

TENTATIVE AGENDA  
**STATE WATER CONTROL BOARD MEETING**  
 MONDAY, DECEMBER 12, 2016

HOUSE ROOM C, GENERAL ASSEMBLY BUILDING  
 9TH & BROAD STREETS  
 RICHMOND, VIRGINIA 23219

**CONVENE – 9:30 A.M.**

		<b>TAB</b>
<b>I. Minutes</b> (September 22, 2016)		A
<b>II. Regulations – Final Exempt</b>		
Water Quality Management Planning Regulation - Tennessee-Big Sandy River Basin - Beaver Creek E. coli and Sediment WLAs	Lott	B
<b>III. Regulations - Final</b>		
General VPDES Watershed Permit Regulation for Total Nitrogen And Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Bay Watershed in Virginia (9VAC25-820)	Brockenbrough	C
<b>IV. Regulations - Proposed</b>		
General VPDES Permit - Vehicle Wash Facilities and Laundry Facilities	Daub	D
Water Quality Standards Remaining Triennial Review Issues	Kennedy	E
<b>V. Regulations – Petitions</b>		
Water Quality Standards Amendment - Designation of Segment of Laurel Fork in Highland County as Exceptional State Waters	Kennedy	F
<b>VI. Significant Noncompliance Report</b>	O’Connell	G
<b>VII. Consent Special Orders – Article II</b>		
Allied Aviation Fueling of National Airport, Inc. (Arlington)	Crowell	H
Virginia Electric and Power Company (Dominion - Arlington and Augusta County)	Reynolds	I
<b>VIII. Public Forum</b>		
<b>IX. Other Business</b>		
FY2017 Clean Water Revolving Loan Funding List	Gills	J
Stormwater Local Assistance Fund Guidelines	Gills	K
Division Director’s Report	Davenport/Schneider	L
Future Meetings		

ADJOURN

NOTE: The Board reserves the right to revise this agenda without notice unless prohibited by law. Revisions to the agenda include, but are not limited to, scheduling changes, additions or deletions. Questions arising as to the latest status of the agenda should be directed to the staff contact listed below.

**PUBLIC COMMENTS AT STATE WATER CONTROL BOARD MEETINGS:** The Board encourages public participation in the performance of its duties and responsibilities. To this end, the Board has adopted public

participation procedures for regulatory actions and for case decisions. These procedures establish the times for the public to provide appropriate comment to the Board for its consideration.

For Regulatory Actions (adoption, amendment or repeal of regulations), public participation is governed by the Administrative Process Act and the Board's Public Participation Guidelines. Public comment is accepted during the Notice of Intended Regulatory Action phase (minimum 30-day comment period) and during the Notice of Public Comment Period on Proposed Regulatory Action (minimum 60-day comment period). Notice of these comment periods is announced in the Virginia Register, by posting to the Department of Environmental Quality and Virginia Regulatory Town Hall web sites and by mail to those on the Regulatory Development Mailing List. The comments received during the announced public comment periods are summarized for the Board and considered by the Board when making a decision on the regulatory action.

For Case Decisions (issuance and amendment of permits), the Board adopts public participation procedures in the individual regulations which establish the permit programs. As a general rule, public comment is accepted on a draft permit for a period of 30 days. If a public hearing is held, there is an additional comment period, usually 45 days, during which the public hearing is held.

In light of these established procedures, the Board accepts public comment on regulatory actions and case decisions, as well as general comments, at Board meetings in accordance with the following:

Regulatory Actions: Comments on regulatory actions are allowed only when the staff initially presents a regulatory action to the Board for final adoption. At that time, those persons who commented during the public comment period on the proposal are allowed up to 3 minutes to respond to the summary of the comments presented to the Board.

Adoption of an emergency regulation is a final adoption for the purposes of this policy. Persons are allowed up to 3 minutes to address the Board on the emergency regulation under consideration.

Case Decisions: Comments on pending case decisions at Board meetings are accepted only when the staff initially presents the pending case decision to the Board for final action. At that time the Board will allow up to 5 minutes for the applicant/owner to make his complete presentation on the pending decision, unless the applicant/owner objects to specific conditions of the decision. In that case, the applicant/owner will be allowed up to 15 minutes to make his complete presentation. The Board will then allow others who commented during the public comment period (i.e., those who commented at the public hearing or during the public comment period) up to 3 minutes to respond to the summary of the prior public comment period presented to the Board. No public comment is allowed on case decisions when a FORMAL HEARING is being held.

Pooling Minutes: Those persons who commented during the public hearing or public comment period and attend the Board meeting may pool their minutes to allow for a single presentation to the Board that does not exceed the time limitation of 3 minutes times the number of persons pooling minutes, or 15 minutes, whichever is less.

New information will not be accepted at the meeting. The Board expects comments and information on a regulatory action or pending case decision to be submitted during the established public comment periods. However, the Board recognizes that in rare instances, new information may become available after the close of the public comment period. To provide for consideration of and ensure the appropriate review of this new information, persons who commented during the prior public comment period shall submit the new information to the Department of Environmental Quality (Department) staff contact listed below at least 10 days prior to the Board meeting. The Board's decision will be based on the Department-developed official file and discussions at the Board meeting. In the case of a regulatory action, should the Board or Department decide that the new information was not reasonably available during the prior public comment period, is significant to the Board's decision and should be included in the official file, the Department may announce an additional public comment period in order for all interested persons to have an opportunity to participate.

**PUBLIC FORUM**: The Board schedules a public forum at each regular meeting to provide an opportunity for citizens to address the Board on matters other than those on the agenda, pending regulatory actions or pending case decisions. Those wishing to address the Board during this time should indicate their desire on the sign-in cards/sheet and limit their presentations to 3 minutes or less.

The Board reserves the right to alter the time limitations set forth in this policy without notice and to ensure comments presented at the meeting conform to this policy.

**Approval of one revised TMDL report and amendment of the Water Quality Management Planning regulation to revise the corresponding TMDL wasteload allocations:** Staff will ask the Board to approve pardons of one revised TMDL Report and adopt the corresponding amendments to the state's Water Quality Management Planning regulation. As of July 1, 2014 TMDL waste load allocations receive State Water Control Board approval prior to EPA approval due to amendments outlined in §2.2-4006. A. 14 of the Code of Virginia. The TMDL report has been reviewed by EPA for required TMDL elements, however, remains in draft form awaiting State Water Control Board approval. Staff will propose the following Board actions: (1) approval of one revised TMDL report and (2) amendment of the Water Quality Management Planning regulation to replace two WLAs. The report titled, *“Bacteria and Benthic Total Maximum Daily Load (TMDL) Development for the Beaver Creek Watershed located in Bristol City and Washington County, Virginia”* proposes *E. coli* reductions for the Beaver Creek watershed and provides an *E. coli* waste load allocation of 4.38E+12 cfu/yr. In addition, the TMDL report proposes sediment reductions for the Beaver Creek watershed and provides sediment waste load allocations of 310.91 tons/year. The specific portions of the TMDL report to be approved include the TMDL itself and all the TMDL allocation components, the pollutant reduction scenarios, implementation strategies, reasonable assurance that the TMDL can be implemented, and a summary of the public participation process. The amendments to the Water Quality Management Planning regulation consist of revising two WLAs that are included in the TMDL report reviewed by EPA. The TMDL report was developed in accordance with Federal Regulations (40 CFR §130.7) and was subject to the public participation process contained in §2.2-4006.A.14 of the Code of Virginia and DEQ’s “Public Participation Procedures for Water Quality Management Planning” that the Board approved in September 2014.

**General VPDES Watershed Permit Regulation for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Bay Watershed in Virginia (9 VAC 25-820): Proposed Board Action**

This is a final regulation. The staff will ask the board to approve the regulation reissuing the General VPDES Watershed Permit for Total Nitrogen and Total Phosphorous Discharges and Nutrient Trading in the Chesapeake Bay Watershed in Virginia.

**Public Comment**

An initial public comment period was held from December 14, 2015 through February 12, 2016. A public hearing was held on January 21, 2016 at the Department of Environmental Quality’s (DEQ) Piedmont Regional Office in Glen Allen. No comments were received during the public hearing. Seven public comment letters were received in addition to an objection letter provided by the Environmental Protection Agency (EPA).

In response to the EPA’s objection, DEQ developed revisions to the proposed regulation and a second public comment period was held from October 11, 2016 through November 10, 2016. 17 public comment letters were received during the second public comment period.

A summary of the comments received and the agency response is included in the Town Hall Agency Background Document (Form TH-09).

**Participatory Approach/Technical Advisory Committee**

DEQ used a participatory approach to develop this regulation. A 10-person Technical Advisory Committee (TAC) was formed to assist the department in the reissuance of the VPDES watershed general permit. The TAC's primary responsibility was to collaboratively contribute to the development of a VPDES watershed general permit that is in the best interests of the Commonwealth as a whole. The TAC met three times (May 4, June 9, and July 1, 2015) to discuss the development of the regulation.

**Background**

This action is to approve the reissuance of the General VPDES Watershed Permit for Total Nitrogen and Total Phosphorous Discharges and Nutrient Trading in the Chesapeake Bay Watershed in Virginia. The current general permit expires on December 31, 2016.

**Issues**

The significant changes to the general permit regulation made prior to the initial public comment period are as follows:

1. Definitions and grammatical changes were added to provide clarity within permit.
2. Added a new section (15) to update all references to Title 40 of the Code of Federal Regulations published as of July 1, 2014.
3. Require submittal of a compliance plan by July 1, 2017 for facilities identified in 9VAC25-820-80 and subject to a limit effective date after January 1, 2017 as defined in 9-VAC25-820-70 I C 1. This change in combination with the changes in the sections referenced above requires a compliance plan from the Hampton Roads Sanitation District James River facilities for Total Nitrogen reductions identified in Virginia's Phase I Watershed Implementation Plan as well as Appendix X to the Chesapeake Bay TMDL.
4. "Water Quality Improvement Fund" replaced with "Nutrient Offset Fund" to reflect current state code (§10.1-2128.2)
5. Changed the effective (2017) and expiration (2021) dates to reflect the reissuance date of the permit.
6. The language restricting the ability of aggregate facilities not subject to waste load allocations in the Water Quality Management Planning Regulation (9VAC25-720-50.C thru 120.C) to generate credits has been stricken to reflect the same provision being stricken from the Code of Virginia. The effect is that smaller, "non-significant" dischargers can generate credits and fully participate in the trading program.
7. References to the York River Phosphorus schedule of compliance have been deleted as this schedule will have been completed prior to the effective date of the reissued general permit. Effective dates for James River Phase 2 Total Nitrogen (January 1, 2022) and James River Phase 2 Total Phosphorus (January 1, 2017) waste load allocations are established for the new waste load allocations included in 9VAC25-820.80. No schedule of compliance is established for the new Total Phosphorus waste load allocations because the watershed aggregate waste load is currently being met and §62.1-44.19.14.C.2 of the Code of Virginia requires compliance with the new waste load allocations as soon as possible.
8. The reference to 9VAC25-820-70 was replaced with "9VAC25-820-80" and compliance date updated from 2012 to "2017" to reflect location of listing of facilities subject to a compliance schedule and the reissued permit term.
9. The term "Water Quality Improvement Fund" was replaced with "Nutrient Offset Fund" to reflect current state code (§10.1-2128.2).
10. Sample collection frequencies were modified to require more frequent sampling at certain facilities. A new sampling frequency of "2/Week" was established for facilities designed to discharge between 5.0 and 19.999 Million Gallons per Day (MGD). A new sampling frequency of "4/Month" was established for facilities designed to discharge between 0.5 and 0.999 MGD. These increased monitoring frequencies were made to more accurately quantify the annual nutrient loads from these facilities and to reflect the minimum monitoring frequency typically necessary for process control.
11. Clarification was provided on the handling of total phosphorus data below the quantification level (QL). The proposed permit requires that values below the QL be treated as one half of the QL. The previous permit indicated that these values should be treated as one half of the QL.
12. New maximum quantification levels were added for nitrogen parameters to eliminate the possible gaming of the permit language. Without this change the treatment of total nitrogen data below the quantification level would allow a party to report lower than actual total nitrogen loads by choosing higher quantification levels.
13. Added the provision to allow for public comment on any proposed nonpoint source-to-point source trading ratio less than 2:1 allowed by new provisions under 9VAC25-820.II.B.1.b.(1).
14. Updated prices of TN and TP credit purchases from the Water Quality Improvement Fund.
15. Changes were made to reflect the transfer of the responsibility to certify nonpoint source credits from the Department of Conservation to the Department of Environmental Quality as well as the allowance of nonpoint source-to-point source trading ratios less than 2:1 under limited circumstances. The application of the provision for nonpoint-to-point source trading ratios less than 2:1 is subject to public comment and is expected to occur very rarely.
16. A wholesale replacement was made to Section 70.III Conditions Applicable to all VPDES Permits to replace outdated language and to ensure consistency with other general VPDES permits as well as 9VAC-31-190 Conditions applicable to all permits.
17. Eliminate the York River TP waste load allocations as they are now incorporated in 9VAC25-720 (Water Quality Management Planning Regulation) and includes reduced TN and TP waste load allocations for James River Basin dischargers in accordance with the Commonwealth of Virginia Chesapeake Bay TMDL Phase I

Watershed Implementation Plan dated November 29, 2010. This includes establishing individual TP waste load allocations for the James River dischargers.

Minor changes were made following the initial public comment period in response to the comments received. These changes served to clarify existing permit conditions and did not include any substantial changes. These modifications include:

18. Deletion of an artifact from boilerplate language used during the development of the regulation in Section 70.III. C.
19. Added “James River” in response to a comment and to clarify that only James River facilities were subject to the detailed WLA reductions in Section 80.

A major change was made following the initial public comment period in response to EPA’s objection to the proposed general permit. This change served to satisfy EPA’s requirements to remove EPA’s objection to the permit. Due to the substantive nature of this change, a second comment period was initiated and ran from October 11, 2016 through November 10, 2016.

20. Requiring sampling frequencies of “2 Days/Week” for facilities designed to discharge between 0.5 and 19.999 MGD or the industrial load equivalent.

Impact

Approximately 161 facilities are currently registered under the watershed general permit. This number is expected to grow as most new or expanding facilities are also required to register under the permit and offset any increase in nutrient loading. The ability to trade under the watershed general permit provides additional compliance assurance and allows new and expanding facilities to offset any new nutrient loads under the TMDL load cap.

EPA Review

On March 11, 2016, the U.S. Environmental Protection Agency (EPA) filed an objection to issuance of the Watershed General Permit. EPA’s objection specified that facilities designed to discharge between 0.5 and 19.999 MGD must be subject to a sampling frequency of at least 2 Days/Week and a 24-hr composite sampling in order to capture variability in discharged nutrient loads. DEQ staff clarified with EPA that the intent of the objection was to increase the sampling frequency of these facilities and not a change to sampling type. In response, DEQ developed further revisions to the proposal to address EPA’s objection that requires an 8-hr composite sample for facilities designed to discharge 0.5 to 0.999 MGD. This revision served to limit inconsistencies between a facility’s individual permit and general permit monitoring requirements.

**VPDES General Permit Regulation for Vehicle Wash Facilities and Laundry:** The current VPDES Vehicle Wash General Permit will expire on October 15, 2017 and the regulation establishing this general permit is being amended to reissue another five-year permit. The staff is bringing this proposed regulation amendment before the Board to request authorization to hold a public comment period and a public hearing. The proposed regulation takes into consideration the recommendations of a technical advisory committee (TAC) formed for this regulatory action. The TAG consisted of industry representatives, several localities, two environmental groups, one consultant and DEQ staff. A Notice of Intended Regulatory Action (NOIRA) for the amendment was issued on January 25, 2016. Changes being proposed are:

Current section number	Proposed new section number, if applicable	Current requirement	Proposed change, intent, rationale, and likely impact of proposed requirements
		The title of the regulation is “General Permit For Vehicle Wash Facilities and Laundry Facilities”	Changed the title to “Virginia Pollutant Discharge Elimination System (VPDES) General Permit Regulation for Vehicle Wash Facilities and Laundry Facilities” to conform to other agency general permit titles.
9VAC25-194-10. Definitions.		None	Added definitions for “Construction Equipment” as this has been questioned in the past.
9VAC25-		“Vehicle wash” is defined	The agency has determined that small

194-10. Definitions.		and boat washing is excluded from the definition.	recreational boats trailered by a passenger car or truck are acceptable for washing at a car wash business. It was determined that boats less the 8.6' beam and 25' in length would include most personal recreational boats that would be trailered by a passenger car or truck.
9VAC25-194-15. Applicability of incorporated references based on the dates that they became effective.		This section updates all Title 40 Code of Federal Regulations (CFR) within the document to be those published as of July 1, 2012. This is a recommendation from the DEQ Office of Policy so dates do not need to be added for each CFR reference.	Simplified this paragraph to match other general permits and changed the dates to July 1, 2016.
9VAC25-194-40. Effective date of the permit.		Effective dates of the permit are for the expiring permit term (2012 – 2017).	Effective dates updated throughout regulation (2017-2022).
9VAC25-194-50. Authorization to discharge. Subsections A and B.		Requirements are the same as the 2012 regulation.	Section reformatted to match other general permits.
9VAC25-194-50. Authorization to discharge. Subsection D.		Statement that compliance with the general permit constitutes compliance with other applicable laws and regulations.	Clarified that <i>"Compliance with this general permit constitutes compliance for purposes of enforcement with the federal Clean Water Act §§ 301, 302, 306, 307, 318, 403 and 405 (a) through (b), the State Water Control Law, and applicable regulations under either, with the exceptions stated in 9VAC25-31-60 of the VPDES Permit Regulation"</i> which better mirrors the language in the permit regulation at 9VAC25-31-60.
9VAC25-194-50. Authorization to discharge. Subsection E.		Allows for continuation of coverage after permit expiration if certain conditions are met.	Same conditions but the subsection is clarified and dates are updated to reflect the new permit term. This language is being updated with each reissued general permit so permittees can discharge legally and safely if the permit reissuance process is delayed.
9VAC25-194-60. Registration statement. Subdivision A.		Laundry facilities were required to register for coverage prior to September 16, 2012. This date was specified because the laundries were covered	Requirement not needed in 2017 reissuance. Laundries have been covered under the last 5 year reissuance and are on the same time table as the vehicle washes.

		in a different general permit with different due dates.	
9VAC25-194-60. Registration statement. Subdivision B.		Instructions for late registrations statement submittal.	Instructions not changed but paragraph is clarified and dates are updated.
9VAC25-194-60. Registration statement. Subdivision C.		Registration statement information includes the requirement to notify the owner of an MS4 within 30 days of coverage under the general permit.	Requirement changed so that the notification to the MS4 owner occurs at the time of registration under the permit and that notification must be included with the registration. This was added after TAC discussion that the localities would like to be notified before DEQ provides coverage so they may comment on the availability of central sewer connections.
9VAC25-194-70. General permit.		Cover page of permit states that the discharge shall be in accordance with the permit.	Added that the discharge shall be in accordance with the permit and accordance with the information submitted with the registration statement. Recognition of the registration in this statement is necessary because it contains the information on which we base the decision to allow coverage under the general permit. It emphasizes the importance of a representative registration statement. A similar statement is already included in VPDES individual permit cover pages.
9VAC25-194-70. General permit. Part I B 1.		Requires weekly inspections of the effluent and document inspections in an operational log.	Added more detail that the visual examination of the effluent include sheens, floating solids and foam. Plus added that the date, time and personnel must be noted in the log.
9VAC25-194-70. General permit. Part I B 2.		Requires that there is no discharge of floating solids or visible foam other than in trace amounts.	Added that the effluent shall be free of sheens. This is a common special condition for facilities that could have petroleum product in the discharge.
9VAC25-194-70. General permit. Part I B 7.		Prohibition to washing vehicles or containers bearing residue of animal manure or toxic chemicals <i>into the wastewater treatment system</i> is prohibited.	Clarified prohibition that washing of vehicles with animal manure or toxic residuals is prohibited under this permit; regardless of whether it goes to the vehicle wastewater treatment system, storm sewer or surface water.
9VAC25-194-70. General permit. Part I B 9.		Requirement for permittees that discharge into a MS4 must notify the MS4 owner of the existence of the discharge within 30 days of	Requirement changed so that the notification to the MS4 owner will occur at the time of registration under the permit. The notification will be submitted with the registration statement to DEQ. This was added after TAC discussion that the

		coverage.	localities would like to be notified before DEQ provides coverage so they may comment on the availability of central sewer connections.
9VAC25-194-70. General permit. Part I B 11.		Provides notification levels for toxic pollutants.	Clarified that the permittee shall notify the department if they exceed 100 µg/l or 500 µg/l <i>of the toxic pollutant</i> not limited in the permit. This is not a new condition, rather a clarification referring back to what is actually being measured (the toxic pollutant).
9VAC25-194-70. General permit. Part I B 12.		Requires an operation and maintenance (O&M) manual.	Provides same requirement but clarifies that the O&M manual is for the <u>vehicle wastewater</u> treatment works and that the operational log specified by Part I B 1 is part of the O&M manual.
9VAC25-194-70. General permit. Part I B 12 e.		No requirement for visual examination procedures.	Added a requirement for visual examination and maintenance required by Part I B 1 and example log sheets be included in O&M manual.
9VAC25-194-70. General permit. Part I B 13.		Provides quantification levels (QL) for the pollutants limited by the permit.	Provided a definition of QL and added that the QL must be less than or equal to the QL provided in the permit. These clarifications are in other VPDES permits.
9VAC25-194-70. General permit. Part I B 14.		Requirement that samples must be taken in accordance with 1VAC30-45, Certification for Noncommercial Environmental Laboratories, or 1VAC30-46, Accreditation for Commercial Environmental Laboratories.	Requirement moved to Part II A as this is a condition applicable to all permits.
9VAC25-194-70. General permit. Part II I.		Provides noncompliance reporting requirements and an online method to do 24 hour reporting.	Online web link updated.

**Request to Proceed to Public Hearing and Comment on Proposed Amendments to the Water Quality Standards Regulation (9VAC25-260): Bacteria, Ammonia, Cadmium and Human Health Criteria:** Subsequent to the Board’s January 14, 2016 meeting, at which time amendments to the Water Quality Standards Regulation resulting from Triennial Review were adopted, staff initiated a “follow-on” rulemaking to address several pending issues. All had been identified in the Triennial Review Notice of Intended Regulatory Action (NOIRA); therefore, the existing Regulatory Advisory Panel (RAP) was reconvened to consider the following:

- Revisions to bacteria criteria for human health protection in recreation waters;



- Updates to freshwater aquatic life criteria for ammonia, as well as implementation issues and impacts to regulated dischargers;
- Revisions to cadmium criteria for the protection of aquatic life; and,
- Amendments to 94 human health criteria.

The changes proposed for all these parameters were based on relatively recent national water quality criteria recommendations made by the U.S. Environmental Protection Agency (EPA). Staff will present findings and recommendations for approval by the Board that will allow a Notice of Public Comment to be issued, so that a formal review period can commence and comments submitted on the draft amendments for further consideration before final adoption.

**BACKGROUND AND ISSUES:** Over the course of the rulemaking to conduct the Water Quality Standards Triennial Review, there were several issues that generated significant public comment and concerns or lacked final EPA criteria recommendations and guidance. Specifically:

1. EPA’s October 2012 recommendations for revised **bacteria criteria** were directed at protecting human health in coastal recreational waters. Across the nation, “coastal” could include either fresh (e.g., Great Lakes states) or salt water locations (e.g., Virginia’s tidewater public beaches). Staff was concerned that EPA’s bacteria criteria included a provision that all monitoring data collected within a 30-day period should be used to generate a “geometric mean”; a value representing a type of average condition. For Virginia, this is appropriate where bacteria levels at public marine beaches are monitored weekly, so four observations are available to calculate this average (in accordance with the current bacteria criteria). However, all of Virginia’s surface waters are designated for primary contact recreation; therefore, only one observed value would represent the geometric mean for the vast majority of assessed waters because DEQ’s statewide monitoring program usually collects samples on a monthly cycle. This could lead to many “false-positive” results of an impaired condition with little or no additional human health protection, as well as unnecessary use of limited agency resources for TMDL and Watershed Implementation Plan development. It was decided to remove the bacteria criteria from Triennial Review until this concern was resolved. In October 2015, EPA issued a document entitled “*Narrative Justification for Longer Duration Period for Recreational Water Quality Criteria*”, in which a period of up to 90 days is allowed to represent an acceptable critical exposure period to protect recreational uses. With this change, DEQ will typically have three observations to calculate the geometric mean, which is an improvement and more representative of average conditions for the purpose of human health protection.

The following table details the existing bacteria criteria and EPA’s recommended revisions:

Criteria Elements	EPA Recomm. #1 (cfu/100 ml) Theoretical Illness Rate 36/1,000		EPA Recomm. #2 (cfu/100 ml) Theoretical Illness Rate 32/1,000	
	Geometric Mean (cfu/100 ml)	Statistical Threshold Value (cfu/100 ml) 10% exceedance	Geometric Mean (cfu/100 ml)	Statistical Threshold Value (cfu/100 ml) 10% exceedance
<b>Freshwater Indicator</b>				
<b>Current VA Criterion</b> E. coli	126	235	NA	NA
<b>EPA 2012 Criterion</b> E. coli	126	410	100	320
<b>Marine Water Indicator</b>				
<b>Current VA</b>	35	104	NA	NA

<b>Criterion</b> Enterococci				
<b>EPA 2012</b> <b>Criterion</b> Enterococci	35	130	30	110

EPA’s recommended criteria offers 2 options for intended level of acceptable risk; 36 theoretical illnesses per 1,000 exposed swimmers or the slightly more conservative 32 theoretical illnesses per 1,000 exposed. Both are acceptable to EPA as protective of primary contact recreation; the current geometric mean values for fresh and saltwater in the VA Water Quality Standards Regulation for bacteria are identical to the 36/1,000 illness rate values in the EPA 2012 update.

EPA recommends a geometric mean be calculated using any and all samples within a 90 day period. Virginia’s current criteria require a minimum of 4 weekly samples in a calendar month to generate a geometric mean. If there is not enough data to generate a geometric mean, only the Statistical Threshold Value is currently utilized for assessment purposes and 10% or less exceedance is assessed as meeting the recreational use.

The key issues discussed by the RAP regarding bacteria criteria were:

- Which assumed illness rate to base the criteria on? While the 32/1,000 rate is more conservative, EPA has taken the position that the 36/1000 rate is just as protective. The higher rate is the basis for all of DEQ’s existing water quality assessments for bacteria levels, impairment designations and restoration target levels for TMDL Implementation Plans. Some RAP members favored the more conservative 32/1,000 rate, but did not object to continued use of the 36/1,000 rate as the basis for the criteria. For consistency, staff will recommend that the 36/1,000 illness rate continue to be used in setting bacteria criteria.
  - Include BEACH Action Value (BAV) in Water Quality Standards Regulation (Regulation)? The current Regulation specifies 104 cfu/100 ml in marine waters as the threshold for advisories or closure notifications, issued by VA Health Department (VDH). This threshold is not strictly a water quality standard, and is actionable by VDH, not DEQ. Some RAP members preferred keeping the notification threshold in the Water Quality Standards Regulation, but did not object to dropping it if it was clearly stated that beach protection would still be maintained by VDH with clear reference to their beach monitoring program and statutory/regulatory authority to issue notifications. Therefore, staff will recommend that the BAV not be included in the Regulation, but a reference to VDH’s authority (in State Code, Title 32.1, Chap. 6, §32.1-241) to establish the BAV and make notifications based on that threshold should be included in the Regulation.
  - Should the revised bacteria criteria only apply to marine public beaches or to all surface waters statewide? EPA’s recommended criteria were intended for application to “coastal recreation waters”. However, all of Virginia’s surface waters are designated for primary contact recreation and the Regulation does not define “coastal recreation waters”. The RAP had consensus that the revised criteria should apply statewide. Staff will recommend that the Regulation should provide the same level of protection to all State waters, and for consistency the bacteria criteria revisions be applied statewide.
2. In August 2013, EPA issued revised, final water quality criteria recommendations for ammonia levels protective of aquatic life. The revised criteria are essentially twice as stringent as the existing criteria due to the inclusion of toxicity data for very sensitive species of mussels and snails. Based on data provided by the VA Department of Game and Inland Fisheries (DGIF), DEQ has determined that these freshwater mollusks are ubiquitous and present in virtually every location DGIF has surveyed for these organisms. Therefore, the impact to regulated dischargers would be felt statewide, and many comments and concerns were raised during the NOIRA comment period and RAP meetings about the cost to implement the revised criteria, especially for small facilities on headwater streams. An engineering report contracted by the VA Association of Municipal Wastewater Agencies gave figures of \$512 million in capital and \$34 million in annual

operations and maintenance costs to install and run the necessary treatment upgrades to meet the more stringent limits. The revised ammonia criteria were removed from Triennial Review so further discussion of these implementation concerns could take place, and hopefully form consensus on guidance or policy to aid in addressing the potential impacts. It is important to note that no public comments were received on the technical basis for the more stringent ammonia criteria.

Virginia's current water quality standards for ammonia are dependent on pH, as well as the presence or absence of sensitive trout or early life stages of other fish; therefore, ranges of acute and chronic criteria are given for both fresh and saltwater and cannot be displayed in a single table. All combinations of these factors are accounted for in the full text of the proposed amendments.

Ammonia is a common pollutant in the effluent of municipal wastewater plants and some types of industrial discharges, unless the facility is using full nitrification processes to convert all the ammonia to nitrate. It is reasonable to conclude that permitted dischargers statewide will be affected by the proposed changes, some more than others due to the fact that they may not currently have ammonia limits and lack treatment controls, are smaller facilities (with limited user bases to fund improvements), or located on headwater streams with little assimilative capacity.

The key issues discussed by the RAP regarding ammonia criteria were:

- How to provide relief to permitted dischargers for the estimated costs of capital upgrades and annual O&M? While staff is sympathetic to the potential economic impacts that some dischargers may experience due to implementation of more stringent ammonia criteria, strictly speaking the adoption of water quality standards is to be based solely on the needs for the protection of designated uses. EPA guidance for implementing water quality criteria stresses use of scientific assessment of ecological and human health effects as the basis for controlling discharges or releases of pollutants (EPA 822-B-01-012; Dec. 2001). Such criteria are protective, but do not consider treatment technology, costs, and other feasibility factors (EPA 823-B-94-005a; Aug. 1994). Impacts due to costs are to be considered after the establishment of the criteria, with potential relief offered through a number of options, including the adoption of variances, revised designated uses or performing a Use Attainability Analysis that could demonstrate widespread socio-economic impact resulting from criteria implementation. DEQ cannot advocate for State cost-share to offset the cost of upgrades; it would be incumbent on the affected dischargers to request that financial assistance be made available through programs such as the Water Quality Improvement Fund or other sources. It was noted during the RAP process that a discharger may perform a survey to determine the absence of the sensitive mussels in their receiving waters, and have their limits recalculated without that species in the toxicity database. This is a potential outcome for facilities on small, headwater streams that may not have the habitat necessary to support the sensitive species.
- Where the State may be able to offer some relief is in establishing compliance schedules that provide the time necessary for upgrades to be completed, which currently is restricted to the duration of a discharge permit (5 years) per the VPDES Permit Regulation (9 VAC 25-31). Staff drafted "Strawman" language for consideration by the RAP that would allow, in the Water Quality Standards Regulation, for compliance schedules longer than 5 years with these provisions:
  - Preserves the statutory and regulatory requirement that compliance be achieved "as soon as possible". EPA regulations do not limit compliance schedules to the term of a discharge permit and this "Strawman" language is consistent with the federal requirement.
  - Specific only to the implementation of new or more restrictive ammonia criteria.
  - Applicable only to reissuance of individual discharge permits; not allowed for new discharges.
  - On a case-by-case basis, may be justified considering factors such as, but not limited to:
    - § Opportunities to minimize costs for multi-purpose, phased projects
    - § Time needed for freshwater mussel surveys
    - § Other relevant factors

- Establishes interim deadlines and reported requirements.

Some RAP members, especially environmental group and citizen organization representatives, preferred keeping the current 5-year limitation for compliance schedules, which they assume ensures a “date-certain” completion of needed upgrades. In the experience of DEQ staff, there are many instances where retrofit projects to meet more stringent treatment requirements have taken longer than 5 years because additional time is needed to develop capital improvement plans and secure financing, as well as plan, design and construct the upgrade. Other RAP members, particularly representatives of the regulated community, saw the “Strawman” as a reasonable relief measure that simply conforms State regulation to federal requirements. Staff will recommend that the “Strawman” language for extended compliance schedules, applicable to implementation of the updated ammonia criteria, be included in the proposed amendments.

3. In April 2016, EPA issued revised, final water quality criteria recommendations for cadmium levels protective of aquatic life. DEQ staff had originally included cadmium in the list of parameters to consider during Triennial Review with the expectation that EPA’s revised criteria recommendations were imminent in 2015. Due to the delayed release of these criteria, cadmium was removed from the Triennial Review rulemaking, but has now been considered in the follow-up rulemaking.

The following table details Virginia’s existing cadmium criteria and EPA’s recommended revisions (concentrations of the dissolved, bio-available fraction; assumed hardness = 100):

		Acute (ug/l)	Chronic (ug/l)
Freshwater	Current VA Criterion	3.9	1.1
	<i>EPA 2016 Criterion</i>	<i>1.8</i>	<i>0.72</i>
Marine Water	Current VA Criterion	40	8.8
	<i>EPA 2016 Criterion</i>	<i>33</i>	<i>7.9</i>

One issue discussed with the RAP was the potential to express another version of the criteria, without including rainbow trout in the toxicity database as EPA did when deriving their recommended freshwater values. The Regulation identifies certain Virginia waters as stockable or natural trout waters, but the majority of Virginia’s surface waters are not so designated. If rainbow trout are absent, the freshwater acute criterion would be slightly less stringent (2.7 ug/l); the chronic value is unchanged. However, the agency’s past policy has been to not perform this type of additional analysis for the adoption of metals criteria in the Regulation because keeping the rainbow trout data in the toxicity database provides additional protection for non-tested species that may be as, or more sensitive. Some members of the RAP, particularly representatives of the regulated community, favored inclusion of the “trout absent” criteria with application outside all identified trout waters. Others, especially environmental groups and natural resource agencies, preferred leaving the “trout absent” criteria out of the Regulation. For consistency and the reasonable added protection for other species, staff will recommend that the cadmium criteria be proposed at the levels recommended by EPA, without a separate “rainbow trout absent” criterion.

4. Eight human health parameters were included in the Triennial Review rulemaking and staff was working to include them in the recommended final amendments to the Regulation presented to the Board in January 2016. However, before that could occur, in June 2015 EPA published revised recommendations for ninety-four human health criteria, which included further changes to the eight already under consideration. There was insufficient time to consider the new information for the original eight parameters, and the agency decided to address all ninety-four in the same rulemaking. Therefore, the original eight parameters were removed from the Triennial Review rulemaking and have now been considered in this more inclusive follow-up rulemaking.

The updated recommendations for these 94 human health parameters reflect the latest scientific information and EPA policies, including updated exposure factors (body weight, drinking water consumption rates, fish consumption rate), bioaccumulation factors, toxicity factors (reference dose, cancer slope factor), and relative source contributions.

Due to the large number of parameters involved, a summary is provided below of the potential changes to the criteria for the affected 94 parameters.

- Each has two criteria (public water supply and non-water supply) for a total of 188 individual criteria concentrations.
- 127 of these would become more stringent
- 57 would become less stringent
- 2 would be unchanged
- 2 are new additions; did not have criteria in the current Regulation

The key issues discussed by the RAP regarding human health criteria were:

- Accept EPA’s Relative Source Contribution (RSC) factor (20% in most cases), propose an alternate when data supports it, or don’t apply the RSC? EPA has included use of the RSC in their “*Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health*” since first published in 2000. EPA has used this methodology for a few criteria that they developed after 2000, but this is the first time the RSC has been broadly applied to update the majority of the criteria. This RSC is included in the calculation of the criteria for non-carcinogens (45 of the 94 chemicals), but not the carcinogens. Several RAP members objected to the 20% RSC factor being applied to the criteria for non-carcinogens. This RSC essentially allocates only 20% of the allowable human exposure to chemical pollutants from fish consumption and drinking water (in a public water supply). This means that compared to previous criteria, where all of the potential exposure to humans would be from contaminated fish or drinking water, the new criteria concentrations are now only 20% (in most cases) of the previous value because EPA is allocating the other 80% of the allowable exposure to be from other sources, such as other commercial fish, other foods, air, industrial or home or office exposure. The rationale for this approach according to EPA is that the objective of the water quality criteria is to ensure that an individual’s total exposure from all sources does not exceed the threshold of total allowable exposure to the chemical. While staff recognizes and shares some of the concerns about this issue, there is no practical way of proposing alternate criteria based on new science that would be considered approvable by EPA; Virginia has done no additional research (nor has the resources to) in support of an alternative RSC factor.

While the RSC value applied may seem arbitrary and capricious to some, EPA updated the human health criteria to reflect chemical-specific relative source contributions (RSC) ranging from 20 to 80 percent following the Exposure Decision Tree approach described in EPA’s methodology (USEPA 2000). Because EPA proposed these updated criteria to the public and requested comments, it is EPA’s view that these criteria have undergone review on a national level and no additional facts have been presented that indicate any other alternate estimates for different exposure assumptions would be appropriate for these chemicals. The chemical industry did not present any convincing evidence to EPA for alternate exposure assumptions. RAP members representing the regulated dischargers held to their opinion that use of the 20% RSC was arbitrary, unnecessarily and overly conservative, and that either no RSC or 80% be used (the value appearing to be supportable in most cases where there are relevant data). However, this issue is now nationally established EPA policy and it is unlikely alternative criteria would be approved if based on different RSC values without thorough, scientific supporting justification. Therefore, staff will recommend that amended criteria for the 94 updated human health parameters be proposed at the levels recommended by EPA.

- In EPA’s recommended criteria, benzene is expressed as a range of values. Virginia cannot adopt a range as a Water Quality Standard. The current benzene criteria and EPA’s recommended ranges are as follows:

Potable Water Supply	All Other Waters
----------------------	------------------

		(ug/l)	(ug/l)
<b>Benzene</b>	<b>Current VA Criterion</b>	22	510
	<b>EPA 2015 Criterion</b>	5.8 - 21	160 - 580

It was suggested during the RAP process by the Virginia Department of Health representative that the Maximum Contaminant Level applicable to drinking water (5 ug/l) be used as a guide for recommended criteria. Use of conservative stringent criteria, at the lower end of the ranges for both “PWS” and “All Other Waters”, would provide human health protection in cases where drinking water treatment typically does not remove volatile organics. Review of water quality monitoring data since 1998 shows few observations of benzene above detection levels, and usually only in connection with a pollution incident. An analysis of discharge data was done for facilities covered by individual permits as well as General Permits; very few effluent discharges contain benzene and only in concentrations below 5 ug/L. It is staff’s belief that this is evidence that benzene is not a widespread issue and any elevated levels of benzene discharges are more likely to be an atypical event, and uncharacteristic of normal discharge patterns. Because the criteria at the lower end of EPA’s recommended ranges represented a balanced approach between human health protection (supported by EPA toxicity data) and feasibility to implement without significant impact on regulated dischargers, the RAP appeared to reach consensus on the values discussed. Therefore, staff will recommend that stringent criteria, at the lower end of EPA’s recommended ranges for benzene, be proposed for PWS at 5.8 ug/l, and for “All Other Waters” at 160 ug/l.

**Consideration of Petition to Designate a Portion of Laurel Fork as Exceptional State Waters:** Staff intends to ask the Board at their December 12, 2016 meeting for a decision on whether or not to initiate a rulemaking to amend the Water Quality Standards Regulation, designating a segment of Laurel Fork in Highland County as Exceptional State Waters (ESW). Staff has conducted a site visit and concluded that Laurel Fork would likely meet the required eligibility criteria necessary for consideration of an Exceptional State Waters designation.

Riparian landowners were afforded a 30-day comment period (September 26 – October 26) and the locality a 60-day comment period (September 25 – November 25). A general public notice was published in the Virginia Register on October 17 with a comment period ending on November 7, 2016. Three comments were received during the public review period. Two opposed the designation, primarily due to the inclusion of a short length of the stream bordering on the property of a second land owner and any potential negative impacts the designation may have on planned wind farm construction or maintenance activities and/or timber harvesting. One comment was received in support of the petition stating the need to protect the beauty, biological integrity, and the unique ecology and its associated endemic species as reasons.

Background: At the September 22, 2016 meeting of the State Water Control Board, staff presented to the Board a petition from McChesney Goodall, IV to designate Laurel Fork in Highland County, from approximately 0.33 miles upstream of the confluence with Collins Run (N38.490051, W79.666039) downstream to a point approximately 0.5 miles upstream from the confluence of Mullenax Run (N38.508322, W79.652757). Laurel Fork is a relatively small mountain stream in Highland County located approximately 10 miles northwest of Monterey and is in the South Branch of the South Fork Potomac River watershed portion of the Potomac River basin. At the September meeting, the Board directed staff to:

1. Proceed with notification to Highland County, and riparian landowners who would be potentially impacted by an Exceptional State Water designation of a portion of Laurel Fork and to provide these potentially impacted parties a 60-day opportunity for comment.
2. Publish in the Virginia Register the required notice of a 21-day comment period for the general public, and
3. Appear before the Board after the close of the comment periods to provide a summary of the comments and the results of the staff site visit so that the Board can decide at that time what course of action to take on the petition.

“Tier 3” is how the public commonly refers to those waters that are protected from water quality degradation through a prohibition on new or increased point source discharges. The equivalent regulatory terms are “Outstanding National Resource Waters” for EPA and “Exceptional State Waters” for Virginia.

Staff Site Visit: DEQ guidance for the exceptional state waters program requires a staff site visit to the nominated waterbody for confirmation that the candidate water meets the Exceptional State Waters (ESW or Tier 3), eligibility criteria. The nominated water body must exhibit an exceptional environmental setting **and** either support an exceptional aquatic community **or** support exceptional recreational opportunities which do not require modification of the existing natural setting.

The staff site visit report presents staff findings from an October 7, 2016 site visit to the petitioned segment of Laurel Fork. The staff site visit report also contains photographs of the segment of the waterbody under consideration. The staff member that conducted the site visit is of the opinion that the segment would likely meet the criteria necessary to be considered for an ESW designation due to the exceptional environmental setting and exceptional aquatic community. In addition, the environment associated with the stream is home to a diverse collection of State rare flora and fauna. Staff that conducted the site visit remarked that the segment was very similar in appearance to a segment farther downstream within the George Washington National Forest that was designated as ESW in 2005.

Most all other existing Tier 3 waters have exceptional recreational components that are directly related to the waterbody such as canoeing/kayaking, rafting, and/or possess an outstanding native trout or other recreational sport fishery. Laurel Fork does not easily lend itself to these types of activities due to being surrounded by private property. Legal access for the general public would be through permission granted by the landowner(s).

This segment of Laurel Fork has been assessed as supporting all designated uses. Laurel Fork is classified by the VA Department of Game and Inland Fisheries as Class ii wild natural trout waters and is considered a good wild trout stream with good habitat, flow, and temperature for a self-sustaining brook trout population. Given the high-quality habitat demands for brook trout, staff are of the opinion Laurel Fork possesses an outstanding aquatic community.

In summary, it may be interpreted that Laurel Fork meets eligibility criteria necessary for designation consideration due to the environmental setting factors outlined above and the aquatic community.

Summary of Comments: The Code of Virginia, section 62.1-44.15:4(B), requires the Board to provide written notification of Exceptional State Waters petitions to each locality in which the waterway lies and to make a good faith effort to provide notice to impacted riparian property owners. The riparian property owners' notices are sent to names and addresses taken from local tax rolls provided by the Commissioners of the Revenue or the tax assessor's office of the affected jurisdictions at the request of the Board. A letter of notification and request for comment was sent to the potentially impacted localities and riparian landowners. Riparian landowners were afforded a 30-day comment period (September 26 – October 26) and the locality a 60-day comment period (September 25 – November 25). A general public notice was published in the Virginia Register on October 17, 2016 with a comment period ending on November 7, 2016. Three comments were received during the public review period.

Opposing comment was received from one riparian landowner (Tamarack of Highland, LLC) and from a company leasing land from Tamarack with expectations of constructing a wind farm for electricity generation (Highland New Wind Development, LLC). Both commenters object to the petition to the extent that the petition includes property that is part of Tamarack and their concern that there may be potential negative impacts from the ESW designation to future development of electricity generating wind farm and timbering operations.

Three comments were received in support of the petition stating the need to protect the beauty, biological integrity, and the unique ecology and its associated endemic species as reasons.

**REPORT ON FACILITIES IN SIGNIFICANT NONCOMPLIANCE:** One new permittee was reported to EPA on the Quarterly Noncompliance Report (QNCR) as being in significant noncompliance (SNC) for the quarter ending March 31, 2016. The permittee, the facility and the reported instances of noncompliance are as follows:

1. Permittee/Facility: City of Franklin

Type of Noncompliance: Failure to Demonstrate Compliance with Permit Effluent Limit (Total Recoverable Silver Concentration Average)

City/County: Franklin, Virginia

Receiving Water: Blackwater River

Impaired Water: The Blackwater River aquatic life use is impaired due to an inadequate benthic community, caused by unknown pollutant sources. The fish consumption use is impaired due to the presence of mercury, originating from atmospheric deposition and unknown sources, in fish tissue. The recreation use is impaired due to the presence of E. coli bacteria from unknown sources.

River Basin: Chowan and Dismal Swamp

Dates of Noncompliance: December 2015 and March 2016 quarters (Note: There was also a failed demonstration for the June 2016 quarter.)

Requirements Contained In: VPDES Permit No. VA0023922

DEQ Region: Tidewater Regional Office

The City's commercial laboratory failed to use test methods sensitive enough to detect compliance with permit limits. The City has since changed to a lab using more sensitive test methods. No violations of silver concentration limits were reported for the September 2016 quarter. It appears that the matter has been resolved without need for formal enforcement action however staff of the Department's Tidewater Regional Office are monitoring the City's permit performance to ensure that compliance issues have been fully addressed.

Two new permittees were reported to EPA on the QNCR as being in SNC for the quarter ending June 30, 2016. The permittees, the facilities and the reported instances of noncompliance are as follows:

2. Permittee/Facility: Greenville County, Three Creek Sewage Treatment Plant

Type of Noncompliance: Failure to Comply with Interim Effluent Limits (Total Recoverable Copper Monthly and Weekly Average Concentrations)

City/County: Emporia, Virginia

Receiving Water: Three Creek

Impaired Water: Three Creek's aquatic life use is impaired due to an inadequate benthic community, caused by unknown pollutant sources.

River Basin: Chowan and Dismal Swamp

Dates of Noncompliance: May 2016

Requirements Contained In: Consent Special Order

DEQ Region: Piedmont Regional Office

The violation at the sewage treatment plant was caused by aeration valve issues. The County responded to the violation by installing new valves. There have been no further violations of the interim copper limits. The County has completed a water effects ratio study that provides the justification necessary to revise the Permit's copper limits, which will occur when the Permit is reissued in August 2017. Copper limits in the reissued Permit should encompass the order's interim limits and allow the order to be cancelled. Because a single violation of a Permit effluent limitation would neither result in an SNC designation, nor a referral for enforcement action, staff of the Department's Piedmont Regional Office do not anticipate the need for further activity in this case.

3. Permittee/Facility: Dupont Teijin Films U.S. Limited Partnership,

Dupont Hopewell Wastewater Treatment Plant

Type of Noncompliance: Failure to Demonstrate Compliance with Permit Effluent Limit (Biochemical Oxygen Demand)

City/County: Hopewell, Virginia

Receiving Water: James River

Impaired Water: The James River's aquatic life use is impaired due to inadequate submerged aquatic vegetation, chlorophyll a exceedances and an altered benthic community. The recreation use is impaired due to the presence of E. coli. The fish consumption and public water supply uses are impaired due to PCBs in the water column. The sources of the impairments are unknown.

River Basin: James River

Dates of Noncompliance: January and April 2016

Requirements Contained In: VPDES Permit No. VA0003077

DEQ Region: Piedmont Regional Office

The violations at the wastewater treatment plant were the result of the failure of Dupont's contract laboratory to use the proper dilution range to analyze the company's wastewater samples. Staff of the Department's Piedmont Regional Office have prepared a Consent Special Order requiring that Dupont document instructions to its laboratory regarding proper sampling techniques and assessing a \$28,000 civil charge. Recently Dupont indicated that there may be in-house sampling issues at the facility. Department staff are performing an in-depth review of Dupont's



sampling and facility operational data to ensure that there are no other sampling or operational issues that need to be addressed by the proposed Order, prior to forwarding the Order to Dupont for signature.

**Allied Aviation Fueling of National Airport, Inc., Consent Special Order w/ Civil Charges:** Allied Aviation Fueling of National Airport, Inc. (Allied) operates six aboveground storage tanks (ASTs) with a total capacity of 3,427,335 gallons of jet fuel at Ronald Reagan Washington National Airport (Airport). The ASTs are filled via a six-inch pipeline operated by Plantation Pipeline Company (Plantation). An Oil Water Separator (OWS) located at the tank farm is used to remove petroleum products from storm water discharged to the storm sewer system.

- Allied informed DEQ that on October 28, 2015, at 0750 hours, the fuel farm began receiving fuel from Plantation. At 1158 hours on October 28, 2015, the Plant Operator received an audible alarm and computer screen warning that product was accumulating in the Product Reclaim Tank. The Operator acknowledged the alarm, checked the computer for the status of the valves and made preliminary observations. The Operator did not observe anything out of order during his observations. The alarm was not reported to other Allied personnel. At 0159 hours on October 29, 2015, the receipt of fuel was complete.
- On October 29, 2015, at 0200 hours Allied Aviation personnel discovered the presence of fuel at the tank farm. It is believed the discharge was the result of a discharge valve on a pressurized filter vessel pipe not being fully closed. The discharge was initially believed to be contained to the tank farm area, and estimated to be 40 gallons. At the time of the discharge, the area was experiencing rainfall. The tank farm supervisor was notified of this incident. This incident was reported to the VDEM-EOC and DEQ received notification of the aviation fuel discharge at 1230 hours on October 29, 2015.
- On October 29, 2015, at approximately 2100 hours, the VDEM-EOC received a citizen call of strong petroleum odors in the vicinity of Four Mile Run and the US Route 1 crossing. Alexandria City Fire Department and the MWAA Fire Department were dispatched to the area. MWAA located free product on surface water at Outfall 018. Outfall 018 is just south of the Allied Aviation fuel farm.
- At 0314 hours on October 30, 2015, Allied Aviation reported to the National Response Center that a discharge of aviation fuel to a storm drain at the fuel farm and into the Potomac River had occurred. The reported volume was 7,500 – 9,000 gallons of jet fuel. Allied indicated that a remedial contractor had been hired to begin remediation of the discharged jet fuel.
- DEQ staff arrived at the incident scene at approximately 0630 hours on October 30, 2016. Outfall 018 was inspected and floating oil was observed on the water in the vicinity of the outfall. The outfall area had been boomed to contain further discharge into the Potomac River. The Allied remediation contractor was onsite proceeding with spill remediation.
- Further follow-up and investigation by DEQ staff on October 30 & 31 and information provided to DEQ by Allied in its Initial Abatement Report (IAR), indicate a valve on a pressurized filter vessel pipe was not fully closed. Product passing through the not fully closed hand valve entered a drain that gravity feeds to the Product Reclaim Tank. The Product Reclaim Tank filled to capacity and filled the piping leading to the drain. The drain began to overflow onto the concrete pad for the tank farm. The overflowing fuel sheet flowed across the concrete and entered a trench drain which flows to an oil/water separator. It is likely the separator filled up and allowed aviation fuel to enter the storm water collection system. The aviation fuel then discharged through Outfall 018 and into the Potomac River.
- The IAR was submitted to DEQ on December 5, 2015, on behalf of Allied Aviation. The initial report indicated 13,620 gallons of aviation fuel was discharged during pipeline filling operations, a portion of which entered the storm drain system leading to the Potomac River via Outfall 018. Allied initially estimated that approximately 11,899 gallons of fuel had been recovered. The recovered fuel and water was containerized onsite pending analysis for reclamation and or disposal. The area around Outfall 18 has been monitored daily since the discharge, and the sorbent booms placed around the Outfall are being changed and maintained on a regular basis.
- Allied also proposed in the IAR corrective action to prevent a similar occurrence in the future. Corrective action measures already taken include the installation of a storm drain plug in the OWS system to prevent any further discharge to the storm sewer system until a more complete engineering study can be completed to assess the OWS, and replacement of the manual sump drain valve which was responsible for the discharge with a spring loaded, normally closed valve. Allied is also in the process of implementing revised and enhanced safety and emergency response training for the tank farm facility's new hires as well as additional training for current employees, and additional emergency response resources are being placed on retainer to provide more flexibility during an accident.

- Notice of Violation 2015-12-N-001 was issued to Allied on December 8, 2015, for the prohibited discharge of oil to state land and storm drain systems.
- DEQ staff met with representatives of Allied on January 21, 2016, to discuss the discharge, emergency response, containment and clean-up, and corrective action. Allied subsequently submitted a Site Characterization Report (SCR) to DEQ dated January 28, 2016. The SCR noted that residual petroleum hydrocarbon (PHC)-impacted sediments have been documented in the storm water line leading from the Allied Fuel Farm Facility to Outfall 018. Air monitoring conducted during the initial response documented the accumulation of vapor in the storm water line and not in adjacent buildings. Subsequent monitoring indicates no petroleum vapors in the storm sewer or nearby buildings.

Groundwater monitoring and observations completed during the month of December 2015 documented the absence of free product on the groundwater near the site.

The SCR states that based on the result of Allied's characterization activities and risk exposure assessment, cleaning the storm water line and disposing of the sediment in the area adjacent to Outfall 018 is recommended. DEQ requested a Corrective Action Plan (CAP).

- A Corrective Action Plan (CAP) was received by DEQ on March 10, 2016, and approved May 12, 2016. The CAP was developed to provide a methodology for cleaning the storm water line leading to Outfall 018 and establish remedial end-points. Allied has notified DEQ that the storm water line was cleaned out in May 2016, and that it continues to monitor Outfall 018 at least once a day and submit reports on a regular basis.
- On September 8, 2016, DEQ received additional documentation from Allied to support a revision to the total volume of the discharge of aviation fuel that occurred. Initially, Allied had reported to DEQ that 13,620 gallons of aviation fuel had been discharged. The September 8, 2016, submittal noted that 4,075 gallons of the 13,620 gallons were recovered from the Product Reclaim Tank at the facility which forms part of the secondary containment system at the fuel facility. Therefore, DEQ concurred that a total of 9,545 gallons of fuel was discharged.

Appendix A of the Consent Order (Order) requires Allied to comply with the CAP and CAP approval letter dated May 12, 2016, and submit a report to DEQ for review that identifies the changes/improvements that Allied has implemented at the facility to ensure that future prohibited discharges do not occur. Allied has informed DEQ that it has spent in excess of \$500,000.00 on remediation, clean-up, and corrective activities; including installation of new valves, piping and control pumps for the inlet piping and OWS, the adoption of enhanced operating procedures, and the re-training of personnel. Civil Charge: \$81,113.41. Investigative Cost Recovery: \$2,413.08.

### **Virginia Electric and Power Company (Dominion) - Consent Special Order w/ Civil Charges and implementation of a Corrective Action Plan:**

*West Staunton Substation:* On January 6, 2016, Dominion notified DEQ that approximately 9,000 gallons of non-PCB mineral oil had been discharged from a transformer at the West Staunton Substation. A portion of the oil entered an unnamed tributary of Bell Creek (a state water), and also flowed into a farm pond. Containment and cleanup efforts were immediately initiated. Response efforts contained the mineral oil to the upstream half of the farm pond. On February 22, 2016, Dominion's investigation revealed that much of the mineral oil remained within the Substation fence line, which has a gravel base. Some of the mineral oil exited the Substation fence line across approximately 50 feet of agricultural field and entered an intermittent, unnamed tributary to Bell Creek. The tributary flows for approximately 100 feet into a farm pond. DEQ determined that the discharge resulted in impacts to an unnamed tributary to Bell Creek, a neighboring property, and an agricultural farm pond.

*Crystal City Substation:* On January 24, 2016, Dominion notified DEQ that approximately 13,500 gallons of non-PCB mineral oil had been discharged from a transformer at the Crystal City Substation.

On February 3, 2016, oil was observed in Roaches Run (a state water), the Roaches Run Waterfowl Sanctuary and subsequently in a storm drain system. On February 26, 2016, Dominion submitted an initial abatement report. On August 31, 2016, Dominion submitted a Site Characterization Report. Dominion's investigation revealed that, although a majority of the oil was either contained in an underground vault system or underground electrical troughs for the transformer, these areas were not sealed. The absence of sealing may have acted as the pathway outside of the substations, resulting in a discharge to lands, storm drain systems, and state waters. DEQ determined that the discharge resulted in impacts to Roaches Run, storm drain systems, and impacts to birds and other wildlife.

Dominion has reported that 8,900 gallons of oil were recovered in Augusta, and 11,120 gallons were recovered in Arlington. Dominion has spent approximately \$1.5 million and \$4.2 for response, remediation and restoration at the

West Staunton and Crystal City substations, respectively. These totals do not include equipment costs for the replacement transformers. In collaboration with other natural resource trustees, DEQ also will continue to participate and promote assessment and recovery for damage to natural resources resulting from the discharge. As part of ongoing corrective actions measures, monitoring well sampling will continue to occur at the Crystal City Substation between October 15 and October 31, 2016 and between January 15 and January 31, 2017. Results will be reported in a brief Post-Site Characterization Monitoring Report. At the West Staunton Substation, Dominion shall continue to exclude cattle from the excavated area and re-seed in order to establish a permanent vegetative cover. Civil Charge: \$259,535. Investigative Costs Reimbursement: \$5,882. 80.

**FY 2017 Virginia Clean Water Revolving Loan Fund Final Authorizations:** At its September 2016 meeting, the Board targeted 26 projects totaling \$131,234,635 in loan assistance from available and anticipated FY 2017 resources and authorized the staff to present the proposed funding list for public comment. A public meeting was convened on October 24th. Notice of the meeting was posted on the Virginia Regulatory Town Hall, the DEQ public calendar, and DEQ's Clean Water Financing and Assistance Program website.

Comments were received from the City of Martinsville regarding the Henry County Public Service Authority project, which involves reactivation of the County's Lower Smith River Wastewater Treatment Plant (WWTP). The City's comments reference a regional cooperation agreement between the two jurisdictions that has been in place since 1974, that the County mothballed the Lower Smith WWTP and currently all wastewater in the area goes to the City's system for treatment. They stated that only 40% of the City's WWTP capacity is currently being utilized, and that the County's project would be unnecessary and redundant, located next to a state scenic river, counter to the Commonwealth's policy of encouraging regional solutions to water and wastewater challenges, and a wasteful and irresponsible use of public funds. The City also noted that the project would be financially detrimental to the City in that it would result in annual net lost revenues of \$500,000 to \$600,000 to the City.

Discussion: The staff has conducted initial meetings with the FY 2017 targeted recipients and has finalized the recommended loan amounts, interest rates and loan terms in accordance with the Board's guidelines. There are a few changes from the previously approved list. At the applicants' request, the loan amount for the Wise County Public Service Authority project has been increased (from \$531,127 to \$1,399,034), two of the Hampton Roads Sanitation District (HRSD) projects (totaling \$3,905,811) have been removed, and the loan amount for one of the other HRSD projects has been increased (from \$47,885,843 to \$51,385,843). Therefore the 2017 funding list being recommended for final authorization includes 24 projects at a total amount of \$131,696,731.

The staff has evaluated the comments from the City of Martinsville and is still recommending that the Henry County PSA project be authorized for funding. While DEQ would greatly prefer that the County and City work together to implement the most cost effective regional solution for providing wastewater services to the area, we do not believe it is appropriate for the Board to take any actions that would favor one locality over another. DEQ and the Board do not have the responsibility or the authority to intervene in issues regarding regional agreements between local jurisdictions.

At the September meeting, the Board expressed concerns about approving a loan to the City of Petersburg because of the City's financial difficulties, including their recent inability to pay for the wastewater services provided to the City by the South Central Wastewater Authority. The Board agreed that they would approve including Petersburg on the recommended funding list subject to the staff obtaining information from the Virginia Resources Authority (VRA) regarding VRA's financial analysis of a loan to the City. Because VRA holds five separate City of Petersburg bond issues (all of which are current), they have been closely monitoring the City's financial and budgetary challenges. VRA's financial review of the City of Petersburg would include a discussion of the fiscal year 2017 budget to make sure it is achievable. Prior to any closing with the City, the short-term liquidity needs would need to be addressed, a convincing long-term plan would need to be adopted by the City council, and City administration would need to be in place to execute the plan. Unquestionably, the lawsuit filed by the South Central Wastewater Authority would need to be resolved. The DEQ staff believes that the City of Petersburg application is for a good water quality project and recommends that the Board continue to include the Petersburg project on the project funding list, which is subject to receipt of a favorable financial capability analysis report and supporting recommendation from VRA.

The loan terms listed below are submitted for Board consideration. In accordance with Board guidelines, a residential user charge impact analysis was conducted for each wastewater project. This analysis determines the anticipated user charges as a result of the project relative to the affordable rate as a percentage of the applicant's median household income. Projects involving higher user charges relative to community income generally receive lower interest rates than those with relatively lower user charges. In accordance with Board Guidelines, the interest rate for living shoreline projects involving local governments developing local programs for individuals is 0% with a loan term that matches the terms of the local plan.

In order to attract and accommodate a larger number of localities and projects to the Program, we are recommending revisions to the ceiling rates and terms offered to borrowers whose project type or impact to user rates results in a ceiling rate based on Board Guidelines. Based on consultation with the Virginia Resources Authority (VRA), we are proposing that the ceiling rate calculation vary depending on the term of the loan such that 20 year ceiling loan rates are set at 1.5% below the market (current practice), 25 year ceiling loan rates be 1.25 % below market, and 30 year ceiling loan rates be 1.0% below market. Market rates would be based on VRA's evaluation of the market conditions that exist the month prior to each loan closing. For projects such as wastewater treatment plants and pump stations that involve significant mechanical equipment, the maximum loan term would be 25 years whereas projects that primarily involve wastewater conveyance piping installation or improvements could be up to 30 years. This revised process is being recommended in order to provide an option to localities that want to borrow for longer terms while protecting the long term viability of the Fund.

Since the Board's September meeting, Congress has still not finalized the federal SRF appropriation for FY 2017. As such, we are unsure as to the amount, if any, that could be made available as principal forgiveness in FY 2017. The staff will analyze the projects with regard to the program's hardship affordability criteria and will be prepared to work with the Director on providing principal forgiveness to some projects as allowed by previous delegations if it is provided for by the appropriation.

#### **FY 2017 Proposed Interest Rates and Loan Authorizations**

	<i>Locality</i>	<i>Loan Amount</i>	<i>Rates &amp; Loan Terms</i>
1	Town of Virgilina	\$310,045	0%, 20 years
2	City of Norfolk	\$10,000,000	0%, 20 years
3	Wise County PSA	\$1,399,034	0%, 20 years
4	Town of Wytheville	\$1,222,000	0%, 20 years
5	Town of Clifton Forge	\$1,349,739	0%, 20 years
6	City of Richmond	\$2,696,622	0%, 20 years
7	Hampton Roads Sanitation District	\$1,201,200	CRT
8	Town of Pennington Gap	\$1,652,791	0%, 20 years
9	City of Covington	\$498,000	0%, 20 years
10	Town of Marion	\$346,300	CRT
11	City of Petersburg	\$750,000	0%, 20 years
12	Hampton Roads Sanitation District	\$7,338,652	CRT
13	Hampton Roads Sanitation District	\$3,534,541	CRT
14	Hampton Roads Sanitation District	\$1,315,241	CRT
15	Henry County PSA	\$23,659,400	CRT
16	Hampton Roads Sanitation District	\$2,334,378	CRT
17	Alexandria Sanitation Authority	\$2,200,000	CRT
18	Town of Gate City	\$1,726,278	0%, 20 years
19	City of Martinsville	\$3,425,000	CRT
20	Hampton Roads Sanitation District	\$51,385,843	CRT
21	Hampton Roads Sanitation District	\$6,094,306	CRT

22	Harrisonburg/Rockingham RSA	\$2,700,000	CRT
23	City of Richmond (stormwater)	\$4,307,361	0%, 20 years
24	Middle Peninsula PDC (living shorelines)	\$250,000	0%, 15 years
<b>Total Request</b>		<b>\$131,696,731</b>	<b>CR= Ceiling Rate/Term</b>

**Approval of Revised Stormwater Local Assistance Fund (SLAF) Guidelines:** DEQ has been administering the Stormwater Local Assistance Fund (SLAF) for the last three years, authorizing approximately 150 capital projects totaling \$60 million in funding to date. The Virginia General Assembly recently amended the code to expand SLAF eligibility to include the acquisition of nonpoint source nutrient credits (SLAF eligibility was previously solely for capital projects) which necessitated revisions to the SLAF guidelines. DEQ staff have developed those revised guidelines, presented them to the public and received public comment, developed responses to the public comments, and are recommending approval of the revised guidelines for implementation.

Background: During the drafting of these SLAF Guideline revisions this summer, DEQ reached out to a number of stakeholder organizations that had provided input during the initial Guideline development process and had maintained interest in the program since its implementation, in order to receive their suggestions for program improvement. Those groups were the Virginia Municipal Stormwater Association (VAMSA), Chesapeake Bay Foundation (CBF), and the James River Association (JRA). Additional input was provided by the Reedy Creek Coalition. All suggestions were considered by DEQ and many resulted in changes to the Guidelines. DEQ also made a number of other revisions based on our three years of experience implementing the program. That initial Guideline revision was brought before the Board and approved for public comment in September, 2016.

At its September meeting, the Board authorized the staff to present the draft revised Stormwater Local Assistance Fund Guidelines to the public for their review and comment. The public comment period began on September 27, 2016 and ended on November 1, 2016. Notice of the public comment period was posted on the Virginia Regulatory Town Hall, the DEQ public calendar, and DEQ's Clean Water Financing and Assistance Program website. Comments were received from five organizations and eight individuals.

Most of the commenters expressed appreciation and support for the revisions that had been made to the Guidelines. Many of the requests received during the official public comment period had been previously provided by the stakeholders during the initial drafting period, had already been evaluated by DEQ, and it had been determined that they would not be incorporated into the guidelines. A number of other comments involved requests or suggestions related to in house SLAF program processes or the SLAF application form and, while DEQ will be implementing changes that address those comments, no revisions to the actual Guidelines are required. To address comments from both CBF and JRA regarding low impact development projects, the SLAF application will be revised to provide an option for applicants to present the incremental cost of installing those technologies rather than the total costs, which would more appropriately present their cost effectiveness. CBF also requested that nitrogen and sediment pollutant reduction data be obtained on SLAF projects and DEQ will implement a process to capture that information. VMSA requested clarification on the living shoreline certification procedures using the Virginia Institute of Marine Science and DEQ will provide that to them once finalized. Requests to make SLAF funding available to universities and for watershed planning or the purchase of stream and wetland mitigation credits could not be considered as they are not currently allowed by state statute.

A large number of comments related to SLAF funding of stream restoration projects. The Reedy Creek Coalition group in particular requested a large number of changes to the Guidelines in relation to stream restoration and several members requested a public hearing. The Reedy Creek Coalition is a local watershed group in the Richmond area and they have strongly opposed a City of Richmond stream restoration project on Reedy Creek that has received SLAF funding authorization. It is important to note that 75 of the approximately 150 SLAF projects funded to date involve stream restoration, many of which have already been successfully completed with minimal public concerns. Comments from the Coalition relating to stream restoration requested additional project planning, design, and maintenance requirements as well as changes to the project ranking criteria. Conversely, VMSA cautioned against

imposing additional requirements or restrictions at this time. The revisions approved by the Board in September had already included additional requirements for documentation of the site selection process for stream restoration projects. A review of that information will assist DEQ in determining the adequacy of the project planning/site selection process. Based on our experience using this new process, DEQ may determine that more detailed planning requirements are needed in the future. At this time, the only new revisions being recommended are one small addition to the example documentation for stream restoration and correction of three references.

Conclusion: The Virginia General Assembly recently amended the code to expand SLAF eligibility to include the acquisition of nonpoint source nutrient credits and DEQ staff has developed revisions to the Guidelines to address that change as well as other revisions to improve the program. Draft revised guidelines were approved by the Board in September and a public review/comment period ended on November 1<sup>st</sup>. DEQ staff have developed responses to all comments received and made minor revisions to the draft guidelines for final Board consideration. If approved, DEQ anticipates immediately soliciting applications for the next round of SLAF funding using the revised guidelines.

**Notification to the Board — Submission to EPA for No Discharge Zone Designations:** The Division Director will present to the Board for informational purposes a No Discharge Zone (NDZ) proposal to designate NDZs for two water bodies in Gloucester County. The designation of an NDZ requires written application to EPA and, if approved, prohibits the discharge of all vessel sewage, whether treated or not, into the designated NDZ. Any citizen can request consideration of an NDZ for a designated area, but the final application to EPA must be submitted from the state's governor or chief environmental official. One application containing the two proposed NDZs will be presented to the Virginia Secretary of Natural Resources for transmittal to EPA. The water bodies subject to the proposed NDZs are included in a State Water Control Board approved TMDL report which describes reductions of human waste for both watersheds.

Federal law prohibits the discharge of untreated sewage from all vessels into navigable waters of the U.S. Federal standards for vessel discharge of treated sewage were established by EPA regulations at 40 CFR Part 140 that were promulgated pursuant to the Clean Water Act §312. Further, these regulations provide that a state can completely prohibit the discharge of all vessel sewage, whether treated or not, into specified water bodies by establishing NDZs. A state can only enforce vessel sewage regulations that are more stringent than federal regulations upon approval of an NDZ from the EPA Administrator. DEQ is the coordinator of NDZ designation requests in Virginia and has developed a procedure that includes public involvement, coordination with other state agencies, consultation with EPA, and development and transmittal of an application for Executive signature.

The Code of Virginia at § 62.1-44.33 establishes all tidal creeks within the Commonwealth as NDZs and states that criteria for such establishment shall be premised on the improvement of impaired tidal creeks. Additionally, it directs the State Water Control Board (“the Board”) to adopt regulations regarding NDZs, and defines an NDZ as an area approved by EPA where EPA makes an affirmative determination that adequate pump-out facilities exist. The Board has adopted a regulation that lists existing NDZs and applicable requirements within them at 9VAC25-71 et seq., Regulations Governing the Discharge of Sewage and Other Wastes from Boats.

DEQ Guidance Memo 08-2003 (Procedure for Designation of Vessel No Discharge Zones) issued February, 2008, describes the process for submitting an NDZ application to EPA. According to this guidance, the finalized proposal for an NDZ application and a summary of public comments is to be provided to the Board for informational purposes prior to submitting these documents to the Virginia Secretary of Natural Resources for transmittal to EPA. If EPA approves the applications, DEQ will then ask the Board to amend 9VAC25-71-70 to add the newly designated NDZs.

An application for the proposed NDZs was developed in accordance with EPA Guidance 842-B94-004 (Protecting Coastal Waters from Vessel and Marina Discharges: a Guide for State and Local Officials). The application was subject to the public participation process contained in DEQ’s Guidance Memo 08-2003.

Following are the proposed NDZ areas that will be submitted to EPA as part of the NDZ application for two water bodies in Gloucester County.

Sarah Creek in Gloucester County, Virginia including all contiguous waters north of the line formed between the point formed by latitude 37°14’58.34” N and longitude 76°29’39.17” W and east to latitude 37°15’00.81” N and

longitude 76°28'37.84" W.

Perrin River in Gloucester County, Virginia including all contiguous waters north of the line formed between the point formed by latitude 37°15'43.5" N and longitude 76°25'24.9" W and east to latitude 37°15'50.63" N and longitude 76°25'11.84" W.

DEQ received 25 public comments pertaining to the NDZ application proposing NDZs for Sarah Creek and Perrin River. All of the comments received were in support of designating these water bodies as NDZs. The most common or significant comments supporting the designation of these NDZs included the following:

- Designating these water bodies as NDZs will provide a good tool for use in educating local residents and boaters about the importance of personal actions and impact on water quality.
- NDZ designations will help improve local water quality and could reduce some of the conditions that currently result in these water bodies being closed to shellfish harvest.
- Establishing NDZs will aid in the County's efforts in meeting its requirements under the Chesapeake Bay TMDL.

Notification to the Board: As described in DEQ Guidance Memo 08-2003, staff is notifying the Board of upcoming actions by the DEQ Director wherein an NDZ application will be presented to the Virginia Secretary of Natural Resources for transmittal to EPA.