable, and for which a General VPDES Permit for Discharges of Stormwater from Construction Activities was not required.

c. The permittee shall use the DEQ BMP Warehouse to report BMPs that were not reported in accordance with Part IV.I.2.a or I.2.b and were implemented as part of a TMDL action plan to achieve nitrogen, phosphorus, and total suspended solids reductions in accordance with Part IV.F or G.
d. The permittee shall use the DEQ BMP Warehouse to report any BMPs that were not reported in accordance with Part IV.I.2.a, I.2.b, or I.2.c.
e. The permittee shall use the DEQ BMP Warehouse to report the most recent inspection date for BMPs in accordance with Part IV.E.5.b or 5.c, or in accordance with Part IV.H and the most recent associated TMDL action plan.

3. The following information for each BMP reported in accordance with Part IV.I.2.a, I.2.b, and I.2.c shall be reported to the DEQ BMP Warehouse as applicable:
   a. The BMP type;
   b. The BMP location as decimal degree latitude and longitude;
   c. The acres treated by the BMP, including total acres and impervious acres;
   d. The date the BMP was brought online (MM/YYYY). If the date brought online is not known, the permittee shall use 06/2005;
   e. The 6th Order Hydrologic Unit Code in which the BMP is located;
   f. Whether the BMP is owned or operated by the permittee or privately owned;
   g. Whether or not the BMP is part of the permittee's Chesapeake Bay TMDL action plan required in Part IV.F or local TMDL action plan required in Part IV.G, or both;
   h. If the BMP is privately owned, whether a maintenance agreement exists;
   i. The date of the permittee's most recent inspection of the BMP; and
   j. Any other information specific to the BMP type required by the DEQ BMP Warehouse (e.g., linear feet of stream restoration).

4. No later than October 1 of each year the DEQ BMP Warehouse shall be updated if an existing BMP is discovered between July 1 and June 30 that was not previously reported to the DEQ BMP Warehouse.

PART V - 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.

   b. The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will insure accuracy of measurements.

   c. 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 Department.

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 Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Department 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 Department, 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 V.F; or who discharges or causes or allows a discharge that may reasonably be expected to enter state waters in violation of Part V.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 affects 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 V.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 Department may waive the written report on a case-by-case basis for reports of noncompliance under Part V.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 V.I.1 or 2, in writing, at the time the next monitoring reports are submitted. The reports shall contain the information listed in Part V.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. For emergencies or potential impacts to State Waters outside of normal working hours (M-F 4:30 p.m. – 8:30 a.m., holidays, weekends), please contact the Virginia Emergency Operations Center 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 Department shall be signed by a person described in Part V.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 V.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 V.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 V.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 V.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 Department. The Department 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 V.U), and "upset" (Part V.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 V.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 V.I.

3. Prohibition of bypass.
   a. Bypass is prohibited, and the Department 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 V.U.2.

   b. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three conditions listed above in Part V.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 V.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 V.I.2; and
   d. The permittee complied with any remedial measures required under Part V.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 V.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 V.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 Department 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 V.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.

Part VI. Stormwater Management Conditions and Requirements

A. Stormwater Monitoring Requirements

The permittee shall conduct all stormwater monitoring in accordance with Part II.A.4 and Part VI.B.1 (Sample Type) of this permit.

1. Stormwater Management Evaluation

The Stormwater Pollution Prevention Plan (SWPPP), which is to be developed and maintained in accordance with Part VI.D below, shall have a goal of reducing pollutants discharged from all the regulated stormwater outfalls.

a. Pollutant Specific Screening

One goal of the SWPPP shall place emphasis on reducing, to the maximum extent practicable, the following pollutants in the outfalls noted below:

OUTFALL NO.	POLLUTANTS	COMPARATIVE VALUE
901	*E.coli*	126 N/100 mL
902	*E.coli*	126 N/100 mL
903	*E.coli*	126 N/100 mL

b. The effectiveness of the SWPPP will be evaluated via the required monitoring for all parameters listed in Part II.A.4 of this permit for the regulated stormwater outfalls, including the specific pollutants noted in a. above. Monitoring results that are above the comparative value for the specific pollutants above will justify the need to reexamine the effectiveness of the SWPPP and any best management practices (BMPs) being utilized for the affected outfalls. In addition, the permittee shall amend the SWPPP whenever there is a change in the facility or its operation that materially increases the potential for activities to result in a discharge of significant amounts of pollutants.

No later than February 10 of each year, the permittee shall submit to the DEQ Piedmont Regional Office an annual report which includes the pollutant-specific monitoring data from the outfalls included in this condition along with a summary of any steps taken to modify either the SWPPP or any BMPs based on the monitoring data.

B. Stormwater Management Conditions

1. Sample Type

For all stormwater monitoring required in Part II.A.4, or other applicable sections of this permit, a minimum of one grab sample shall be taken. Unless otherwise specified, all such samples shall be collected from the discharge resulting from a storm event that results in a discharge from the site (defined as a “measurable storm event”), providing the interval from the preceding measurable storm event is at least 72 hours. The 72-hour storm interval is waived if the permittee is able to document that less than a 72-hour interval is representative for local storm events during the sampling period. The grab sample shall be taken during the first 30 minutes of the discharge. In the case of snowmelt, the monitoring shall be performed at a time when a measurable discharge occurs at the site. For discharges from a stormwater management structure, the monitoring shall be performed at a time when a measurable discharge occurs from the structure.

The grab sample shall be taken during the first 30 minutes of the discharge. If it is not practicable to take the sample during the first 30 minutes, the sample may be taken during the first three hours of the discharge, provided that the permittee explains why a grab sample during the first 30 minutes was impracticable. This information shall be submitted in the department's electronic discharge monitoring report (e-DMR) system, and maintained with the Stormwater Pollution Prevention Plan (SWPPP). If the sampled discharge commingles with process or nonprocess water, the permittee shall attempt to sample the stormwater discharge before it mixes with the non-stormwater.

2. Recording of Results

For each storm event monitored under Part II.A.4 of this permit, the permittee shall identify:

(1) The date and duration (in hours) of the storm events sampled;

(2) The rainfall total (in inches) of the storm event that generated the sampled runoff; and

(3) The interval between the storm event sampled and the end of the previous storm event discharge.

(4) For snowmelt or controlled discharges from a stormwater management structure, the permittee shall identify the date of the sampling event.

Documentation explaining a facility's inability to obtain a sample (including dates and times the outfalls were viewed or sampling was attempted), of no rain event, or of deviation from the 72-hour storm event interval shall be submitted with the e-DMR and maintained with the SWPPP. Acceptable documentation includes National Climatic Data Center (NCDC) weather station data, local weather station data, facility rainfall logs, and other appropriate supporting data.

3. Representative Outfalls – Substantially Identical Discharges

If the facility has two or more outfalls that discharge substantially identical effluents, based on similarities of the industrial activities, significant materials, size of drainage areas, and stormwater management practices occurring within the drainage areas of the outfalls, frequency of discharges, and stormwater management practices occurring within the drainage areas of the outfalls, the permittee may conduct monitoring on the effluent of just one of the outfalls and report that the observations also apply to the substantially identical outfall or outfalls. The substantially identical outfall monitoring provisions are not available for numeric effluent limits monitoring.

The permittee shall include the following information in the SWPPP:

a. The locations of the outfalls;

b. An evaluation, including available monitoring data, indicating the outfalls are expected to discharge substantially identical effluents, including evaluation of monitoring data where available; and

c. An estimate of the size of each outfall’s drainage area in acres.

4. Quarterly Visual Examination of Stormwater Quality

The permittee shall perform and document a quarterly visual examination of a stormwater discharge associated with industrial activity from each outfall, except discharges exempted below in Part VI.B.4.d. The examinations shall be made at least once in each of the following three-month periods: January through March, April through June, July through September, and October through December. The visual examination shall be made during normal working hours, where practicable, and when considerations for safety and feasibility allow. If no storm event resulted in runoff from the facility during a monitoring quarter, the permittee is excused from visual monitoring for that quarter provided that documentation is included with the monitoring records indicating that no runoff occurred. The documentation shall be signed and certified in accordance with Part V.K (Signatory Requirements) of this permit.

a. Samples shall be collected in accordance with Part VI.B.1. Sample examination shall document observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of stormwater pollution. The visual examination of the sample shall be conducted in a well-lit area. No analytical tests are required to be performed on the samples.
b. The visual examination reports shall be maintained on-site with the SWPPP. The report shall include the outfall location, the examination date and time, examination personnel, the nature of the discharge (i.e., runoff or snow melt), visual quality of the stormwater discharge (including observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of stormwater pollution), and probable sources of any observed

stormwater contamination.

c. If the facility has two or more outfalls that discharge substantially identical effluents, the permittee may conduct visual monitoring in accordance with Part VI.B.3 (Stormwater Management Conditions – Representative Outfalls) of the permit.
d. When the permittee is unable to conduct the visual examination due to adverse climatic conditions, the permittee shall document the reason for not performing the visual examination and retain this documentation onsite with the records of the visual examinations. Adverse weather conditions are those that are dangerous or create inaccessibility for staff, and may include local flooding, high winds, electrical storms, or situations that otherwise make sampling impracticable (e.g., drought or extended frozen conditions).

5. Allowable Non-Stormwater Discharges

a. The following non-stormwater discharges are authorized by this permit:
   (1) Discharges from emergency firefighting activities or firefighting training activities managed in a manner to avoid an instream impact in accordance with § 9.1-207.1 of the Code of Virginia;
   (2) Fire hydrant flushings, managed in a manner to avoid an instream impact;
   (3) Potable water, including water line flushings, managed in a manner to avoid an instream impact;
   (4) Uncontaminated condensate from air conditioners, coolers, and other compressors and from the outside storage of refrigerated gases or liquids;
   (5) Irrigation drainage;
   (6) Landscape watering provided all pesticides, herbicides, and fertilizers have been applied in accordance with the approved labeling;
   (7) Routine external building washdown provided no soaps, solvents, or detergents are used, external building surfaces do not contain hazardous substances, and the wash water is filtered, settled, or similarly treated prior to discharge;
   (8) Pavement wash waters, provided no soaps, solvents, detergents, or hazardous cleaning products are used, no spills or leaks of toxic or hazardous materials have occurred (unless all spilled or leaked material is been removed prior to washing), and the wash water is filtered, settled, or similarly treated prior to discharge;
   (9) Uncontaminated groundwater or spring water;
   (10) Foundation or footing drains where flows are not contaminated with process materials; and
   (11) Incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of the facility, but not intentional discharges from the cooling tower (e.g., "piped" cooling tower blowdown or drains).

b. All other non-stormwater discharges not specifically identified above or in Part II.A of this permit are not authorized and shall either be eliminated or covered under a separate VPDES permit.

6. Releases of Hazardous Substances or Oil in Excess of Reportable Quantities

The discharge of hazardous substances or oil in the stormwater discharges from the facility shall be prevented or minimized in accordance with the SWPPP for the facility. This permit does not authorize the discharge of hazardous substances or oil resulting from an on-site spill. This permit does not relieve the permittee of the reporting requirements of 40 CFR Part 110, 40 CFR Part 117, and 40 CFR Part 302 or § 62.1-44.34:19 of the Code of Virginia.

Where a release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302 occurs during a 24-hour period:

a. The permittee is required to notify the Department in accordance with the requirements of Part V.G (Reports of Unauthorized Discharges) of this permit as soon as he has knowledge of the discharge;
b. Where a release enters a MS4, the permittee shall also notify the owner of the MS4; and
c. The SWPPP required by this permit shall be reviewed to identify measures to prevent the reoccurrence of such releases and to respond to such releases, and the SWPPP shall be modified where appropriate.

7. Water Quality Protection
The discharges authorized by this permit shall be controlled as necessary to meet applicable water quality standards. DEQ expects that compliance with the conditions in this permit will control discharges as necessary to meet applicable water quality standards.

8. Corrective actions

a. The permittee shall take corrective action whenever:
(1) Routine facility inspections, visual monitoring, inspections by local, state or federal officials, or any other process, observation or event result in a determination that modifications to the stormwater control measures are necessary to meet the permit requirements;
(2) There is any exceedance of an effluent limitation, Total Maximum Daily Load (TMDL) wasteload allocation, or a reduction required by a local ordinance established by a municipality to meet Chesapeake Bay TMDL requirements; or
(3) DEQ determines, or the permittee becomes aware, that the stormwater control measures are not stringent enough for the discharge to meet applicable water quality standards; or
(4) Benchmark monitoring results exceed the benchmark concentration value for a parameter.

The permittee shall review the SWPPP and modify it as necessary to address any deficiencies. Revisions to the SWPPP shall be completed within 60 days following the discovery of the deficiency. When control measures need to be modified or added (distinct from regular preventive maintenance of existing control measures described in Part VI.D.2.f), implementation shall be completed before the next anticipated storm event if possible, but no later than 60 days after the deficiency is discovered, or as otherwise provided or approved by the department. In cases where construction is necessary to implement control measures, the permittee shall include a schedule in the SWPPP that provides for the completion of the control measures as expeditiously as practicable, but no later than three years after the deficiency is discovered. Where a construction compliance schedule is included in the SWPPP, the SWPPP shall include appropriate nonstructural and temporary controls to be implemented in the affected portion of the facility prior to completion of the permanent control measure. The amount of time taken to modify a control measure or implement additional control measures shall be documented in the SWPPP. Any corrective actions taken shall be documented and retained with the SWPPP. Any control measure modifications shall be dated and document the amount of time taken to modify the applicable control measures or implement additional control measures.

b Natural Background Pollutant Levels. If the concentration of a pollutant exceeds a benchmark concentration, and the permittee determines that exceedance of the benchmark concentration is attributable solely to the presence of that pollutant in the natural background, corrective action is not required provided that:
(1) The concentration of the benchmark concentration is less than or equal to the concentration of that pollutant in the natural background;
(2) The permittee documents and maintains with the SWPPP the supporting rationale for concluding that benchmark exceedances are in fact attributable solely to natural background pollutant levels. The supporting rationale shall include any data previously collected by the facility or others (including literature studies) that describe the levels of natural background pollutants in the facility's stormwater discharges; and
(3) The permittee notifies the DEQ regional office on the DMR that the benchmark exceedances are attributable solely to natural background pollutant levels. Natural background pollutants include those substances that are naturally occurring in soils or groundwater. Natural background pollutants do not include legacy pollutants from earlier activity on the facility's site, or pollutants in run-on from neighboring sources that are not naturally occurring.

c. Follow-up reporting. If at any time monitoring results show that discharges from the facility exceed an effluent limitation or a TMDL wasteload allocation, or the department determines that discharges from the facility are causing or contributing to an exceedance of a water quality standard, immediate steps shall be taken to eliminate the exceedances in accordance with Part VI.B.8 a. Within 30 calendar days of implementing the relevant corrective action, an exceedance report shall be

submitted to the department and shall be signed in accordance with Part II K. The following information shall be included in the report:

(1) General permit registration number;
(2) Facility name and address;
(3) Receiving water for each outfall exceeding an effluent limitation of TMDL wasteload allocation;
(4) Monitoring data from the event being reported;
(5) A narrative description of the situation;
(6) A description of actions taken since the event was discovered and steps taken to minimize to the extent feasible pollutants in the discharge; and
(7) A local facility contact name, email address, and phone number.

C. Discharges of Industrial Stormwater to Waters Subject to the Chesapeake Bay TMDL

1. Facilities in the Chesapeake Bay Watershed.

Owners shall maintain documentation of their demonstration of compliance with the Chesapeake Bay TMDL loading rates with the SWPPP and shall continue implementing any BMPs that may have been developed as part of that demonstration. Documentation may include:

(1) Calculations submitted to the department indicating that reductions were not necessary;
(2) A completed TMDL Action Plan, including a description of the means and methods, such as management practices and retrofit programs that were utilized to meet the required reductions;
(3) Other means accepted by the department indicating compliance with the Chesapeake Bay TMDL loading rates.

2. Chesapeake Bay TMDL Wasteload Allocations and Chesapeake Bay TMDL Action Plans.

a. EPA's Chesapeake Bay TMDL (December 29, 2010) includes wasteload allocations for VPDES permitted industrial stormwater facilities as part of the regulated stormwater aggregate load. EPA used data submitted by Virginia with the Phase I Chesapeake Bay TMDL Watershed Implementation Plan, including the number of industrial stormwater permits per county and the number of urban acres regulated by industrial stormwater permits, as part of their development of the aggregate load. Aggregate loads for industrial stormwater facilities were appropriate because actual facility loading data were not available to develop individual facility wasteload allocations.

Virginia estimated the loadings from industrial stormwater facilities using actual and estimated facility acreage information and TP and TN loading rates from the Northern Virginia Planning District Commission (NVPDC) Guidebook for Screening Urban Nonpoint Pollution Management Strategies (Annandale, VA November 1979), prepared for the Metropolitan Washington Council of Governments. The loading rates used were as follows:

TP - High (80%) imperviousness industrial; 1.5 lb/ac/yr
TN - High (80%) imperviousness industrial; 12.3 lb/ac/yr

The actual facility area information and the TP and TN data collected for this permit will be used by the board to quantify the nutrient loads from VPDES permitted industrial stormwater facilities .

b. Calculation of Facility Loads.

(1) The permittee shall analyze the nutrient data collected in accordance with Part II.A to determine if pollution reductions are required for this permit term. The permittee shall average the data collected at the facility for each of the pollutants of concern (POC) (e.g., TP and TN) and compare the results to the loading rates for TP and TN presented in Part VI.C.2.a.

The following formula may be used to determine the loading rate:
$L = 0.226 \times P \times Pj \times (0.05 + (0.9 \times Ia)) \times C$
where:
L = the POC loading rate (lb/acre/year)

P = the annual rainfall (inches/year) - The permittee may use either actual annual average rainfall data for the facility location (in inches/year), the Virginia annual average rainfall of 44.3 inches/year, or another method approved by the board.
Pj = the fraction of annual events that produce runoff - The permittee shall use 0.9 unless the board approves another rate.
Ia = the impervious fraction of the facility impervious area of industrial activity to the facility industrial activity area
C = the POC average concentration of all facility samples (mg/L) - Facilities with multiple outfalls shall calculate a weighted average concentration for each outfall using the drainage area of each outfall.

For Total Phosphorus, all daily concentration data below the quantitation level (QL) for the analytical method used shall be treated as half the QL. All daily concentration data equal to or above the QL for the analytical method used shall be treated as it is reported.

For Total Nitrogen, if none of the daily concentration data for the respective species (i.e., TKN, nitrate, or nitrite) are equal to or above the QL for the respective analytical methods used, the daily TN concentration value reported shall equal one half of the largest QL used for the respective species. If one of the data is equal to or above the QL, the daily TN concentration value shall be treated as that data point is reported. If more than one of the data is above the QL, the daily TN concentration value shall equal the sum of the data points as reported.

Calculations shall be submitted to the department within 60 days from the end of the last monitoring period that satisfies the monitoring requirements in [Part III C]. Calculations shall be submitted to the DEQ regional office on a form provided by the department and maintained with the facility's SWPPP.

Alternative calculations may be accepted on a case by case basis by the department to accommodate facilities with outfalls that rarely discharge

(2) Any modification to the facility's industrial acreage or impervious industrial acreage shall require the facility to recalculate facility loading rates. This may require the facility to modify the facility's Chesapeake Bay TMDL action plan or submit a Chesapeake Bay TMDL action plan as appropriate. Any recalculation of facility loading rates or modifications to a Chesapeake Bay TMDL action plan shall be submitted to the department within 90 days of the date on which the permittee completes a site modification. If previous monitoring is no longer representative of the modified facility, monitoring in accordance with Part II.A shall commence within 90 days of the modification and the revised calculations and Chesapeake Bay TMDL action plan if required under Part VI.C.2.c shall be submitted no later than 90 days following completion of the fourth monitoring period.

c. Chesapeake Bay TMDL Action Plans.

(1) For permittees required to submit calculations in accordance with Part VI C 2 b, if the calculated facility loading rate for TP or TN is above the loading rates for TP or TN presented in Part VI.C.2.a, then the permittee shall develop and submit a Chesapeake Bay TMDL action plan to the department. The Chesapeake Bay TMDL action plan shall be submitted on a form provided by the department to the regional office within 60 days following the completion of the fourth quarterly monitoring period. A copy of the current Chesapeake Bay TMDL action plan and all facility loading rate calculations shall be maintained with the facility's SWPPP. The Chesapeake Bay TMDL action plan shall include:

(a) A determination of the total pollutant load reductions for TP and TN (as appropriate) necessary to reduce the annual loads from industrial activities. This shall be determined by multiplying the industrial acreage times the difference between the TMDL loading rates listed in Part VI.C.2.a and the actual facility loading rates calculated in accordance with Part

VI.C.2.b. The reduction applies to the total difference calculated for each pollutant of concern;

(b) The means and methods, such as management practices and retrofit programs that will be utilized to meet the required reductions determined in Part VI.C.2.c.(1)(a) and a schedule to achieve those reductions by the applicable deadline set in Part VI.C. Pollutant reductions may be achieved using a combination of the following alternatives:

i. Reductions provided by one or more of the BMPs from the Virginia Stormwater BMP Clearinghouse listed in 9VAC25-870-65, approved BMPs found on the Virginia Stormwater Clearinghouse website, or BMPs approved by the Chesapeake Bay Program. Any BMPs implemented to provide the required pollutant reductions shall be incorporated in the SWPPP and be permanently maintained by the permittee;

ii. Implementation of site-specific BMPs followed by a minimum of four stormwater samples collected in accordance with sampling requirements in [Part III B a] that demonstrate pollutant loadings have been reduced below those calculated under [Part III C 2 b]. Any BMPs implemented to provide the required pollutant reductions shall be incorporated in the SWPPP and be permanently maintained by the permittee; or

iii. Acquisition of nonpoint source credits certified by the board as perpetual in accordance with § 62.1-44.19:20 of the Code of Virginia.

3. Discharges Through a Regulated MS4 to Waters Subject to the Chesapeake Bay TMDL.

In addition to the requirements of this permit, any facility with industrial activity stormwater discharges through a regulated MS4 that is notified by the MS4 operator that the locality has adopted ordinances to meet the Chesapeake Bay TMDL shall incorporate measures and controls into their SWPPP to comply with applicable local TMDL ordinance requirements.

4. Expansion of Facilities That Discharge to Waters Subject to the Chesapeake Bay TMDL.

Virginia's Phase I Chesapeake Bay TMDL Watershed Implementation Plan (November 29, 2010), states that the wasteloads from any expansion of an existing permitted facility discharging stormwater in the Chesapeake Bay watershed cannot exceed the nutrient loadings that were discharged from the expanded portion of the land prior to the land being developed for the expanded industrial activity.

a. For any industrial activity area expansions (i.e., construction activities, including clearing, grading and excavation activities) that begin on or after the effective date of this permit, the permittee shall document in the SWPPP the information and calculations used to determine the nutrient loadings discharged from the expanded land area before the land was developed, and the measures and controls that were employed to meet the no net increase of stormwater nutrient load as a result of the expansion of the industrial activity. Any land disturbance that is exempt from permitting under the VPDES construction stormwater general permit regulation (9VAC25-880) is exempt from this requirement.

b. The permittee may use the Virginia Stormwater Management Program (VSMP) water quality design criteria to meet the requirements of subdivision "a" of this subsection. Under these criteria, the Total Phosphorus load shall not exceed the greater of:

(1) the Total Phosphorus load that was discharged from the expanded portion of the land prior to the land being developed for the industrial activity; or
(2) 0.41 pounds per acre per year.

Compliance with the water quality design criteria may be determined utilizing the Virginia Runoff Reduction Method or another equivalent methodology approved by the Board. Design specifications and pollutant removal efficiencies for specific BMPs may be found on the Virginia Stormwater BMP Clearinghouse website.

c. The permittee may consider utilization of any pollutant trading or offset program in accordance with §§ 62.1-44.19:20 through 62.1-44.19:23 of the Code of Virginia, governing trading and offsetting, to meet the no net increase requirement.

D. Stormwater Pollution Prevention Plan (SWPPP)

A SWPPP for the facility was required to be developed and implemented under the previous permit. The existing SWPPP shall be reviewed and modified, as appropriate, to conform to the requirements of this section. Permittees shall implement the provisions of the SWPPP as a condition of this permit.

The SWPPP requirements of this permit may be fulfilled, in part, by incorporating by reference other plans or documents (i.e., a spill prevention control and countermeasure (SPCC) plan developed for the facility under Section 311 of the Clean Water Act, or best management practices (BMP) programs otherwise required for the facility), provided that the incorporated plan meets or exceeds the plan requirements of Part VI.D.2 (Contents of the SWPPP). All plans incorporated by reference into the SWPPP become enforceable under this permit. If a plan incorporated by reference does not contain all of the required elements of the SWPPP (Part VI.D.2 – Contents of the SWPPP), the permittee shall develop the missing SWPPP elements and include them in the required plan.

1. Deadlines for SWPPP Preparation and Compliance.
   a. The facility shall update and implement any revisions to the SWPPP as expeditiously as practicable, but not later than 90 days from the effective date of this permit.
   b. Measures That Require Construction: In cases where construction is necessary to implement measures required by the plan, the plan shall contain a schedule that provides compliance with the plan as expeditiously as practicable, but no later than 3 years after the effective date of this permit. Where a construction compliance schedule is included in the plan, the schedule shall include appropriate nonstructural and/or temporary controls to be implemented in the affected portions(s) of the facility prior to completion of the permanent control measure.

2. Contents of the Plan

   The contents of the SWPPP shall comply with the requirements listed below. The SWPPP shall include, at a minimum, the following items:

   a. Pollution Prevention Team. The SWPPP shall identify the staff individuals by name or title who comprise the facility's stormwater pollution prevention team. The pollution prevention team is responsible for assisting the facility or plant manager in developing, implementing, maintaining, revising and ensuring compliance with the facility's SWPPP. Specific responsibilities of each staff individual on the team shall be identified and listed.

   b. Site Description. The SWPPP shall include the following:

      (1) A description of the industrial activities at the facility.
      (2) Site Map. A site map identifying the following:

         (a) The boundaries of the property and the size of the property in acres;
         (b) The location and extent of significant structures and impervious surfaces;
         (c) Locations of all stormwater conveyances including ditches, pipes, swales and inlets and the directions of stormwater flow using arrows to indicate which direction stormwater will flow;
         (d) Locations of all stormwater control measures, including BMPs;
         (e) Locations of all surface water bodies, including wetlands;
         (f) Locations of potential pollutant sources identified under Part VI.D.2.c (Summary of Potential Pollutant Sources);
         (g) Locations where significant spills or leaks identified under Part VI.D.2.c.(3) (Summary of Potential Pollutant Sources – Spills and Leaks) have occurred;
         (h) Locations of stormwater outfalls.
            (1) An approximate outline of the area draining to each outfall;

(2) The drainage area of each outfall in acres;
(3) The longitude and latitude of each outfall;
(4) The location of any MS4 conveyance receiving discharge from the facility; and
(5) Each outfall shall be identified with a unique numerical identification code.

(i) Location and description of all nonstormwater discharges;
(j) Location of any storage piles containing salt;
(k) Locations and sources of run-on to the site from an adjacent property, if the run-on is suspected of containing significant quantities of pollutants; and
(l) Locations of all stormwater monitoring points.

(3) Receiving Waters and Wetlands. The name of all surface waters receiving discharges from the site, including intermittent streams, dry sloughs and arroyos. Provide a description of wetland sites that may receive discharges from the facility. If the facility discharges through a MS4, identify the MS4 operator and the receiving water to which the MS4 discharges.

c. Summary of Potential Pollutant Sources. The SWPPP shall identify each separate area at the facility where industrial materials or activities are exposed to stormwater. Industrial materials or activities include material handling equipment or activities, industrial machinery, raw materials, industrial production and processes, intermediate products, byproducts, final products and waste products. Material handling activities include the storage, loading and unloading, transportation, disposal or conveyance of any raw material, intermediate product, final product or waste product. For each separate area identified, the description shall include:

(1) Activities in Area. A list of the industrial activities exposed to stormwater.

(2) Pollutants. A list of the pollutants, pollutant constituents, or industrial chemicals associated with each industrial activity that could potentially be exposed to stormwater. The pollutant list shall include all significant materials handled, treated, stored or disposed that have been exposed to stormwater in the three years prior to the date the SWPPP was prepared or amended. The list shall include any hazardous substances or oil at the facility.

(3) Spills and Leaks. The SWPPP shall clearly identify areas where potential spills and leaks that can contribute pollutants to stormwater discharges can occur and their corresponding outfalls. The SWPPP shall include a list of significant spills and leaks of toxic or hazardous pollutants that actually occurred at exposed areas, or that drained to a stormwater conveyance during the three-year period prior to the date the SWPPP was prepared or amended. The list shall be updated within 60 days of the incident if significant spills or leaks occur in exposed areas of the facility during the term of the permit.

(4) Sampling Data. The SWPPP shall include a summary of existing stormwater discharge sampling data taken at the facility. The summary shall include, at a minimum, any data collected during the previous permit term.

d. Stormwater Controls.

(1) Control measures shall be implemented for all the areas identified in Part VI.D.2.c (Summary of Potential Pollutant Sources) to prevent or control pollutants in stormwater discharges from the facility. Regulated stormwater discharges from the facility include stormwater run-on that commingles with stormwater discharges associated with industrial activity at the facility. The SWPPP shall describe the type, location and implementation of all control measures for each area where industrial materials or activities are exposed to stormwater. Selection of control measures shall take into consideration:

(a) That preventing stormwater from coming into contact with polluting materials is generally more effective, and less costly, than trying to remove pollutants from stormwater;
(b) Control measures generally shall be used in combination with each other for the most effective water quality protection;

(c) Assessing the type and quantity of pollutants, including their potential to impact receiving water quality, is critical to designing effective control measures;
(d) That minimizing impervious areas at the facility can reduce runoff and improve groundwater recharge and stream base flows in local streams (however, care must be taken to avoid groundwater contamination);
(e) Flow attenuation by use of open vegetated swales and natural depressions can reduce instream impacts of erosive flows;
(f) Conservation or restoration of riparian buffers will help protect streams from stormwater runoff and improve water quality; and
(g) Treatment interceptors (e.g., swirl separators and sand filters) may be appropriate in some instances to minimize the discharge of pollutants.

(2) Non-numeric technology-based effluent limits. The permittee shall implement the following types of control measures to prevent and control pollutants in the stormwater discharges from the facility, unless it can be demonstrated and documented that such controls are not relevant to the discharges.
(a) Good Housekeeping. The permittee shall keep clean all exposed areas of the facility that are potential sources of pollutants to stormwater discharges. The permittee shall perform the following good housekeeping measures to minimize pollutant discharges:
i. The SWPPP shall include a schedule for regular pickup and disposal of waste materials, along with routine inspections for leaks and conditions of drums, tanks and containers;
ii. As feasible, the facility shall sweep or vacuum;
iii. Store materials in containers constructed of appropriate materials;
iv. Manage all waste containers to prevent a discharge of pollutants;
v. Minimize the potential for waste, garbage, and floatable debris to be discharged by keeping areas exposed to stormwater free of such materials or by intercepting materials prior to discharge; and
vi. Facilities that handle pre-production plastic or plastic waste shall implement BMPs to eliminate stormwater discharges of plastics.

(b) Eliminating and Minimizing Exposure. To the extent practicable, manufacturing, processing and material storage areas (including loading and unloading, storage, disposal, cleaning, maintenance, and fueling operations) shall be located inside, or protected by a storm-resistant covering to prevent exposure to rain, snow, snowmelt, and runoff. Unless infeasible, facilities shall implement the following:
i. Use grading, berming, or curbing to prevent runoff of contaminated flows and divert run-on away from potential sources of pollutants;
ii. Locate materials, equipment, and activities so that potential leaks and spills are contained, or able to be contained, or diverted before discharge;
iii. Clean up spills and leaks immediately, upon discovery of the spills or leaks, using dry methods (e.g., absorbents) to prevent the discharge of pollutants;
iv. Store leaking vehicles and equipment indoors or, if stored outdoors, use drip pans and adsorbents;
v. Utilize appropriate spill or overflow protections equipment;
vi. Perform all vehicle maintenance or equipment cleaning operations indoors, under cover, or in bermed areas that prevent runoff and run-on and also capture any overspray; and
vii. Drain fluids from equipment and vehicles that will be decommissioned, and for any equipment and vehicles that remain unused for extended periods of time, inspect at least monthly for leaks.

(c) Preventive Maintenance. The permittee shall have a preventive maintenance program that includes regular inspection, testing, maintenance and repairing of all industrial equipment and systems to avoid situations that could result in leaks, spills and other releases of pollutants in stormwater discharge from the facility. This program is in addition to the specific control measure maintenance required under Part VI.D.2.f (Maintenance).
(d) Spill Prevention and Response Procedures. The SWPPP shall describe the procedures that will be followed for preventing and responding to spills and leaks, including:

i. Preventive measures (e.g., barriers between material storage and traffic areas, secondary containment provisions, and procedures for material storage and handling);
ii. Response procedures, including notification of appropriate facility personnel, emergency agencies, and regulatory agencies, and procedures for stopping, containing and cleaning up spills. Measures for cleaning up hazardous material spills or leaks shall be consistent with applicable Resource Conservation and Recovery Act (RCRA) regulations at 40 CFR Part 264 and 40 CFR Part 265. Employees who may cause, detect or respond to a spill or leak shall be trained in these procedures and have necessary spill response equipment available. If possible, one of these individuals shall be a member of the Pollution Prevention Team;
iii. Procedures for plainly labeling containers (e.g., "used oil," "spent solvents," "fertilizers and pesticides," etc.) that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur; and
iv. Contact information for individuals and agencies that must be notified in the event of a spill shall be included in the SWPPP, and in other locations where it will be readily available.

(e) Salt Storage Piles or Piles Containing Salt. Storage piles of salt or piles containing salt used for deicing or other commercial or industrial purposes shall be enclosed or covered to prevent exposure to precipitation. The permittee shall implement appropriate measures (e.g., good housekeeping, diversions, containment) to minimize exposure resulting from adding to or removing materials from the pile. All salt storage piles shall be located on an impervious surface. All runoff from the pile, and runoff that comes in contact with salt, including under drain systems, shall be collected and contained within a bermed basin lined with concrete or other impermeable materials, or within an underground storage tank or tanks, or within an above ground storage tank or tanks, or disposed of through a sanitary sewer (with the permission of the owner of the treatment facility). A combination of any or all of these methods may be used. In no case shall salt contaminated stormwater be allowed to discharge directly to the ground or to surface waters.

(f) Employee Training. The permittee shall implement a stormwater employee training program for the facility. The SWPPP shall include a schedule for all types of necessary training, and shall document all training sessions and the employees who received the training. Training shall be provided at least annually for all employees who work in areas where industrial materials or activities are exposed to stormwater, and for employees who are responsible for implementing activities identified in the SWPPP (e.g., inspectors, maintenance personnel, etc.). The training shall cover the components and goals of the SWPPP, and include such topics as spill response, good housekeeping, material management practices, control measure operation and maintenance, etc. The SWPPP shall include a summary of any training performed.

(g) Sediment and Erosion Control. The SWPPP shall identify areas at the facility that, due to topography, land disturbance (e.g., construction, landscaping, site grading), or other factors, have a potential for soil erosion. The permittee shall identify and implement structural, vegetative, and stabilization control measures to prevent or control on-site and off-site erosion and sedimentation. Flow velocity dissipation devices shall be placed at discharge locations and along the length of any outfall channel if the flows would otherwise create erosive conditions.

(h) Management of Runoff. The SWPPP shall describe the stormwater runoff management practices (i.e., permanent structural control measures) for the facility. These types of control measures shall be used to divert, infiltrate, reuse, or otherwise reduce pollutants in stormwater discharges from the site.

Structural control measures may require a separate permit under § 404 of the Clean Water Act (CWA) and the Virginia Water Protection Permit Program Regulation (9VAC25-210) before installation begins.

(i) Dust Suppression and Vehicle Tracking of Industrial Materials. The permittee shall implement control measures to minimize the generation of dust and off-site tracking of raw, final, or waste materials. Stormwater collected on-site may be used for the purposes of dust

suppression or for spraying stockpiles. Potable water, well water, and uncontaminated reuse water may also be used for this purpose. There shall be no direct discharge to surface waters from dust suppression activities or as a result of spraying stockpiles.

e. Routine Facility Inspections.

Staff who possess the knowledge and skills to assess conditions and activities that could impact stormwater quality at the facility and who can also evaluate the effectiveness of control measures shall regularly inspect all areas of the facility where industrial materials or activities are exposed to stormwater, areas where spills or leaks have occurred in the past three years, discharge points, and control measures. At least one member of the pollution prevention team shall participate in the routine facility inspections.

The inspection frequency shall be specified in the SWPPP based upon a consideration of the level of industrial activity at the facility, but shall be a minimum of once per calendar quarter unless more frequent intervals are specified elsewhere in the permit or written approval is received from the Department for less frequent intervals. Inspections shall be performed during operating hours. At least once each calendar year, the routine facility inspection shall be conducted during a period when a stormwater discharge is occurring.

The requirement for routine facility inspections is waived for facilities that have maintained an active Virginia Environmental Excellence Program (VEEP) E3/E4 status. This waiver does not apply to additional sector specific requirements unless specified in Part VI.E.

Any deficiencies in the implementation of the SWPPP that are found shall be corrected as soon as practicable, but no later than 60 days following the inspection, unless permission for a later date is granted in writing by the Director. The results of the inspections shall be documented in the SWPPP, and shall include at a minimum:

(1) The inspection date;
(2) The names of the inspectors;
(3) Weather information and a description of any discharges occurring at the time of the inspection;
(4) Any previously unidentified discharges of pollutants from the site;
(5) Any control measures needing maintenance or repairs;
(6) Any failed control measures that need replacement;
(7) Any incidents of noncompliance observed; and
(8) Any additional control measures needed to comply with the permit requirements.

f. Maintenance.

The SWPPP shall include a description of procedures and a regular schedule for preventive maintenance of all control measures, and shall include a description of the back-up practices that are in place should a runoff event occur while a control measure is off-line. The effectiveness of nonstructural control measures shall also be maintained by appropriate means (e.g., spill response supplies available and personnel trained, etc.).

All control measures identified in the SWPPP shall be maintained in effective operating condition and shall be observed at least annually when a stormwater discharge is occurring to ensure that they are functioning correctly. Where discharge locations are inaccessible, nearby downstream locations shall be observed. The observations shall be documented in the SWPPP.

If routine facility inspections required by Part VI.D.2.e (Routine Facility Inspections) identify control measures that are not operating effectively, repairs or maintenance shall be performed before the next anticipated storm event. If maintenance prior to the next anticipated storm event is not possible, maintenance shall be scheduled and accomplished as soon as practicable. In the interim, back-up measures shall be employed and documented in the SWPPP until repairs or maintenance is complete. Documentation shall be kept with the SWPPP of maintenance and repairs of control

measures, including the dates of regular maintenance, dates of discovery of areas in need of repair or replacement, dates for repairs, dates that the control measures returned to full function, and the justification for any extended maintenance or repair schedules.

g. Non-Stormwater Discharges.

(1) Discharges of certain sources of non-stormwater are allowable discharges under this permit (Part VI.B.5 – Allowable Non-Stormwater Discharges). All other non-stormwater discharges are not authorized and shall be either eliminated or covered under a separate VPDES permit.

(2) Annual outfall evaluation for unauthorized discharges.

(a) The SWPPP shall include documentation that all stormwater outfalls associated with industrial activity have been evaluated annually for the presence of unauthorized discharges. The documentation shall include:

i. The date of the evaluation;
ii. A description of the evaluation criteria used;
iii. A list of the outfalls or on-site drainage points that were directly observed during the evaluation;
iv. A description of the results of the evaluation for the presence of unauthorized discharges; and
v. The actions taken to eliminate unauthorized discharges if any were identified.

(b) The permittee may request in writing to the Department that the facility be allowed to conduct annual outfall evaluations at 20% of the outfalls. If approved, the permittee shall evaluate at least 20% of the facility outfalls each year on a rotating basis such that all facility outfalls will be evaluated during the period of coverage under this permit.

h. Signature and SWPPP Review.

(1) Signature and Location. The SWPPP, including revisions to the SWPPP to document any corrective actions taken as required by Part VI.B.8 (Stormwater Management Conditions – Corrective Actions) shall be signed in accordance with Part V.K (Signatory Authority), dated, and retained on-site at the facility covered by this permit in accordance with Part VI.B.8 Stormwater Management Conditions – Corrective Actions). All other changes to the SWPPP, and other permit compliance documentation, shall be signed and dated by the person preparing the change or documentation.
(2) Availability. The permittee shall retain a copy of the current SWPPP required by this permit at the facility, and it shall be immediately available to the department, EPA, or the operator of a MS4 receiving discharges from the site at the time of an on-site inspection or upon request.
(3) Required Modifications. The permittee shall modify the SWPPP whenever necessary to address all corrective actions required by Part VI.B.8 (Stormwater Management Conditions- Corrective Actions). Changes to the SWPPP shall be made in accordance with the corrective action deadlines in Part VI.B.8, and shall be signed and dated in accordance with Part V.K (Signatory Authority).

The Director may notify the permittee at any time that the SWPPP, control measures, or other components of the facility's stormwater program do not meet one or more of the requirements of this permit. The notification shall identify specific provisions of the permit that are not being met, and may include required modifications to the stormwater program, additional monitoring requirements, and special reporting requirements. The permittee shall make any required changes to the SWPPP within 60 days of receipt of such notification, unless permission for a later date is granted in writing by the Director, and shall submit a written certification to the Director that the requested changes have been made.

i. Maintaining an Updated SWPPP.

(1) The permittee shall review and amend the SWPPP as appropriate whenever:

(a) There is construction or a change in design, operation, or maintenance at the facility that has a significant effect on the discharge, or the potential for the discharge, of pollutants from the facility;
(b) Routine inspections or compliance evaluations determine that there are deficiencies in the control measures, including BMPs;
(c) Inspections by local, state, or federal officials determine that modifications to the SWPPP are necessary;
(d) There is a spill, leak or other release at the facility;
(e) There is an unauthorized discharge from the facility; or
(f) The department notifies the permittee that a TMDL has been developed and applies to the permitted facility, consistent with Part II.A.4.

(2) SWPPP modifications shall be made within 60 calendar days after discovery, observation or event requiring a SWPPP modification. Implementation of new or modified control measures (distinct from regular preventive maintenance of existing control measures described in Part VI.D.2.f) shall be initiated before the next storm event if possible, but no later than 60 days after discovery, or as otherwise provided or approved by the Director. The amount of time taken to modify a control measure or implement additional control measures shall be documented in the SWPPP.

(3) If the SWPPP modification is based on a significant spill, leak, release, or unauthorized discharge, include a description and date of the incident, the circumstances leading to the incident, actions taken in response to the incident, and measures to prevent the recurrence of such releases. Unauthorized discharges are subject to the reporting requirements of Part II.G (Reports of Unauthorized Discharges) of this permit.

Part VII. Biosolids

A. Biosolids Limitations and Monitoring Requirements

During the period beginning with the permit's effective date and lasting until the permit expiration date, the permittee is authorized to generate and manage Class B biosolids in accordance with 9VAC25-31-420 through 720 and 9VAC25-32-303 through 358, the limitations, conditions and requirements set forth in this permit and the approved Biosolids Management Plan (BSMP).

All biosolids samples shall be collected and analyzed in accordance with Title 40 of the Code of Federal Regulations, Part 503 and 136, and the approved BSMP. Analyses shall be conducted by a VELAP accredited environmental laboratory. The permittee shall ensure that all biosolids generated under authority of this permit and provided to other persons, for the purpose of land application or further treatment, are monitored in accordance with the monitoring requirements as specified below in Part VII.A.

1. Sewage Sludge Annual Production Monitoring (SP1)
   The permittee shall report the annual total amount of sludge produced (in dry metric tons), the annual amount of Class B biosolids (in dry metric tons) distributed for land application, and the amount of sludge (in dry metric tons) disposed using other methods of disposal. Data shall be reported on the Discharge Monitoring Report (DMR) for discharge number SP1.

2. Metals Limitations and Monitoring Requirements (S01)
   All Class B biosolids generated under the authority of this permit shall be monitored and limited as specified below. Biosolids shall not be provided for land application or further treatment if the concentration of any pollutant in the biosolids exceeds the ceiling limitation of that pollutant.

PARAMETERS	PC/CPLR LIMITATIONS	CEILING LIMITATIONS	MONITORING REQUIREMENTS	
	MONTHLY AVERAGE (mg/kg) (1)(2)	CONCENTRATION MAXIMUM (mg/kg) (1)(2)	FREQUENCY	SAMPLE TYPE
Percent Solids (%)	NL	NA	Table A.6.	Composite
Arsenic, Sludge	41	75	Table A.6.	Composite
Cadmium, Sludge	39	85	Table A.6.	Composite
Copper, Sludge	1,500	4,300	Table A.6.	Composite
Lead, Sludge	300	840	Table A.6.	Composite
Mercury, Sludge	17	57	Table A.6.	Composite
Molybdenum, Sludge	NL (3)	75	Table A.6.	Composite
Nickel, Sludge	420	420	Table A.6.	Composite
Selenium, Sludge	100	100	Table A.6.	Composite
Zinc, Sludge	2,800	7,500	Table A.6.	Composite

NOTES & FOOTNOTES:
"NL" = No Limitation, monitoring only
"NA" = Not Applicable

(1) All parameters are subject to pollutant concentrations (PC), cumulative pollutant loading rates (CPLR), and ceiling limits. PC biosolids contain the constituents identified above at concentrations below the monthly average specified in Part VII.A.2. CPLR biosolids contain the constituents

identified above at concentrations above the monthly average and each sample must be below the ceiling limitations concentration specified in Part VII.A.2.

(2) All limits and criteria are expressed on a dry weight basis.

(3) The monthly average concentration for molybdenum is currently under study by USEPA. Research suggests that a monthly average molybdenum concentration below 40 mg/kg may be appropriate to reduce the risk of copper deficiency in grazing animals.

3. Pathogen Reduction Requirements – All Class B biosolids generated under this permit shall be treated to meet at least one Pathogen Reduction Alternative as identified in the table below prior to delivery to the land application site. The biosolids shall be monitored and limited in accordance with the treatment options selected and used by the generator. The permittee will have a system in place to verify that all biosolids land applied under this permit meet at least one of these pathogen reduction standards and treatment requirements.

PATHOGEN REDUCTION ALTERNATIVE	PROCESS TO SIGNIFICANTLY REDUCE PATHOGENS (PSRP) OPTION	CLASS B PATHOGEN REDUCTION TREATMENT STANDARDS	MONITORING FREQUENCY
1	NA	Fecal coliform monitoring: <2,000,000 MPN/gm or <2,000,000 CFU/gm, geometric mean of 7 samples (9VAC25-31-710.B.2)	Table A.6. (1)(2)
2	1	PSRP: Aerobic Digestion: Sludge mean cell residence time from 40 days at 20˚C to 60 days at 15˚C (9VAC25-31-710.D.1)	(1)
2	2	PSRP: Air dry in a drying bed for three months. Ambient average daily temperature must be above 0˚C for 2 of the 3 months (9VAC25-31-710.D.2)	(1)
2	3	PSRP: Anaerobic digestion for a mean cell residence time between 15 days at 35˚C - 55˚C up to 60 days at 20˚C (9VAC25-31-710.D.3)	(1)
2	4	PSRP: Composting at 40˚C or above for 5 or more days, maintaining > 55˚C for 4 consecutive hours during the 5 days (9VAC25-31-710.D.4)	(1)
2	5	PSRP: Sufficient lime is added to the sewage sludge to raise the pH of the sewage sludge to 12 after two hours of contact (9VAC25-31-710.D.5)	Each Batch
3	PROCESS AS APPROVED	Process equivalent to PSRP: PROCESS AS APPROVED (9VAC25-31-710 B.4.)	(1)

(1) Process monitoring and operating records must be sufficient to demonstrate that the Wastewater Treatment Plant (WWTP) is operating at a performance level known to meet pathogen reduction standards and specific PSRP treatment requirements.

(2) Between sampling events, operating records must demonstrate that the Wastewater Treatment Plant (WWTP) is operating at a performance level known to meet pathogen reduction standards.

4. Vector Attraction Reduction (VAR) Requirements – All Class B biosolids generated under this permit shall be treated to meet at least one VAR Option 1 - 8 as identified in the table below prior to delivery to the land application site or VAR Options 9 or 10 must be performed at the land application site. The biosolids shall be monitored and limited in accordance with the treatment options selected and used by the permittee.

VAR OPTION	VECTOR ATTRACTION REDUCTION TREATMENT STANDARD	MONITORING FREQUENCY
1	Minimum of 38% reduction of volatile solids by digestion (9VAC25-32-720.B.1)	Table A.6. (1)(2)(3)
2	When 38% reduction is not achieved by anaerobic digestion, 40 day bench study at temperatures between 30°C and 37°C to demonstrate further reduction of volatile solids <17% (9VAC25-31-720.B.2)	Table A.6. (1)(2)(3)
3	When 38% reduction is not achieved by aerobic digestion, 30 day bench study at 20°C to demonstrate further reduction of volatile solids <15% (9VAC25-31-720.B.3)	Table A.6. (1)(2)(3)
4	Specific Oxygen Uptake Rate of <= 1.5 mg O_2/hour/gram total solids at 20°C (aerobically processed sludge) (9VAC25-31-720.B.4)	Table A.6. (1)(2)(3)
5	14 day aerobic process, temperatures above 40°C with an average temperature of >45°C (9VAC25-31-720.B.5)	(1)(2)(3)
6	Sufficient alkali is added to the sewage sludge to raise the pH of the sewage sludge to 12 S.U. or higher, and without the addition of more alkali, maintain the pH at 12 S.U. for two hours and then at 11.5 S.U. or higher for an additional 22 hours (9VAC25-31-720.B.6)	Each Batch (2)
7	Where biosolids do not contain unstabilized solids from primary wastewater treatment, the percent solids of the biosolids shall be >= 75% (9VAC25-31-720.B.7)	Table A.6. (1)(2)(3)
8	Where biosolids contain unstabilized solids from primary wastewater treatment, the percent solids of the biosolids shall be >= 90% (9VAC25-31-720.B.8)	Table A.6. (1)(2)(3)
9	Sewage sludge shall be injected below the surface of the land (9VAC25-31-720.B.9)	Each Application
10	Sewage sludge land applied shall be incorporated into the soil within 6 hours after application (9VAC25-31-720.B.10)	Each Application

(1) Process monitoring and operating records must be sufficient to demonstrate that the Wastewater Treatment Plant (WWTP) is operating at a performance level known to meet VAR standards.

(2) If the selected VAR option 1- 8 is not met, the permittee shall provide notification to the land applier at the time the biosolids are delivered that the biosolids did not meet VAR at the WWTP and that the biosolids must be injected or incorporated. The Permittee shall obtain verification from the land applier that injection or incorporation occurred.

(3) Between sampling events, operating records must demonstrate that the Wastewater Treatment Plant (WWTP) is operating at a performance level known to meet VAR standards.

5. Biosolids Characteristics – All Class B biosolids generated under this permit shall be monitored and as specified below:

PARAMETERS	LIMITATIONS		MONITORING REQUIREMENTS	
	Monthly Average	Minimum and Maximum	Frequency	Sample Type
Total Kjeldahl Nitrogen (mg/kg) (1)	NL	NA	Table A.6.	Composite

NL = No limitation, monitor and report.
NA = Not applicable
mg/kg = milligrams per kilogram

(1) Expressed on a dry weight basis.

6. Frequency of Monitoring - The frequency of monitoring is based on the amount of bulk biosolids applied to the land, as indicated in the table below:

Amount of biosolids land applied (metric dry tons per 365-day period)	Frequency
Greater than zero but less than 290	Once per year
Equal to or greater than 290 but less than 1,500	Once per quarter (four times per year)
Equal to or greater than 1,500 but less than 15,000	Once per 60 days (six times per year)
Equal to or greater than 15,000	Once per month (12 times per year)

B. BIOSOLIDS MANAGEMENT AND REPORTING REQUIREMENTS

1. Only biosolids from a source that has been approved by the DEQ, as identified on the DEQ's *Sources of Biosolids, Industrial Sludges, WTP Residuals* list and monitored in accordance with Part VII.A may be land applied in Virginia.

2. New Source Demonstration Period - For new biosolids sources prepared under the authority of this permit, the permittee, must demonstrate that the facility is producing biosolids of consistent quality. During the demonstration period, the permittee with conduct frequent monitoring to determine if pathogen reduction and vector attraction reduction requirements are met. The demonstration period will extend over a minimum of three months. Pathogen Reduction and VAR monitoring shall be conducted in accordance with a schedule developed by DEQ – OLAP based on the treatment method and operating schedule for the proposed treatment units, and may include fecal coliform monitoring. Approval will be granted when all monitoring results over a period of three consecutive months demonstrate compliance with the regulations. The demonstration period will also include at least 1 sample for metals and nutrients.

3. Annual Report

   The permittee shall submit an Annual Report not later than February 19th of each year to the DEQ-Piedmont Regional Office. Each report is for the previous calendar year's activity. If no biosolids were generated and provided to a land applier under this permit during the reporting year, a report shall be submitted stating that no biosolids were generated and provided to a land applier during the year. The report shall include at minimum:

   a. Part VII.A.1 Sewage Sludge Annual Production Monitoring;

   b. Biosolids Monitoring Data:

(1) Part VII.A.2 Biosolids - Metals Limitations;

(2) Part VII.A.3 Biosolids - Pathogen Reduction Alternative;

(3) Part VII.A.4. Biosolids Vector Attraction Reduction Option

(4) Part VII.A.5. Biosolids Characteristics

(5) Supporting documentation, including laboratory chain of custody forms and certificates of analyses, shall be submitted with the report;

(6) Monthly average shall be reported as the average of the results of all samples collected within a calendar month and analyzed using an approved method, in accordance with Part V.A.1-2 of this permit. For monitoring periods which include multiple months, if one sample is collected during the monitoring period, that result shall be reported as the monthly average. If samples are collected in multiple months during the monitoring period, a monthly average shall be calculated for each month in which samples were collected during the monitoring period and the highest monthly average reported. Individual results and calculations shall be submitted with the report; and

(7) The maximum concentration shall be reported as the highest single result from all samples collected and analyzed during a monitoring period.

c. A summary of biosolids disposal contracts, if any, currently held with land appliers or other generators, as well as any other biosolids or sludges currently being handled through subcontracts or other agreements. Include biosolids or sludges given to other generators, contractors or land filled, and biosolids or sludges accepted from other generators for treatment or land application.

d. Identify other methods used to dispose of or use biosolids or sludge produced during the previous calendar year. Report the annual total amount of biosolids or sludge (in dry metric tons) disposed of or used by each method identified; and

e. The annual report shall be certified and signed in accordance with Part V.K.

4. Record Keeping - The permittee is required to retain the following information for at least five years:

a. The concentrations of each pollutant in Part VII.A.2
b. A description of how the pathogen reduction requirements in Part VII.A.3 are met;

c. A description of how the vector attraction reduction requirements in Part VII.A.4 are met;

d. A description of how the management practices specified in the approved Biosolids Management Plan and this permit are met;

e. The reports required in Part VII.B.2;

f. The NANI's required in Part VII.B.4; and

g. The following certification statement(s) as applicable:
"I certify, under penalty of law, that the information that will be used to determine compliance with the Class B pathogen requirements in 9VAC25-31-710.B and the vector attraction reduction requirements in 9VAC25-31-720.B.1 through B.8 was prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

5. Notice and Necessary Information (NANI) – A NANI shall be provided to any person to whom biosolids are provided for the purpose of further treatment or land application. The NANI shall be provided at the time the biosolids are provided if available, but no later than 45 days after the last day of the month in which biosolids were provided. The NANI shall represent the most recent monitoring period. The NANI shall be on the form provided with this permit and include at minimum:

   a. A statement that Class B pathogen requirements in 9VAC25-31-710.B were met and the alternative used;

   b. A statement that one of the VAR requirements in 9VAC25-31-720.B.1 through B.8 was met and the alternative used; or

   c. A statement that one of the VAR requirements in 9VAC25-31-720.B.1 through B.8 was not met and incorporation or injection was required;

   d. The notice(s) provided to the land applier when biosolids provided did not meet VAR and required incorporation or injection;

   e. The concentration of total nitrogen (as N on a dry weight basis) of the biosolids; and

   f. The following certification statement:
   "I certify, under penalty of law was prepared under my direction and supervision in accordance with the system designed to ensure 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 false certification, including the possibility of fine and imprisonment".

6. Biosolids Management Plan (BSMP)

   a. The permittee shall conduct all biosolids/sewage sludge use or disposal activities in accordance with the BSMP approved with the issuance of this permit. The permittee shall maintain the BSMP which consists of the following components:

      (1) The materials developed and submitted at the time of permit application or permit modification in accordance with 9VAC25-31-100.Q;
      (2) The Operations and Maintenance (O&M) Manual (Sections regarding solids handling and biosolids production and management, etc); and
      (3) The Odor Control Plan

   b. Odor Control Plan (OCP) Requirement – If an OCP is not on file at DEQ, an OCP shall be submitted to DEQ within 90 days of the modification/effective date of this permit. The OCP shall include at a minimum:

      (1) Methods used to minimize odor in producing biosolids;

      (2) Methods used to identify malodorous biosolids before delivery to the land applier (at the generating facility);

      (3) Methods used to identify and abate malodorous biosolids if delivered to the field, prior to land application; and

      (4) Methods used to abate malodor from biosolids if land applied.

      Malodor shall mean an unusually strong or offensive odor associated with biosolids or sewage sludge as distinguished from odors normally associated with biosolids or sewage sludge.

c. The BSMP and all of its components are an enforceable part of the permit.

d. Any proposed changes in the biosolids/sewage sludge use or disposal practices or procedures followed by the permittee shall be documented and submitted for DEQ-Piedmont Regional Office (DEQ-PRO) approval 90 days prior to the effective date of the changes. Upon approval, the revised BSMP 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 biosolids/sewage sludge use or disposal practices.

7. Biosolids/Sludge Reopener
The Board may promptly modify or revoke and reissue this permit if any applicable standard for biosolids/sewage sludge use or disposal promulgated under Section 405(d) of the Clean Water Act is more stringent than any requirements for biosolids/sludge use or disposal in this permit, or controls a pollutant or practice not limited in this permit.

Appendix A: Integrated CSS and MS4 Annual Report

The annual report, at a minimum, shall include the following information:

1. General Information:

   a. The permittee name, system name and permit number;

   b. The reporting period for which the annual report is being submitted;

   c. A signed certification per Part V.K;

2. CSS:

   a. Validated data collected from flow meters and level sensors shall be used to determine the number and volume of overflows for each CSO outfall in lieu of modeled data. If meter data are unavailable or unvalidated at a CSO outfall, then modeling data shall be utilized to determine the number and volume of overflows.

3. CSS and MS4 Nine Minimum Controls (NMC) and Six Minimum Control Measures (MCM):

   a. An evaluation of the program implementation, including a review of each MCM and NMC, to determine the effectiveness of each program element and whether or not changes to the program plans are necessary, including:

      (1) Operation and Maintenance of the CSS (NMC 1)
      The annual report shall include the following:

         (i) Inspection and maintenance of CSS control structures and pump stations; and

         (ii) Sewer flushing records.

      (2) Use of Collection System for Storage (NMC 2)
      The annual report shall include the following:

         (i) Summary information regarding storage at Shockoe Retention Basin and Hampton/McCloy Tunnel;

         (ii) Sewer re-lining activities to reduce inflow and infiltration (I/I);

         (iii) Operation of WWTP influent pumping to fill intercepting system;

         (iv) Tide gate inspections; and

         (v) Use of public and private stormwater holding facilities in the CSS area.

      (3) Review of Pretreatment Program (NMC 3)
      The annual report shall include the following:

         (i) Summary of any changes or use of pretreatment program authority to minimize flows during CSO events.

      (4) Maximize Flow to the WWTP for Treatment (NMC 4)
      The annual report shall include the following:

         (i) Summary of operation of WWTP during precipitation events including flow management to show maximization of treatment of wet weather flows; and

(ii) During wet weather events, when flow is diverted to Outfall 102, provide the daily flow of Outfalls 101 and 102 in an Excel spreadsheet with the date and volume (in MGD) of wastewater discharged from each outfall.

(5) Eliminate Dry Weather Overflows (DWOs) (NMC 5)
The annual report shall include the following:

(i) Inspection and maintenance of diversion facilities;

(ii) Monitoring of pumping stations for dry weather overflows;

(iii) Operation of the Shockoe Retention Basin; and

(iv) Reports of any dry weather overflows.

(6) Control Solid and Floatable Materials in the CSS (NMC 6)
The annual report shall include the following:

(i) Summary of cleaning and maintenance related to control of solid and floatable materials.

(7) Public Education and Outreach (MCM 1, NMC 7 and NMC 8)
The annual report shall include the following:

(i) A list of the high-priority stormwater issues the permittee addressed in the public education and outreach program;

(ii) A summary of the public education and outreach activities conducted for the report year, including the strategies used to communicate the identified high-priority issues;

(iii) A description of any changes in high-priority stormwater issues, including, strategies used to communicate high-priority stormwater issues or target audiences for the public education and outreach plan. The permittee shall provide a rationale for any of these changes;

(iv) A description of public education and outreach activities conducted that included education regarding climate change; and

(v) A synopsis of pretreatment program awareness activities that encourage industrial waste reduction through recycling and improved housekeeping.

(8) Public Involvement and Participation (MCM 2 and NMC 8)
The annual report shall include the following:

(i) A summary of any public comments received on the MS4 program, including stormwater complaints, and how the permittee responded;

(ii) A summary of stormwater pollution complaints received under the procedures established in Part IV E 2 a (1), excluding flooding complaints, and how the permittee responded;

(iii) A link to the City-controlled website pertaining to the CSO Control Program and MS4 Program;

(iv) A description of the public involvement activities implemented by the permittee, including any efforts to reach out and engage all economic and ethnic groups;

(v) A description of public education and outreach activities conducted that also included education regarding climate change;

(vi) A report of the metric as defined for each activity and an evaluation as to whether or not the activity is beneficial to improving water quality;

(vii) The name of other MS4 permittees with whom the permittee collaborated in the public involvement opportunities; and

(viii) Placement of warning signs at all CSOs that are predicted to discharge more frequently than once per summer on average.

(9) Illicit Discharge Detection and Elimination (MCM 3)
The annual report shall include the following:

(i) A confirmation statement that the MS4 map and outfall information table have been updated to reflect any changes to the MS4 occurring on or before December 31 of the reporting year;

(ii) The total number of outfalls and observation points screened during the reporting period as part of the dry weather screening program; and

(iii) A list of illicit discharges to the MS4 including spills reaching the MS4 with information as follows:

(A) The location and source of illicit discharge;

(B) The date or dates that the discharge was observed, reported, or both;

(C) Whether the discharge was discovered by the permittee during dry weather screening, reported by the public, or other method (describe);

(D) How the investigation was resolved;

(E) A description of any follow-up activities; and

(F) The date the investigation was closed.

(10) Construction site stormwater runoff and erosion and sediment control (MCM 4)
The annual report shall include the following:

(i) Total number of erosion and sediment control inspections conducted; and

(ii) Total number of each type of compliance action and enforcement action implemented.

(11) Post-construction stormwater management for new development and development on prior developed lands (MCM 5)
The annual report shall include the following:

(i) The number of privately owned stormwater management facility inspections conducted;

(ii) The number of enforcement actions initiated by the permittee to ensure long-term maintenance of privately owned stormwater management facilities including the type of enforcement action;

(iii) Total number of inspections conducted on stormwater management facilities owned or operated by the permittee;

(iv) A description of the significant maintenance, repair, or retrofit activities performed on the stormwater management facilities owned or operated by the permittee to ensure it continues to perform as designed. This does not include routine activities such as grass mowing or trash collection;

(v) A confirmation statement that the permittee submitted stormwater management facility information through the Virginia Construction Stormwater General Permit database for those land disturbing activities for which the permittee was required to obtain coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities in accordance with Part IV.I.2.a or a statement that the permittee did not complete any projects requiring coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities (9VAC25-880);

(vi) A confirmation statement that the permittee electronically reported stormwater management facilities using the DEQ BMP Warehouse in accordance with Part IV.I.2.a and b and the date on which the information was submitted; and

(vii) A confirmation statement that the permittee electronically reported stormwater management facilities inspected using the DEQ BMP Warehouse in accordance with Part IV.I.2.e.

(12) Pollution prevention and good housekeeping for facilities owned or operated by the permittee within the MS4 service area (MCM 6 and NMC 7).
The annual report shall include the following:

(i) A summary of any written procedures developed or modified in accordance with Part IV.E.6.a during the reporting period;

(ii) A confirmation statement that all high-priority facilities were reviewed to determine if SWPPP coverage is needed during the reporting period;

(iii) A list of any new SWPPPs developed in accordance Part IV E 6 i during the reporting period;

(iv) A summary of any SWPPPs modified in accordance with Part IV E 6 j, 6 l, or 6 m

(v) The rationale of any high-priority facilities delisted in accordance with Part IV E 6 l or m during the reporting period;

(vi) The status of each nutrient management plan as of June 30 of the reporting year (e.g., approved, submitted and pending approval, and expired);

(vii) A list of the training activities conducted in accordance with Part IV.E.6.d, including the following information:

(A) The completion date for the training activity;

(B) The number of employees who completed the training activity; and

(C) The objectives and good housekeeping procedures covered by the training activity.

(viii) Operation and maintenance of the septage receiving station; and

(ix) Enforcement of ordinances that prohibit entrance of any substance that may impair or damage the function and performance of collection treatment systems.

4. A status report on the implementation of the Chesapeake Bay TMDL action plan in accordance with Part IV.F of this permit including any revisions to the plan.

   a. For each reporting period, the corresponding annual report shall include the following information:

      (1) A list of Chesapeake Bay TMDL action plan BMPs, not including annual practices, implemented prior to the reporting period that includes the following information for reported BMP;
         i. The number of BMPs for each BMP type;
         ii. The estimated reduction of pollutants of concern achieved by each BMP type and reported in pounds of pollutant reduction per year; and
         iii. A confirmation statement that the permittee electronically reported Chesapeake Bay TMDL action plan BMPs inspected using the DEQ BMP Warehouse in accordance with Part IV.I.2.e.

      (2) A list of newly implemented BMPs including annual practices implemented during the reporting period that includes the following information for each reported BMP or a statement that no BMPs were implemented during the reporting period:
         i. The BMP type and a description of the location for each BMP;
         ii. The estimated reduction of pollutants of concern achieved by each BMP and reported in pounds of pollutant reduction per year; and
         iii. A confirmation statement that the permittee electronically reported BMPs using the DEQ BMP Warehouse in accordance with Part IV.I.2.c.

      (3) If the permittee acquired credits during the reporting period to meet all or a portion of the required reductions in Part IV.F.2, F.3, or F.4, a statement that credits were acquired;

      (4) Pollutant load reductions generated by annual practices, such as street and storm drain cleaning, shall only be applied to the compliance year in which the annual practice was implemented.

      (5) The progress, using the final design efficiency of the BMPs, toward meeting the required cumulative reductions for total nitrogen and total phosphorus;

      (6) Any revisions made to the Chesapeake Bay TMDL action plan.

      (7) A list of BMPs that are planned to be implemented during the next reporting period.

5. A status report on the implementation of local TMDL action plans in accordance with Part IV.G including any revisions to the plan.

   a. For each reporting period, each annual report shall include a summary of actions conducted to implement each local TMDL action plan.

6. A summary report describing monitoring of James River and its Tributaries in accordance with Part I monitoring requirements. Summary shall include an assessment of trends and impact of controls implemented as required by this permit.

Appendix B: Combined Sewer Overflow Outfalls

OUTFALL NO.	OUTFALL NAME	LOCATION	RECEIVING WATER
004	Bloody Run Sewage Regulator	Latitude: N37˚31'23" Longitude: W77˚25'00" Williamsburg Ave and Gillies Creek, north of Williamsburg Ave and Stony Run Drive	Gillies Creek
005	Peach Street Sewage Regulator	Latitude: N37˚31'32" Longitude: W77˚25'15" South of intersection of Peach and Dock Streets	James River
006	Shockoe Creek Sewage Regulator	Latitude: N37˚31'53" Longitude: W77˚25'56" Between Mayo's Bridge and 17th St.	James River
007	Byrd Street Sewage Regulator	Latitude: N37˚32'03" Longitude: W77˚26'12" Byrd Street, between 12th and 13th Streets	James River
009	7th Street Sewage Regulator	Latitude: N37˚32'07" Longitude: W77˚26'35" Seventh and Bragg Streets	Haxall Canal
010	Gambles Hill System	Latitude: N37˚32'08" Longitude: W77˚26'41" Off of Tredegar Street, west of 7th St.	Haxall Canal
011	Park Hydro Station Sewage Regulator	Latitude: N37˚32'02" Longitude: W77˚27'15" Tredegar Street, west of Lee Bridge	James River
012	Hilton Street Sewage Regulator	Latitude: N37˚30'25" Longitude: W77˚23'54" Southwest of intersection of Hilton and Salem Streets	Almond Creek
014	Stockton Street Sewage Regulator	Latitude: N37˚31'32" Longitude: W77˚26'00" Stockton and Bedford Streets	Manchester Canal (Cotton Mill Creek)
015	Canoe Run Sewage Regulator	Latitude: N37˚31'30" Longitude: W77˚27'27" Next to Southern Railway Line, north of Riverside Drive and 22nd Streets	James River
016	Woodland Heights Sewage Regulator	Latitude: N37˚31'28" Longitude: W77˚27'42" Next to Southern Railway Line, north of Riverside Drive and 26th Street	James River
017	Reedy Creek Sewage Regulator	Latitude: N37˚31'39" Longitude: W77˚28'12" Next to Southern Railway Line, approx. north of Riverside Drive and 30th St.	James River

OUTFALL NO.	OUTFALL NAME	LOCATION	RECEIVING WATER
018	42nd Street Sewage Regulator	Latitude: N37˚31'33" Longitude: W77˚28'28" Next to Southern Railway Line, north of Riverside Drive and 42nd Street	James River
019	Hampton Street and Colorado	Latitude: N37˚31'51" Longitude: W77˚28'33" New York Avenue, between Hampton Street and Meadow Avenue	James River
020	McCloy Street Sewage Regulator	Latitude: N37˚32'27" Longitude: W77˚29'42" McCloy Street	James River
021	Gordon Avenue Sewage Regulator	Latitude: N37˚31'22" Longitude: W77˚25'21" Brander Street, east of I-95	James River
024	(Gillie and Varina Streets)	Latitude: N37˚31'19" Longitude: W77˚24'32" Gillie and Varina Streets	Gillies Creek
025	(Briel Street and Gillies Creek)	Latitude: N37˚31'42" Longitude: W77˚23'29" Briel Street and Gillies Creek	Gillies Creek
026	(Government Road and NSRR)	Latitude: N37˚31'27" Longitude: W77˚23'58" 1250 ft. east of Government Road and Southern Railway Line	Gillies Creek
031	(Oakwood Cemetery)	Latitude: N37˚32'19" Longitude: W77˚28'35" Oakwood Cemetery	Stoney Run
033	(Shields Lake)	Latitude: N37˚32'15" Longitude: W77˚28'35" Park Drive and Shields Lake	Dooley's Branch
034	(19th and Dock Streets)	Latitude: N37˚31'51" Longitude: W77˚25'40" 19th and Dock Streets	Richmond Dock Canal
035	(25th and Dock Streets)	Latitude: N37˚31'40" Longitude: W77˚25'21" 25th and Dock Streets	Richmond Dock Canal
039	(Government Road and Gillies Creek)	Latitude: N37˚31'22" Longitude: W77˚24'15" 550 ft. downstream from Gillies Creek and Government Road	Gillies Creek
040	CSO-1 Outlet	Latitude: N37˚31'42" Longitude: W77˚26'27" 1250 ft. downstream of the Manchester Bridge and 100 ft. off of the south bank	James River