TENTATIVE AGENDA
STATE WATER CONTROL BOARD MEETINGS
DECEMBER 6-7 & 11-12, 2017

TRINITY FAMILY LIFE CENTER
3601 DILL ROAD
RICHMOND, VA 23222

DECEMBER 6, 2017

CONVENE – 9:30 A.M.

		TAB
401 Certification - Mountain Valley Pipeline - Summary of comment presentation and opportunity for those who commented at the public hearing or during the public comment period to respond to the summary of the public comment period presented to the Board	Davenport	
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Attachment B - Draft Section 401 Certification Public Comment Process		B
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DECEMBER 7, 2017

CONVENE – 9:30 A.M.

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Permit - Ground Water Withdrawal Permit		
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401 Certification - Mountain Valley Pipeline	Davenport	
Staff Presentation and Board Consideration		

Adjourn

DECEMBER 11, 2017

CONVENE – 9:30 A.M.

401 Certification - Atlantic Coast Pipeline - Summary of comment presentation and opportunity for those who commented at the public hearing or during the public comment period to respond to the summary of the public comment period presented to the Board	Davenport	
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DECEMBER 12, 2017

CONVENE – 9:30 A.M.

Additional Agenda Items from List Below, As Time Allows

401 Certification - Atlantic Coast Pipeline - Davenport
Staff Presentation and Board Consideration

Adjourn

ADDITIONAL AGENDA ITEMS:
The agenda items below will be considered as time permits on either December 6, December 7, December 11 or December 12.

Regulation – Final		
General VPDES Permit for Potable Water Treatment Plants [9VAC25-860]	Daub	N
General VPDES Permit for Non-Contact Cooling Water Discharges of 50,000 Gallons Per Day or Less [9VAC25-196]	Richardson	O
General VPDES Permit for Discharges from Petroleum Contaminated Sites, Groundwater Remediation and Hydrostatic Tests [9VAC25- 120]	Richardson	P
Regulation – Final Exempt		
Water Quality Management Planning Regulation Amendment (9VAC25-720-80 B)	Rourke	Q
Regulation – Proposed		
General VPDES Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (9 VAC 25 - 890)	Robb	R
Water Quality Standards Amendment - Portion of Laurel Fork - Designation as Exceptional State Waters	Whitehurst	S
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Water Quality Standards Amendment - Selenium Water Quality Criteria	Kennedy	T
Total Maximum Daily Loads (TMDLs)		
Approval of Five TMDL Reports and Adoption of 12 New and Three Revised Wasteload Allocations	Meadows	U
Consent Special Orders – Virginia Water Protection Permit Program		
Atlantic Waste Disposal, Inc. (Sussex County)	Reynolds	V
Other Business		
Virginia Revolving Loan Fund	Gills	W
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.

Department of Environmental Quality Staff Contact: Cindy M. Berndt, Director, Regulatory Affairs, Department of Environmental Quality, 629 East Main Street, P.O. Box 1105, Richmond, Virginia 23218, phone (804) 698-4378; e-mail: cindy.berndt@deq.virginia.gov.

Proposed 401 Water Quality Certification Mountain Valley Pipeline, LLC Certification No. 17-001: During the State Water Control Board meeting on December 6th and 7th, 2017, Department of Environmental Quality (DEQ) staff will present a 401 Certification for the proposed Mountain Valley Pipeline (MVP) to the Board for your consideration. The Certification applies to MVP activities in upland areas outside of the U.S. Army Corps of Engineers' jurisdictional areas under 33 U.S.C. § 1344 which may result in an indirect discharge to waters of the United States; water withdrawal activities that are exempt from coverage under the Virginia Water Protection Permit Program Regulation (9 VAC 25-210-10, *et seq.*); and, land disturbing activities not covered under the Stormwater Management Act (Va. Code § 62.1-44.15:24, *et seq*.) and Erosion and Sediment Control Law (Va. Code § 62.1-44.15:51, *et seq*.). The proposed 401 Certification provides additional conditions for water quality protections from impacts in upland areas from the proposed pipeline.

Project Summary

The MVP project is a proposed interstate natural gas transmission pipeline regulated by the Federal Energy Regulatory Commission (FERC) pursuant to Section 7c of the Natural Gas Act (15 USC § 717f(c)). The pipeline as proposed is approximately 303 miles in length and has a diameter of 42 inches and will transport up to 2.0 MMDth/d of natural gas from an interconnection point in Wetzel County, West Virginia, to an interconnection with an existing pipeline in Pittsylvania County, Virginia. Approximately 106 miles of the pipeline, 58 miles of access roads, and appurtenances such as construction lay down yards will be located within Virginia and traverse portions of Giles County, Craig County, Montgomery County, Roanoke County, Franklin County, and Pittsylvania County. The developer of this project is Mountain Valley Pipeline, LLC, a joint venture between EQT Midstream Partners, LP and affiliates of NextEra US Gas Assets, LLC; Con Edison Gas Midstream, LLC; WGL Midstream; and RGC Midstream, LLC.

FERC released the final Environmental Impact Statement on June 23, 2017 and issued an order granting MVP a Certificate of Public Convenience and Necessity on October 13, 2017.

Basis for Certification

Previously, the Virginia Water Protection (VWP) program was sufficient to evaluate and, when necessary, mitigate potential water quality impacts for linear construction projects, such as roads and pipelines. However, the VWP Permit coverage addresses the impacts caused to wetlands and streams and does not cover activities in upland areas.

In order to address the potential water quality concerns from impacts in upland areas, DEQ issued a guidance document describing procedures DEQ will use to conduct a separate supplemental review of a natural gas infrastructure project with respect to upland impacts that may indirectly affect state waters. Consistent with this guidance, DEQ reviewed additional information and concluded that it was necessary to impose additional 401 water quality conditions on the proposed MVP project for upland areas. Additional information including the 401 Certification process and scope, and its relation to the other environmental programs (i.e. Erosion and Sediment Control, Stormwater Management, Section 404, etc.) is Attachment A.

Draft Section 401 Certification - Public Comment Process

Subsequent to its conclusion that additional conditions were necessary to protect water quality from pipeline impacts in upland areas, DEQ developed a draft Section 401 Water Quality Certification for the proposed MVP project. This draft certification was subject to public notice and comment in accordance with DEQ's procedures.

During the week of July 3rd, 2017, public notification was made announcing the public hearings and seeking public comments on a draft 401 Certification for the proposed MVP project that would establish additional

conditions in upland areas that are located near state waters and that may indirectly affect state waters along the route of the proposed pipeline. The public notice was published in nine newspapers with circulation areas that covered the counties and localities affected by the project. The notice provided: (i) the purpose of the notice; (ii) announcement of the public comment period from July 3, 2017 to August 22, 2017; (iii) the public hearing information including time and location; (iv) the purpose of the public hearings; (v) the project information and description including a link to the pipeline information and the draft Section 401 Certification conditions; and, (vi) information on how to submit comments including staff contact information. As provided in the public notice, two public hearings were held on August 8, 2017 in Radford and August 9, 2017 in Chatham. Further information on the public participation process and the processing activities used to ensure that the thousands of comments received were appropriately processed, reviewed, and considered is provided in Attachment B.

Summary of Comments and Department Response

Over 8,000 comments on the draft 401 Certification for the proposed MVP project were received during the 50-day public comment period that ran from July 3, 2017 to August, 22, 2017. Comments were submitted via postal letters and postcards, electronic mail, petitions, photographs, technical reports and oral comments, songs, prayers and poems delivered during the public hearings. DEQ reviewed and categorized all of the comments that were submitted during the comments period. Attachment C, Response to Comments, provides a summary of comments received and a response to those comments.

Although thousands of comments were received, there were very clear and recurring issues and themes raised by the commenters. DEQ has broadly stated these issues in Attachment C and has provided responses. Several representative examples of the comments that were received are included in the Board book. The full text of all comments received will be made available to the Board electronically.

Numerous comments that were submitted both in opposition to and support of the draft 401 Certification spoke to issues that are outside the scope of the draft Certification. Many commenters expressed opposition to the project based on a number of issues including: MVP's exercise of eminent domain and its impact on private property rights; the connection between pipeline transportation projects and increased hydraulic fracking of gas; impacts to rural and forest view sheds; negative impacts to property values; lack of demonstrated need for the project and demand for the gas; preference for development of renewable energy sources; threat of pipeline explosion once in operation and greenhouse gas emissions from the pipeline.

Numbers of other commenters expressed support for the project based on issues including: opportunity for economic development, manufacturing and job creation; increased safety of pipeline transportation compared to overland trucking of natural gas; decreased reliance on coal for energy production, and thoroughness of FERC's evaluation of the project. These comments are also outside the scope of the draft 401 Certification.

Changes to the Draft 401 Certification

Revisions to the draft 401 Certification have been prepared and a version that notes the additions and deletions can be found in Appendix E. A clean version of the revised, proposed Certification is included as Attachment F. Staff will review the revisions at the Board meeting.

Basis for Certification

The Mountain Valley Pipeline (MVP) Project is a proposed interstate natural gas transmission pipeline regulated by the Federal Energy Regulatory Commission (FERC) pursuant to Section 7c of the Natural Gas Act (15 U.S.C. § 717f(c)) which provides that no natural-gas company shall undertake the construction or extension of any facilities for the transportation or sale of natural gas without first obtaining a Certificate of Public Convenience and Necessity (Certificate) from FERC authorizing such acts or operations. MVP initially filed its application for a Certificate of Public Convenience and Necessity with FERC on October 23, 2015. Following FERC's environmental review of the proposed MVP Project (Project), FERC released a draft Environmental Impact Statement for the proposed Project on September 16, 2016 and the final Environmental Impact Statement on June 23, 2017. FERC issued an order granting MVP a Certificate of Public Convenience and Necessity on October 13, 2017. The proposed pipeline as authorized by FERC will be approximately 303 miles in length, with a diameter of 42 inches, and will transport up to 2.0 MMDth/d of natural gas from an interconnection point in Wetzel County, West Virginia, to an interconnection with an existing pipeline in Pittsylvania County, Virginia. Approximately 106 miles of the proposed pipeline, 58 miles of access roads, and appurtenances such as construction lay down yards will be located within Virginia and traverse portions of Giles County, Craig County, Montgomery County, Roanoke County, Franklin County, and Pittsylvania County. The developer of this Project is Mountain Valley Pipeline, LLC, a joint venture between EQT Midstream Partners, LP and affiliates of NextEra US Gas Assets, LLC; Con Edison Gas Midstream, LLC; WGL Midstream; and RGC Midstream, LLC.

Section 401 of the Clean Water Act (33 U.S.C. § 1341) requires that any applicant for a Federal license or permit to conduct any activity, including, but not limited to, the construction or operation of facilities which may result in a discharge to navigable waters, must provide the federal licensing or permitting authority with a certification from the state in which the discharge originates or will originate that any such discharge will comply with state water quality standards. A certification sets forth any conditions necessary to assure compliance with applicable water quality requirements under state law, and these become a condition of the federal license or permit. The State Water Control Law (Law) grants the authority to provide this water quality certification to the State Water Control Board (Board) in accordance with the Law.

In addition to the FERC Certificate, MVP must separately obtain approval from the U.S. Army Corps of Engineers ("Corps") under Section 404 of the Clean Water Act for impacts to jurisdictional wetlands and streams.

With respect to impacts to jurisdictional wetlands and steams, § 62.1-44.15:20 of the Law and the Virginia Water Protection (VWP) Permit Regulation (9VAC25-210), VWP permit coverage, including general VWP coverage and coverage associated with a Corps' Nationwide Permit certified by Virginia, constitutes the certification required under § 401 of the Clean Water Act. In the present case, the Corps issued Nationwide Permit 12 on March 19, 2017, related to activities required for the construction, maintenance, repair, and removal of utilities lines and associated facilities in waters of the United States. After review and public comment, the Department provided its § 401 certification of Nationwide Permit 12 on April 7, 2017. The VWP program and prior certification of the Corps' Nationwide Permits has proven to be sufficient to evaluate and, when necessary, mitigate potential water quality impacts for linear construction projects, such as roads and pipelines.

The permits issued by the VWP program and the permits issued by the Corps only address the impacts caused to wetlands and streams by excavating in a wetland, draining or significantly altering wetland acreage or function, filling or dumping in a stream or wetland, or permanently flooding or impounding a wetland area or stream. However, the conditions and requirements of these permits do not cover activities in upland areas, outside of wetlands and streams, which may result in a discharge to state waters or otherwise cause or contribute to an exceedance of Virginia's Water Quality Standards (9VAC25-260). For large linear construction projects, there can be activities in upland areas that may have the potential to affect water quality but do not fall within the scope of the VWP or the Corps permits. Likewise, information related to such impacts would not be contained in the Joint Permit Application (JPA) utilized to determine permit conditions for a VWP and Corps permits.[1]

In order to address the potential impact to water quality caused by upland activity outside the scope of the VWP or the Corps permits, the Department of Environmental Quality (DEQ or Department) issued its May 19, 2017 guidance memorandum, Guidance Memo No. **GM 17-2003**, Interstate Natural Gas Infrastructure Projects - Procedures for Evaluating and Developing Additional Conditions for Section 401 Water Quality Certification Pursuant to 33 USC § 1341 ("401" Certification). This guidance document describes the procedures DEQ uses to conduct a separate supplemental review of a natural gas infrastructure project with respect to upland impacts that may indirectly affect state waters. The guidance states that after further evaluation, DEQ may make a recommendation to the Board for additional conditions on upland activities that may be necessary to protect water quality beyond the conditions required by, or that can be imposed through, the VWP Permit Program, Corps permits, including any applicable Nationwide Permits, or conditions otherwise imposed by FERC. Identification of this gap was consistent with the numerous inquiries and communications from concerned

[1] MVP submitted a JPA for this Project on February 26, 2016.

citizens and affected property owners, local governments, state legislators and environmental organizations received by DEQ regarding Virginia's environmental oversight of the Project.

Historically DEQ has satisfied its water quality certification for linear utility projects, including pipelines, with its certification of the Corps' Nationwide Permit 12. However, MVP is a proposed interstate natural gas transmission pipeline. For facilities that transport natural gas in interstate commerce, their siting, construction, and operation are generally governed by the Natural Gas Act and must be authorized and approved by FERC through the issuance of a Certificate of Public Convenience and Necessity.

Very few linear utility projects require such federal authorization. Since MVP does require a FERC Certificate, DEQ may utilize Guidance Memo No. GM17-2003 to conduct a supplemental water quality review of potential upland impacts and develop a second 401 Certification driven by FERC approval of proposed pipeline construction and operation.

As the guidance memorandum directs, DEQ considered a number of project specific factors regarding the Project including the length of the pipeline, the amount of construction related land disturbance, the diameter of the pipeline, and numerous geographic, hydrologic and topographic considerations, including: the occurrence and/or proximity of steep slopes, karst geology, sensitive streams/wetlands, seasonally high water tables, sink holes/underground springs, water impoundment structures/reservoirs, areas with highly erodible soils, low pH and acid sulfate soils. After reviewing these factors, DEQ determined that it was appropriate and consistent with the May 19, 2017 guidance to review additional information and evaluate whether to impose additional 401 conditions.

The concept of imposing additional 401 conditions and protections for activity in upland areas not already addressed by other regulations and/or permits is unique to the proposed pipeline and is described in the recently issued guidance memorandum. At the Board's July 19, 2017 meeting, DEQ briefed the Board on this water quality protection strategy by outlining the five major areas of review that DEQ was engaged in regarding the MVP Project. These include: review of and comment on the FERC draft environmental impact statement; wetlands and stream crossings to be permitted by the Corps either under Nationwide Permit 12 or an individual permit if the Corps determines that an individual permit is necessary; ensuring compliance with the requirements of Virginia's Erosion and Sediment Control and Stormwater Management laws and regulations; additional protections and conditions related to activities in uplands not already addressed by other regulations and or permits; and additional instream biological and water quality monitoring designed to evaluate baseline preconstruction conditions and evaluate whether there are effects on aquatic life.

The proposed 401 Certification addresses Project activities in upland areas outside of the Corps jurisdictional areas and water withdrawal activities that are exempt from coverage under the VWP Permit Program Regulation (9VAC25-210) or are otherwise imposed through the erosion and sediment control and stormwater management regulations.[2] This includes all activities associated with the construction of the proposed pipeline, any components thereof or appurtenances thereto, and related access roads and rights-of-way as well as certain Project-related water withdrawals. This proposed 401 Certification covers all relevant upland Project activities within the route identified in the final Environmental Impact Statement and/or the FERC Certificate and any subsequent revisions that may be approved by FERC.

This proposed 401 Certification and the conditions contained in Section V of the proposed 401 Certification are intended to apply to MVP Project activities that are outside the jurisdictional scope of the VWP Permit Program Regulation, and accordingly should not be interpreted as limiting any conditions imposed pursuant to the VWP Permit Program Regulation or any permit issued by the Corps for any portion of the Project. The Department's 401 Water Quality Certification for the Corp's Nationwide Permit 12 issued April 7, 2017[3] and this additional proposed 401 Certification developed pursuant to Guidance Memo No. GM17-2003, Interstate Natural Gas Infrastructure Projects – Procedures for Evaluating and Developing Additional Conditions for Section 401 Water Quality Certification Pursuant to 33 USC § 1341 ("401" Certification) *together* would constitute the Commonwealth of Virginia's 401 Certification for the MVP Project.

In addition, the proposed 401 Certification operates in conjunction with other regulatory actions including the Erosion and Sediment Control Regulation and the Stormwater Management Regulation, which are all requirements of MVP's Annual Standards and Specifications previously approved by DEQ.

Scope of Additional 401 Water Quality Certification

The U.S. Environmental Protection Agency (EPA) has promulgated regulations that outline the process for providing Section 401 water quality certification at 40 C.F.R. § 121 which states that the certification shall,

[2] These regulatory requirements are imposed through the Annual Standards and Specifications program, which will be discussed in detail later on in this document. MVP's annual standards and specifications were approved in June 2017.

[3] A number of parties (Dominion Pipeline Monitoring Coalition, Preserve Craig, Inc. and Bold Alliance) filed an appeal of DEQ's § 401 water quality certification for the U. S. Army Corps of Engineers' Nationwide Permit 12. On behalf of DEQ the Office of the Attorney General filed a Motion to Dismiss. On September 5, 2017, the appeal was dismissed with prejudice.

among other elements, include a statement that there is a reasonable assurance[4] that the activity will be conducted in a manner which will not violate applicable water quality standards.[5]

This additional upland 401 Water Quality Certification addresses several unique aspects of the proposed Project not directly regulated by other existing state and federal programs and primarily focuses on additional protections necessary for riparian buffer protection and to address potential impacts from construction near karst terrain or on steep slopes; and, water use for hydrostatic testing and dust control. Consideration of these additional potential water quality impacts is unprecedented in DEQ's review of a proposed pipeline and these additional conditions push the bounds of the 401 reasonable assurance analysis beyond strict application of instream water quality standards and into much broader protection of water quality.

In developing the proposed 401 Certification and determining whether there is reasonable assurance that applicable water quality standards will not be violated, DEQ reviewed, evaluated and analyzed, among other information, the following reports, documents and submittals:

1. All applicable FERC documents, including Draft and Final Environmental Impact Statements issued by FERC and the associated docket materials including all Appendices, and the FERC order granting a Certificate of Public Convenience and Necessity (Certificate) on October 13, 2017;

2. The Department's initial Request for Information (RFI) dated May 19, 2017 in accordance with the Guidance, the Department's subsequent June 15, 2017 RFI and the Owner's June 1, 2017, and June

[4] Federal Regulations require that a § 401 Certification must include reasonable assurance that the activity will be conducted in a manner which will not violate applicable water quality standards. Reasonable assurance is more than a probability or mere speculation. However, a § 401 Certification addresses future events; therefore, it is inherently predictive in nature and absolute certainty is not required.

[5] 40 C.F.R. § 121.2, Contents of certification, provides that:

(a) A certification made by a certifying agency shall include the following:

(1) The name and address of the applicant;

(2) A statement that the certifying agency has either (i) examined the application made by the applicant to the licensing or permitting agency (specifically identifying the number or code affixed to such application) and bases its certification upon an evaluation of the information contained in such application which is relevant to water quality considerations, or (ii) examined other information furnished by the applicant sufficient to permit the certifying agency to make the statement described in paragraph (a)(3) of this section;

(3) A statement that there is a reasonable assurance that the activity will be conducted in a manner which will not violate applicable water quality standards;

(4) A statement of any conditions which the certifying agency deems necessary or desirable with respect to the discharge of the activity; and

(5) Such other information as the certifying agency may determine to be appropriate.

(b) The certifying agency may modify the certification in such manner as may be agreed upon by the certifying agency, the licensing or permitting agency, and the Regional Administrator.

22, 2017 responses including but not limited to requested supplemental responses dated August 8, 2017, October 27, 2017, and November 2 and 6, 2017;

3. Proceedings of the multi-agency technical work session held June 6-7, 2017 (Lexington, Virginia);

4. Documents submitted for approval by the Department pursuant to requirements of the Stormwater Management Act (Va. Code § 62.1-44.15:24, *et seq*.) and Erosion and Sediment Control Law (Va. Code § 62.1-44.15:51, *et seq*.);

5. Corps Nationwide Permit 12 and Norfolk District Regional Conditions;

6. Guidance Memo No. GM17-2003, Interstate Natural Gas Infrastructure Projects- Procedures for Evaluating and Developing Additional Conditions for Section 401 Water Quality Certification Pursuant to 33 USC § 1341 ("401" Certification); and,

7. Public comments submitted during the public comment period, including both written (electronic or paper copy) and oral comments provided during the August 8 and 9, 2017 public hearings.

In drafting the proposed 401 Certification, DEQ tentatively determined that compliance with existing duly promulgated and adopted regulatory and permitting programs along with the fourteen enumerated conditions in section V of the proposed 401 Certification provide reasonable assurance that applicable standards will not be violated.

The conditions imposed by the proposed 401 Certification are in addition to any other federal or state permit or regulatory requirements with which the Project must comply, including federal resource agency requirements embodied in the FERC Certificate. The proposed 401 Certification imposes requirements that are in addition to many other enforceable requirements imposed by other state and federal entities. As described below, the various regulatory programs are well established and demonstrated to provide protection of water quality.

For a project that disturbs one acre or more of land and discharges dredged or fill material into surface water, including wetlands, the primary regulatory programs are: the Virginia Erosion and Sediment Control (VESC) Program; the Virginia Stormwater Management Program (VSMP); the Virginia Pollutant Discharge Elimination System (VPDES) permit program for stormwater from construction activities;[6] and, the Virginia Water Protection Permit Program (VWP) and Section 404 of the Clean Water Act.

[6] Federal law exempts discharges of stormwater runoff from oil and gas transmission facilities from the administrative requirement to obtain a VPDES permit but Virginia's regulation imposes identical performance, monitoring and inspection requirements through its regulatory requirement to conduct the project under approved annual standards and specifications.

Erosion and Sediment Control and Stormwater Management

Virginia's erosion and sediment control law and regulations provide effective control of soil erosion, sediment deposition, and nonagricultural runoff from regulated land-disturbing activities with the goal of preventing the unreasonable degradation of properties, stream channels, waters, and other natural resources. The VESC Program is authorized by the Virginia Erosion and Sediment Control Law and implemented through the Virginia Erosion and Sediment Control Regulations. The VESC regulations specify the "minimum standards" that must be followed on all regulated activities including: erosion and sediment control design criteria, techniques, practices and policies.

The goal of the VSMP is to ensure the general health, safety, and welfare of the citizens of the Commonwealth, and to protect the quality and quantity of state waters from the potential harm of unmanaged stormwater. The VSMP is authorized by the Virginia Stormwater Management Act and implemented through the Virginia Stormwater Management Program Regulations. The VSMP addresses stormwater management at three critical phases: before construction starts through the review and approval of plans to ensure the local and state regulatory design criteria have been satisfied to protect state waters from unmanaged stormwater; during construction through the inspection of erosion and sediment control practices, pollution prevention measures, and the installation of stormwater best management practices that are used to prevent or reduce the pollution of state waters after construction is complete; and after construction through the inspection of BMPs to ensure proper maintenance is being performed by the owner.

Annual Standards and Specifications Requirements Under the Virginia Stormwater Management Program

The Virginia Stormwater Management Program (VSMP) law and regulations establish that land disturbance associated with pipeline construction activities must meet Erosion and Sediment Control and Stormwater Management requirements to protect surface water quality during and after construction completion. State law further mandates that natural gas pipeline utilities (and certain other utilities) meet the requirements for VESC and VSMP under a DEQ-approved Annual Standards and Specifications Program.

Specifically, Virginia Code § 62.1-44.15:31 states:

> (F)or linear projects [including construction, installation, or maintenance of electric transmission, natural gas, and telephone utility lines and pipelines, and water and sewer lines], electric, natural gas, and telephone utility companies, interstate and intrastate natural gas pipeline companies, and railroad companies shall … annually submit a single set of standards and specifications for Department approval that describes how land-disturbing activities shall be conducted.

> Such standards and specifications shall be consistent with the requirements of this article and associated regulations, including the regulations governing the General Virginia Stormwater Management Program (VSMP) Permit for Discharges of Stormwater from Construction Activities and the Erosion and Sediment Control Law (§ 62.1-44.15:51 *et seq*.) and associated regulations. … The standards and specifications shall include:
>
> 1. Technical criteria to meet the requirements of this article and regulations developed under this article;
>
> 2. Provisions for the long-term responsibility and maintenance of stormwater management control devices and other techniques specified to manage the quantity and quality of runoff;
>
> 3. Provisions for erosion and sediment control and stormwater management program administration, plan design, review and approval, and construction inspection and enforcement;
>
> 4. Provisions for ensuring that responsible personnel and contractors obtain certifications or qualifications for erosion and sediment control and stormwater management comparable to those required for local government;
>
> 5. Implementation of a project tracking and notification system to the Department of all land-disturbing activities covered under this article; and
>
> 6. Requirements for documenting onsite changes as they occur to ensure compliance with the requirements of the article.

MVP worked for approximately eighteen months to develop, revise and refine Annual Standards and Specifications (AS&S) that meet Virginia's legal and technical requirements. MVP's Annual Standards and Specifications that address both erosion and sediment control and stormwater management were approved by DEQ on June 20, 2017.

The concept set out by state law in the creation of the AS&S program is that entities which are required to submit annual standards and specifications essentially become self-regulating. Therefore, Virginia law, in § 62.1-44.15:31, affirmatively places an authority that would normally be delegated to a locality for the review, approval and enforcement of erosion control and stormwater management plans with the utility with limited oversight by DEQ through review and approval of annual standards and specifications. Once an authorized utility has approved AS&S it is not required to submit site specific ESC and SWM plans to DEQ for approval. In fact, § 62.1-44.15:55.D of Code of Virginia clearly states that: "Individual approval of separate projects within subdivisions 1 and 2 is not necessary when approved specifications are followed". Subdivision 1 applies to construction, installation, or maintenance of electric transmission, natural gas, and telephone utility lines and pipelines, and water and sewer lines. DEQ does retain compliance and enforcement authority over any project specific erosion and stormwater plans and practices but DEQ in general does not review specific plans or construction.

However, as an additional measure to ensure protection of state waters and in response to numerous citizen concerns and comments, DEQ has required MVP to submit project specific ESC and SWM plans to DEQ for review and approval. These project specific plans address every foot of land disturbance related to pipeline construction, including the path of the proposed pipeline right of way (ROW), access roads, construction lay-down areas and construction activities that will occur in streams and wetlands.

DEQ has contracted with an outside engineering consulting firm to assist in review of the erosion and stormwater plans to ensure that they meet the design requirements contained in Virginia's ESC and SWM regulations (including post construction stormwater water quality and quantity requirements); however, DEQ retains ultimate approval authority.

Unlike many of the Board's permit programs, Virginia law does not provide a right for public notice of and comment on ESC and SWM plans. However, in order to provide a transparent review process and public participation, DEQ decided to also require MVP to post the plans on their website in order that they be made available for public input. DEQ requested input on technical and engineering requirements of the draft ESC and SWM plans. The input period was at least 30 days.

VPDES Permit for Stormwater from Construction Activities

With few exceptions, land disturbance of one or more acres requires coverage under Virginia's Construction General VPDES Permit for Discharges of Stormwater from Construction Activities (9VAC25-880.1 *et seq*.). However, the Virginia Stormwater Management Program regulation (9VAC25-870 *et seq*.) states that DEQ may not require a state VPDES permit for discharges of stormwater runoff from oil and gas exploration, production, processing or treatment operations, or transmission facilities. This exemption is consistent with the federal exemptions contained in 40 C.F.R. § 122.26(a)(2)(ii). The scope of this exemption includes construction activities necessary to support the construction of pipelines, access roads and compressor stations, as well as long term maintenance of the system.

Even though federal laws exempt MVP from obtaining a VPDES permit, as does Virginia's Regulation, 9VAC25-870-76 of the VSMP regulation requires linear development projects to control post-development stormwater runoff in accordance with a site-specific stormwater management plan or a comprehensive watershed stormwater management plan. In addition, as previously discussed, under § 62.1-44.15:31of the Code of Virginia, gas pipelines are required to have approved AS&S that are consistent with the requirements of the Virginia Stormwater Management Act and associated regulations, the Erosion and Sediment Control Law and associated regulations and the regulations governing the General Virginia Stormwater Management

Program (VSMP) Permit for Discharges of Stormwater from Construction Activities (the construction general permit). Additionally, DEQ has required that MVP prepare a stormwater pollution prevention plan.

Even though Congress has clearly stated that stormwater from land disturbing activity associated with construction of the pipeline does not need to be authorized by a section 402 discharge permit,[7] Virginia's annual standards and specifications program incorporate the same engineering, erosion and sediment control, recordkeeping, monitoring, inspecting and post construction stormwater management requirements that are otherwise implemented in the Board's General VPDES Permit for Discharges of Stormwater from Construction Activities, also known as the construction general permit (9VAC25-880-1 *et seq*.)

Virginia Code § 62.1-44.15:31 states that interstate and intrastate natural gas pipeline companies (among others), shall annually submit a single set of standards and specifications for DEQ approval that describes how land-disturbing activities shall be conducted. Virginia law goes on to state that such standards and specifications shall be consistent with the requirements of the Stormwater Management Law and associated regulations, including the regulations governing the General Permit for Discharges of Stormwater from Construction Activities and the Erosion and Sediment Control Law (§ 62.1-44.15:51 *et seq*.) and associated regulations.

Virginia Water Protection Permit/Clean Water Act Section 404 Permit

Section 404 of the federal Clean Water Act (CWA) establishes a permitting program to regulate the discharge of dredge and fill material into waters of the United States, including wetlands. Activities in waters of the United States regulated under this program include fill for development, water resource projects (such as dams and levees), infrastructure development (such as highways and airports) and mining projects. Section 404 requires a permit before dredged or fill material may be discharged into waters of the United States, unless the activity is exempt from Section 404 regulation (*e.g.*, certain farming and forestry activities).

This program is administered by the Corps, with oversight from EPA. Section 401 of the CWA requires anyone applying for a Section 404 permit to also obtain a water quality certification from the state, which affirms that the State has a reasonable assurance the activity will comply with state water quality standards. DEQ implements an independent State-wide permitting program for impacts to surface waters (including wetlands), which can also serve as a 401 certification for a Section 404 permit.

[7] EPA has delegated to DEQ the authority to issue CWA Section 402 discharge permits. The Board duly promulgated Virginia's VPDES regulations and it's general permits.

The VWP Permit Program regulates impacts to state waters, including wetlands. VWP permit conditions are designed to assure "no net loss" of wetlands, establish in-stream flow requirements, and protect the beneficial uses of state waters. A VWP permit also serves as the 401 certification for any federal 404 permit. DEQ can provide this 401 certification by: (1) issuing a VWP individual or general permit; (2) by certifying Corps' nationwide (NWP) and regional permits (RP); or (3) by issuing a 401 certification without a separate VWP permit. Further, Virginia law also authorizes DEQ to provide regulatory oversight to isolated wetlands and excavation activities that are beyond the jurisdiction of the Section 404 program.

Under Section 404(e) of the Clean Water Act, the Corps can issue general permits to authorize activities that have only minimal individual and cumulative adverse environmental effects. General permits can be issued for a period of no more than five years. A nationwide permit is a general permit that authorizes activities across the country, unless a district or division commander revokes the nationwide permit in a state or other geographic region. There are currently 54 nationwide permits, and they authorize a wide variety of activities such as mooring buoys, residential developments, utility lines, road crossings, mining activities, wetland and stream restoration activities, and commercial shellfish aquaculture activities. The current nationwide permits took effect on March 19, 2017.

By a letter dated April 7, 2017, DEQ, after following the Board-established procedures in the Virginia Water Protection Permit Regulation, found that there is a reasonable assurance that the activities permitted under the Corps' Nationwide Permit program, including the Norfolk District Regional Conditions, will be conducted in a manner which will not violate applicable water quality standards, provided permittees comply with all applicable conditions including those added by Virginia. DEQ made this finding pursuant to 40 C.F.R. § 121.2 (a)(2) and (3), after examining the NWPs, the Norfolk District Regional Conditions, and (ii) other decision documents provided by the Corps.

To qualify for coverage under Nationwide Permit 12 (NWP 12), the pipeline developers must comply with numerous General Conditions applicable to each nationwide permit including General Condition 12. This condition requires that appropriate soil erosion and sediment controls be used during the construction. General Condition 12 ties in the requirements and practices of the VESC program and regulations. Each stream crossing during the construction phase is subject to both federal and state oversight.

The Corps NWP 12 authorizes temporary disturbance of the stream during construction - in other words, a trench can be dug across the stream channel or wetland area so that pipe can be laid. NWP 12 clearly requires that after construction is complete (after the pipe has been laid), the impact area of the stream or wetland area must be restored to its pre-construction condition. Additionally, the ESC regulation (tied into the NWP 12

through General Condition 12) requires that when work in a live watercourse is performed, precautions must be taken to minimize encroachment, control sediment transport and stabilize the work area to the greatest extent possible during construction. This translates to a requirement that digging a trench in a flowing stream is not allowed - practices must be employed to divert or temporality channelize the stream during construction. The regulations also require that when a live watercourse must be crossed by construction vehicles more than twice in any six-month period, a temporary vehicular stream crossing constructed of non-erodible material must be provided. And, ESC requires that the bed and banks of a watercourse must be stabilized immediately after work in the watercourse is completed.

Conclusion

The conditions included in the proposed Section 401 certification for upland areas are in addition to any other federal or state permit or regulatory requirements with which the Project must comply, including federal resource agency requirements embodied in the FERC Certificate.

Each of the regulatory processes being applied individually focuses on water quality protection and collectively provides a combination of protections for state waters including detailed engineering best practices, adherence to approved annual standards and specifications, and extensive inspection and monitoring activities. The various regulatory programs being applied by DEQ are well-established, comprehensive and demonstrably provide protection of water quality.

When considered as a unified approach, all of the programs described above provide a thorough technical evaluation and process that is designed to ensure that Virginia's water quality is protected. The proposed 401 Certification that is the subject of this Board's review is just one portion of a larger regulatory scheme for ensuring that water quality is protected during construction of this Project.

The additional conditions contained in Section V of the draft certification along with the requirements imposed by the VWP regulation, the Corps Section 404 permitting requirements, and prior regulatory actions associated with the approval and requirements of the June 2017 AS&S, provide reasonable assurance that water quality standards will not be violated.

Attachment B

MVP Public Participation Process

Public Notice and Comment Period

On the week of July 3rd, 2017 DEQ ran public notices seeking comments on the draft Section 401 Water Quality Certification for activities in upland areas along the proposed Mountain Valley Pipeline (MVP). The notices ran in newspapers with circulation areas that covered the counties and localities affected by the project. The affected counties and localities are: the Counties of Pittsylvania, Franklin, Roanoke, Montgomery, Craig, and Giles. DEQ ran the public notices of the MVP public hearing dates in nine newspapers: The Franklin News-Post, The Roanoke Times, Danville Register & Bee, Chatham Star Tribune, The Southwest Times, Virginian Leader, News Messenger, The Floyd Press, and Salem Times-Register.

The notices included a link to DEQ's *Water Protection for Pipelines* web page that provided copies of the draft Section 401 Water Quality Certification for activities in upland areas and other resources related to the MVP project. The notices also announced two public hearings to be held for the purpose of receiving oral and/or written comments and provided information about the hearing locations and times. DEQ received written comments by hand-delivery, e-mail, postal mail, and at the public hearings during the comment period from July 3 to August 22, 2017. This 50-day comment period was 20 days longer than required by the State Water Control Board's Procedural Rule No. 1 (9VAC25-230-130B).

The notice specified that DEQ would consider only comments related to the proposed conditions in the Section 401 Water Quality Certification for MVP. Comments on erosion and sediment control plans, stormwater plans, the Corps Nationwide 12 permit, or the project's environmental impact statement were not considered as part of this action's record.

DEQ requested that comments include the names, mailing addresses and telephone numbers of the person commenting and of all people represented by that person, and a brief, informal statement on how the proposal affected the person or people.

Email

DEQ set up a dedicated e-mail account (*comment-mvp@deq.virginia.gov*) to provide a single point of contact for the public to submit e-mail comments and attachments regarding the MVP project. DEQ published the email address in the Public Notice, in the informational materials distributed at each public hearing, and on DEQ's *Water Protection for Pipelines* web page.

Public Hearings

DEQ scheduled two public hearings to help ensure that those who wished to make oral comments would be able to do so without traveling more than 60 miles. DEQ typically schedules one hearing on projects during the public comment period. Each public hearing was chaired by a member of the State Water Control Board. The public hearings were held at the locations noted below. Some of the factors taken into consideration when securing venues were the capacity and suitability of the venue, average travel distances, availability of State Water Control Board members to officiate at the hearings, and agency resources:

- Radford University, Radford, Virginia – August 8, 2017
  170 individuals signed up to speak

- Chatham High School Auditorium – Chatham, Virginia – August 9, 2017
  102 individuals signed up to speak

At the public hearing venues, individuals wishing to speak were directed to sign in and receive a numbered ticket. The public hearings convened at 6:00 p.m. Speakers were called in numeric order and were typically provided three minutes in which to provide comments. This process continued until the all registered speakers had delivered their comments, or by the 10:00 p.m. cut-off time, whichever occurred first. A certified court reporter attended each hearing and then provided DEQ with a written record and digital audio recording of the oral comments.

Comment Processing

All of the comments received during the duly-noticed public comment period for the draft 401 certification for the Mountain Valley Pipeline (MVP) were reviewed by Department technical staff. Due to the thousands of comments submitted, a process was developed to ensure that every comment submitted was appropriately considered by DEQ technical staff for review and response. The processing activity included reading, reviewing and characterizing each comment submitted. As part of this activity, all comments submitted in hard-copy/paper formats were scanned then these comments along with those comments submitted in electronic formats were sorted into spreadsheets which were developed for organizing the comments. The processing activities began on July 6th and ended on October 6th, 2017 with the bulk of the work being performed from August 23rd to October 6th, 2017. In total, twenty-one Department staff were assigned to the comment processing task and these staff spent a combined total of over 1370 hours for both pipelines.

DEQ staff processed all comments that were received during the public comment period. Each comment was reviewed and summarized, and, if provided, the name and address of the commenter was recorded. In order to organize the comments on the draft 401 Certification, DEQ developed a spreadsheet format with sixteen broad topic areas, which were based on the recurring themes observed during the comment period. These broad topics were:

- Erosion & Sediment Control / Stormwater Management
- Karst
- Water Supplies (Wells / Springs / Septic)
- Water Quality Impacts / Monitoring
- Section 401 Certification / Nationwide Permit 12
- No Individual Crossing Analysis / Cumulative Impacts
- Process (DEQ / FERC / General)
- Recreation
- Species Impacts
- Forest Impacts
- Wetlands
- Steep Slopes / Slide Prone
- Contamination (Leaks / Explosions / Hydrostatic testing)
- Existing Projects
- Surface Water Withdrawals
- Other

Staff captured any unique information presented in the comments or summarized topics not otherwise represented by the broader topics, separately. Finally, staff noted any comments that included technical documents or unique issues not otherwise covered in other comments and these were routed to the appropriate technical staff for further review.

The number of comments DEQ received for both projects was estimated at the close of the comment period to be about 20,000. After processing the comments, staff estimates the number of comments received for MVP to be approximately 8,000.

Comments received after 11:59 pm on August 22, 2017 were considered to be late. Several comments were submitted to the Board's email address prior to this deadline but not retrieved by DEQ staff until after the deadline – these were not considered to be late. Several email comments were submitted to specific DEQ staff, rather than the public comment email inbox, prior to this deadline but were not opened or accessed until after the deadline – these were not considered to be late. Approximately 33 late emails were received for MVP. Another approximate 47 paper comments were received late but not separated by project. No late comments were considered.

Attachment C

Summary Response to Comments

1. **Administrative Procedures - DEQ has not followed appropriate administrative procedures for public comment and public hearings.**

The State Water Control Board (Board) has broad authority to adopt rules governing the procedure for the Board with respect to: (a) hearings; (b) the filing of reports; (c) the issuance of certificates and special orders; and (d) all other matters relating to procedure. DEQ adhered to established procedures for public comment and public hearing with respect to the proposed issuance of this 401 Water Quality Certification. Guidance Memo No. GM17-2003, Interstate Natural Gas Infrastructure Projects - Procedures for Evaluating and Developing Additional Conditions for Section 401 Water Quality Certification Pursuant to 33 USC § 1341 ("401" Certification), provides that (1) public notice of draft certification conditions will be published once in one or more newspapers of general circulation in the areas in which the pipeline activity is to take place and (2) provide a public comment period of 15 to 30 days including an opportunity to request a hearing or provide a comment period of 30 days with a scheduled public hearing at the end of the 30 days.

Public notices of the draft Section 401 Water Quality Certification for Mountain Valley Pipeline (MVP) and the opportunity to submit written comments during the public comment period and to submit oral and written comment at two public hearings were published the week of July 3, 2017, and appeared in nine newspapers: The Franklin News-Post, The Roanoke Times, Danville Register & Bee, Chatham Star Tribune, The Southwest Times, Virginian Leader, New Messenger, The Floyd Press, and Salem Times-Register.

The notice included the announcement of a 50-day comment period (July 3, 2017 through August 22, 2017) and two public hearings (August 8, 2017 at Radford University and August 9, 2017 at Chatham High School Auditorium). In addition, as provided in the guidance, the notice included a brief description of the proposed pipeline activity, location of such activity and state waters that may be affected (a listing of localities was included along with a link to the DEQ website for additional project-specific information and location), a summary of the draft conditions, details on how to submit comments and request additional information, and a brief description of the formulation of a final determination on any additional conditions.

2. **DEQ has rushed the process and could not have conducted an appropriate review for a project of this scope.**

DEQ has been engaged in the environmental review of the proposed MVP Project (Project) for more than two years. MVP made its initial filing for a Certificate of Public Convenience and Necessity with the Federal

Energy Regulatory Commission (FERC) on October 23, 2015. Formal review of multiple environmental aspects of the Project was initiated during the Environmental Impact Review (EIR) process, which is Virginia's opportunity to review and comment upon the draft environmental impact statement (EIS). DEQ reviewed numerous environmental considerations of the Project including many relevant to the protection of water quality. In fact, comments that DEQ raised during EIR have informed the additional requirements in the proposed 401 Certification. FERC released its draft EIS on September 16, 2016. DEQ submitted its comments on the draft EIS to FERC on December 22, 2016.

In addition to DEQ's participation in FERC's environmental review process, inquiries from concerned citizens and affected property owners, local governments, state legislators, and environmental organizations were addressed to DEQ as early as November 2015, just weeks after MVP's initial filing with FERC. After consideration of these inquiries and concerns, by letter dated May 16, 2016 DEQ notified MVP that due to the scope of its proposed pipeline, project-specific erosion and sediment control and stormwater management plans must be submitted to and approved by DEQ. In this letter, DEQ also required that these plans be posted on the MVP website and that all inspection reports, compliant logs, and complaint responses must be submitted to DEQ.

DEQ has thoroughly reviewed the documents enumerated in Section IV of the proposed 401 Certification and all additional information submitted by MVP in response to DEQ's May 19, 2017 Request for Information (MVP's June 1, 2017 and June 22, 2017 responses). Additionally, DEQ has been reviewing erosion and sediment control and stormwater management measures for the Project since early 2016. MVP first submitted its annual standards and specifications in February 2016. The standards and specifications were approved in June, 2017. As of the date of this writing, DEQ has had over 60 meetings and work sessions with MVP to review and discuss, the standards and specifications and the project-specific Erosion and Sediment Control (ESC) and Stormwater Management (SWM) plans that cover every foot of land disturbance. DEQ will continue to review and require revisions to the Project plans to ensure that these plans meet Virginia regulatory requirements for ESC and SWM.

3. **Segmented Regulatory Review - DEQ has unjustifiably splintered the regulatory process into discrete parts that are inextricably linked and essential to an evaluation of the Project's impacts on water quality.**

DEQ has not divided its regulatory review of MVP. DEQ has applied multiple layers of regulatory review to the Project and has gone above and beyond any historical evaluations of necessary water quality protections related to pipeline construction. As noted in the *Basis for Certification* (Attachment A to the Memorandum), the intent

of this proposed 401 Certification is to address several unique aspects of the proposed Project that are not directly regulated by other regulations or permits. This proposed 401 Certification is narrowly focused on additional protections related to those unique aspects that DEQ believes are necessary in upland areas to minimize potential impacts to water quality. The resources and impacts of concern are karst hydrogeology, private and public water supplies, maximization of riparian forest buffers, surface water withdrawals that are exempt from permitting requirements, minimization of landslide risks related to construction activity on steep slopes, minimization of risks associated with blasting activities, and financial responsibility associated with impacts to private drinking water sources.

The conditions in the proposed 401 Certification impose requirements that are in addition to other existing DEQ programs being applied to the Project as well as many other requirements compelled by other state and federal entities. This proposed 401 Certification applies to project activities in upland areas outside of the Corps jurisdictional areas under 33 U.S.C. § 1344 which may result in an indirect discharge to waters of the United States, water withdrawal activities that are exempt from coverage under the Virginia Water Protection Permit Program Regulation (9 VAC 25-210-10, *et seq.*), and activities not covered under the Stormwater Management Act (Va. Code § 62.1-44.15:24, *et seq*.) and Erosion and Sediment Control Law (Va. Code § 62.1-44.15:51, *et seq*.).

4. The Board should request DEQ to reconsider and reverse its decision to defer to the U.S. Army Corps of Engineers (Corps) and its Nationwide 12 permit for wetlands and stream impacts.

Section 404 of the federal Clean Water Act (CWA) establishes a permitting program to regulate the discharge of dredge and fill material into waters of the United States. This program is administered by the U.S. Army Corps of Engineers (the Corps), with oversight from the U.S. Environmental Protection Agency (EPA). Section 401 of the CWA requires anyone applying for a Section 404 permit to also obtain a State water quality certification (a 401 certificate), which affirms that the State has a reasonable assurance that the activity complies with all applicable State water quality laws and standards. DEQ implements an independent State-wide permitting program, the Virginia Water Protection (VWP) Permit Program, for impacts to surface waters (including wetlands), which can also serve as a 401 certificate for a Section 404 permit.

The VWP Permit Program regulates impacts to state waters, including wetlands. VWP permit conditions are designed to ensure "no net loss" of wetlands, establish in-stream flow requirements, and protect the beneficial uses of state waters. DEQ can provide a 401 certificate for a Section 404 permit (1) by issuing a VWP individual or general permit; (2) by certifying Corps' nationwide (NWP) and regional permits (RP); or (3) by issuing a 401 certificate without a separate VWP permit. Further, Virginia law also authorizes DEQ to provide

regulatory oversight to isolated wetlands and excavation activities that are beyond the jurisdiction of the Section 404 program.

DEQ and the Corps utilize a Joint Permit Application (JPA) so that an applicant can apply for both federal and state permits through one application. Processing this JPA is coordinated between the Corps and Virginia.[8] After reviewing the proposed activity and evaluating the scope and impacts of a project to jurisdictional wetlands and stream crossings, the Corps will determine if the Project qualifies for a nationwide or regional permit or whether an individual permit must be drafted.

The Corps' Nationwide Permits (NWPs) authorize specific activities in jurisdictional waters, including wetlands. There are currently 54 NWPs in Virginia addressing a variety of common project types such as road construction, commercial development, maintenance of water control structures, channel dredging, and utility line installation. The Corps develops conditions for each NWP that ensure compliance with the Clean Water Act while protecting endangered species and cultural resources. The Corps reissues the NWPs every five years in a process that solicits comments on the draft permit conditions from public, private, and regulatory stakeholders. The Corps considers the comments and incorporates them into the final NWP conditions as appropriate. At the state level, the Corps' District Offices then develop additional Regional Conditions for the NWPs that address that state's unique geological features and water resources.

In Virginia the Corps' Norfolk District Office provided substantially updated regional conditions to supplement the reissued 2017 NWPs. Under Section 401 of the Clean Water Act, each state must then determine if the final NWPs are protective of that state's water quality standards. In Virginia, this determination is made by DEQ on behalf of the State Water Control Board and in accordance with the Virginia Water Protection Permit Program Regulation. DEQ reviews the proposed NWPs, the Norfolk District Regional Conditions, and other decision documents provided by the Corps. When DEQ finds that there is a reasonable assurance that the activities permitted under a Corps' NWP, including the Norfolk District Regional Conditions, will not violate applicable water quality standards, Virginia issues a Water Quality Section 401 Certification for that NWP as meeting the requirements of the VWP Permit Program regulation.

Alternatively, DEQ may issue additional certification conditions on any NWP to ensure compliance with State water quality standards. Certification conditions attached to a NWP by Virginia are enforceable conditions of the NWP. Finally, a state can reject the use of any NWP, provided it has a comparable mechanism to ensure a project's compliance with the Clean Water Act. DEQ has found that NWPs, including Regional Conditions and

[8] In the case of impacts to tidal wetlands and subaqueous bottoms over a certain size, the Virginia Marine Resources Commission (VMRC) may also have a permitting role and the joint permit application covers any applicable VMRC permits.

State Water Quality Certifications, expedite permit processing while safeguarding the environment and reducing duplication of effort by regulatory agencies. The Corps reissued its NWPs in March of 2017, including the NWP 12 for Utility Line Activities. DEQ evaluated the proposed 2017 NWP 12, including the Norfolk District Regional Conditions, and provided certification of the NWP 12 with three conditions concerning water withdrawals, construction methods and mitigation for impacts. DEQ's evaluation of the NWP 12 for Utility Line Activities found that the NWP 12's conditions provide reasonable assurance that any utility project constructed in accordance with the NWP 12 Conditions, the Norfolk District Regional Conditions and DEQ's State Water Quality Section 401 Certification conditions, will not violate the Commonwealth's water quality standards.

The Corps imposed a number of enhanced and additional conditions in the 2017 reissuance of NWP 12. These include:

- A recommendation to use equipment mats during temporary work in wetlands.
- Added a requirement to provide remediation plans for inadvertent hydraulic drilling fluid release during directional drilling. Also authorizes fluid cleanup under the NWP 12.
- Added a requirement to coordinate Threatened & Endangered (T&E) Species with the US Fish and Wildlife Service (FWS) Virginia Field Office, which incorporates the Department of Game and Inland Fisheries (DGIF) and Department of Conservation and Recreation (DCR) into the process.
- Added a requirement to coordinate T&E with the National Marine Fisheries Service, as appropriate.
- Added a recommendation to use Virginia native species for revegetation per DCR's list.
- Added requirements to restore the pre-construction conditions at stream crossings using materials that mimic the natural stream bed. No riprap shall be used except as required by Virginia stormwater regulations. The stream restoration shall promote the free passage of aquatic organisms.
- Added that a mitigation plan is required for all permanent loss over 1/10 acre and/or 300 linear feet of waters.

Also of note, is that under current VWP regulations, most of the nontidal wetland and stream crossings associated with MVP would qualify for a VWP General Permit for Facilities and Activities of Utility and Public Service Companies Regulated by Federal Energy Regulatory Commissions or the State Corporation Commission and Other Utility Line Activities (WP-2). The WP-2's conditions track closely with the NWP 12

conditions, but are less robust overall. Alternatively, each project could have been authorized under a VWP Individual Permit. Individual Permits have standard conditions, and also allow for special conditions as appropriate. However, given the extensive and thorough conditions included in the 2017 NWP 12 and its associated Regional and State Conditions DEQ's issues and concerns have been addressed.

DEQ has determined that the NWP 12 as currently certified and conditioned in Virginia is protective of the Commonwealth's water quality standards for the physical crossings of wetlands and streams. DEQ is proposing separate individual Section 401 certification conditions on the Projects' FERC license to provide additional water quality protections as detailed in Response to Comment (RTC) #3.

5. DEQ is inappropriately excluding comments on Erosion and Sediment Control Plans and Stormwater Management Plans, the Corps' NWP 12 and environmental impact statements from the record of the proposed 401 Certification.

DEQ is not excluding comments on the record. DEQ is simply stating that such comments are not relevant to this proposed 401 Certification. DEQ acknowledges that its review and approval of project-specific stormwater management and erosion and sediment control plans is a critical component of assuring protection of water quality. But this is separate and apart from the scope of this proposed 401 Certification. Before any land disturbing activity can occur, DEQ must have reviewed and approved MVP's project-specific plans. As explained in the *Basis for Certification* (Attachment A to the Memorandum), the Virginia Stormwater Management Program law and regulations establish that land disturbance associated with pipeline construction activities must meet Virginia Erosion and Sediment Control (VESC) and Stormwater Management (SWM) requirements to protect surface water quality during and after construction completion. State law further mandates that natural gas pipeline utilities (and certain other utilities) meet the requirements for VESC and SWM under a DEQ approved Annual Standards and Specifications Program. These plans will not be approved unless they meet Virginia's statutory and regulatory requirements for post construction stormwater management and erosion and sediment control during construction.

The Annual Standards and Specifications for the MVP Project were approved in June 2017. Additionally, as detailed in RTC #4, DEQ has also reviewed and approved a Water Quality Certification for the Corps NWP 12 as providing protection of water quality as a result of activities in streams and wetlands. DEQ comments on the draft Environmental Impact Statement have either been addressed in the Final Environmental Impact Statement (FEIS), the Certificate, or subsequent regulatory actions by other state and federal agencies.

6. **DEQ has deferred evaluation of erosion and sediment control and stormwater management plans until *after* this 401 process, even while it acknowledges that these plans are "critically important" to protecting water quality in Virginia's streams, rivers, and wetlands.**

The evaluation and approval of erosion and sediment control and stormwater management plans is being conducted under the requirements of the approved Annual Standards and Specifications and associated Law and Regulations, as detailed in the *Basis for Certification* (Attachment A to the Memorandum). Plans will not be approved unless they meet all the requirements. Initiation of land disturbing activities *will not* be allowed unless they are approved. This prohibition on land disturbing activity prior to plan approval is an independent state authority and separate from this additional 401 certification process.

7. **Reasonable Assurance - The 401 certification fails to demonstrate "Reasonable Assurance". DEQ has failed to properly evaluate potential impacts to water quality including identification of which water quality standards might be affected and apply the antidegradation policy.**

The term "reasonable assurance" is not defined in the Clean Water Act or applicable federal regulations.[9] The U.S. Environmental Protection Agency (EPA) has promulgated regulations that outline the process for providing Section 401 water quality certification at 40 C.F.R. Part 121. This regulation states that the certification shall, among other elements, include a statement that there is a reasonable assurance that the activity will be conducted in a manner which will not violate applicable water quality standards. The certification must also include: (i) a statement that the certifying agency has either examined the application made by the applicant to the licensing or permitting agency and bases its certification upon an evaluation of the information contained in such application which is relevant to water quality considerations; or, (ii) that the agency has examined other information furnished by the applicant sufficient to permit the certifying agency to make the statement that there is a reasonable assurance that the activity will be conducted in a manner which will not violate applicable water quality standards.

EPA's regulation also authorizes DEQ to provide a statement of any conditions which it deems necessary or desirable with respect to the discharge of the activity and, very broadly, DEQ can include other information as it may determine to be appropriate.

[9] Although used in a different context, Section 7 of EPA's Chesapeake Bay TMDL discusses a reasonable assurance concept. EPA explains that for point sources, the issuance of an NPDES permit provides the reasonable assurance that the required reductions will be achieved. Where both point sources and nonpoint sources exist on an impaired water body, determinations of reasonable assurance are based on whether practices capable of reducing the specified pollutant load: (1) exist; (2) are technically feasible at a level required to meet allocations; and (3) have a high likelihood of implementation. In other words, the existence of a framework for achieving the desired water quality is sufficient to demonstrate reasonable assurance.

As noted above, federal regulations require that a § 401 certification must include "[a] statement that there is a reasonable assurance that the activity will be conducted in a manner which will not violate applicable water quality standards."[10] Water quality standards consist of statements that describe water quality requirements and include: designated uses, water quality criteria, and an antidegradation policy. Virginia has adopted water quality standards to protect existing high-quality waters and to provide for the restoration of all other state waters to permit reasonable public uses and will support the growth of aquatic life.[11] Reasonable assurance is more than a probability or mere speculation. However, a § 401 certification addresses future events; therefore, it is inherently predictive in nature and absolute certainty is not required. A state may add conditions to a § 401 certification that the state deems necessary or desirable with respect to the discharge of the activity,[12] and the state may rely on these conditions to make a finding of reasonable assurance.

Additionally, in making a finding that there is reasonable assurance a state may rely on tools that reduce the uncertainty inherent in the predictive nature of a § 401 certification, including: future submissions of revised plans, reports, and studies; monitoring; and, adaptive management. The need for future submissions of revised plans, reports, and studies does not preclude a state from finding reasonable assurance. As long as the requirements for these future submissions are specific and set out in detail in the § 401 certification, a state may rely on them to reduce uncertainty and to make a finding of reasonable assurance. A state may also rely on adaptive management strategies, such as monitoring and the implementation of contingency plans, to make a finding of reasonable assurance as long as the requirements for adaptive management are set out with specificity and the corrective actions and outcomes are reasonably certain to occur.

Based upon a review of the record, and the conditions imposed by other permits and regulatory requirements the Project is required to meet, and with the conditions imposed in the proposed 401 Certification, there is reasonable assurance that Virginia's water quality standards will not be violated by the Project. In fact, DEQ has already established reasonable assurance that activities in streams and wetlands (April 7, 2017 DEQ 401 Water Quality Certification of Corps NWP 12), and land disturbing activities (June 20, 2017 DEQ approval of Annual Standards and Specifications) will be conducted in a manner that will not violate applicable water quality standards.

While Congress has clearly stated that stormwater from land disturbing activity associated with construction of the pipeline is exempt from a section 402 discharge permit, Virginia's annual standards and specifications program incorporates the same engineering, erosion and sediment control, recordkeeping, monitoring,

[10] 40 C.F.R. § 121.2(a)(3).

[11] See Va. Code § 62.1-44.15(3a); 9 VAC 25-260.

[12] 40 C.F.R. § 121.2(a)(4).

inspecting and post construction stormwater management requirements that are otherwise implemented in the Board's General VPDES Permit for Discharges of Stormwater from Construction Activities, also known as the Construction General Permit (9VAC25-880-1 *et seq.*)

Virginia Code § 62.1-44.15:31 states that interstate and intrastate natural gas pipeline companies (among others) shall annually submit a single set of standards and specifications for DEQ approval that describe how land-disturbing activities shall be conducted. In addition, Virginia law provides that such standards and specifications shall be consistent with the requirements of the Stormwater Management Law and associated regulations, including the regulations governing the General Permit for Discharges of Stormwater from Construction Activities and the Erosion and Sediment Control Law (§ 62.1-44.15:51 *et seq.*) and associated regulations.

The Board's Construction General Permit was most recently adopted by the Board on December 17, 2013, and the reissued permit became effective on July 1, 2014. This general permit was appealed by the Potomac Riverkeeper, Inc. and others. The Riverkeeper argued that the General Permit failed to adequately protect water quality. By an order dated April 10, 2017, the Richmond Circuit Court upheld the Construction General Permit and dismissed the appeal finding that the Board acted in accordance with law and that there was substantial evidence in the record to support the Board's determination that proper implementation of permit conditions, including inspections and corrective action, would protect water quality.

The Court expressly found that:

- As a matter of practice, DEQ reviews every operator's registration statement to determine if the proposed discharge involves impaired or exceptional waters;
- The Construction General Permit expressly provides control measures that must be implemented in an operator's stormwater pollution prevention plan (SWPPP);
- The SWPPP components must be reviewed and approved before authorization to discharge under the Construction General Permit will be granted;
- Discharges into impaired or exceptional waters are not eligible for coverage under the Construction General Permit unless the operator takes certain steps to protect the waters;
- Operator inspections must be performed by qualified personnel; and,
- The Virginia Erosion and Sediment Control Program authority must inspect the land disturbing activity.

In Virginia, the Annual Standards and Specifications program imposes the same technical and engineering requirements that would be required under the Construction General Permit. MVP is required to have approved VESC and SWM plans that meet regulatory requirements to protect water quality. In addition, MVP is required to have an approved SWPPP that includes the following information consistent with the technical requirements contained in the 2014 Construction General Permit:

- General Information (Section A.1(d) & (e) of Part II)
- Erosion and Sediment Control Plan
- Stormwater Management Plan
- Pollution Prevention Plan (Section A.4 of Part II)
- SWPPP Requirements for Impaired, Total Maximum Daily Load (TMDL) and exceptional waters. (Section A.5 of Part II)
- Qualified Personnel (Section A.6 of Part II)
- Individuals or positions with delegated authority to sign inspection reports or modify the SWPPP.
- Certification: "I certify under penalty of the law that I have read and understand this document and that this document and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

In the absence of information demonstrating otherwise, compliance with the requirements under the Annual Standards and Specifications Program will result in stormwater discharges being controlled as necessary to meet applicable water quality standards and antidegradation requirements. More specifically, by imposing requirements that discharges to impaired, TMDL, and exceptional waters comply with additional requirements, to stabilize exposed areas faster and to conduct site inspections more frequently than other sites (in addition to meeting SWPPP, VESC and SWM requirements), authorizing these discharges will not result in a lowering of water quality. Thus, DEQ has determined that compliance with the Annual Standards and Specifications

approval generally is sufficient to satisfy Tier 2 and Tier 3 antidegradation requirements because the controls will not result in a lowering of water quality, making individualized Tier 2 or Tier 3 review unnecessary.

DEQ has determined that the Annual Standards and Specifications Program ensures compliance with water quality standards and antidegradation requirements. This is supported by the fact that the requirements under the Annual Standards and Specifications Program meet the technical requirements of the Construction General Permit. Likewise, in the 2017 Permit Fact Sheet for the NPDES Construction General Permit, EPA determined that compliance with the Construction General Permit generally is sufficient to satisfy Tier 2 (or 2.5) and Tier 3 antidegradation requirements because the controls will not result in a lowering of water quality, making individualized Tier 2 or Tier 3 review unnecessary.

Specific requirements for discharges to impaired, TMDL, and exceptional waters required under the Annual Standards and Specifications Program include:

(1) Permanent or temporary soil stabilization applied to denuded areas within seven days after final grade is reached on any portion of the site;

(2) Nutrients applied in accordance with manufacturer's recommendations or an approved nutrient management plan and shall not be applied during rainfall events; and,

(3) A modified inspection schedule implemented as follows:

> (a) Inspections shall be conducted at a frequency of: (i) at least once every four business days; or, (ii) at least once every five business days and no later than 48 hours following a measurable storm event. In the event that a measurable storm event occurs when there are more than 48 hours between business days, the inspection shall be conducted on the next business day; and
>
> (b) Representative inspections used by utility line installation, pipeline construction, or other similar linear construction activities shall inspect all outfalls discharging to surface waters.

As discussed in RTC #4, the temporary construction activity related to locating the proposed pipeline under streams and wetlands must be authorized by a Clean Water Act Section 404 dredge and fill permit. DEQ has determined that the NWP 12 as currently certified and conditioned in Virginia is protective of the Commonwealth's water quality standards for the physical crossings of wetlands and streams.

This proposed 401 Certification is focused on additional protections related to those unique aspects that DEQ believes are necessary in upland areas to minimize potential impacts to water quality. The additional conditions

in this proposed 401 Certification include specific requirements for best work practices emphasizing hazard assessment, frequent inspection requirements, monitoring activities, preventative measures, riparian buffer protections, and comprehensive mitigation plans. These conditions are in addition to those described above and provide additional reasonable assurance that water quality standards will be protected.

8. DEQ has not evaluated potential impacts to water temperature.

The construction and operation of a linear utility right of way does not create a thermal point source. The commenters assert that the loss of shading associated with 50-foot-wide permanent easements required for the proposed pipeline will violate instream water quality criteria for temperature. The tools to evaluate potential impacts on water temperature from non-thermal non-point sources do not provide the similar analysis as exists for sediment and nutrients. The temporary nature of potential impacts from sedimentation does not apply to potential impacts on temperature resulting from permanent loss of shading.

Virginia has developed a limited number of temperature total maximum daily loads (TMDLs). These TMDLs utilized extensive modeling that evaluated and predict instream temperature responses to various land use conditions. The land use data utilized in the TMDL modeling may not be practical for estimating potential temperature impacts of linear pipeline development.

However, the sensitivity analyses of the TMDL models indicate that the most influential parameters affecting stream water temperature are ambient air temperature, relative humidity, shading provided by riparian zone vegetation, and inflow water temperature. One factor that is not accounted for in the model but likely has a powerful influence on localized stream temperatures is groundwater surfacing into stream channels. This parameter is not as easily measured but would likely provide important clarity regarding how pipeline crossings and temporary construction easements in the riparian zone actually will affect stream temperatures. The water segments with existing, documented temperature impairments addressed by these TMDLs are generally characterized by land practices resulting in thousands of feet of riparian zone vegetation completely removed along both sides of the stream. This is in sharp contrast to the limited 50-foot-wide permanent easement for stream crossings of the proposed pipeline. Additionally, many of the streams that would be crossed by the proposed MVP are located in mountainous, headwater areas presenting with karst geology and are known for having significant groundwater and spring fed inflow.

Additionally, as was discussed in RTC #7 above, in making a finding that there is reasonable assurance Virginia may rely on tools that reduce the uncertainty inherent in the predictive nature of the 401 certification, including: future submissions of revised plans, reports, and studies; monitoring; and adaptive management. As described by staff during the Board's July 2017 meeting, and as is explained in the *Basis for Certification* (Attachment A

to the Memorandum), DEQ along with the United States Geological Survey (USGS) will be conducting additional instream biological and water quality monitoring designed to evaluate baseline preconstruction conditions and evaluate whether there are effects on aquatic life, including temperature.[13] On this issue of temperature criteria, DEQ is proposing to utilize adaptive management strategies, such as monitoring and the implementation of contingency plans, to make a finding of reasonable assurance.

Based on DEQ's experience with temperature TMDLs, and given the relatively narrow width of stream crossings, the volume of inflow of groundwater, the proposed additional 401 Certification requirements for riparian buffer protection, and the water quality monitoring activities associated with critical temperature streams, DEQ has sufficiently evaluated potential impacts to the instream water quality criteria for temperature to have reasonable assurance that water quality standards will not be violated.

9. DEQ has not evaluated Cumulative Impacts to state waters.

In accordance with the Council on Environmental Quality's regulations for implementing the National Environmental Policy Act (NEPA),[14] FERC conducted a cumulative impact analysis as part of its environmental review of the proposed MVP project. FERC identified other actions located in the vicinity of the MVP and the EEP [Equitrans Expansion Project][15] facilities and evaluated the potential for a cumulative impact on the environment. This FERC analysis evaluates other actions that impact resources also affected by the projects, within the resource-specific geographic scopes. In evaluating cumulative impacts on water resources and wetlands, vegetation, land use, and wildlife, FERC considered many other proposed or permitted projects/actions within the Hydrologic Unit Code 10 (HUC10) sub-watersheds (i.e., fifth-field watersheds) crossed by the projects. These included, among others, the proposed Atlantic Coast Pipeline.

FERC specifically considered the 389 perennially flowing waterbodies that will be crossed by the proposed MVP. FERC noted that construction of the project would result in temporary or short-term impacts on surface water resources as well as some minor long-term impacts such as loss of forested cover in the watershed and partial loss of riparian vegetation. FERC found that these impacts, such as increased turbidity levels, are expected to return to baseline levels over a period of days or weeks following construction given the requirement to restore water bodies to their original contours. FERC also noted that any projects crossing

[13] DEQ's pipeline monitoring plan is found in Attachment D to the Memorandum,

[14] 40 C.F.R. § 1508.7.

[15] EEP is a separate request for authorization to construct and operate natural gas facilities in Pennsylvania and West Virginia. However, because the MVP and the EEP are interrelated and connected actions, FERC analyzed them together in a single comprehensive EIS. No EEP activities are located in Virginia.

Waters of the United States would have to obtain permits from the Corps. Consequently, FERC concluded that the cumulative effect on surface waterbody resources would be minor.

FERC also concluded that, given the relatively small total of wetland acres affected not only by MVP but also by other known projects in the affected watersheds, cumulative impacts on wetlands within the HUC10 watersheds when considered with the projects identified in the FERC analysis would not be significant.

In summary, the June 23, 2017 FEIS concludes that "[g]iven the project BMPs and design features, mitigation measures that would be implemented, federal and state laws and regulations protecting resources, and permitting requirements, we [FERC] conclude that when added to other past, present, and reasonably foreseeable future actions, the MVP and the EEP would not have significant adverse cumulative impacts on environmental resources with the geographic scope affected by the project."

As is described in DEQ's *Basis for Certification* (Attachment A of the Memorandum), there are numerous federal and state permitting and regulatory programs that apply to the Project. These include the Virginia Erosion and Sediment Control (VESC) Program; the Virginia Stormwater Management Program (VSMP); the Virginia Pollutant Discharge Elimination System (VPDES) permit program for stormwater from construction activities; the Virginia Water Protection Permit Program (VWP) and Section 404 of the Clean Water Act. Each of these regulatory tools individually requires protection of water quality for project activities. Collectively these programs impose a number of technical requirements that are designed to avoid or minimize impacts to water resources.

While federal NEPA regulations direct FERC to analyze cumulative impacts, there is no Virginia regulatory framework for DEQ to conduct such an analysis.

Moreover, while the impacts to jurisdictional waters authorized by the Corps under Section 404 of the Clean Water Act are separate from upland activities that are the subject of this Certification, the Corps also analyzed the cumulative effects of the linear utility projects and found that the individual and cumulative adverse effects on the aquatic environment resulting from the activities authorized by NWP 12 will be no more than minimal and that each crossing is a single and complete project. As stated in detail in the Corps Decision Document for NWP 12, division and district engineers will conduct more detailed assessments for geographic areas that are determined to be potentially subject to more than minimal cumulative adverse environmental effects and each have the authority to require individual permits in watersheds or other geographic areas where the cumulative adverse environmental effects are determined to be more than minimal, or add conditions to NWP 12 either on a case-by-case or regional basis to require mitigation measures to ensure that the cumulative adverse environmental effects of these activities are no more than minimal. When a division or district engineer

determines, using local or regional information, that a watershed or other geographic area is subject to more than minimal cumulative adverse environmental effects due to the use of NWP 12, he or she is directed to use the revocation and modification procedure at 33 C.F.R. § 330.5.

The concept of evaluating a project's total impacts to wetlands is also found in Virginia's VWP regulation. Specifically, the regulation includes a definition of single and complete project (9VAC25-210-10). The determination of what constitutes a single and complete project drives the analysis utilized to decide whether compensation for wetland impacts is required. In other words, the need to compensate for wetland impacts is based on the total impacts of a given project and the regulation defines how the totality of a project is evaluated to ensure wetland impacts are not fragmented and compensation avoided. The VWP regulations specifically define that for linear projects, the single and complete project (*e.g.*, a single and complete crossing) will apply to each crossing of a separate surface water (*e.g.*, a single water body) and to multiple crossings of the same water body at separate and distinct locations".[16]

10. Karst Terrain - Numerous comments and scientific reports were received identifying concerns associated with construction activity in karst terrain. These include inadequate identification of karst features, potential threats to ground and surface water, springs and wells. Many commenters feel the potential risks should create a pipeline "no-build" zone in karst terrain.

In Virginia, the Department of Conservation and Recreation (DCR) administers the Virginia Cave Protection Act (Virginia Code § 10.1-1000 *et seq.*). This act created the Virginia Cave Board whose statutory authority is to advise individuals, organizations, and public agencies on cave and karst related matters; provide cave management expertise; prepare and present educational material; identify significant caves; and recommend conservation and preservation measures for cave resources within Virginia. DEQ has worked closely with DCR to carefully evaluate potential challenges associated with constructing a pipeline in karst terrain. Many of the concerns raised are based on hypothetical events which could occur, while relatively few examples exist where impacts to karst features from pipeline construction have actually occurred. DEQ's obligation in developing this additional 401 Certification is to evaluate whether the proposed protective measures and work practices, if implemented properly, provide a reasonable assurance that water resources will be protected.

With over 2,000 miles of existing gas pipelines currently constructed within karst terrain in Virginia, Tennessee, Kentucky, and West Virginia, it has been demonstrated that pipeline construction can be safely accomplished in karst terrain. MVP will utilize the following suite of activities that are designed to greatly reduce the potential

[16] This is consistent with the Corps' definition of single and complete project in its 2017 NWP12 - For linear projects crossing a single or multiple waterbodies several times at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization.

for impacts to karst related water resources: field identification and confirmation of sensitive features (springs, sinkholes, sinking streams, outcroppings); implementation of best work practices; deployment of onsite karst specialists, and in-field inspections and monitoring during construction. MVP has also made several major, and numerous minor route adjustments to avoid karst features and sensitive water resources that were identified in its *Karst Hazard Assessment.*[17]

The *Karst Mitigation Plan*[18]calls for minor adjustments within the approved right-of-way to avoid karst features during construction if and when necessary. MVP will implement multiple avoidance and protective measures during construction to prevent impacts to karst and water resources. Best Management Practices in the Erosion and Sediment Control Plans, *Spill Prevention, Control, and Countermeasure (SPCC) Plan*, and the *Karst Mitigation Plan* are designed to prevent uncontrolled releases to surface waters and karst features in order to protect the underlying aquifer. MVP will deploy karst experts, as on-site inspectors, during all phases of construction in karst terrain to monitor karst resources, identify potential connectivity to the subterranean environment, prevent uncontrolled surface water releases, prevent impacts to karst features, and ensure that prescribed measures (referenced above) are in-place to protect karst features, surface water, and groundwater resources.

The proposed 401 Certification incorporates the karst related plans developed pursuant to FERC requirements and makes them enforceable by DEQ. FERC granted a Certificate of Public Convenience and Necessity for the Project on October 13, 2017, which contains additional karst related requirements that also are incorporated in the proposed 401 Certification. These additional requirements include revising the *Karst Mitigation Plan* to include post-construction monitoring using sequentially-acquired Light Imaging Detection and Ranging (LiDAR). The *Karst Hazard Assessment* identifying karst features has been completed and an addendum is required for properties previously not surveyed due to land access restrictions.

Commenters also raised general concerns regarding possible negative impacts to groundwater to quality and quantity both in karst terrain and throughout the entire Project. The experts that DEQ convened during its June 8, 2017 Karst Workshop[19] were in agreement that while some risk of very localized impact may be present, the risk is not very high. They were also in agreement that large scale interruptions of groundwater and surface water flow due to construction in karst hydrogeology were highly unlikely. The experts noted that it was difficult to envision how the proposed shallow trench (10-12 feet deep) would have any significant, prolonged

[17] Document found in FERC's final environmental impact statement and Certificate.

[18] Document found in FERC's final environmental impact statement and Certificate.

[19] In attendance were, among others, Virginia's State Geologist, staff from the U.S. Geological Survey, DEQ staff expert on karst, and staff to the Virginia Cave Board.

effect on groundwater resources. The project area in karst is primarily comprised of bedrock aquifers with minor aquifers along streams. At the proposed depth of construction, the pipeline trench could encounter limited shallow groundwater. In those situations, the trench will be dewatered through filters into adjacent vegetated uplands so that there will be some recharge to shallow aquifers.

Additionally, in follow up to comments made during the environmental review process, DEQ consulted with the Virginia Department of Health (VDH) regarding additional protections of private drinking water sources. In a memo dated October 19, 2017, VDH recommended that in areas of karst topography a survey of existing water resources be performed. VDH stated that this recommendation came out of an abundance of caution. This survey should comprehensively identify wells, cisterns, springs, and other surface water, and also provide water quality evaluations for wells and springs within 1,000 feet of the construction activity in karst topography. The survey shall be conducted by MVP at the request of a property owner and only if the property owner provides permission for access. VDH noted that this survey could be done before the pipeline is placed into operation, not necessarily prior to construction activities.

This recommended survey has been incorporated as a condition into the proposed 401 Certification.

11. Dye tracing should be required before the 401 certification is issued to understand the extent of impacts (inventory of all wells/springs within 500 feet is arbitrary without results of dye test).

As stated in RTC #7, it is appropriate for a 401 certification to contain a condition requiring future monitoring and studies to determine potential impacts. Additional conditions or requirements can be imposed once those results are obtained. Requiring the monitoring and submission of results before any land disturbing activities in karst terrain take place enables DEQ to coordinate any further requirements or restrictions to protect water quality. The proposed 401 Certification incorporates the *Karst Mitigation Plan* as an enforceable component.

As a condition of the proposed 401 Certification, MVP must develop a Supplemental Karst Evaluation Plan to further evaluate flow paths for karst features in the vicinity of the Project. This supplemental plan must be submitted to DEQ for review and concurrence prior to initiation of land disturbing activities in karst terrain. DEQ, with assistance from the Virginia Department of Conservation and Recreation, identified areas of concern in Attachment B of the Department's June 15, 2017 request letter. MVP will conduct contingency planning in accordance with the findings and conclusions of the Supplemental Plan, as appropriate, in order to monitor and mitigate a potential accidental release or spill during construction in Virginia's karst terrain.

12. Steep Slopes and Landslide - Commenters raised concerns that construction and operation of a natural gas pipeline could contribute to unstable slopes and cause landslides and other slope failures resulting in impacts to water resources and pipeline integrity.

The proposed 401 Certification includes incorporation of a *Landslide Mitigation Plan*[20] which has been developed to outline the special procedures and best management practices that will be implemented during the pipeline installation and post-construction periods to mitigate landslide potential. Plan development included field observations for these sites including: slope characteristics, GPS mapping of observed slides, slumps, rockfalls, scarp locations, the presence of geotropically affected trees, drainage features, and gullying. The Plan includes mitigation strategies such as excavation and/or regrading of upgradient head soils, dewatering, rock embedment as well as construction operations including buttressing and reinforced soil slope.

Landslide mitigation also will depend on the installation of appropriate drainage and erosion control measures during construction and proper right-of-way reclamation. Certain site-specific measures have already been identified for certain high risk areas and others will be applied as field conditions indicate the need. During construction, MVP will deploy geotechnical inspectors to identify additional areas, not already specifically addressed in the *Landslide Mitigation Plan*, where the landslide mitigation should be implemented. The geotechnical inspectors, in conjunction with MVP's engineers, will develop additional mitigation measures to address slope stability, as necessary, based on subsurface conditions revealed during construction.

Slip prevention is preferable to slip repair. The FERC Certificate issued October 13, 2017 imposes several additional requirements to MVP's *Landslide Mitigation Plan*. These additional requirements include adoption of additional industry best management practices to be used when crossing steep slopes at angles perpendicular to contours and expanded post construction monitoring to cover all potential landslide areas project wide. The FERC Certificate requires the submission of a revised *Landslide Mitigation Plan* including these recommendations before construction begins. This revised Plan will be incorporated as an enforceable part of the proposed 401 Certification. Condition 8 of the proposed 401 Certification is revised to reflect this revised *Landslide Mitigation Plan*. These industry standard practices, site-specific measures, construction and post construction monitoring provide additional protections from landslide impacts to state waters.

13. Impacts from Blasting - Blasting will cause irreparable harm to streams and karst features and increase landslide potential.

[20] Document found in FERC's final environmental impact statement and Certificate.

The proposed 401 Certification includes incorporation of a *General Blasting Plan* approved by FERC in the FEIS which outlines procedures and safety measures to minimize impacts to structures and water resources. The potential for blasting along the proposed pipeline to affect any structures or water resources will be minimized by utilizing controlled blasting techniques and using mechanical methods for rock excavation as much as possible. Controlled blasting techniques are designed to loosen rock, utilize minimal blasting charges and allow for physical removal of the rock once it has been fractured by the charge. Within the construction industry, controlled blasting techniques are regularly employed within 15 feet of active gas lines. The Plan includes specific practices for blasting conducted in karst terrain and waterbody and wetland crossings. Monitoring and pre and post blasting inspections are also required by the Plan. The use of controlled blasting techniques, where small, localized detonations are utilized, will avoid or minimize potential impacts to water resources.

14. Water Quality Monitoring Plan is inadequate. What kinds of monitoring will ensure that there are no impacts to water quality?

Condition 5 of the proposed 401 Certification requires MVP to develop a limited water quality monitoring plan to monitor and evaluate potential impacts to water quality from activities occurring in areas outside of wetlands and streams not subject to the Corps' NWP 12 (i.e., upland areas). The plan submitted by MVP details in-stream water quality monitoring to occur in three phases - before, during, and after construction in proximate upland areas. Three samples, at least one week apart, will be collected during each phase. The parameters to be monitored include: temperature, turbidity, dissolved oxygen, and pH. MVP will also complete benthic macroinvertebrate surveys to determine aquatic health before and after construction.

In addition to the upland monitoring that will be conducted by MVP, DEQ, in partnership with scientists from the U.S. Geological Survey (USGS) and Virginia Commonwealth University (VCU), is conducting project-specific water quality monitoring at a number of proposed MVP stream crossings near sensitive and/or critical areas. This monitoring will be conducted before, during and after MVP construction activities. Monitoring stations will be established upstream and downstream of the proposed pipeline crossing locations. This special study includes identification of benthic macroinvertebrate and fish community assemblages; quantitative physical habitat assessment; real-time, continuous water quality monitoring for turbidity, temperature, specific conductance, dissolved oxygen and pH; as well as grab sample monitoring for petroleum constituents (petroleum identification and quantity in water).

Throughout August 2017, DEQ and USGS scientists visited dozens of potential crossings locations in an effort to select priority monitoring locations. Six crossings along the proposed MVP route (12 monitoring sites) were

selected. Monitoring sites for DEQ's special study were prioritized based on a number of critical factors including the presence of wild trout populations and/or threatened and endangered species; proximity to Tier III (exceptional) waters; waters used as public water supplies; proximity to proposed upland construction activity (mountain regions); access to the site; and suitable water flow.

To establish a baseline of water quality conditions, monitoring began in the fall of 2017. If the MVP project is approved, the special study monitoring will continue during construction and for at least one year after completion of construction.

As has been noted in RTC #7, in making a finding that there is reasonable assurance Virginia may rely on tools that reduce the uncertainty inherent in the predictive nature of a § 401 certification, including monitoring. The monitoring is intended to provide reasonable assurance that erosion and sediment control measures are effective. If necessary, changes will be made to approved erosion and sediment control plans based on conditions encountered in the field during construction.

15. DEQ has not addressed water quality issues related to water withdrawal and discharges associated with Hydrostatic Testing, Horizontal Directional Drilling (HDD) or Dust Control activities.

The Virginia Water Protection Permit (VWP) Program Regulation specifically exempts water withdrawals that will be used for hydrostatic testing from the requirement to obtain a water withdrawal permit.[21] Even so, DEQ has gone beyond its regulatory authority and has included conditions in the proposed 401 Certification which specifically address how these water withdrawals must be conducted. First, the proposed condition limits surface water withdrawals to no more than 10% of the instantaneous flow rate in the channel from which it is withdrawn. The condition also imposes typical permitting requirements designed to protect instream organisms - intake screens must be designed so that screen openings are not larger than 1 millimeter and the screen face intake velocities are not greater than 0.25 feet per second.

Withdrawals for horizontal directional drilling and dust control activities are not exempt from VWP permitting requirements if they exceed 10,000 gallons per day from nontidal waters or 2 million gallons per day from tidal waters. The proposed condition makes clear that volumes that exceed these limits must obtain a VWP permit and comply with the regulation.

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[21] 9VAC25-210-301.A.6.b states:

"The following surface water withdrawals are excluded from VWP permit requirements. … Surface water withdrawals from nontidal or tidal waters, regardless of the volume withdrawn, for the following uses:

Hydrostatic pressure testing of water tight containers, pipelines, and vessels."

Finally, although discharges from hydrostatic testing can be authorized under the Board's General Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation for Discharges from Petroleum Contaminated Sites, Groundwater Remediation and Hydrostatic Tests, the proposed 401 Certification requires discharge of hydrostatic test water to upland areas and not surface waters and monitoring consistent with this VPDES General Permit is required.

16. Public Water Supplies are at risk.

This comment is distinct from the issues raised in RTC #10 related to threats to water resources used by individual private landowners and focuses on concerns regarding public water supplies. MVP has contacted all public water suppliers in the watersheds in which construction activity will take place. MVP met twice with both the Towns of Rocky Mount and Boone's Mill. These meetings resulted in an alignment change that addressed the towns' concerns so no contingency plans were needed.

MVP also held meetings with Western Virginia Water Authority (WVWA) and, as a result, MVP prepared and submitted a Water Supply Contingency Plan to WVWA. Additionally, the October 13, 2017 FERC Certificate includes a requirement that prior to construction, MVP must file with FERC, for review and written approval, water supply contingency plans, prepared in coordination with the public water suppliers, outlining measures to minimize and mitigate potential impacts on public surface water supplies with intakes within 3 miles downstream of the workspace, and Zones of Critical Concern within 0.5 mile of the workspace. The measures shall include, but not be limited to, providing advance notification to public water supply owners prior to the commencement of pipeline construction.

The additional conditions in the proposed 401 Certification, including specific requirements for best work practices emphasizing hazard assessment, frequent inspection requirements, monitoring activities, preventative measures, riparian buffer protections, and comprehensive mitigation plans along with the requirements of the Stormwater Management Act (Va. Code § 62.1-44.15:24, *et seq*.) and the Erosion and Sediment Control Law (Va. Code § 62.1-44.15:51, *et seq*.) will adequately protect public water supplies.

17. Individual property owners provided comments regarding unique features located on their land that they feel were missed by on the ground surveys or not adequately addressed.

Many of these features were water resource, karst terrain, or steep slope conditions. Despite the infield surveys, desktop analysis, and various assessments developed for the Project, there always remains the possibility of certain overlooked features. Requirements for pre-land disturbing inspection (including during and after tree felling) by various personnel including Environmental Inspectors, karst specialists, and construction inspectors

are designed to ensure all features are appropriately identified and avoided or mitigated prior to initiation of land disturbing activities. This process will provide for appropriate identification of unique features not already addressed.

Additionally, as explained stated in the *Basis for Certification* (Attachment A to the Memorandum), DEQ made project-specific erosion and sediment control and stormwater management plans available for public review. The plans were posted by spread beginning on July 19, 2017, and public input was accepted until October 22, 2017. DEQ received input from a small number of property owners who reviewed the project-specific erosion and sediment control and stormwater management plans and found that certain features on their property were not adequately or correctly addressed. DEQ will work directly with these property owners to resolve the identified issues. If necessary, DEQ intends to conduct limited site visits to the properties.

18. Through the issuance of the proposed 401 Certification, DEQ has added an extra level of review beyond standard practice to ensure water quality is protected. FERC and many other agencies have carefully analyzed potential impacts to land, air, water quality, wildlife and other resources.

This observation and comment are noted.

Comments Submitted that Are Outside the Scope of the Proposed 401 Certification and DEQ's Legal and Regulatory Authority

Commenters identified proximate areas of seismic activity and assert that constructing a gas pipeline in such an area poses a danger to the community.

Consideration of this issue is not within the scope of the proposed 401 Water Quality Certification. It should be noted that in areas where seismic hazards exist, MVP will install pipeline with thickness in accordance with the U.S. Department of Transportation's pipeline safety regulations. Additionally, as discussed in the response to steep slopes and landslide concerns, MVP is revising the *Landslide Mitigation Plan* to include additional post construction monitoring including sequentially-acquired Light Imaging Detection and Ranging (LiDAR) imagery to detect slope movement in the areas where the proposed pipeline traverses through the seismic zone.

Commenters identified a concern of or potential for leaks, discharges, or explosions once the pipeline is operational.

Consideration of these issues is not within the scope of the proposed 401 Certification. The proposed 401 Certification addresses activity in upland areas and certain project-related surface water withdrawals not otherwise permitted or regulated and not the operation of the proposed pipeline itself and its contents.

It should be noted that several regulatory programs at both the state and federal level address and provide oversight concerning these issues. This includes requirements and oversight by the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration which sets and enforces regulations and standards for the design, construction, operation, maintenance or abandonment of pipelines.

Commenters questioned the necessity or justification for the pipeline Project including discussions of economic and energy production impact.

These comments regarding broader issues involving the proposed pipeline regarding the necessity, justification, or impact related to the economy and energy production are acknowledged. Consideration of these issues, however, is not within the scope of the proposed 401 Certification. The proposed 401 Certification addresses activity in upland areas and certain project-related surface water withdrawals not otherwise permitted or regulated and not the operation of the pipeline itself and its contents.

It should be noted that such issues or information may be relevant or considered in other regulatory actions including the Federal Energy Regulatory Commission's review process for issuance of a Certificate of Public Convenience and Necessity.

Commenters provided concerns, comments, and information regarding private property impacts including property values, private property access, and fairness and appropriateness of the exercise of eminent domain.

Comments regarding general or broad issues involving property access and property values from the proposed pipeline Project are not within the scope of this proposed 401 Certification.

It should be noted that within the context of this proposed 401 Certification regarding upland activities, MVP must provide a financial responsibility demonstration to support the Complaint Resolution Process contained in the Water Resources Identification and Testing Plan (February 2017) in the event of impacts to a private water supply that is used for human consumption, from project construction activities.

Additionally, it should be noted that other legal requirements and processes address these issues including state and federal laws regarding property access, easements, property value impacts, and eminent domain.

Several comments discussed or identified concerns regarding the pipeline project impact on air emissions including impacts related to climate change and increased production or use of natural gas in lieu of green energy production options such as solar or wind power.

Consideration of these issues regarding air emissions, climate change, and use of natural gas in lieu of solar or wind power are not within the scope of this proposed 401 Certification. However, it should be noted that other regulatory authorities exist to address such issues. Additionally, issues related to energy production and alternatives including other energy production technology may be relevant or considered in other regulatory reviews for the proposed pipeline Project including the Federal Energy Regulatory Commission's review process for issuance of a Certificate of Public Convenience and Necessity.

Commenters identified permitting, certification, or compliance actions taken by other states regarding pipeline projects.

This proposed 401 Certification is governed by applicable laws, regulations, and guidance in the Commonwealth of Virginia. A decision on the proposed 401 Certification cannot take into consideration laws, regulations, guidance, basis for decisions, or enforcement actions in other jurisdictions. The proposed 401 Certification contains additional conditions to support the finding of reasonable assurance that water quality standards will not be violated.

Additionally, non-compliance or other events related to different pipeline projects cannot be presumed or ascribed to this proposed pipeline Project and, if approved, compliance with the conditions of the proposed 401 Certification will be addressed through DEQ's authority, oversight, and enforcement process.

Commenters raised concerns regarding the fact that the project owner is a limited liability corporation and there is potential for it to avoid future responsibilities and liabilities associated with the Project.

Limited liability companies (LLCs) are viable business entities subject to oversight and enforcement of their legal obligations. Pursuant to Va. Code §§ 13.1-1000 *et seq.*, LLCs can be sued, own interests in real property, make contracts and incur liabilities, enter into partnerships or joint ventures, and transact any lawful business that a corporation, partnership, or other business entity may conduct in Virginia. MVP should not be considered differently than any other corporate entity in terms of its ability to carry out obligations related to environmental approvals during the construction and life cycle of its pipeline.

Furthermore, as it relates to complying with the FERC regulations and orders (which include enforcing conditions in certificate orders), FERC has various enforcement tools at its disposal in overseeing interstate pipelines such as MVP that are subject to FERC's jurisdiction. These tools include imposition of compliance

plans; disgorgement of unjust profits; the ability to condition, suspend, or revoke, certificate authority, or blanket certificate authority; the ability to refer matters to the Department of Justice for criminal prosecution; and civil penalty authority for fines and penalties exceeding $1 million per violation.

Finally, under the Virginia Water Protection Permit regulation (as a point of reference), the corporate status or corporate form of a permit applicant is not a ground for denying a permit application (*See* 9VAC25-210-230). Permits are issued to "persons," defined in the regulation as meaning an "individual, corporation, partnership, association, governmental body, municipal corporation, or any other legal entity" (9VAC25-210-10). Thus, a legal entity, such as a corporation or an LLC, can be issued a permit.

Comments Outside the Scope of this Certification Regulated by Other DEQ Statutes and Regulations

A significant number of comments and documents or studies were received related to issues being regulated by other DEQ regulatory programs. These comments were primarily focused on activities associated with stream crossings and issues associated with land disturbance involving erosion and sediment control and stormwater. Many of these comments are legitimate issues related to protection of water resources. All of the issues raised in this category of comments are being reviewed and appropriately addressed within those other regulatory programs. DEQ devoted considerable effort to provide clarification of the scope of this proposed 401 Certification within the supporting documentation. There is not a reduction in protection for these water resources by addressing them through the appropriate programs authorized by statute and regulation.

Comments were received in support of the pipeline including comments regarding the opportunity for economic development, manufacturing and job creation; increased safety of pipeline transportation compared to overland trucking of natural gas; decreased reliance on coal for energy production, and thoroughness of FERC's evaluation of the project.

A number of comments were received related to support of the proposed pipeline; however, consideration of these issues is not within the scope of this proposed 401 Certification.

CERTIFICATION No. 17-001

401 Water Quality Certification Issued To

Mountain Valley Pipeline, LLC
625 Liberty Avenue, Suite 1700
P~~ittsburg~~Pittsburgh, PA 15222

Pursuant ~~To~~to Guidance Memo No. GM17-2003
Interstate Natural Gas Infrastructure Projects -
Procedures for Evaluating and Developing Additional Conditions for Section 401 Water Quality Certification
Pursuant to 33 USC § 1341 ("401" Certification)

I. CERTIFICATION

The State Water Control Board finds that, subject to the additional conditions set out in Section V below, there is reasonable assurance that the Mountain Valley Pipeline, LLC activities covered by this Certification will be conducted in a manner that will not violate applicable Water Quality Standards in 9 VAC 25-260-5, *et seq.*, and will comply with the applicable provisions of 33 U.S.C. §§ 1311, 1312, 1313, 1316, and 1317.

II. DEFINITIONS

The following terms as used in this Certification shall have the following meaning:

"Annual Standards and Specifications" means the program for linear utility projects implementing the requirements of the Stormwater Management Act (Va. Code § 62.1-44.15:24, *et seq*.) and Erosion and Sediment Control Law (Va. Code § 62.1-44.15:51, *et seq*.).

"Board" means State Water Control Board.

"Certification" means Clean Water Act Section 401 Water Quality Certification developed in accordance with Guidance Memo No. GM17-2003, Interstate Natural Gas Infrastructure Projects – Procedures for Evaluating and Developing Additional Conditions for Section 401 Water Quality Certification Pursuant to 33 USC § 1341 ("401" Certification).

"Construction material or waste material" means solid waste as defined in the Solid Waste Management Regulations (9 VAC 20-81-~~10, *et seq*.).~~95).

"Corps" means U.S. Army Corps of Engineers.

"Department" means the Virginia Department of Environmental Quality.
~~"Environmental Impact Statement" means the environmental impact statement as prepared by the Federal Energy Regulatory Commission in compliance with the requirements of the National Environmental Policy Act (NEPA), the Council on Environmental Quality regulations for implementing NEPA, 40 C.F.R §§ 1500-1508, and FERC regulations implementing NEPA, 18 C.F.R. §§ 380.1-380.16 for the projects proposed by Mountain Valley Pipeline, LLC in Docket No. CP16-10-000.~~

"Environmental Impact Statement" or "EIS" means the Final Environmental Impact Statement (FEIS) issued by FERC on June 23, 2017.

"FERC" means the Federal Energy Regulatory Commission.

"Guidance" means Guidance Memo No. GM17-2003, Interstate Natural Gas Infrastructure Projects - Procedures for Evaluating and Developing Additional Conditions for Section 401 Water Quality Certification Pursuant to 33 USC § 1341 ("401" Certification) dated May 19, 2017.

~~"Karst feature" means but is not limited to sinkholes, caverns and swallets.~~
"Karst feature" means any sinkhole, sinkhole lineament, cave, cavern, swallet, spring, or similar feature found in an area identified as an area of karst geology characterized by the presence of soluble bedrock such as limestone, dolomite, marble or gypsum. Karst features shall include all such features identified in Appendix L of the EIS and any subsequently identified features in areas of karst geology.

"Owner" means Mountain Valley Pipeline, LLC (MVP) a joint venture between EQT Midstream Partners, LP and affiliates of NextEra US Gas Assets, LLC; Con Edison Gas Midstream, LLC; WGL Midstream; and RGC Midstream, LLC.

~~"~~Project" means the Virginia portion of a pipeline project approximately 303~~-~~ miles in length and 42-inches in diameter to transport up to 2.0 MMDth/d of natural gas from an ~~interconnection~~interconnect point in Wetzel County, West Virginia, to an ~~interconnection~~interconnect with an existing pipeline in Pittsylvania County, Virginia~~,~~ including approximately 106 miles of ~~the~~ pipeline, 58 miles of Project access roads, and appurtenances which will be located within Virginia and traverse portions of Giles County, Craig County, Montgomery County, Roanoke County, Franklin County~~,~~ and Pittsylvania County. The 401 Water Quality Certification applies to the location of pipeline right of way, access roads, and appurtenances as described in the EIS and any changes thereto subsequently approved by FERC.

"Riparian buffer" means a vegetated area near a stream, usually forested, which helps shade and partially protect a stream from the impact of adjacent land uses.

III. SCOPE OF CERTIFICATION

This Certification ~~applies to~~addresses Project activities in upland areas outside of the Corps jurisdictional areas under 33 U.S.C. § 1344 ~~which may result in an indirect discharge to waters of the United States or~~and water withdrawal activities that are exempt from coverage under the Virginia Water Protection Permit Program Regulation (9 VAC 25-210-10, *et seq.*). ~~These activities include~~In the manner and to the extent described herein, this includes all proposed upland ~~land-disturbing~~ activities associated with the construction, operation, maintenance, and repair of the pipeline, any components thereof or appurtenances thereto, and related access roads and rights-of-way as well as certain project-related surface water withdrawals. This Certification covers all relevant upland Project activities within the route identified in the Environmental Impact Statement.

T~~his~~As this Certification and the conditions contained in Section V are intended to ~~apply to~~address Project activities that are outside the jurisdictional scope of the Virginia Water Protection Permit Program Regulation, ~~and accordingly should~~this Certification shall not be interpreted as limiting or otherwise relieving the Owner of any conditions for any portion of the Project that are imposed pursuant to the Virginia Water Protection Permit Program Regulation ~~or~~, to any permit issued by the Corps ~~for any portion of the Project.~~ or Virginia Marine

Resources Commission in response to the February 26, 2016 joint permit application, or to any other separate state or federal permit, license, or approval required for the Project.

In addition, this Certification operates in conjunction with other regulatory actions including: (a) regulations adopted for land disturbing activities pursuant to the Stormwater Management Act (Va. Code § 62.1-44.15:24, *et seq*.) and Erosion and Sediment Control Law (Va. Code § 62.1-44.15:51, *et seq*.); and, (b) all requirements of the Annual Standards and Specifications applicable to the Project approved by the Department on June 20, 2017. These completed regulatory actions remain in full force and effect, and this Certification shall not be interpreted as limiting, modifying, or otherwise relieving the Owner of any conditions imposed pursuant thereto.

The Department's 401 Water Quality Certification for the ~~Corp's~~Corps' Nationwide Permit 12 issued April 7, 2017 and this additional Certification issued pursuant to Guidance Memo No. GM17-2003, Interstate Natural Gas Infrastructure Projects – Procedures for Evaluating and Developing Additional Conditions for Section 401 Water Quality Certification Pursuant to 33 USC § 1341 ("401" Certification) together constitute the Commonwealth of Virginia's 401 Certification for the Project.

T~~he~~Pursuant to 33 U.S.C. § 1341 (a)(3), the Board reserves the right to impose further conditions if any existing plans and/or mitigation measures are amended by the Owner and/or FERC that may materially reduce the water quality protection provided thereunder.

IV. INFORMATION EXAMINED

In developing this Certification and the additional conditions imposed herein, the Board and Department have considered the record relevant to water quality considerations associated with the Project, including but not limited to:

8. All applicable FERC documents, including Draft and Final Environmental Impact Statements issued by FERC and the associated docket materials including all Appendices ~~to the Final Environmental Impact Statement;~~, and the FERC order granting a Certificate of Public Convenience and Necessity (Certificate) on October 13, 2017;
9. The Department's initial Request for Information (RFI) dated May 19, 2017 in accordance with the Guidance, the Department's subsequent June 15, 2017 RFI and the Owner's June 1, 2017, and June 22, 2017 responses including but not limited to requested supplemental responses dated August 8, 2017, October 27, 2017, and November 2 and 6, 2017;
10. Proceedings of the multi-agency technical work session held June 6-7, 2017 (Lexington, Virginia);
11. Documents submitted for approval by the Department pursuant to requirements of the Stormwater Management Act (Va. Code § 62.1-44.15:24, *et seq*.) and Erosion and Sediment Control Law (Va. Code § 62.1-44.15:51, *et seq*.);
12. Corps Nationwide Permit 12 and Norfolk District Regional Conditions; ~~and~~
13. Guidance Memo No. GM17-2003, Interstate Natural Gas Infrastructure Projects- Procedures for Evaluating and Developing Additional Conditions for Section 401 Water Quality Certification Pursuant to 33 USC § 1341 ("401" Certification~~).~~); and,
14. Public comments submitted during the public comment period, including both written (electronic or paper copy) and oral comments provided during the August 8 and 9, 2017 public hearings.

V. CONDITIONS

In consideration of the recommendations of the Department, the Board finds that there are additional reasonable and prudent conditions that will provide the Commonwealth with an increased degree of assurance that upland Project activities which may result in a discharge to surface waters will be conducted in a manner that ~~is protective of~~will not violate applicable water quality~~.~~ standards. This Certification is only valid provided the Owner complies with the following conditions, limitations, and/or requirements:

1. ~~T~~he Owner shall follow the measures detailed in its June 1, 2017 and June 22, 2017 responses to the Department's May 19, 2017 and June 15, 2017 Requests for Information~~. These measures are expressly incorporated herein and shall be enforceable conditions of this Certification~~ including but not limited to requested supplemental responses dated August 8, 2017, October 27, 2017, and November 2 and 6, 2017.

2. Riparian Buffer Requirements

   a. Removal of riparian buffers not directly associated with the ~~Project~~Project's construction activities is prohibited.~~-~~ Disturbance and removal of riparian buffers from Project-related upland land disturbing activities that would occur within 50 feet of any perennial, intermittent, or ephemeral surface waters shall be avoided where possible, and minimized to the maximum extent practicable if 50 feet is not possible. ~~-~~Removal of riparian buffers not associated with crossings shall not be allowed where stream bank stability under normal flow conditions would be compromised.

   b. ~~T~~he construction limit of disturbance (LOD) in upland areas approaching waterbody and wetland crossings shall be reduced from 125 feet to 75 feet wide and ~~extended~~shall apply 50 feet from each side of the stream or wetland crossing ~~as an additional upland~~to minimize the extent of riparian buffer~~.~~ disturbance. For any upland area approaching a waterbody or wetland crossing where this reduced LOD is not possible, ~~a written justification~~notification of FERC approval (and Corps approval, if required) shall be provided to the Department ~~for review and approval~~ prior to initiating land disturbing activity in that area.

   ~~c. A 100 foot riparian buffer shall be maintained between any perennial, intermittent, or ephemeral surface waters and all fueling, maintenance, parking and hazardous material storage activities.~~

   ~~These measures are expressly incorporated herein and shall be enforceable conditions of this Certification.~~

   c. No refueling, hazardous materials storage, equipment maintenance, or equipment parking will take place within 100-feet of the waterbody or wetland crossing, except as allowed by the approved Annual Standards and Specifications.

3. Karst Terrain Requirements

   a. T~~he~~ An addendum to the Karst Hazard Assessment (February 2017~~) shall be revised~~), and ~~submitted~~any subsequent revisions or addenda to the same approved by FERC, will be provided to the Department upon completion of field survey activities and final pipeline alignments~~. The revised Karst Hazard Assessment shall be submitted to the Department for review and approval~~ , and prior to ~~initiation of~~ land disturbing activities ~~in~~ , that address those ~~areas~~properties in Virginia where the Owner could not previously conduct karst surveys due to land access restrictions.

b. The Owner shall follow the measures as detailed in the Karst Mitigation Plan (March 2017~~). These measures are expressly incorporated herein~~), and ~~shall be enforceable conditions of this Certification.~~any subsequent revisions or addenda to the same approved by FERC.

c. ~~T~~o further evaluate flow paths for karst features in the vicinity of the project, the Owner shall develop a Supplemental Karst ~~Dye Tracing~~Evaluation Plan to be submitted ~~and approved by the Department. The Karst Dye Tracing Plan shall evaluate dye trace studies to determine hydrological connections and relationships associated with karst features. The Karst Dye Tracing Plan shall at a minimum, evaluate the features identified in Attachment B of the Department's June 15, 2017 request letter. These include any such features in the construction right-of-way and all other disturbed areas, including access roads and staging areas, as identified by the Karst Hazard Assessment. Any dye trace studies proposed in the approved Karst Dye Tracing Plan shall be completed~~to the Department for review and concurrence prior to initiation of land disturbing activities in karst terrain. ~~The Plan is expressly incorporated herein and shall be an enforceable condition of this Certification.~~ The Department, with assistance from the Virginia Department of Conservation and Recreation (DCR) identified areas of concern in Attachment B of the Department's June 15, 2017 request letter. The Owner will conduct contingency planning in accordance with the findings and conclusions of the Supplemental Plan, as appropriate, in order to monitor and mitigate a potential accidental release or spill during construction in Virginia's karst terrain.

d. The Owner shall: (1) conduct a survey to identify wells, cisterns, springs, and other surface waters within 1,000 feet of the project centerline in areas known to have karst topography; and, (2) conduct one water quality sampling event to evaluate wells and springs used for human consumption and located between 500 feet to 1000 feet from the project centerline. The sampling shall include the parameters identified in the Water Resources Identification and Testing Plan (February 2017), and any subsequent revisions or addenda to the same approved by FERC. The survey and/or water quality sampling event shall be conducted by the Owner at the request of a property owner and only if the property owner provides permission for access. This survey and/or water quality sampling event shall be conducted before the pipeline is placed into operation. The Owner must complete any survey and water quality evaluation requests received at least 30 days prior to placing the project in service.

e. The Owner shall provide a financial responsibility demonstration to the Department in the amount of five million dollars ($5,000,000), to support the Complaint Resolution Process contained in the Water Resources Identification and Testing Plan (February 2017) in the event a private water supply used for human consumption is impacted from project construction activities.

This demonstration requirement may be satisfied by any of the financial assurance mechanisms that are set forth in 9 VAC 25-650-90 through 9 VAC 25-650-130. The mechanism or combination of mechanisms shall not be accessible by third parties and shall be used by the Department to implement the Water Resources Identification and Testing Plan when necessary due to the Owner's failure to do the same.

The mechanism or combination of mechanisms shall be submitted to the Department for review and approval and must contain such wording and terms as specified by the Department to satisfy this condition.

The demonstration, having been approved by the Department, shall be made available prior to initiation of land disturbing activities in karst terrain and shall be maintained until 180 days after all

land disturbing activity associated with the construction of the pipeline, and related access roads and rights-of-way have achieved final stabilization as required by the Erosion and Sediment Control Law (Va. Code § 62.1-44.15:51, *et seq*.). The Department will notify the Owner when the conditions to release the financial demonstration have been met.

4. Surface Water Withdrawals

   a. Any surface water withdrawals for the purposes of hydrostatic testing shall not violate applicable Water Quality Standards and shall be managed so that no more than 10% of the instantaneous flow rate from the channel is removed; the intake screens shall be designed so that screen openings are not larger than 1 millimeter and the screen face intake velocities are not greater than 0.25 feet per second.

   b. Any surface water withdrawals for the purposes of horizontal directional drilling or dust control that do not exceed 10,000 gallons per day from non-tidal waters or two million gallons per day from tidal waters shall not violate applicable Water Quality Standards and shall be managed so that no more than 10% of the instantaneous flow rate from the channel is removed~~,~~ and the intake screens shall be designed so that screen openings are not larger than 1 millimeter and the screen face intake velocities are not greater than 0.25 feet per second.

   c. ~~D~~daily withdrawals from horizontal directional drilling or dust control activities ~~shall not~~that exceed 10,000 gallons per day from non-tidal waters and ~~2~~two million gallons per day from tidal waters ~~per day. Any daily withdrawals greater than noted above shall~~must comply with the requirements of the Virginia Water Protection Permit Program Regulation.~~–~~ The Owner shall record and track the daily volumes of water withdrawn for horizontal directional drilling or dust control activities and make such records available during inspection or upon request by the Department.

   d. Hydrostatic test water shall be released to upland areas through ~~an~~ energy dissipating dewatering ~~device~~devices. The energy dissipating dewatering devices ~~will~~must be sized to accommodate the rate and volume of release and be monitored and regulated to prevent erosion and over pumping of the energy dissipating dewatering devices. There shall be no direct point source discharge or intentional indirect discharge of hydrostatic test water to surface waters.~~-~~ The upland discharge of hydrostatic test waters shall be monitored in accordance with the General Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation for Discharges from Petroleum Contaminated Sites, Groundwater Remediation and Hydrostatic Tests (9 VAC 25-120-10, *et seq*.~~).~~ .) ("VPDES General Permit"). The Owner shall record and track the daily volumes of water withdrawn for hydrostatic testing activities and make such records available during inspection or upon request by the Department. In the event of an inadvertent indirect discharge to surface waters, the Owner shall be responsible for ensuring that such discharge complies with all requirements of the VPDES General Permit, including the requirement to notify the Department within 14 days.

~~These measures are expressly incorporated herein and shall be enforceable conditions of this Certification.~~

5. ~~The O~~wner shall implement water quality monitoring in accordance with the Upland Construction Water Quality Monitoring Plan (May 31, 2017, revised June 19, 2017).~~ The Plan is expressly incorporated herein and shall be an enforceable condition of this Certification.~~

6. The Owner shall ~~follow~~implement the measures ~~intended to minimize the potential for impacts as detailed~~identified in the Spill Prevention, Control, and Countermeasure (SPCC) Plan (submitted with the

June 1, 2017 response to the Department and additional information submitted June 22, 2017~~). The Plan is expressly incorporated herein and shall be an enforceable condition of this Certification~~), and any subsequent revisions or addenda to the same approved by FERC.

7. All construction and installation associated with the Project, except as permitted by the Corps,~~-~~ shall be accomplished in such a manner that construction material or waste material shall not be placed into any perennial, intermittent, or ephemeral surface waters or karst features.~~ These measures are expressly incorporated herein and shall be enforceable conditions of this Certification.~~

8. ~~T~~he Owner shall ~~follow~~implement the measures intended to minimize the potential for ~~impacts~~discharges of soil or rock as detailed in the General Blasting Plan (February 2017) and the Landslide Mitigation Plan Revision 4 (February 2017~~). These measures are expressly incorporated herein and shall be enforceable conditions of this Certification. ~~), and any subsequent revisions or addenda to the same approved by FERC. The Owner shall notify the Department immediately, but no later than 24 hours after discovery, if blasting or landslide activity ~~impacts~~ results in unpermitted discharges of soil or rock to any perennial, intermittent, or ephemeral surface waters~~ or~~. Any potential impacts to karst features will be addressed in accordance with the Karst Mitigation Plan.

9. ~~T~~he Owner shall follow the measures intended to minimize the potential for impacts as detailed in the Acid Forming Materials Mitigation Plan (May 2017~~). These measures are expressly incorporated herein and shall be an enforceable condition of this Certification~~), and any subsequent revisions or addenda to the same approved by FERC.

10. The Project, including all relevant records, is subject to inspection at reasonable hours and intervals by the Department or any authorized representative of the Department to determine compliance with this Certification.

11. ~~T~~he Owner shall provide the Department ~~shall be provided~~with written or electronic notification at least ~~30 calendar~~10 business days prior to any planned Construction Spread pre-construction conferences~~ and Worker Environmental Awareness Program (WEAP) training~~.

12. The Owner shall immediately notify the Department of any modification of this Project and shall demonstrate in a written statement that said modifications will not violate any conditions listed in this Certification. ~~-~~If such demonstration cannot be made, the Owner shall apply for a modification of this Certification.~~ These measures are expressly incorporated herein and shall be an enforceable condition of this Certification.~~

13. The Owner shall comply with the requirements of the Stormwater Management Act (Va. Code § 62.1-44.15:24, *et seq*.) and Erosion and Sediment Control Law (Va. Code § 62.1-44.15:51, *et seq*.) and the Virginia Water Protection Permit Program Regulations (9 VAC 25-210-10, *et seq*.). The enforceability under this Certification is in addition to the independent enforcement authority of each individual program and/or permit.

~~13.~~14. This Certification is subject to revocation for failure to comply with the above conditions ~~and~~ after a proper hearing. ~~Any~~Any unpermitted or unauthorized direct or indirect discharge to State waters shall be subject to enforcement ~~review~~ under the State Water Control Law.

~~14.~~15. The terms and conditions of this Certificate shall remain in effect until 180 days after all land disturbing activity associated with the construction, operation, maintenance, and repair of the pipeline,

and related access roads and rights-of-way have achieved final stabilization as required by the Erosion and Sediment Control Law (Va. Code § 62.1-44.15:51, *et seq*.)

V~~I~~VI. CONCLUSION

The additional conditions contained in Section V of this Certification along with the requirements imposed by the VWP regulation, the Corps Section 404 permitting requirements, and prior regulatory actions associated with the approval and requirements of the June 2017 Annual Standards and Specifications, and the April 7, 2017 Section 401 Water Quality Certification of the Corps Nationwide Permit 12 provide reasonable assurance that water quality standards will not be violated. The conditions included in this Certification for upland areas are in addition to any other federal or state permit or regulatory requirements with which the Project must comply, including federal resource agency requirements embodied in the FERC certificate.

This Certification constitutes the Commonwealth's final decision on the upland activities associated with the construction, operation, maintenance, and repair of the Project under the requirement of Clean Water Act § 401. The provisions of this Certification are severable and should any provision(s) of this Certification be declared invalid or unenforceable, the remainder of the Certification, including without limitation any additional conditions imposed hereunder, shall continue in full force and effect. -The Commonwealth reserves its right to review this certification decision and take any appropriate action in accordance with 33 U.S.C. § 1341(a)(3).

~~B~~y: _____ Date: _____

Groundwater Withdrawal Permit # GW0042901, City of Franklin Public Water Supply, Franklin, Virginia: At the December 6-7, 2017 meeting of the State Water Control Board (Board), the Board will consider the issuance of Groundwater Withdrawal Permit # GW0042901 to the City of Franklin. The matter is before the Board due to a request by the applicant (the City of Franklin) to hold a public hearing on the draft permit. This memorandum provides a brief summary of the project history, the draft permit, and comments received during the public notice period and during the public hearing. Finally, a summary of the staff responses to comments is included.

BACKGROUND

The City of Franklin is the largest population center in the Western Tidewater region. The City's community water system provides water to approximately 9,000 people, which includes the City's population as well as two neighborhoods in Southampton County, and the Camptown Development Service District in Isle of Wight County. Commercial customers in the service area include Farm Fresh, Lowe's, and Tractor Supply Company.

The City of Franklin was issued Groundwater Withdrawal Permit # GW0042900 on September 1, 2001, which authorized a maximum annual withdrawal of 1.05 billion gallons, or 2.88 million gallons per day (MGD). The permit had an expiration date of August 31, 2011 and has been administratively continued since expiration. On November 30, 2010, the City of Franklin submitted an application to continue groundwater withdrawals from the Potomac Aquifer for municipal public water supply under the Ground Water Management Act of 1992, Va. Code § 62.1-254 et seq., and the Groundwater Withdrawal Regulations, 9VAC25-610-10 et seq.

The proposed withdrawal (569,729,230 gallons per year or 1.56 MGD) failed to meet the technical criterion required by 9VAC25-610-110.D.3.h., known as the 80% drawdown criterion. More specifically, it was determined through modeling that the withdrawal would lower groundwater levels below a point that represented 80% of the distance between the land surface and the top of the Potomac Aquifer. To address the overall decline in groundwater levels which prevented the issuance of this permit as well as other permits in the Eastern Virginia Groundwater Management Area (GWMA), the Department of Environmental Quality (DEQ) commenced with the Virginia Coastal Plain Groundwater Initiative (VACPGWI) in 2014. Under this initiative, DEQ began working with the largest groundwater users, including the City of Franklin, to negotiate and issue permits with reduced withdrawal limits to stabilize groundwater levels across the Coastal Plain Aquifer System.

The decline in groundwater levels limits the ability for both new and existing groundwater users in affected areas to meet the regulatory technical criteria and receive groundwater withdrawal permits. In addition, declining groundwater levels can lead to a loss of aquifer storage, land subsidence, and saltwater intrusion. The primary goal of the VACPGWI was to negotiate reduced permitted limits with the 14 largest groundwater users, including the City of Franklin.

The City of Franklin's application, submitted on November 30, 2010, requested an annual withdrawal of 600,000,000 gallons (1.64 MGD). The request was revised to 569,729,230 gallons (1.56 MGD) upon DEQ review of the materials submitted to justify the request. During the negotiations associated with the VACPGWI, the City of Franklin requested a higher withdrawal limit (2.00 MGD) than previously requested in their application. The request stated that the increase would be needed to support growth that may occur through cooperation with Southampton County on several shared service area developments. For reference, the City's average annual withdrawal between 2012 and 2016 was 337,141,400 gallons (0.92 MGD).

DRAFT PERMIT

DEQ staff reviewed the additional demand presented by the City of Franklin pursuant to 9VAC25-610-102 and incorporated a tiered permitting approach allowing a withdrawal of up to 1.60 MGD to provide flexibility to the City to prioritize and realize the most probable of these developments. The draft permit therefore includes two tiers of groundwater withdrawal limits. Tier 1 authorizes an annual withdrawal limit of 511,000,000 gallons

(1.40 MGD). Tier 2 authorizes an annual withdrawal limit of 584,000,000 gallons (1.60 MGD). Tier 2 can be authorized at the request of the City once the annual use from the previous 12-month period exceeds 80% of the Tier 1 annual limit, and/or a combination of actual use and projected increases in demand for the upcoming year are expected to exceed 90% of the Tier 1 annual limit. Key special conditions in the permit are as follows: the permit requires the City to raise the pump intakes for the two (2) production wells above the top of the Potomac Aquifer pursuant to 9VAC25-610-140.A.6; the permit requires the construction of an Observation Well Nest to monitor groundwater levels at a location approved by DEQ; the permit requires the City to update their Water Conservation and Management Plan to meet the new requirements provided for in 9VAC25-610-100; and, the permit requires the City to provide an Alternative Source Development Plan to detail any proposal to install wells in the underlying bedrock to ensure all such wells are properly sealed off from the Coastal Plain Aquifer System.

PUBLIC NOTICE AND COMMENTS

A public notice of the draft permit was published in the Tidewater News on April 28, 2017 and the comment period concluded on May 28, 2017. The City of Franklin provided comments on the draft permit and requested a public hearing, citing several concerns with the draft permit as discussed in more detail below. The City of Franklin's comments included a letter supporting a higher withdrawal limit from the County Administrator of Southampton County. No other comments were received during the comment period.

PUBLIC HEARING AND COMMENTS

A public hearing was granted on June 29, 2017. Public notice of the hearing was published in the Tidewater News on July 30, 2017 and the 45-day comment period concluded on September 14, 2017. Ms. Heather Wood of the State Water Control Board presided over the public hearing which was held on August 30, 2017 in the City of Franklin's Council Chambers. During the public hearing, Ms. Andrea Wortzel, Esq. representing the City of Franklin provided verbal comments recommending changes to the draft permit which are detailed below with DEQ staff responses. Mr. Michael Johnson, County Administrator for Southampton County also provided a comment supporting a higher withdrawal limit and provided a summary of projects in Southampton County that may rely on water from the City of Franklin. No additional members of the public provided comments.

SUMMARY OF PUBLIC COMMENTS AND DEQ STAFF RESPONSES

Below are summaries of each of the main concerns discussed in the comments provided by the City of Franklin during the public comment period and public hearing and the corresponding response from DEQ staff.

ISSUE #1: *The City states that the maximum annual withdrawal of 511 million gallons (1.60 MGD) is not sufficient to provide the City of Franklin the flexibility to accommodate increases in demand that may arise through partnerships with Southampton County and Isle of Wight County, as well as other economic opportunities. The City requests an additional tier with an annual limit of 657 million gallons (1.80 MGD). (This comment was provided by both the City of Franklin and Southampton County and included a list of potential new water users and their water needs).*

AGENCY RESPONSE #1: The Ground Water Management Act of 1992, Va. Code § 62.1-263, states that "in no case shall a permit be issued for more groundwater than can be applied to the beneficial use," and "in evaluating permit applications, the Board shall ensure that the maximum possible safe supply of ground water be preserved and protected for all other beneficial uses." In 2016, the City of Franklin reported an annual withdrawal of 309,380,000 gallons (0.85 MGD). The City's groundwater application requested a maximum annual withdrawal volume of 569,729,230 gallons (1.56 MGD), which while higher than historical use, was supported through documentation of several potential industrial and commercial developments as well as

expanding residential developments. The comments received during the public comment period and hearing included a list of additional potential projects/developments expected to come to the City of Franklin and the shared service areas with Southampton and Isle of Wight County which were not included in the initial application. In total, the potential developments, including residential, commercial, and industrial, would result in an increase in water use of approximately 1.20 MGD. However, most of the additional projects/developments appear to be in the very preliminary phases and the possibility for these to come to fruition within the 10-year permit term is unknown. While some amount of speculative growth can be accounted for in a withdrawal permit, the City's request to more than double their current use does not align with state law, standard permitting practice, or the VACPGWI. Given that the City's annual groundwater withdrawal in 2016 was 309,380,000 gallons (0.85 MGD), the tiered limits in the draft permit (up to 1.60 MGD) already provide for significant additional withdrawal capacity to supply new water users that begin service during the permit term. DEQ staff recommends no changes to the draft permit.

ISSUE #2: *Given the costs of raising the pumps to a setting above the top of the aquifer, the City requests consideration of alternative methods to achieve these objectives by installing float switches, or controlling the pumping rate and/or maximum allowable drawdown in any well. Secondly, the City also states that at the time the pump intakes were set originally, they were set based on what was understood to be the Middle Potomac Aquifer, for at that time the Potomac Aquifer was considered three different aquifers separated by confining units, whereas it is now considered a single aquifer. As the City placed the intakes to meet DEQ requirements at the time of pump setting, it argues that it should not be required to raise the pumps based on the recent change in the Hydrogeologic Framework. Finally, the City states that DEQ has not sufficiently documented how the top of the Potomac Aquifer was determined specifically for the City of Franklin wells. If the pumps must be raised, the City requests the deadline for raising the pump intakes be extended to December 31, 2024 for both production wells.*

AGENCY RESPONSE #2: The Groundwater Withdrawal Regulations, 9VAC25-610-140.A.6, state "no pump or water intake device shall be placed lower than the top of the uppermost confined aquifer that a well utilizes as a groundwater source." As currently written, the regulations do not provide alternatives to this requirement. In 2006, U.S. Geological Survey (USGS) Professional Paper 1731 (The Virginia Coastal Plain Hydrogeologic Framework) updated the previously accepted hydrogeologic framework for the Coastal Plain Aquifer System based on the work of hydrogeologists from both USGS and DEQ. This publication was based on decades of data collected through core and geophysical logging, and represents the most complete interpretation of the hydrogeology available to date. DEQ has subsequently updated its groundwater permitting and modeling efforts to reflect the latest Coastal Plain Aquifer science. As such, DEQ is requiring the raising of pumps based on the updated hydrogeologic framework in those instances where pumps were previously set below the top of the aquifer. In the case of the City of Franklin, site specific data used to identify the top of the Potomac Aquifer included three separate geophysical logs collected during well construction, well driller's logs, and field notes during hydrogeological investigations in the area. The draft permit has been revised to provide for a deadline of December 31, 2024 for the relocation of all production well pump intakes as requested by the applicant.

ISSUE #3: *The City stated that it opposes spending limited City funds on an observation well nest when those funds could be directed to the exploration of water supply alternatives and come at the expense of rate-payers. The City states that not all of the largest groundwater users were required to install a monitoring nest and that it appears DEQ is deciding at random which permits will include the requirement. Finally, the City says there is no language in the groundwater withdrawal regulations that would require permittees provide such observation wells. The City states that the authority to require observation wells pursuant to 9 VAC25-610-140.B.4 is intended to directly address the potential impact of the withdrawal, which the City says is not the case here.*

AGENCY RESPONSE #3: Water level trend data as provided by the long-term monitoring of observation well nests remain a critical need and is an important step in mitigating the impact from large groundwater withdrawals. The City of Franklin is among the largest groundwater users in the Eastern Virginia GWMA, and it is noted that several facilities with significantly smaller withdrawals have completed observation well nests. While the City argues that observation wells do not directly address impacts of the withdrawals, the data collected from observation wells is critical to understanding and evaluating impacts, which is the first step to addressing them. While trend data from observation wells is necessary to fully evaluate water level decreases resulting from withdrawals, it is also useful for identifying areas where water levels have stabilized or are recovering and may be able to support additional withdrawals for new or expanding users such as the City. While not all of the permits issued during the VACPGWI have required the installation of an observation well nest, it is important to recognize that each of the largest groundwater users is mitigating their impact through some means. Each facility mentioned in the applicant's comments began investing in alternative water sources years ago and were issued permits which will drastically reduce their allowable withdrawal from the Potomac Aquifer by the end of the 10-year permit term as they transition to alternative sources. As the City has only begun the process to investigate alternatives, there remains too much uncertainty to assume that the City will achieve an alternative source and be capable of further reducing its withdrawal from the Potomac Aquifer during the permit term. Finally, while there are several other large groundwater users in the area that will be installing observation well nests as a result of their permits, these installations, and the installation required for the City, will not be duplicative.

ISSUE #4: *The City requests DEQ remove withdrawal limits in the permit pertaining to wells completed in the bedrock.*

AGENCY RESPONSE #4: Wells completed in bedrock are not regulated under the Groundwater Withdrawal Regulations. As such, DEQ has revised the draft permit to remove the bedrock well(s) withdrawal limits originally requested by the applicant. DEQ has retained the draft permit requirement to provide an Alternative Source Development Plan to detail any proposal to install wells in the underlying bedrock to ensure all such wells are properly sealed off from the Coastal Plain Aquifer System.

SUMMARY OF CHANGES TO THE DRAFT PERMIT

The following changes were made to the draft Groundwater Withdrawal Permit # GW0042901 based on the comments received during the public comment period and public hearing:

- Part I.A.3 – The draft permit was revised to allow emergency backup wells to be designated as production wells once the pump intakes have been raised to meet the pump intake limits.

- Part III.A.1 – The draft permit was revised to provide for a deadline of December 31, 2024 for the relocation of all non-emergency production well pump intakes as requested by the applicant.

- Part III.A.2 – The draft permit was revised to state that if the pump for an emergency backup well is raised, the withdrawal triggers requiring the raising of pumps included in Part III.A.2 no longer apply to that well.

Part II.A.1 – The draft permit was revised to remove the withdrawal limits associated with bedrock well(s). Requirements for construction, coordination, and withdrawal reporting associated with bedrock wells have been retained.

Proposed 401 Water Quality Certification Atlantic Coast Pipeline, LLC Certification No. 17-002: During the State Water Control Board meeting on December 11th and 12th, 2017, Department of Environmental Quality (DEQ) staff will present a 401 Certification for the proposed Atlantic Coast Pipeline (ACP) to the Board for your consideration. The Certification applies to ACP activities in upland areas outside of the U.S. Army Corps of Engineers' jurisdictional areas under 33 U.S.C. § 1344 which may result in an indirect discharge to waters of the United States; water withdrawal activities that are exempt from coverage under the Virginia Water Protection Permit Program Regulation (9 VAC 25-210-10, *et seq.*); and land disturbing activities not covered under the Stormwater Management Act (Va. Code § 62.1-44.15:24, *et seq*.) and Erosion and Sediment Control Law (Va. Code § 62.1-44.15:51, *et seq*.). The proposed 401 Certification provides additional conditions for water quality protections from impacts in upland areas from the proposed pipeline.

Project Summary

The ACP project is a proposed interstate natural gas transmission pipeline regulated by the Federal Energy Regulatory Commission (FERC) pursuant to Section 7c of the Natural Gas Act (15 USC § 717f(c)). The pipeline as proposed is approximately 605 miles in length to transport up to 1.5 MMDth/d of natural gas from supply areas in the Appalachian region of West Virginia to demand areas in Virginia and North Carolina. In Virginia, the 42-inch pipeline will cross Highland, Bath, Augusta, Nelson, Buckingham, Cumberland, Prince Edward, Nottoway, Dinwiddie, Brunswick, and Greensville Counties, and include a compressor station and interconnection with existing pipelines in Buckingham County. A 20-inch lateral will run from a compressor station in Northampton County, North Carolina through Greensville and Southampton Counties and the Cities of Suffolk and Chesapeake, Virginia. Two short 16-inch laterals will serve electric generating facilities in Brunswick and Greensville Counties. Approximately 307 miles of pipeline traverse the Commonwealth of Virginia. The developer of this project is Atlantic Coast Pipeline, LLC, a company formed by four major U.S. energy companies including Dominion Resources, Inc. (Dominion); Duke Energy Corporation; Piedmont Natural Gas Co., Inc.; and Southern Company Gas, Inc.,

FERC released the final Environmental Impact Statement on July 21, 2017 and issued an order granting ACP a Certificate of Public Convenience and Necessity on October 13, 2017.

Basis for Certification

Previously, the Virginia Water Protection (VWP) program was sufficient to evaluate and, when necessary, mitigate potential water quality impacts for linear construction projects, such as roads and pipelines. However, the VWP Permit coverage addresses the impacts caused to wetlands and streams and does not cover activities in upland areas.

In order to address the potential water quality concerns from impacts in upland areas, DEQ issued a guidance document describing procedures DEQ will use to conduct a separate supplemental review of a natural gas infrastructure project with respect to upland impacts that may indirectly affect state waters. Consistent with this guidance, DEQ reviewed additional information and concluded that it was necessary to impose additional 401 water quality conditions on the proposed ACP project for upland areas. Additional information including the 401 Certification process and scope, and its relation to the other environmental programs (i.e. Erosion and Sediment Control, Stormwater Management, Section 404, etc.) is Attachment A.

Draft Section 401 Certification - Public Comment Process

Subsequent to its conclusion that additional conditions were necessary to protect water quality from pipeline impacts in upland areas, DEQ developed a draft Section 401 Water Quality Certification for the proposed ACP

project. This draft certification was subject to public notice and comment in accordance with DEQ's procedures.

During the week of July 3rd, 2017, public notification was made announcing the public hearings and seeking public comments on a draft 401 Certification for the proposed ACP project that would establish additional conditions in upland areas that are located near state waters and that may indirectly affect state waters along the route of the proposed pipeline. The public notice was published in twelve newspapers with circulation areas that covered the counties and localities affected by the project. The notice provided: (i) the purpose of the notice; (ii) announcement of the public comment period from July 3, 2017 to August 22, 2017; (iii) the public hearing information including time and location; (iv) the purpose of the public hearings; (v) the project information and description including a link to the pipeline information and the draft Section 401 Certification conditions; and, (vi) information on how to submit comments including staff contact information.

As provided in the public notice, three public hearings were held: August 7, 2017 at James Madison University; August 10, 2017 at Longwood University, and August 14, 2017 at Southside Virginia Community College. As originally noticed, the August 14, 2017 hearing was to be held at Dinwiddie High School. However, due to a conflict with school activities, the venue was changed to Southside Virginia Community College. A subsequent public notice informing the public of the changed location was published in the twelve newspapers that carried the original notice. Further information on the public participation process and the processing activities used to ensure that the thousands of comments received were appropriately processed, reviewed, and considered is provided in Attachment B.

Summary of Comments and Department Response

Over 15,000 comments on the draft 401 Certification for the proposed ACP project were received during the 50-day public comment period that ran from July 3, 2017 to August, 22, 2017. Comments were submitted via postal letters and postcards, electronic mail, petitions, photographs, technical reports and oral comments, songs, prayers and poems delivered during the public hearings. DEQ reviewed and categorized all of the comments that were submitted during the comments period. Attachment C, Response to Comments, provides a summary of comments received and a response to those comments.

Although thousands of comments were received, there were very clear and recurring issues and themes raised by the commenters. DEQ has broadly stated these issues in Attachment C and has provided responses. Several representative examples of the comments that were received are included in the Board book. The full text of all comments received will be made available to the Board electronically.

Numerous comments that were submitted both in opposition to and support of the draft 401 Certification spoke to issues that are outside the scope of the draft Certification. Many commenters expressed opposition to the project based on a number of issues including: ACP's exercise of eminent domain and its impact on private property rights; the connection between pipeline transportation projects and increased hydraulic fracking of gas; impacts to rural and forest view sheds; negative impacts to property values; lack of demonstrated need for the project and demand for the gas; preference for development of renewable energy sources; threat of pipeline explosion once in operation and greenhouse gas emissions from the pipeline.

Numbers of other commenters expressed support for the project based on issues including: opportunity for economic development, manufacturing and job creation; increased safety of pipeline transportation compared to overland trucking of natural gas; decreased reliance on coal for energy production, and thoroughness of FERC's evaluation of the project. These comments are also outside the scope of the draft 401 Certification.

Changes to the Draft 401 Certification

Revisions to the draft 401 Certification have been prepared and a version that notes the additions and deletions can be found in Appendix E. A clean version of the revised, proposed Certification is included as Attachment F. Staff will review the revisions at the Board meeting.

Basis for Certification

The Atlantic Coast Pipeline (ACP) Project is a proposed interstate natural gas transmission pipeline regulated by the Federal Energy Regulatory Commission (FERC) pursuant to Section 7c of the Natural Gas Act (15 U.S.C. § 717f(c)) which provides that no natural-gas company shall undertake the construction or extension of any facilities for the transportation or sale of natural gas without first obtaining a Certificate of Public Convenience and Necessity (Certificate) from FERC authorizing such acts or operations. ACP initially filed its application for a Certificate of Public Convenience and Necessity with FERC on September 18, 2015. Following FERC's environmental review of the proposed ACP Project (Project), FERC released a draft Environmental Impact Statement for the proposed Project on December 30, 2016 and the final Environmental Impact Statement on July 21, 2017. FERC issued an order granting ACP a Certificate of Public Convenience and Necessity on October 13, 2017. The proposed pipeline as authorized by FERC will be approximately 605 miles in length to transport up to 1.5 MMDth/d of natural gas from supply areas in the Appalachian region of West Virginia to demand areas in Virginia and North Carolina. In Virginia, the 42-inch pipeline will cross Highland, Bath, Augusta, Nelson, Buckingham, Cumberland, Prince Edward, Nottoway, Dinwiddie, Brunswick, and Greensville Counties, and include a compressor station and interconnection with existing pipelines in Buckingham County. A 20-inch lateral will run from a compressor station in Northampton County, North Carolina through Greensville and Southampton Counties and the Cities of Suffolk and Chesapeake, Virginia. Two short 16-inch laterals will serve electric generating facilities in Brunswick and Greensville Counties. Approximately 307 miles of pipeline will traverse the Commonwealth of Virginia. The developer of this Project is Atlantic Coast Pipeline, LLC (Atlantic) a company formed by four major U.S. energy companies including Dominion Resources, Inc. (Dominion); Duke Energy Corporation; Piedmont Natural Gas Co., Inc.; and Southern Company Gas, Inc. Dominion Energy Transmission, Inc. has been contracted by Atlantic to construct and operate the project.

Section 401 of the Clean Water Act (33 U.S.C. § 1341) requires that any applicant for a Federal license or permit to conduct any activity, including, but not limited to, the construction or operation of facilities which may result in a discharge to navigable waters, must provide the federal licensing or permitting authority with a certification from the state in which the discharge originates or will originate that any such discharge will comply with state water quality standards. A certification sets forth any conditions necessary to assure compliance with applicable water quality requirements under state law, and these become a condition of the federal license or permit. The State Water Control Law (Law) grants the authority to provide this water quality certification to the State Water Control Board (Board) in accordance with the Law.

In addition to the FERC Certificate, ACP must separately obtain approval from the U.S. Army Corps of Engineers ("Corps") under Section 404 of the Clean Water Act for impacts to jurisdictional wetlands and streams.

With respect to impacts to jurisdictional wetlands and steams, § 62.1-44.15:20 of the Law and the Virginia Water Protection (VWP) Permit Regulation (9VAC25-210), VWP permit coverage, including general VWP coverage and coverage associated with a Corps' Nationwide Permit certified by Virginia, constitutes the certification required under § 401 of the Clean Water Act. In the present case, the Corps issued Nationwide Permit 12 on March 19, 2017, related to activities required for the construction, maintenance, repair, and removal of utilities lines and associated facilities in waters of the United States. After review and public comment, the Department provided its § 401 certification of Nationwide Permit 12 on April 7, 2017. The VWP program and prior certification of the Corps' Nationwide Permits has proven to be sufficient to evaluate and, when necessary, mitigate potential water quality impacts for linear construction projects, such as roads and pipelines.

The permits issued by the VWP program and the permits issued by the Corps only address the impacts caused to wetlands and streams by excavating in a wetland, draining or significantly altering wetland acreage or function, filling or dumping in a stream or wetland, or permanently flooding or impounding a wetland area or stream. However, the conditions and requirements of these permits do not cover activities in upland areas, outside of wetlands and streams, which may result in a discharge to state waters or otherwise cause or contribute to an exceedance of Virginia's Water Quality Standards (9VAC25-260). For large linear construction projects, there can be activities in upland areas that may have the potential to affect water quality but do not fall within the scope of the VWP or the Corps permits. Likewise, information related to such impacts would not be contained in the Joint Permit Application (JPA) utilized to determine permit conditions for a VWP and Corps permits.[22]

In order to address the potential impact to water quality caused by upland activity outside the scope of the VWP or the Corps permits, the Department of Environmental Quality (DEQ or Department) issued its May 19, 2017 guidance memorandum, Guidance Memo No. **GM 17-2003**, Interstate Natural Gas Infrastructure Projects - Procedures for Evaluating and Developing Additional Conditions for Section 401 Water Quality Certification Pursuant to 33 USC § 1341 ("401" Certification). This guidance document describes the procedures DEQ uses to conduct a separate supplemental review of a natural gas infrastructure project with respect to upland impacts that may indirectly affect state waters. The guidance states that after further evaluation, DEQ may make a

[22] ACP submitted a JPA for this Project on September 16, 2015.

recommendation to the Board for additional conditions on upland activities that may be necessary to protect water quality beyond the conditions required by, or that can be imposed through, the VWP Permit Program, Corps permits, including any applicable Nationwide Permits, or conditions otherwise imposed by FERC. Identification of this gap was consistent with the numerous inquiries and communications from concerned citizens and affected property owners, local governments, state legislators and environmental organizations received by DEQ regarding Virginia's environmental oversight of the Project.

Historically DEQ has satisfied its water quality certification for linear utility projects, including pipelines, with its certification of the Corps' Nationwide Permit 12. However, ACP is a proposed interstate natural gas transmission pipeline. For facilities that transport natural gas in interstate commerce, their siting, construction, and operation are generally governed by the Natural Gas Act and must be authorized and approved by FERC through the issuance of a Certificate of Public Convenience and Necessity.

Very few linear utility projects require such federal authorization. Since ACP does require a FERC Certificate, DEQ may utilize Guidance Memo No. GM17-2003 to conduct a supplemental water quality review of potential upland impacts and develop a second 401 Certification driven by FERC approval of proposed pipeline construction and operation.

As the guidance memorandum directs, DEQ considered a number of project specific factors regarding the Project including the length of the pipeline, the amount of construction related land disturbance, the diameter of the pipeline, and numerous geographic, hydrologic and topographic considerations, including: the occurrence and/or proximity of steep slopes, karst geology, sensitive streams/wetlands, seasonally high water tables, sink holes/underground springs, water impoundment structures/reservoirs, areas with highly erodible soils, low pH and acid sulfate soils. After reviewing these factors, DEQ determined that it was appropriate and consistent with the May 19, 2017 guidance to review additional information and evaluate whether to impose additional 401 conditions.

The concept of imposing additional 401 conditions and protections for activity in upland areas not already addressed by other regulations and/or permits is unique to the proposed pipeline and is described in the recently issued guidance memorandum. At the Board's July 19, 2017 meeting, DEQ briefed the Board on this water quality protection strategy by outlining the five major areas of review that DEQ was engaged in regarding the ACP Project. These include: review of and comment on the FERC draft environmental impact statement; wetlands and stream crossings to be permitted by the Corps either under Nationwide Permit 12 or an individual permit if the Corps determines that an individual permit is necessary; ensuring compliance with the requirements of Virginia's Erosion and Sediment Control and Stormwater Management laws and regulations;

additional protections and conditions related to activities in uplands not already addressed by other regulations and or permits; and additional instream biological and water quality monitoring designed to evaluate baseline preconstruction conditions and evaluate whether there are effects on aquatic life.

The proposed 401 Certification addresses Project activities in upland areas outside of the Corps jurisdictional areas and water withdrawal activities that are exempt from coverage under the VWP Permit Program Regulation (9VAC25-210) or are otherwise imposed through the erosion and sediment control and stormwater management regulations.[23] This includes all activities associated with the construction of the proposed pipeline, any components thereof or appurtenances thereto, and related access roads and rights-of-way as well as certain Project-related water withdrawals. This proposed 401 Certification covers all relevant upland Project activities within the route identified in the final Environmental Impact Statement and/or the FERC Certificate and any subsequent revisions that may be approved by FERC.

This proposed 401 Certification and the conditions contained in Section V of the proposed 401 Certification are intended to apply to ACP Project activities that are outside the jurisdictional scope of the VWP Permit Program Regulation, and accordingly should not be interpreted as limiting any conditions imposed pursuant to the VWP Permit Program Regulation or any permit issued by the Corps for any portion of the Project. The Department's 401 Water Quality Certification for the Corp's Nationwide Permit 12 issued April 7, 2017[24] and this additional proposed 401 Certification developed pursuant to Guidance Memo No. GM17-2003, Interstate Natural Gas Infrastructure Projects – Procedures for Evaluating and Developing Additional Conditions for Section 401 Water Quality Certification Pursuant to 33 USC § 1341 ("401" Certification) *together* would constitute the Commonwealth of Virginia's 401 Certification for the ACP Project.

In addition, the proposed 401 Certification operates in conjunction with other regulatory actions including the Erosion and Sediment Control Regulation and the Stormwater Management Regulation, which are all requirements of ACP's Annual Standards and Specifications previously approved by DEQ.

Scope of Additional 401 Water Quality Certification

The U.S. Environmental Protection Agency (EPA) has promulgated regulations that outline the process for providing Section 401 water quality certification at 40 C.F.R. § 121 which states that the certification shall,

[23] These regulatory requirements are imposed through the Annual Standards and Specifications program, which will be discussed in detail later on in this document. ACP's annual standards and specifications were approved in July 2017.

[24] A number of parties (Dominion Pipeline Monitoring Coalition, Preserve Craig, Inc. and Bold Alliance) filed an appeal of DEQ's § 401 water quality certification for the U. S. Army Corps of Engineers' Nationwide Permit 12. On behalf of DEQ the Office of the Attorney General filed a Motion to Dismiss. On September 5, 2017, the appeal was dismissed with prejudice.

among other elements, include a statement that there is a reasonable assurance[25] that the activity will be conducted in a manner which will not violate applicable water quality standards.[26]

This additional upland 401 Water Quality Certification addresses several unique aspects of the proposed Project not directly regulated by other existing state and federal programs and primarily focuses on additional protections necessary for riparian buffer protection and to address potential impacts from construction near karst terrain or on steep slopes; and, water use for hydrostatic testing and dust control. Consideration of these additional potential water quality impacts is unprecedented in DEQ's review of a proposed pipeline and these additional conditions push the bounds of the 401 reasonable assurance analysis beyond strict application of instream water quality standards and into much broader protection of water quality.

In developing the proposed 401 Certification and determining whether there is reasonable assurance that applicable water quality standards will not be violated, DEQ reviewed, evaluated and analyzed, among other information, the following reports, documents and submittals:

1. All applicable FERC documents, including Draft and Final Environmental Impact Statements issued by FERC and the associated docket materials including all Appendices, and the FERC order granting a Certificate of Public Convenience and Necessity (Certificate) on October 13, 2017;

2. The Department's initial Request for Information (RFI) dated May 19, 2017 in accordance with the Guidance, the Department's subsequent June 15, 2017 RFI and the Owner's June 1, 2017, June 23,

[25] Federal Regulations require that a § 401 Certification must include reasonable assurance that the activity will be conducted in a manner which will not violate applicable water quality standards. Reasonable assurance is more than a probability or mere speculation. However, a § 401 Certification addresses future events; therefore, it is inherently predictive in nature and absolute certainty is not required.

[26] 40 C.F.R. § 121.2, Contents of certification, provides that:

(a) A certification made by a certifying agency shall include the following:

(1) The name and address of the applicant;

(2) A statement that the certifying agency has either (i) examined the application made by the applicant to the licensing or permitting agency (specifically identifying the number or code affixed to such application) and bases its certification upon an evaluation of the information contained in such application which is relevant to water quality considerations, or (ii) examined other information furnished by the applicant sufficient to permit the certifying agency to make the statement described in paragraph (a)(3) of this section;

(3) A statement that there is a reasonable assurance that the activity will be conducted in a manner which will not violate applicable water quality standards;

(4) A statement of any conditions which the certifying agency deems necessary or desirable with respect to the discharge of the activity; and

(5) Such other information as the certifying agency may determine to be appropriate.

(b) The certifying agency may modify the certification in such manner as may be agreed upon by the certifying agency, the licensing or permitting agency, and the Regional Administrator.

2017 and June 27, 2017 responses including but not limited to requested supplemental responses dated November 1, 2017 and November 6, 2017;

3. Proceedings of the multi-agency technical work session held June 6-7, 2017 (Lexington, Virginia);

4. Documents submitted for approval by the Department pursuant to requirements of the Stormwater Management Act (Va. Code § 62.1-44.15:24, *et seq*.) and Erosion and Sediment Control Law (Va. Code § 62.1-44.15:51, *et seq*.);

5. Corps Nationwide Permit 12 and Norfolk District Regional Conditions;

6. Guidance Memo No. GM17-2003, Interstate Natural Gas Infrastructure Projects- Procedures for Evaluating and Developing Additional Conditions for Section 401 Water Quality Certification Pursuant to 33 USC § 1341 ("401" Certification); and,

7. Public comments submitted during the public comment period, including both written (electronic or paper copy) and oral comments provided during the August 7, 10 and 14, 2017 public hearings.

In drafting the proposed 401 Certification, DEQ tentatively determined that compliance with existing duly promulgated and adopted regulatory and permitting programs along with the fourteen enumerated conditions in section V of the proposed 401 Certification provide reasonable assurance that applicable standards will not be violated.

The conditions imposed by the proposed 401 Certification are in addition to any other federal or state permit or regulatory requirements with which the Project must comply, including federal resource agency requirements embodied in the FERC Certificate. The proposed 401 Certification imposes requirements that are in addition to many other enforceable requirements imposed by other state and federal entities. As described below, the various regulatory programs are well established and demonstrated to provide protection of water quality.

For a project that disturbs one acre or more of land and discharges dredged or fill material into surface water, including wetlands, the primary regulatory programs are: the Virginia Erosion and Sediment Control (VESC) Program; the Virginia Stormwater Management Program (VSMP); the Virginia Pollutant Discharge Elimination System (VPDES) permit program for stormwater from construction activities;[27] and, the Virginia Water Protection Permit Program (VWP) and Section 404 of the Clean Water Act.

[27] Federal law exempts discharges of stormwater runoff from oil and gas transmission facilities from the administrative requirement to obtain a VPDES permit but Virginia's regulation imposes identical performance, monitoring and inspection requirements through its regulatory requirement to conduct the project under approved annual standards and specifications.

Erosion and Sediment Control and Stormwater Management

Virginia's erosion and sediment control law and regulations provide effective control of soil erosion, sediment deposition, and nonagricultural runoff from regulated land-disturbing activities with the goal of preventing the unreasonable degradation of properties, stream channels, waters, and other natural resources. The VESC Program is authorized by the Virginia Erosion and Sediment Control Law and implemented through the Virginia Erosion and Sediment Control Regulations. The VESC regulations specify the "minimum standards" that must be followed on all regulated activities including: erosion and sediment control design criteria, techniques, practices and policies.

The goal of the VSMP is to ensure the general health, safety, and welfare of the citizens of the Commonwealth, and to protect the quality and quantity of state waters from the potential harm of unmanaged stormwater. The VSMP is authorized by the Virginia Stormwater Management Act and implemented through the Virginia Stormwater Management Program Regulations. The VSMP addresses stormwater management at three critical phases: before construction starts through the review and approval of plans to ensure the local and state regulatory design criteria have been satisfied to protect state waters from unmanaged stormwater; during construction through the inspection of erosion and sediment control practices, pollution prevention measures, and the installation of stormwater best management practices that are used to prevent or reduce the pollution of state waters after construction is complete; and after construction through the inspection of BMPs to ensure proper maintenance is being performed by the owner.

Annual Standards and Specifications Requirements Under the Virginia Stormwater Management Program

The Virginia Stormwater Management Program (VSMP) law and regulations establish that land disturbance associated with pipeline construction activities must meet Erosion and Sediment Control and Stormwater Management requirements to protect surface water quality during and after construction completion. State law further mandates that natural gas pipeline utilities (and certain other utilities) meet the requirements for VESC and VSMP under a DEQ-approved Annual Standards and Specifications Program.

Specifically, Virginia Code § 62.1-44.15:31 states:

> (F)or linear projects [including construction, installation, or maintenance of electric transmission, natural gas, and telephone utility lines and pipelines, and water and sewer lines], electric, natural gas, and telephone utility companies, interstate and intrastate natural gas pipeline companies, and railroad companies shall … annually submit a single set of standards and specifications for Department approval that describes how land-disturbing activities shall be conducted.
> Such standards and specifications shall be consistent with the requirements of this article and associated regulations, including the regulations governing the General Virginia Stormwater

Management Program (VSMP) Permit for Discharges of Stormwater from Construction Activities and the Erosion and Sediment Control Law (§ 62.1-44.15:51 *et seq*.) and associated regulations. … The standards and specifications shall include:

1. Technical criteria to meet the requirements of this article and regulations developed under this article;

2. Provisions for the long-term responsibility and maintenance of stormwater management control devices and other techniques specified to manage the quantity and quality of runoff;

3. Provisions for erosion and sediment control and stormwater management program administration, plan design, review and approval, and construction inspection and enforcement;

4. Provisions for ensuring that responsible personnel and contractors obtain certifications or qualifications for erosion and sediment control and stormwater management comparable to those required for local government;

5. Implementation of a project tracking and notification system to the Department of all land-disturbing activities covered under this article; and

6. Requirements for documenting onsite changes as they occur to ensure compliance with the requirements of the article.

ACP worked for approximately eighteen months to develop, revise and refine Annual Standards and Specifications (AS&S) that meet Virginia's legal and technical requirements. ACP's Annual Standards and Specifications that address both erosion and sediment control and stormwater management were approved by DEQ on July 5, 2017.

The concept set out by state law in the creation of the AS&S program is that entities which are required to submit annual standards and specifications essentially become self-regulating. Therefore, Virginia law, in § 62.1-44.15:31, affirmatively places an authority that would normally be delegated to a locality for the review, approval and enforcement of erosion control and stormwater management plans with the utility with limited oversight by DEQ through review and approval of annual standards and specifications. Once an authorized utility has approved AS&S it is not required to submit site specific ESC and SWM plans to DEQ for approval. In fact, § 62.1-44.15:55.D of Code of Virginia clearly states that: "Individual approval of separate projects within subdivisions 1 and 2 is not necessary when approved specifications are followed". Subdivision 1 applies to construction, installation, or maintenance of electric transmission, natural gas, and telephone utility lines and pipelines, and water and sewer lines. DEQ does retain compliance and enforcement authority over any project specific erosion and stormwater plans and practices but DEQ in general does not review specific plans or construction.

However, as an additional measure to ensure protection of state waters and in response to numerous citizen concerns and comments, DEQ has required ACP to submit project specific ESC and SWM plans to DEQ for

review and approval. These project specific plans address every foot of land disturbance related to pipeline construction, including the path of the proposed pipeline right of way (ROW), access roads, construction lay-down areas and construction activities that will occur in streams and wetlands.

DEQ has contracted with an outside engineering consulting firm to assist in review of the erosion and stormwater plans to ensure that they meet the design requirements contained in Virginia's ESC and SWM regulations (including post construction stormwater water quality and quantity requirements); however, DEQ retains ultimate approval authority.

Unlike many of the Board's permit programs, Virginia law does not provide a right for public notice of and comment on ESC and SWM plans. However, in order to provide a transparent review process and public participation, DEQ decided to also require ACP to post the plans on their website in order that they be made available for public input. DEQ requested input on technical and engineering requirements of the draft ESC and SWM plans. The input period was at least 30 days.

VPDES Permit for Stormwater from Construction Activities

With few exceptions, land disturbance of one or more acres requires coverage under Virginia's Construction General VPDES Permit for Discharges of Stormwater from Construction Activities (9VAC25-880.1 *et seq*.). However, the Virginia Stormwater Management Program regulation (9VAC25-870 *et seq*.) states that DEQ may not require a state VPDES permit for discharges of stormwater runoff from oil and gas exploration, production, processing or treatment operations, or transmission facilities. This exemption is consistent with the federal exemptions contained in 40 C.F.R. § 122.26(a)(2)(ii). The scope of this exemption includes construction activities necessary to support the construction of pipelines, access roads and compressor stations, as well as long term maintenance of the system.

Even though federal laws exempt ACP from obtaining a VPDES permit, as does Virginia's Regulation, 9VAC25-870-76 of the VSMP regulation requires linear development projects to control post-development stormwater runoff in accordance with a site-specific stormwater management plan or a comprehensive watershed stormwater management plan. In addition, as previously discussed, under § 62.1-44.15:31of the Code of Virginia, gas pipelines are required to have approved AS&S that are consistent with the requirements of the Virginia Stormwater Management Act and associated regulations, the Erosion and Sediment Control Law and associated regulations and the regulations governing the General Virginia Stormwater Management Program (VSMP) Permit for Discharges of Stormwater from Construction Activities (the construction general permit). Additionally, DEQ has required that ACP prepare a stormwater pollution prevention plan.

Even though Congress has clearly stated that stormwater from land disturbing activity associated with construction of the pipeline does not need to be authorized by a section 402 discharge permit,[28] Virginia's annual standards and specifications program incorporate the same engineering, erosion and sediment control, recordkeeping, monitoring, inspecting and post construction stormwater management requirements that are otherwise implemented in the Board's General VPDES Permit for Discharges of Stormwater from Construction Activities, also known as the construction general permit (9VAC25-880-1 *et seq*.)

Virginia Code § 62.1-44.15:31 states that interstate and intrastate natural gas pipeline companies (among others), shall annually submit a single set of standards and specifications for DEQ approval that describes how land-disturbing activities shall be conducted. Virginia law goes on to state that such standards and specifications shall be consistent with the requirements of the Stormwater Management Law and associated regulations, including the regulations governing the General Permit for Discharges of Stormwater from Construction Activities and the Erosion and Sediment Control Law (§ 62.1-44.15:51 *et seq*.) and associated regulations.

Virginia Water Protection Permit/Clean Water Act Section 404 Permit

Section 404 of the federal Clean Water Act (CWA) establishes a permitting program to regulate the discharge of dredge and fill material into waters of the United States, including wetlands. Activities in waters of the United States regulated under this program include fill for development, water resource projects (such as dams and levees), infrastructure development (such as highways and airports) and mining projects. Section 404 requires a permit before dredged or fill material may be discharged into waters of the United States, unless the activity is exempt from Section 404 regulation (*e.g.*, certain farming and forestry activities).

This program is administered by the Corps, with oversight from EPA. Section 401 of the CWA requires anyone applying for a Section 404 permit to also obtain a water quality certification from the state, which affirms that the State has a reasonable assurance the activity will comply with state water quality standards. DEQ implements an independent State-wide permitting program for impacts to surface waters (including wetlands), which can also serve as a 401 certification for a Section 404 permit.

The VWP Permit Program regulates impacts to state waters, including wetlands. VWP permit conditions are designed to assure "no net loss" of wetlands, establish in-stream flow requirements, and protect the beneficial uses of state waters. A VWP permit also serves as the 401 certification for any federal 404 permit. DEQ can provide this 401 certification by: (1) issuing a VWP individual or general permit; (2) by certifying Corps'

[28] EPA has delegated to DEQ the authority to issue CWA Section 402 discharge permits. The Board duly promulgated Virginia's VPDES regulations and its general permits.

nationwide (NWP) and regional permits (RP); or (3) by issuing a 401 certification without a separate VWP permit. Further, Virginia law also authorizes DEQ to provide regulatory oversight to isolated wetlands and excavation activities that are beyond the jurisdiction of the Section 404 program.

Under Section 404(e) of the Clean Water Act, the Corps can issue general permits to authorize activities that have only minimal individual and cumulative adverse environmental effects. General permits can be issued for a period of no more than five years. A nationwide permit is a general permit that authorizes activities across the country, unless a district or division commander revokes the nationwide permit in a state or other geographic region. There are currently 54 nationwide permits, and they authorize a wide variety of activities such as mooring buoys, residential developments, utility lines, road crossings, mining activities, wetland and stream restoration activities, and commercial shellfish aquaculture activities. The current nationwide permits took effect on March 19, 2017.

By a letter dated April 7, 2017, DEQ, after following the Board-established procedures in the Virginia Water Protection Permit Regulation, found that there is a reasonable assurance that the activities permitted under the Corps' Nationwide Permit program, including the Norfolk District Regional Conditions, will be conducted in a manner which will not violate applicable water quality standards, provided permittees comply with all applicable conditions including those added by Virginia. DEQ made this finding pursuant to 40 C.F.R. § 121.2 (a)(2) and (3), after examining the NWPs, the Norfolk District Regional Conditions, and other decision documents provided by the Corps.

To qualify for coverage under Nationwide Permit 12 (NWP 12), the pipeline developers must comply with numerous General Conditions applicable to each nationwide permit including General Condition 12. This condition requires that appropriate soil erosion and sediment controls be used during the construction. General Condition 12 ties in the requirements and practices of the VESC program and regulations. Each stream crossing during the construction phase is subject to both federal and state oversight.

The Corps NWP 12 authorizes temporary disturbance of the stream during construction - in other words, a trench can be dug across the stream channel or wetland area so that pipe can be laid. NWP 12 clearly requires that after construction is complete (after the pipe has been laid), the impact area of the stream or wetland area must be restored to its pre-construction condition. Additionally, the ESC regulation (tied into the NWP 12 through General Condition 12) requires that when work in a live watercourse is performed, precautions must be taken to minimize encroachment, control sediment transport and stabilize the work area to the greatest extent possible during construction. This translates to a requirement that digging a trench in a flowing stream is not allowed - practices must be employed to divert or temporality channelize the stream during construction. The

regulations also require that when a live watercourse must be crossed by construction vehicles more than twice in any six-month period, a temporary vehicular stream crossing constructed of non-erodible material must be provided. And, ESC requires that the bed and banks of a watercourse must be stabilized immediately after work in the watercourse is completed.

Conclusion

The conditions included in the proposed Section 401 certification for upland areas are in addition to any other federal or state permit or regulatory requirements with which the Project must comply, including federal resource agency requirements embodied in the FERC Certificate.

Each of the regulatory processes being applied individually focuses on water quality protection and collectively provides a combination of protections for state waters including detailed engineering best practices, adherence to approved annual standards and specifications, and extensive inspection and monitoring activities. The various regulatory programs being applied by DEQ are well-established, comprehensive and demonstrably provide protection of water quality.

When considered as a unified approach, all of the programs described above provide a thorough technical evaluation and process that is designed to ensure that Virginia's water quality is protected. The proposed 401 Certification that is the subject of this Board's review is just one portion of a larger regulatory scheme for ensuring that water quality is protected during construction of this Project.

The additional conditions contained in Section V of the draft certification along with the requirements imposed by the VWP regulation, the Corps Section 404 permitting requirements, and prior regulatory actions associated with the approval and requirements of the July 5, 2017 AS&S, provide reasonable assurance that water quality standards will not be violated.

Attachment B

ACP Public Participation Process

Public Notice and Comment Period
On the week of July 3rd, 2017 DEQ ran public notices seeking comments on the draft Section 401 Water Quality Certification for activities in upland areas along the proposed Atlantic Coast Pipeline (ACP). When one of the venues changed, a second notice was published with the location change beginning on July 28, 2017. The notices ran in newspapers with circulation areas that covered the counties and localities affected by the project. The affected counties and localities are: the Counties of Highland, Bath, Augusta, Nelson, Buckingham, Cumberland, Prince Edward, Nottoway, Dinwiddie, Brunswick, Greensville, and Southampton, and the Cities of Suffolk and Chesapeake. DEQ ran the public notices of the ACP public hearing dates in twelve newspapers: The Virginian-Pilot, Richmond Times Dispatch, The Suffolk News Herald, The Dinwiddie Monitor, Emporia Independent Messenger, Brunswick Times-Gazette, The Farmville Herald, The Tidewater News, Blackstone Courier-Record, The News Leader (Staunton), The Recorder, and Nelson County Times.

The notices included a link to DEQ's *Water Protection for Pipelines* web page that provided copies of the draft Section 401 Water Quality Certification for activities in upland areas and other resources related to the ACP project. The notices also announced three public hearings to be held for the purpose of receiving oral and/or written comments and provided information about the hearing locations and times. DEQ received written comments by hand-delivery, e-mail, postal mail, and at the public hearings during the comment period from July 3 to August 22, 2017. This 50-day comment period was 20 days longer than required by the State Water Control Board's Procedural Rule No. 1 (9VAC25-230-130B).

DEQ requested that comments include the names, mailing addresses and telephone numbers of the person commenting and of all people represented by that person, and a brief, informal statement on how the proposal affected the person or people.

Email
DEQ set up a dedicated e-mail account (*comment-acp@deq.virginia.gov*) to provide a single point of contact for the public to submit e-mail comments and attachments regarding the ACP project. DEQ published the email address in the Public Notices, in the informational materials distributed at each public hearing, and on DEQ's *Water Protection for Pipelines* web page.

Public Hearings
DEQ scheduled three public hearings to help ensure that those who wished to make oral comments would be able to do so without traveling more than 60 miles. DEQ typically schedules one hearing on projects during the public comment period. Each public hearing was chaired by a member of the State Water Control Board. The public hearings were held at the locations noted below. Some of the factors taken into consideration when securing venues were the capacity and suitability of the venue, average travel distances, availability of State Water Control Board members to officiate at the hearings, and agency resources:

- James Madison University, Festival Conference & Student Center, Harrisonburg, Virginia – August 7, 2017
  156 individuals signed in to speak

- Longwood University, Jarman Auditorium, Farmville, Virginia – August 10, 2017

90 individuals signed in to speak

- Southside Virginia Community College, Center for Workforce Development, Christianna Campus, Alberta, Virginia – August 14, 2017
  51 individuals signed in to speak

At the public hearing venues, individuals wishing to speak were directed to sign in and receive a numbered ticket. The public hearings convened at 6:00 p.m. Speakers were called in numeric order and were typically provided three minutes in which to provide comments. This process continued until the all registered speakers had delivered their comments, or by the 10:00 p.m. cut-off time, whichever occurred first. A certified court reporter attended each hearing and then provided DEQ with a written record and digital audio recording of the oral comments.

Comment Processing

All of the comments received during the duly-noticed public comment period for the draft 401 certification for the Atlantic Coast Pipeline (ACP) were reviewed by Department technical staff. Due to the thousands of comments submitted, a process was developed to ensure that every comment submitted was appropriately considered by DEQ technical staff for review and response. The processing activity included reading, reviewing and characterizing each comment submitted. As part of this activity, all comments submitted in hard-copy/paper formats were scanned then these comments along with those comments submitted in electronic formats were sorted into spreadsheets which were developed for organizing the comments. The processing activities began on July 6th and ended on October 6th, 2017 with the bulk of the work being performed from August 23rd to October 6th, 2017. In total, twenty-one Department staff were assigned to the comment processing task and these staff spent a combined total of over 1370 hours for both pipelines.

DEQ staff processed all comments that were received during the public comment period. Each comment was reviewed and summarized, and, if provided, the name and address of the commenter was recorded. In order to organize the comments on the draft 401 Certification, DEQ developed a spreadsheet format with sixteen broad topic areas, which were based on the recurring themes observed during the comment period. These broad topics were:

- Erosion & Sediment Control / Stormwater Management
- Karst
- Water Supplies (Wells / Springs / Septic)
- Water Quality Impacts / Monitoring
- Section 401 Certification / Nationwide Permit 12
- No Individual Crossing Analysis / Cumulative Impacts
- Process (DEQ / FERC / General)
- Recreation
- Species Impacts
- Forest Impacts
- Wetlands
- Steep Slopes / Slide Prone
- Contamination (Leaks / Explosions / Hydrostatic testing)
- Existing Projects
- Surface Water Withdrawals
- Other

Staff captured any unique information presented in the comments or summarized topics not otherwise represented by the broader topics, separately. Finally, staff noted any comments that included technical documents or unique issues not otherwise covered in other comments and these were routed to the appropriate technical staff for further review.

The number of comments DEQ received for both projects was estimated at the close of the comment period to be about 20,000. After processing the comments, staff estimates the number of comments received for ACP to be approximately 15,000.

Comments received after 11:59 pm on August 22, 2017 were considered to be late. Several comments were submitted to the Board's email address prior to this deadline but not retrieved by DEQ staff until after the deadline – these were not considered to be late. Several email comments were submitted to specific DEQ staff, rather than the public comment email inbox, prior to this deadline but were not opened or accessed until after the deadline – these were not considered to be late. Approximately 395 late emails were received for ACP. Another approximate 47 paper comments were received late but not separated by project.

Attachment C

Summary Response to Comments

1. **Administrative Procedures - DEQ has not followed appropriate administrative procedures for public comment and public hearings.**

The State Water Control Board (Board) has broad authority to adopt rules governing the procedure for the Board with respect to: (a) hearings; (b) the filing of reports; (c) the issuance of certificates and special orders; and (d) all other matters relating to procedure. DEQ adhered to established procedures for public comment and public hearing with respect to the proposed issuance of this 401 Water Quality Certification. Guidance Memo No. GM17-2003, Interstate Natural Gas Infrastructure Projects - Procedures for Evaluating and Developing Additional Conditions for Section 401Water Quality Certification Pursuant to 33 USC § 1341 ("401" Certification), provides that (1) public notice of draft certification conditions will be published once in one or more newspapers of general circulation in the areas in which the pipeline activity is to take place and (2) provide a public comment period of 15 to 30 days including an opportunity to request a hearing or provide a comment period of 30 days with a scheduled public hearing at the end of the 30 days.

Public notices of the draft Section 401 Water Quality Certification for Atlantic Coast Pipeline (ACP) and the opportunity to submit written comments during the public comment period and to submit oral and written comment at three public hearings were published the week of July 3, 2017, and appeared in twelve newspapers: The Virginian-Pilot, Richmond Times Dispatch, The Suffolk News Herald, The Dinwiddie Monitor, Emporia Independent Messenger, Brunswick Times-Gazette, The Farmville Herald, The Tidewater News, Blackstone Courier-Record, The News Leader (Staunton), The Recorder, and Nelson County Times. When one of the venues cancelled DEQ's reservation, a new venue had to be found and then a second notice was published including the location change beginning on July 28, 2017.

The notice included the announcement of a 50-day comment period (July 3, 2017 through August 22, 2017) and three public hearings (August 7, 2017 at James Madison University, August 10, 2017 at Longwood University, and August 14, 2017 at Southside Virginia Community College). In addition, as provided in the guidance, the notice included a brief description of the proposed pipeline activity, location of such activity and state waters that may be affected (a listing of localities was included along with a link to the DEQ website for additional project-specific information and location), a summary of the draft conditions, details on how to submit

comments and request additional information, and a brief description of the formulation of a final determination on any additional conditions.

2. **DEQ has rushed the process and could not have conducted an appropriate review for a project of this scope.**

DEQ has been engaged in the environmental review of the proposed ACP Project (Project) for over two years. ACP made its initial filing for a Certificate of Public Convenience and Necessity with the Federal Energy Regulatory Commission (FERC) on September 18, 2015. Formal review of multiple environmental aspects of the Project was initiated during the Environmental Impact Review (EIR) process, which is Virginia's opportunity to review and comment upon the draft environmental impact statement (EIS). DEQ reviewed numerous environmental considerations of the Project including many relevant to the protection of water quality. In fact, comments that DEQ raised during EIR have informed the additional requirements in the proposed 401 Certification. FERC released its draft EIS on December 30, 2016. DEQ submitted its comments on the draft EIS to FERC on April 6, 2017.

In addition to DEQ's participation in FERC's environmental review process, inquiries from concerned citizens and affected property owners, local governments, state legislators, and environmental organizations were addressed to DEQ as early as November 2015, just weeks after ACP's initial filing with FERC. After consideration of these inquiries and concerns, by letter dated May 16, 2016 DEQ notified ACP that due to the scope of its proposed pipeline, project-specific erosion and sediment control and stormwater management plans must be submitted to and approved by DEQ. In this letter, DEQ also required that these plans be posted on the ACP website and that all inspection reports, compliant logs, and complaint responses must be submitted to DEQ.

DEQ has thoroughly reviewed the documents enumerated in Section IV of the proposed 401 Certification and all additional information submitted by ACP in response to DEQ's May 19, 2017 Request for Information (ACP's June 1, 2017, June 23, 2017 and June 27, 2017 responses). Additionally, DEQ has been reviewing erosion and sediment control and stormwater management measures for the Project since early 2016. ACP first submitted its annual standards and specifications in February 2016. The standards and specifications were approved in July 2017. As of the date of this writing, DEQ has had over 80 meetings and work sessions with ACP to review and discuss, the standards and specifications and the project-specific Erosion and Sediment Control (ESC) and Stormwater Management (SWM) plans that cover every foot of land disturbance. DEQ will continue to review and require revisions to the Project plans to ensure that these plans meet Virginia regulatory requirements for ESC and SWM.

3. **Segmented Regulatory Review - DEQ has unjustifiably splintered the regulatory process into discrete parts that are inextricably linked and essential to an evaluation of the Project's impacts on water quality.**

DEQ has not divided its regulatory review of ACP. DEQ has applied multiple layers of regulatory review to the Project and has gone above and beyond any historical evaluations of necessary water quality protections related to pipeline construction. As noted in the *Basis for Certification* (Attachment A to the Memorandum), the intent of this proposed 401 Certification is to address several unique aspects of the proposed Project that are not directly regulated by other regulations or permits. This proposed 401 Certification is narrowly focused on additional protections related to those unique aspects that DEQ believes are necessary in upland areas to minimize potential impacts to water quality. The resources and impacts of concern are karst hydrogeology, private and public water supplies, maximization of riparian forest buffers, surface water withdrawals that are exempt from permitting requirements, minimization of landslide risks related to construction activity on steep slopes, minimization of risks associated with blasting activities, and financial responsibility associated with impacts to private drinking water sources.

The conditions in the proposed 401 Certification impose requirements that are in addition to other existing DEQ programs being applied to the Project as well as many other requirements compelled by other state and federal entities. This proposed 401 Certification applies to project activities in upland areas outside of the Corps jurisdictional areas under 33 U.S.C. § 1344 which may result in an indirect discharge to waters of the United States, water withdrawal activities that are exempt from coverage under the Virginia Water Protection Permit Program Regulation (9 VAC 25-210-10, *et seq.*), and activities not covered under the Stormwater Management Act (Va. Code § 62.1-44.15:24, *et seq*.) and Erosion and Sediment Control Law (Va. Code § 62.1-44.15:51, *et seq*.).

4. **The Board should request DEQ to reconsider and reverse its decision to defer to the U.S. Army Corps of Engineers (Corps) and its Nationwide 12 permit for wetlands and stream impacts.**

Section 404 of the federal Clean Water Act (CWA) establishes a permitting program to regulate the discharge of dredge and fill material into waters of the United States. This program is administered by the U.S. Army Corps of Engineers (the Corps), with oversight from the U.S. Environmental Protection Agency (EPA). Section 401 of the CWA requires anyone applying for a Section 404 permit to also obtain a State water quality certification (a 401 certificate), which affirms that the State has a reasonable assurance that the activity complies with all applicable State water quality laws and standards. DEQ implements an independent State-

wide permitting program, the Virginia Water Protection (VWP) Permit Program, for impacts to surface waters (including wetlands), which can also serve as a 401 certificate for a Section 404 permit.

The VWP Permit Program regulates impacts to state waters, including wetlands. VWP permit conditions are designed to ensure "no net loss" of wetlands, establish in-stream flow requirements, and protect the beneficial uses of state waters. DEQ can provide a 401 certificate for a Section 404 permit (1) by issuing a VWP individual or general permit; (2) by certifying Corps' nationwide (NWP) and regional permits (RP); or (3) by issuing a 401 certificate without a separate VWP permit. Further, Virginia law also authorizes DEQ to provide regulatory oversight to isolated wetlands and excavation activities that are beyond the jurisdiction of the Section 404 program.

DEQ and the Corps utilize a Joint Permit Application (JPA) so that an applicant can apply for both federal and state permits through one application. Processing this JPA is coordinated between the Corps and Virginia.[29] After reviewing the proposed activity and evaluating the scope and impacts of a project to jurisdictional wetlands and stream crossings, the Corps will determine if the Project qualifies for a nationwide or regional permit or whether an individual permit must be drafted.

The Corps' Nationwide Permits (NWPs) authorize specific activities in jurisdictional waters, including wetlands. There are currently 54 NWPs in Virginia addressing a variety of common project types such as road construction, commercial development, maintenance of water control structures, channel dredging, and utility line installation. The Corps develops conditions for each NWP that ensure compliance with the Clean Water Act while protecting endangered species and cultural resources. The Corps reissues the NWPs every five years in a process that solicits comments on the draft permit conditions from public, private, and regulatory stakeholders. The Corps considers the comments and incorporates them into the final NWP conditions as appropriate. At the state level, the Corps' District Offices then develop additional Regional Conditions for the NWPs that address that state's unique geological features and water resources.

In Virginia the Corps' Norfolk District Office provided substantially updated regional conditions to supplement the reissued 2017 NWPs. Under Section 401 of the Clean Water Act, each state must then determine if the final NWPs are protective of that state's water quality standards. In Virginia, this determination is made by DEQ on behalf of the State Water Control Board and in accordance with the Virginia Water Protection Permit Program Regulation. DEQ reviews the proposed NWPs, the Norfolk District Regional Conditions, and other decision documents provided by the Corps. When DEQ finds that there is a reasonable assurance that the activities

[29] In the case of impacts to tidal wetlands and subaqueous bottoms over a certain size, the Virginia Marine Resources Commission (VMRC) may also have a permitting role and the joint permit application covers any applicable VMRC permits.

permitted under a Corps' NWP, including the Norfolk District Regional Conditions, will not violate applicable water quality standards, Virginia issues a Water Quality Section 401 Certification for that NWP as meeting the requirements of the VWP Permit Program regulation.

Alternatively, DEQ may issue additional certification conditions on any NWP to ensure compliance with State water quality standards. Certification conditions attached to a NWP by Virginia are enforceable conditions of the NWP. Finally, a state can reject the use of any NWP, provided it has a comparable mechanism to ensure a project's compliance with the Clean Water Act. DEQ has found that NWPs, including Regional Conditions and State Water Quality Certifications, expedite permit processing while safeguarding the environment and reducing duplication of effort by regulatory agencies. The Corps reissued its NWPs in March of 2017, including the NWP 12 for Utility Line Activities. DEQ evaluated the proposed 2017 NWP 12, including the Norfolk District Regional Conditions, and provided certification of the NWP 12 with three conditions concerning water withdrawals, construction methods and mitigation for impacts. DEQ's evaluation of the NWP 12 for Utility Line Activities found that the NWP 12's conditions provide reasonable assurance that any utility project constructed in accordance with the NWP 12 Conditions, the Norfolk District Regional Conditions and DEQ's State Water Quality Section 401 Certification conditions, will not violate the Commonwealth's water quality standards.

The Corps imposed a number of enhanced and additional conditions in the 2017 reissuance of NWP 12. These include:

- A recommendation to use equipment mats during temporary work in wetlands.
- Added a requirement to provide remediation plans for inadvertent hydraulic drilling fluid release during directional drilling. Also authorizes fluid cleanup under the NWP 12.
- Added a requirement to coordinate Threatened & Endangered (T&E) Species with the US Fish and Wildlife Service (FWS) Virginia Field Office, which incorporates the Department of Game and Inland Fisheries (DGIF) and Department of Conservation and Recreation (DCR) into the process.
- Added a requirement to coordinate T&E with the National Marine Fisheries Service, as appropriate.
- Added a recommendation to use Virginia native species for revegetation per DCR's list.
- Added requirements to restore the pre-construction conditions at stream crossings using materials that mimic the natural stream bed. No riprap shall be used except as required by Virginia stormwater regulations. The stream restoration shall promote the free passage of aquatic organisms.

- Added that a mitigation plan is required for all permanent loss over 1/10 acre and/or 300 linear feet of waters.

Also of note, is that under current VWP regulations, most of the nontidal wetland and stream crossings associated with ACP would qualify for a VWP General Permit for Facilities and Activities of Utility and Public Service Companies Regulated by Federal Energy Regulatory Commissions or the State Corporation Commission and Other Utility Line Activities (WP-2). The WP-2's conditions track closely with the NWP 12 conditions, but are less robust overall. Alternatively, each project could have been authorized under a VWP Individual Permit. Individual Permits have standard conditions, and also allow for special conditions as appropriate. However, given the extensive and thorough conditions included in the 2017 NWP 12 and its associated Regional and State Conditions DEQ's issues and concerns have been addressed.

DEQ has determined that the NWP 12 as currently certified and conditioned in Virginia is protective of the Commonwealth's water quality standards for the physical crossings of wetlands and streams. DEQ is proposing separate individual Section 401 certification conditions on the Projects' FERC license to provide additional water quality protections as detailed in Response to Comment (RTC) #3.

5. **DEQ is inappropriately excluding comments on Erosion and Sediment Control Plans and Stormwater Management Plans, the Corps' NWP 12 and environmental impact statements from the record of the proposed 401 Certification.**

DEQ is not excluding comments on the record. DEQ is simply stating that such comments are not relevant to this proposed 401 Certification. DEQ acknowledges that its review and approval of project-specific stormwater management and erosion and sediment control plans is a critical component of assuring protection of water quality. But this is separate and apart from the scope of this proposed 401 Certification. Before any land disturbing activity can occur, DEQ must have reviewed and approved ACP's project-specific plans. As explained in the *Basis for Certification* (Attachment A to the Memorandum), the Virginia Stormwater Management Program law and regulations establish that land disturbance associated with pipeline construction activities must meet Virginia Erosion and Sediment Control (VESC) and Stormwater Management (SWM) requirements to protect surface water quality during and after construction completion. State law further mandates that natural gas pipeline utilities (and certain other utilities) meet the requirements for VESC and SWM under a DEQ approved Annual Standards and Specifications Program. These plans will not be approved unless they meet Virginia's statutory and regulatory requirements for post construction stormwater management and erosion and sediment control during construction.

The Annual Standards and Specifications for the ACP Project were approved in July 2017. Additionally, as detailed in RTC #4, DEQ has also reviewed and approved a Water Quality Certification for the Corps NWP 12 as providing protection of water quality as a result of activities in streams and wetlands. DEQ comments on the draft Environmental Impact Statement have either been addressed in the Final Environmental Impact Statement (FEIS), the Certificate, or subsequent regulatory actions by other state and federal agencies.

6. **DEQ has deferred evaluation of erosion and sediment control and stormwater management plans until *after* this 401 process, even while it acknowledges that these plans are "critically important" to protecting water quality in Virginia's streams, rivers, and wetlands.**

The evaluation and approval of erosion and sediment control and stormwater management plans is being conducted under the requirements of the approved Annual Standards and Specifications and associated Law and Regulations, as detailed in the *Basis for Certification* (Attachment A to the Memorandum). Plans will not be approved unless they meet all the requirements. Initiation of land disturbing activities *will not* be allowed unless they are approved. This prohibition on land disturbing activity prior to plan approval is an independent state authority and separate from this additional 401 certification process.

7. **Reasonable Assurance - The 401 certification fails to demonstrate "Reasonable Assurance". DEQ has failed to properly evaluate potential impacts to water quality including identification of which water quality standards might be affected and apply the antidegradation policy.**

The term "reasonable assurance" is not defined in the Clean Water Act or applicable federal regulations.[30] The U.S. Environmental Protection Agency (EPA) has promulgated regulations that outline the process for providing Section 401 water quality certification at 40 C.F.R. Part 121. This regulation states that the certification shall, among other elements, include a statement that there is a reasonable assurance that the activity will be conducted in a manner which will not violate applicable water quality standards. The certification must also include: (i) a statement that the certifying agency has either examined the application made by the applicant to the licensing or permitting agency and bases its certification upon an evaluation of the information contained in such application which is relevant to water quality considerations; or, (ii) that the agency has examined other information furnished by the applicant sufficient to permit the certifying agency to

[30] Although used in a different context, Section 7 of EPA's Chesapeake Bay TMDL discusses a reasonable assurance concept. EPA explains that for point sources, the issuance of an NPDES permit provides the reasonable assurance that the required reductions will be achieved. Where both point sources and nonpoint sources exist on an impaired water body, determinations of reasonable assurance are based on whether practices capable of reducing the specified pollutant load: (1) exist; (2) are technically feasible at a level required to meet allocations; and (3) have a high likelihood of implementation. In other words, the existence of a framework for achieving the desired water quality is sufficient to demonstrate reasonable assurance.

make the statement that there is a reasonable assurance that the activity will be conducted in a manner which will not violate applicable water quality standards.

EPA's regulation also authorizes DEQ to provide a statement of any conditions which it deems necessary or desirable with respect to the discharge of the activity and, very broadly, DEQ can include other information as it may determine to be appropriate.

As noted above, federal regulations require that a § 401 certification must include "[a] statement that there is a reasonable assurance that the activity will be conducted in a manner which will not violate applicable water quality standards."[31] Water quality standards consist of statements that describe water quality requirements and include: designated uses, water quality criteria, and an antidegradation policy. Virginia has adopted water quality standards to protect existing high-quality waters and to provide for the restoration of all other state waters to permit reasonable public uses and will support the growth of aquatic life.[32] Reasonable assurance is more than a probability or mere speculation. However, a § 401 certification addresses future events; therefore, it is inherently predictive in nature and absolute certainty is not required. A state may add conditions to a § 401 certification that the state deems necessary or desirable with respect to the discharge of the activity,[33] and the state may rely on these conditions to make a finding of reasonable assurance.

Additionally, in making a finding that there is reasonable assurance a state may rely on tools that reduce the uncertainty inherent in the predictive nature of a § 401 certification, including: future submissions of revised plans, reports, and studies; monitoring; and, adaptive management. The need for future submissions of revised plans, reports, and studies does not preclude a state from finding reasonable assurance. As long as the requirements for these future submissions are specific and set out in detail in the § 401 certification, a state may rely on them to reduce uncertainty and to make a finding of reasonable assurance. A state may also rely on adaptive management strategies, such as monitoring and the implementation of contingency plans, to make a finding of reasonable assurance as long as the requirements for adaptive management are set out with specificity and the corrective actions and outcomes are reasonably certain to occur.

Based upon a review of the record, and the conditions imposed by other permits and regulatory requirements the Project is required to meet, and with the conditions imposed in the proposed 401 Certification, there is reasonable assurance that Virginia's water quality standards will not be violated by the Project. In fact, DEQ has already established reasonable assurance that activities in streams and wetlands (April 7, 2017 DEQ 401

[31] 40 C.F.R. § 121.2(a)(3).

[32] See Va. Code § 62.1-44.15(3a); 9 VAC 25-260.

[33] 40 C.F.R. § 121.2(a)(4).

Water Quality Certification of Corps NWP 12), and land disturbing activities (July 5, 2017 DEQ approval of Annual Standards and Specifications) will be conducted in a manner that will not violate applicable water quality standards.

While Congress has clearly stated that stormwater from land disturbing activity associated with construction of the pipeline is exempt from a section 402 discharge permit, Virginia's annual standards and specifications program incorporates the same engineering, erosion and sediment control, recordkeeping, monitoring, inspecting, and post construction stormwater management requirements that are otherwise implemented in the Board's General VPDES Permit for Discharges of Stormwater from Construction Activities, also known as the Construction General Permit (9VAC25-880-1 *et seq.*)

Virginia Code § 62.1-44.15:31 states that interstate and intrastate natural gas pipeline companies (among others) shall annually submit a single set of standards and specifications for DEQ approval that describe how land-disturbing activities shall be conducted. In addition, Virginia law provides that such standards and specifications shall be consistent with the requirements of the Stormwater Management Law and associated regulations, including the regulations governing the General Permit for Discharges of Stormwater from Construction Activities and the Erosion and Sediment Control Law (§ 62.1-44.15:51 *et seq.*) and associated regulations.

The Board's Construction General Permit was most recently adopted by the Board on December 17, 2013, and the reissued permit became effective on July 1, 2014. This general permit was appealed by the Potomac Riverkeeper, Inc. and others. The Riverkeeper argued that the Construction General Permit failed to adequately protect water quality. By an order dated April 10, 2017, the Richmond Circuit Court upheld the General Permit and dismissed the appeal finding that the Board acted in accordance with law and that there was substantial evidence in the record to support the Board's determination that proper implementation of permit conditions, including inspections and corrective action, would protect water quality.

The Court expressly found that:

- As a matter of practice, DEQ reviews every operator's registration statement to determine if the proposed discharge involves impaired or exceptional waters;
- The Construction General Permit expressly provides control measures that must be implemented in an operator's stormwater pollution prevention plan (SWPPP);
- The SWPPP components must be reviewed and approved before authorization to discharge under the Construction General Permit will be granted;

- Discharges into impaired or exceptional waters are not eligible for coverage under the Construction General Permit unless the operator takes certain steps to protect the waters;
- Operator inspections must be performed by qualified personnel; and,
- The Virginia Erosion and Sediment Control Program authority must inspect the land disturbing activity.

In Virginia, the Annual Standards and Specifications program imposes the same technical and engineering requirements that would be required under the Construction General Permit. ACP is required to have approved VESC and SWM plans that meet regulatory requirements to protect water quality. In addition, ACP is required to have an approved SWPPP that includes the following information consistent with the technical requirements contained in the 2014 Construction General Permit:

- General Information (Section A.1(d) & (e) of Part II)
- Erosion and Sediment Control Plan
- Stormwater Management Plan
- Pollution Prevention Plan (Section A.4 of Part II)
- SWPPP Requirements for Impaired, Total Maximum Daily Load (TMDL) and exceptional waters. (Section A.5 of Part II)
- Qualified Personnel (Section A.6 of Part II)
- Individuals or positions with delegated authority to sign inspection reports or modify the SWPPP.
- Certification: "I certify under penalty of the law that I have read and understand this document and that this document and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

In the absence of information demonstrating otherwise, compliance with the requirements under the Annual Standards and Specifications Program will result in stormwater discharges being controlled as necessary to meet

applicable water quality standards and antidegradation requirements. More specifically, by imposing requirements that discharges to impaired, TMDL, and exceptional waters comply with additional requirements, to stabilize exposed areas faster and to conduct site inspections more frequently than other sites (in addition to meeting SWPPP, VESC and SWM requirements), authorizing these discharges will not result in a lowering of water quality. Thus, DEQ has determined that compliance with the Annual Standards and Specifications approval generally is sufficient to satisfy Tier 2 and Tier 3 antidegradation requirements because the controls will not result in a lowering of water quality, making individualized Tier 2 or Tier 3 review unnecessary.

DEQ has determined that the Annual Standards and Specifications Program ensures compliance with water quality standards and antidegradation requirements. This is supported by the fact that the requirements under the Annual Standards and Specifications Program meet the technical requirements of the Construction General Permit. Likewise, in the 2017 Permit Fact Sheet for the NPDES Construction General Permit, EPA determined that compliance with the Construction General Permit generally is sufficient to satisfy Tier 2 (or 2.5) and Tier 3 antidegradation requirements because the controls will not result in a lowering of water quality, making individualized Tier 2 or Tier 3 review unnecessary.

Specific requirements for discharges to impaired, TMDL, and exceptional waters required under the Annual Standards and Specifications Program include:

(1) Permanent or temporary soil stabilization applied to denuded areas within seven days after final grade is reached on any portion of the site;

(2) Nutrients applied in accordance with manufacturer's recommendations or an approved nutrient management plan and shall not be applied during rainfall events; and,

(3) A modified inspection schedule implemented as follows:

> (a) Inspections shall be conducted at a frequency of: (i) at least once every four business days; or, (ii) at least once every five business days and no later than 48 hours following a measurable storm event. In the event that a measurable storm event occurs when there are more than 48 hours between business days, the inspection shall be conducted on the next business day; and
>
> (b) Representative inspections used by utility line installation, pipeline construction, or other similar linear construction activities shall inspect all outfalls discharging to surface waters.

As discussed in RTC #4, the temporary construction activity related to locating the proposed pipeline under streams and wetlands must be authorized by a Clean Water Act Section 404 dredge and fill permit. DEQ has

determined that the NWP 12 as currently certified and conditioned in Virginia is protective of the Commonwealth's water quality standards for the physical crossings of wetlands and streams.

This proposed 401 Certification is focused on additional protections related to those unique aspects that DEQ believes are necessary in upland areas to minimize potential impacts to water quality. The additional conditions in this proposed 401 Certification include specific requirements for best work practices emphasizing hazard assessment, frequent inspection requirements, monitoring activities, preventative measures, riparian buffer protections, and comprehensive mitigation plans. These conditions are in addition to those described above and provide additional reasonable assurance that water quality standards will be protected.

8. DEQ has not evaluated potential impacts to water temperature.

The construction and operation of a linear utility right of way does not create a thermal point source. The commenters assert that the loss of shading associated with 50-foot-wide permanent easements required for the proposed pipeline will violate instream water quality criteria for temperature. The tools to evaluate potential impacts on water temperature from non-thermal non-point sources do not provide the similar analysis as exists for sediment and nutrients. The temporary nature of potential impacts from sedimentation does not apply to potential impacts on temperature resulting from permanent loss of shading.

Virginia has developed a limited number of temperature total maximum daily loads (TMDLs). These TMDLs utilized extensive modeling that evaluated and predict instream temperature responses to various land use conditions. The land use data utilized in the TMDL modeling may not be practical for estimating potential temperature impacts of linear pipeline development.

However, the sensitivity analyses of the TMDL models indicate that the most influential parameters affecting stream water temperature are ambient air temperature, relative humidity, shading provided by riparian zone vegetation, and inflow water temperature. One factor that is not accounted for in the model but likely has a powerful influence on localized stream temperatures is groundwater surfacing into stream channels. This parameter is not as easily measured but would likely provide important clarity regarding how pipeline crossings and temporary construction easements in the riparian zone actually will affect stream temperatures. The water segments with existing, documented temperature impairments addressed by these TMDLs are generally characterized by land practices resulting in thousands of feet of riparian zone vegetation completely removed along both sides of the stream. This is in sharp contrast to the limited 50-foot-wide permanent easement for stream crossings of the proposed pipeline. Additionally, many of the streams that would be crossed by the proposed ACP are located in mountainous, headwater areas presenting with karst geology and are known for having significant groundwater and spring fed inflow.

Additionally, as was discussed in RTC #7 above, in making a finding that there is reasonable assurance Virginia may rely on tools that reduce the uncertainty inherent in the predictive nature of the 401 certification, including: future submissions of revised plans, reports, and studies; monitoring; and adaptive management. As described by staff during the Board's July 2017 meeting, and as is explained in the *Basis for Certification* (Attachment A to the Memorandum), DEQ along with the United States Geological Survey (USGS) will be conducting additional instream biological and water quality monitoring designed to evaluate baseline preconstruction conditions and evaluate whether there are effects on aquatic life, including temperature.[34] On this issue of temperature criteria, DEQ is proposing to utilize adaptive management strategies, such as monitoring and the implementation of contingency plans, to make a finding of reasonable assurance.

Based on DEQ's experience with temperature TMDLs, and given the relatively narrow width of stream crossings, the volume of inflow of groundwater, the proposed additional 401 Certification requirements for riparian buffer protection, and the water quality monitoring activities associated with critical temperature streams, DEQ has sufficiently evaluated potential impacts to the instream water quality criteria for temperature to have reasonable assurance that water quality standards will not be violated.

9. DEQ has not evaluated Cumulative Impacts to state waters.

In accordance with the Council on Environmental Quality's regulations for implementing the National Environmental Policy Act (NEPA),[35] FERC conducted a cumulative impact analysis as part of its environmental review of the proposed ACP project. FERC identified other actions located in the vicinity of the ACP and the SHP [Supply Header Project][36] facilities and evaluated the potential for a cumulative impact on the environment. This FERC analysis evaluates other actions that impact resources also affected by the projects, within the resource-specific geographic scopes. In evaluating cumulative impacts on water resources and wetlands, vegetation, land use, and wildlife, FERC considered many other proposed or permitted projects/actions within the Hydrologic Unit Code 10 (HUC10) sub-watersheds (i.e., fifth-field watersheds) crossed by the projects. These included, among others, the proposed Mountain Valley Pipeline.

FERC specifically considered the 514 perennially flowing waterbodies that will be crossed by the proposed ACP. FERC noted that construction of the project would result in temporary or short-term impacts on surface water resources as well as some minor long-term impacts such as loss of forested cover in the watershed and

[34] DEQ's pipeline monitoring plan is found in Attachment D to the Memorandum,

[35] 40 C.F.R. § 1508.7.

[36] SHP is a separate request for authorization to construct and operate natural gas facilities in Pennsylvania and West Virginia. However, because the ACP and the SHP are interrelated and connected actions, FERC analyzed them together in a single comprehensive EIS. No SHP activities are located in Virginia.

partial loss of riparian vegetation. FERC found that these impacts, such as increased turbidity levels, are expected to return to baseline levels over a period of days or weeks following construction given the requirement to restore water bodies to their original contours. FERC also noted that any projects crossing Waters of the United States would have to obtain permits from the Corps. Consequently, FERC concluded that the cumulative effect on surface waterbody resources would be temporary and minor.

FERC also concluded that, given the relatively small total of wetland acres affected not only by ACP but also by other known projects in the affected watersheds, cumulative impacts on wetlands within the HUC10 watersheds when considered with the projects identified in the FERC analysis would not be significant.

In summary, the July 2017 FEIS concludes that "[m]ost cumulative impacts would be temporary and minor when considered in combination with past, present, and reasonably foreseeable activities. Long-term but minor cumulative impacts would occur on wetland, upland forested vegetation, and associated wildlife habitats, as well as waterbodies, special status species, and visual quality. Impacts on vernal pools, rocky outcrops, and subterranean features could adversely affect habitat of wildlife species with limited mobility and home ranges. Subterranean obligate species are often endemic to only a few known locations, and are vulnerable to changes in hydrological pattern or water quality (WVDNR, 2015a); therefore, it is possible that impacts associated with construction activities could have population-level effects on these species… As part of our review, we [FERC] developed specific mitigation measures that we [FERC] determined would appropriately and reasonably reduce the environmental impacts resulting from construction and operation of ACP and SHP. We are therefore recommending that our mitigation measures be attached as conditions to any authorizations issued by the Commission".

As is described in DEQ's *Basis for Certification* (Attachment A of the Memorandum), there are numerous federal and state permitting and regulatory programs that apply to the Project. These include the Virginia Erosion and Sediment Control (VESC) Program; the Virginia Stormwater Management Program (VSMP); the Virginia Pollutant Discharge Elimination System (VPDES) permit program for stormwater from construction activities; the Virginia Water Protection Permit Program (VWP) and Section 404 of the Clean Water Act. Each of these regulatory tools individually requires protection of water quality for project activities. Collectively these programs impose a number of technical requirements that are designed to avoid or minimize impacts to water resources.

While federal NEPA regulations direct FERC to analyze cumulative impacts, there is no Virginia regulatory framework for DEQ to conduct such an analysis.

Moreover, while the impacts to jurisdictional waters authorized by the Corps under Section 404 of the Clean Water Act are separate from upland activities that are the subject of this Certification, the Corps also analyzed the cumulative effects of the linear utility projects and found that the individual and cumulative adverse effects on the aquatic environment resulting from the activities authorized by NWP 12 will be no more than minimal and that each crossing is a single and complete project. As stated in detail in the Corps Decision Document for NWP 12, division and district engineers will conduct more detailed assessments for geographic areas that are determined to be potentially subject to more than minimal cumulative adverse environmental effects and each have the authority to require individual permits in watersheds or other geographic areas where the cumulative adverse environmental effects are determined to be more than minimal, or add conditions to NWP 12 either on a case-by-case or regional basis to require mitigation measures to ensure that the cumulative adverse environmental effects of these activities are no more than minimal. When a division or district engineer determines, using local or regional information, that a watershed or other geographic area is subject to more than minimal cumulative adverse environmental effects due to the use of NWP 12, he or she is directed to use the revocation and modification procedure at 33 C.F.R. § 330.5.

The concept of evaluating a project's total impacts to wetlands is also found in Virginia's VWP regulation. Specifically, the regulation includes a definition of single and complete project (9VAC25-210-10). The determination of what constitutes a single and complete project drives the analysis utilized to decide whether compensation for wetland impacts is required. In other words, the need to compensate for wetland impacts is based on the total impacts of a given project and the regulation defines how the totality of a project is evaluated to ensure wetland impacts are not fragmented and compensation avoided. The VWP regulations specifically define that for linear projects, the single and complete project (*e.g.*, a single and complete crossing) will apply to each crossing of a separate surface water (*e.g.*, a single water body) and to multiple crossings of the same water body at separate and distinct locations".[37]

10. Karst Terrain - Numerous comments and scientific reports were received identifying concerns associated with construction activity in karst terrain. These include inadequate identification of karst features, potential threats to ground and surface water, springs and wells. Many commenters feel the potential risks should create a pipeline "no-build" zone in karst terrain.

In Virginia, the Department of Conservation and Recreation (DCR) administers the Virginia Cave Protection Act (Virginia Code § 10.1-1000 *et seq.*). This act created the Virginia Cave Board whose statutory authority is

[37] This is consistent with the Corps' definition of single and complete project in its 2017 NWP12 - For linear projects crossing a single or multiple waterbodies several times at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization.

to advise individuals, organizations, and public agencies on cave and karst related matters; provide cave management expertise; prepare and present educational material; identify significant caves; and recommend conservation and preservation measures for cave resources within Virginia. DEQ has worked closely with DCR to carefully evaluate potential challenges associated with constructing a pipeline in karst terrain. Many of the concerns raised are based on hypothetical events which could occur, while relatively few examples exist where impacts to karst features from pipeline construction have actually occurred. DEQ's obligation in developing this proposed 401 Certification is to evaluate whether the proposed protective measures and work practices, if implemented properly, provide a reasonable assurance that water resources will be protected.

With over 2,000 miles of existing gas pipelines currently constructed within karst terrain in Virginia, Tennessee, Kentucky, and West Virginia, it has been demonstrated that pipeline construction can be safely accomplished in karst terrain. ACP will utilize the following suite of activities that are designed to greatly reduce the potential for impacts to karst related water resources: field identification and confirmation of sensitive features (springs, sinkholes, sinking streams, outcroppings); implementation of best work practices; deployment of onsite karst specialists, and in-field inspections and monitoring during construction. ACP has also made minor route adjustments to avoid karst features and sensitive water resources that were identified in its *Karst Survey Report.*[38]

The *Karst Terrain Assessment, Construction, Monitoring and Mitigation Plan*[39] calls for minor adjustments within the approved right-of-way to avoid karst features during construction if and when necessary. ACP will implement multiple avoidance and protective measures during construction to prevent impacts to karst and water resources. Best Management Practices in the Erosion and Sediment Control Plans, *Spill Prevention, Control, and Countermeasure (SPCC) Plan*, and the *Karst Terrain Assessment, Construction, Monitoring and Mitigation Plan* are designed to prevent uncontrolled releases to surface waters and karst features in order to protect the underlying aquifer. ACP will deploy karst experts, as on-site inspectors, during all phases of construction in karst terrain to monitor karst resources, identify potential connectivity to the subterranean environment, prevent uncontrolled surface water releases, prevent impacts to karst features, and ensure that prescribed measures (referenced above) are in-place to protect karst features, surface water, and groundwater resources.

The proposed 401 Certification incorporates the karst related plans developed pursuant to FERC requirements and makes them enforceable by DEQ. FERC granted a Certificate of Public Convenience and Necessity for the

[38] Document found in FERC's final environmental impact statement and Certificate.

[39] Document found in FERC's final environmental impact statement and Certificate.

Project on October 13, 2017, which contains additional karst related requirements that also are incorporated in the proposed 401 Certification. These additional requirements include revising the *Karst Terrain Assessment, Construction, Monitoring and Mitigation Plan* to include post-construction monitoring using sequentially-acquired Light Imaging Detection and Ranging (LiDAR). The *Karst Survey Report* identifying karst features has been completed and an addendum is required for properties previously not surveyed due to land access restrictions.

Commenters also raised general concerns regarding possible negative impacts to groundwater to quality and quantity both in karst terrain and throughout the entire Project. The experts that DEQ convened during its June 8, 2017 Karst Workshop[40] were in agreement that while some risk of very localized impact may be present, the risk is not very high. They were also in agreement that large scale interruptions of groundwater and surface water flow due to construction in karst hydrogeology were highly unlikely. The experts noted that it was difficult to envision how the proposed shallow trench (10-12 feet deep) would have any significant, prolonged effect on groundwater resources. The project area in karst is primarily comprised of bedrock aquifers with minor aquifers along streams. At the proposed depth of construction, the pipeline trench could encounter limited shallow groundwater. In those situations, the trench will be dewatered through filters into adjacent vegetated uplands so that there will be some recharge to shallow aquifers.

Additionally, in follow up to comments made during the environmental review process, DEQ consulted with the Virginia Department of Health (VDH) regarding additional protections of private drinking water sources. In a memo dated October 19, 2017, VDH recommended that in areas of karst topography a survey of existing water resources be performed. VDH stated that this recommendation came out of an abundance of caution. This survey should comprehensively identify wells, cisterns, springs, and other surface water, and also provide water quality evaluations for wells and springs within 1,000 feet of the construction activity in karst topography. The survey shall be conducted by ACP at the request of a property owner and only if the property owner provides permission for access. VDH noted that this survey could be done before the pipeline is placed into operation, not necessarily prior to construction activities.

This recommended survey has been incorporated as a condition into the proposed 401 Certification.

11. Dye tracing should be required before the 401 certification is issued to understand the extent of impacts (inventory of all wells/springs within 500 feet is arbitrary without results of dye test).

[40] In attendance were, among others, Virginia's State Geologist, staff from the U.S. Geological Survey, DEQ staff expert on karst, and staff to the Virginia Cave Board.

As stated in RTC #7, it is appropriate for a 401 certification to contain a condition requiring future monitoring and studies to determine potential impacts. Additional conditions or requirements can be imposed once those results are obtained. Requiring the monitoring and submission of results before any land disturbing activities in karst terrain take place enables DEQ to coordinate any further requirements or restrictions to protect water quality. The proposed 401 Certification incorporates the *Karst Terrain Assessment, Construction, Monitoring and Mitigation Plan* as an enforceable component.

As a condition of the proposed 401 Certification, ACP must develop a *Supplemental Karst Evaluation Plan* to further evaluate flow paths for karst features in the vicinity of the Project. This supplemental plan must be submitted to DEQ for review and concurrence prior to initiation of land disturbing activities in karst terrain. DEQ, with assistance from the Virginia Department of Conservation and Recreation, identified areas of concern in Attachment B of the Department's June 15, 2017 request letter. ACP will conduct contingency planning in accordance with the findings and conclusions of the *Supplemental Karst Evaluation Plan*, as appropriate, in order to monitor and mitigate a potential accidental release or spill during construction in Virginia's karst terrain.

12. Steep Slopes and Landslide - Commenters raised concerns that construction and operation of a natural gas pipeline could contribute to unstable slopes and cause landslides and other slope failures resulting in impacts to water resources and pipeline integrity.

The proposed 401 Certification includes incorporation of a *Best in Class Steep Slope Management Program* which has been developed to outline the special procedures and best management practices that will be implemented during the pipeline installation and post-construction periods to mitigate landslide potential. Part of the *Best in Class Steep Slope Management Program*, would implement mitigation measure for susceptible slopes or hillsides depending on the length and inclination of the slope. Some of the measures include: (1) implanting drainage improvement, such as providing subsurface drainage at seep locations through granular fill and outlet pipes, incorporating drainage into trench breakers using granular fill, and/or intercepting groundwater seeps and diverting them from the right-of-way; (2) buttressing slopes with concrete trench breakers; (3) changing slope geometry to make the slope shallower; (4) benching and re-grading with controlled backfill; (5) using alternative backfill; (6) using chemical stabilization of backfill (*e.g.*, cement, lime); (7) implementing Geogrid reinforced slope that consists of benching existing slope, installing subsurface drains, and incorporating Geogrid reinforcement into compacted backfill. The FERC Certificate requires an update to ACP's *Best in Class Steep Slope Management Program* to include the results of a phase 2 analysis of slopes prior to start of construction.

These industry standard practices, site-specific measures, construction and post-construction monitoring provide additional protection from landslide impacts to state waters.

13. Impacts from Blasting - Blasting will cause irreparable harm to streams and karst features and increase landslide potential.

The proposed 401 Certification includes incorporation of a *Blasting Plan* approved by FERC in the FEIS which outlines procedures and safety measures to minimize impacts to structures and water resources. The potential for blasting along the proposed pipeline to affect any structures or water resources will be minimized by utilizing controlled blasting techniques and using mechanical methods for rock excavation as much as possible. Controlled blasting techniques are designed to loosen rock, utilize minimal blasting charges and allow for physical removal of the rock once it has been fractured by the charge. Within the construction industry, controlled blasting techniques are regularly employed within 15 feet of active gas lines. The Plan includes specific practices for blasting conducted in karst terrain and waterbody and wetland crossings. Monitoring and pre and post blasting inspections are also required by the Plan. The use of controlled blasting techniques, where small, localized detonations are utilized, will avoid or minimize potential impacts to water resources.

14. Water Quality Monitoring Plan is inadequate. What kinds of monitoring will ensure that there are no impacts to water quality?

Condition 5 of the proposed 401 Certification requires ACP to develop a limited water quality monitoring plan to monitor and evaluate potential impacts to water quality from activities occurring in areas outside of wetlands and streams not subject to the Corps' NWP 12 (i.e., upland areas). The plan submitted by ACP details in-stream water quality monitoring to occur in three phases - before, during, and after construction in proximate upland areas. Three samples, at least one week apart, will be collected during each phase. The parameters to be monitored include: temperature, turbidity, dissolved oxygen, and pH. ACP will also complete benthic macroinvertebrate surveys to determine aquatic health before and after construction.

In addition to the upland monitoring that will be conducted by ACP, DEQ, in partnership with scientists from the U.S. Geological Survey (USGS) and Virginia Commonwealth University (VCU), is conducting project-specific water quality monitoring at a number of proposed ACP stream crossings near sensitive and/or critical areas. This monitoring will be conducted before, during and after ACP construction activities. Monitoring stations will be established upstream and downstream of the proposed pipeline crossing locations. This special study includes identification of benthic macroinvertebrate and fish community assemblages; quantitative physical habitat assessment; real-time, continuous water quality monitoring for turbidity, temperature, specific

conductance, dissolved oxygen and pH; as well as grab sample monitoring for petroleum constituents (petroleum identification and quantity in water).

Throughout August 2017, DEQ and USGS scientists visited dozens of potential crossings locations in an effort to select priority monitoring locations. Seven crossings along the proposed ACP route (14 monitoring sites) were selected. Monitoring sites for DEQ's special study were prioritized based on a number of critical factors including the presence of wild trout populations and/or threatened and endangered species; proximity to Tier III (exceptional) waters; waters used as public water supplies; proximity to proposed upland construction activity (mountain regions); access to the site; and suitable water flow.

To establish a baseline of water quality conditions, monitoring began in the fall of 2017. If the ACP project is approved, the special study monitoring will continue during construction and for at least one year after completion of construction.

As has been noted in RTC #7, in making a finding that there is reasonable assurance Virginia may rely on tools that reduce the uncertainty inherent in the predictive nature of a § 401 certification, including monitoring. The monitoring is intended to provide reasonable assurance that erosion and sediment control measures are effective. If necessary, changes will be made to approved erosion and sediment control plans based on conditions encountered in the field during construction.

15. DEQ has not addressed water quality issues related to water withdrawal and discharges associated with Hydrostatic Testing, Horizontal Directional Drilling (HDD) or Dust Control activities.

The Virginia Water Protection Permit (VWP) Program Regulation specifically exempts water withdrawals that will be used for hydrostatic testing from the requirement to obtain a water withdrawal permit.[41] Even so, DEQ has gone beyond its regulatory authority and has included conditions in the proposed 401 Certification which specifically address how these water withdrawals must be conducted. First, the proposed condition limits surface water withdrawals to no more than 10% of the instantaneous flow rate in the channel from which it is withdrawn. The condition also imposes typical permitting requirements designed to protect instream organisms - intake screens must be designed so that screen openings are not larger than 1 millimeter and the screen face intake velocities are not greater than 0.25 feet per second.

[41] 9VAC25-210-301.A.6.b states:
"The following surface water withdrawals are excluded from VWP permit requirements. … Surface water withdrawals from nontidal or tidal waters, regardless of the volume withdrawn, for the following uses:
Hydrostatic pressure testing of water tight containers, pipelines, and vessels."

Withdrawals for horizontal directional drilling and dust control activities are not exempt from VWP permitting requirements if they exceed 10,000 gallons per day from nontidal waters or 2 million gallons per day from tidal waters. The proposed condition makes clear that volumes that exceed these limits must obtain a VWP permit and comply with the regulation.

Finally, although discharges from hydrostatic testing can be authorized under the Board's General Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation for Discharges from Petroleum Contaminated Sites, Groundwater Remediation and Hydrostatic Tests, the proposed 401 Certification requires discharge of hydrostatic test water to upland areas and not surface waters and monitoring consistent with this VPDES General Permit is required.

16. Public Water Supplies are at risk.

This comment is distinct from the issues raised in RTC #10 related to threats to water resources used by individual private landowners and focuses on concerns regarding public water supplies. ACP has worked with agencies to minimize or avoid impacts to public water supplies. An alignment change was made to avoid the Lyndhurst Source Water Protection Area. This reroute was incorporated into the Project based on public comments and discussions with various parties.

The additional conditions in the proposed 401 Certification, including specific requirements for best work practices emphasizing hazard assessment, frequent inspection requirements, monitoring activities, preventative measures, riparian buffer protections, and comprehensive mitigation plans along with the requirements of the Stormwater Management Act (Va. Code § 62.1-44.15:24, *et seq.*) and the Erosion and Sediment Control Law (Va. Code § 62.1-44.15:51, *et seq.*) will adequately protect public water supplies.

17. Individual property owners provided comments regarding unique features located on their land that they feel were missed by on the ground surveys or not adequately addressed.

Many of these features were water resource, karst terrain, or steep slope conditions. Despite the infield surveys, desktop analysis, and various assessments developed for the Project, there always remains the possibility of certain overlooked features. Requirements for pre-land disturbing inspection (including during and after tree felling) by various personnel including Environmental Inspectors, karst specialists, and construction inspectors are designed to ensure all features are appropriately identified and avoided or mitigated prior to initiation of land disturbing activities. This process will provide for appropriate identification of unique features not already addressed.

Additionally, as explained stated in the *Basis for Certification* (Attachment A to the Memorandum), DEQ made project-specific erosion and sediment control and stormwater management plans available for public review. The plans were posted by spread beginning on July 19, 2017, and public input was accepted until October 13, 2017. DEQ received input from a small number of property owners who reviewed the project-specific erosion and sediment control and stormwater management plans and found that certain features on their property were not adequately or correctly addressed. DEQ will work directly with these property owners to resolve the identified issues. If necessary, DEQ intends to conduct limited site visits to the properties.

18. Through the issuance of the proposed 401 Certification, DEQ has added an extra level of review beyond standard practice to ensure water quality is protected. FERC and many other agencies have carefully analyzed potential impacts to land, air, water quality, wildlife and other resources.

This observation and comment are noted.

Comments Submitted that Are Outside the Scope of the Proposed 401 Certification and DEQ's Legal and Regulatory Authority

Commenters identified proximate areas of seismic activity and assert that constructing a gas pipeline in such an area poses a danger to the community.

Consideration of this issue is not within the scope of the proposed 401 Water Quality Certification. Additionally, as discussed in the response to steep slopes and landslide concerns, ACP is revising the *Best in Class Steep Slope Management Program* to include updated analysis of slopes prior to start of construction.

Commenters identified a concern of or potential for leaks, discharges, or explosions once the pipeline is operational.

Consideration of these issues is not within the scope of the proposed 401 Certification. The proposed 401 Certification addresses activity in upland areas and certain project-related surface water withdrawals not otherwise permitted or regulated and not the operation of the proposed pipeline itself and its contents.

It should be noted that several regulatory programs at both the state and federal level address and provide oversight concerning these issues. This includes requirements and oversight by the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration which sets and enforces regulations and standards for the design, construction, operation, maintenance or abandonment of pipelines.

Commenters questioned the necessity or justification for the pipeline Project including discussions of economic and energy production impact.

These comments regarding broader issues involving the proposed pipeline regarding the necessity, justification, or impact related to the economy and energy production are acknowledged. Consideration of these issues, however, is not within the scope of the proposed 401 Certification. The proposed 401 Certification addresses activity in upland areas and certain project-related surface water withdrawals not otherwise permitted or regulated and not the operation of the pipeline itself and its contents.

It should be noted that such issues or information may be relevant or considered in other regulatory actions including the Federal Energy Regulatory Commission's review process for issuance of a "Certificate of Public Convenience and Necessity."

Commenters provided concerns, comments, and information regarding private property impacts including property values, private property access, and fairness and appropriateness of the exercise of eminent domain.

Comments regarding general or broad issues involving property access and property values from the proposed pipeline Project are not within the scope of this proposed 401 Certification.

It should be noted that within the context of this proposed 401 Certification regarding upland activities, ACP must provide a financial responsibility demonstration to support the Complaint Resolution Process contained in the Water Resources Identification and Testing Plan (February 2017) in the event of impacts to a private water supply that is used for human consumption, from project construction activities.

Additionally, it should be noted that other legal requirements and processes address these issues including state and federal laws regarding property access, easements, property value impacts, and eminent domain.

Several comments discussed or identified concerns regarding the pipeline project impact on air emissions including impacts related to climate change and increased production or use of natural gas in lieu of green energy production options such as solar or wind power.

Consideration of these issues regarding air emissions, climate change, and use of natural gas in lieu of solar or wind power are not within the scope of this proposed 401 Certification. However, it should be noted that other regulatory authorities exist to address such issues. Additionally, issues related to energy production and alternatives including other energy production technology may be relevant or considered in other regulatory

reviews for the proposed pipeline Project including the Federal Energy Regulatory Commission's review process for issuance of a Certificate of Public Convenience and Necessity.

Commenters identified permitting, certification, or compliance actions taken by other states regarding pipeline projects.

This proposed 401 Certification is governed by applicable laws, regulations, and guidance in the Commonwealth of Virginia. A decision on the proposed 401 Certification cannot take into consideration laws, regulations, guidance, basis for decisions, or enforcement actions in other jurisdictions. The proposed 401 Certification contains additional conditions to support the finding of reasonable assurance that water quality standards will not be violated.

Additionally, non-compliance or other events related to different pipeline projects cannot be presumed or ascribed to this proposed pipeline Project and, if approved, compliance with the conditions of the proposed 401 Certification will be addressed through DEQ's authority, oversight, and enforcement process.

Commenters raised concerns regarding the fact that the project owner is a limited liability corporation and there is potential for it to avoid future responsibilities and liabilities associated with the Project.

Limited liability companies (LLCs) are viable business entities subject to oversight and enforcement of their legal obligations. Pursuant to Va. Code §§ 13.1-1000 *et seq.*, LLCs can be sued, own interests in real property, make contracts and incur liabilities, enter into partnerships or joint ventures, and transact any lawful business that a corporation, partnership, or other business entity may conduct in Virginia. ACP should not be considered differently than any other corporate entity in terms of its ability to carry out obligations related to environmental approvals during the construction and life cycle of its pipeline.

Furthermore, as it relates to complying with the FERC regulations and orders (which include enforcing conditions in certificate orders), FERC has various enforcement tools at its disposal in overseeing interstate pipelines such as ACP that are subject to FERC's jurisdiction. These tools include imposition of compliance plans; disgorgement of unjust profits; the ability to condition, suspend, or revoke, certificate authority, or blanket certificate authority; the ability to refer matters to the Department of Justice for criminal prosecution; and civil penalty authority for fines and penalties exceeding $1 million per violation.

Finally, under the Virginia Water Protection Permit regulation (as a point of reference), the corporate status or corporate form of a permit applicant is not a ground for denying a permit application (*See* 9VAC25-210-230). Permits are issued to "persons," defined in the regulation as meaning an "individual, corporation,

partnership, association, governmental body, municipal corporation, or any other legal entity" (9VAC25-210-10). Thus, a legal entity, such as a corporation or an LLC, can be issued a permit.

Comments Outside the Scope of this Certification Regulated by Other DEQ Statutes and Regulations

A significant number of comments and documents or studies were received related to issues being regulated by other DEQ regulatory programs. These comments were primarily focused on activities associated with stream crossings and issues associated with land disturbance involving erosion and sediment control and stormwater. Many of these comments are legitimate issues related to protection of water resources. All of the issues raised in this category of comments are being reviewed and appropriately addressed within those other regulatory programs. DEQ devoted considerable effort to provide clarification of the scope of this proposed 401 Certification within the supporting documentation. There is not a reduction in protection for these water resources by addressing them through the appropriate programs authorized by statute and regulation.

Comments were received in support of the pipeline including comments regarding the opportunity for economic development, manufacturing and job creation; increased safety of pipeline transportation compared to overland trucking of natural gas; decreased reliance on coal for energy production, and thoroughness of FERC's evaluation of the project.

A number of comments were received related to support of the proposed pipeline; however, consideration of these issues is not within the scope of this proposed 401 Certification.

CERTIFICATION No. 17-002

401 Water Quality Certification Issued To

Atlantic Coast Pipeline, LLC
5000 Dominion Boulevard
Glen Allen, VA 23060

Pursuant ~~T~~to Guidance Memo No. GM17-2003
Interstate Natural Gas Infrastructure Projects -
Procedures for Evaluating and Developing Additional Conditions for Section 401 Water Quality Certification Pursuant to 33 USC § 1341 ("401" Certification)

I. CERTIFICATION

The State Water Control Board finds that, subject to the additional conditions set out in Section V below, there is reasonable assurance that the Atlantic Coast Pipeline, LLC activities covered by this Certification will be conducted in a manner that will not violate applicable Water Quality Standards in 9 VAC 25-260-5, *et seq.*, and will comply with the applicable provisions of 33 U.S.C. §§ 1311, 1312, 1313, 1316, and 1317.

II. DEFINITIONS

The following terms as used in this Certification shall have the following meaning:

"Annual Standards and Specifications" means the program for linear utility projects implementing the requirements of the Stormwater Management Act (Va. Code § 62.1-44.15:24, *et seq.*) and Erosion and Sediment Control Law (Va. Code § 62.1-44.15:51, *et seq.*).

"Board" means State Water Control Board.

"Certification" means Clean Water Act Section 401 Water Quality Certification developed in accordance with Guidance Memo No. GM17-2003, Interstate Natural Gas Infrastructure Projects – Procedures for Evaluating and Developing Additional Conditions for Section 401 Water Quality Certification Pursuant to 33 USC § 1341 ("401" Certification).

"Construction material or waste material" means solid waste as defined in the Solid Waste Management Regulations (9 VAC 20-81-~~10, *et seq.*).~~95).

"Corps" means U.S. Army Corps of Engineers.

"Department" means the Virginia Department of Environmental Quality.

~~"Environmental Impact Statement" means the environmental impact statement as prepared by the Federal Energy Regulatory Commission in compliance with the requirements of the National Environmental Policy Act (NEPA), the Council on Environmental Quality regulations for implementing NEPA, 40 C.F.R §§ 1500-1508,~~

~~and FERC regulations implementing NEPA, 18 C.F.R. §§ 380.1-380.16 for the projects proposed by Atlantic Coast Pipeline, LLC in Docket No. CP16-10-000.~~

"Environmental Impact Statement" or "EIS" means the Final Environmental Impact Statement (FEIS) issued by FERC on July 21, 2017.

"FERC" means the Federal Energy Regulatory Commission.

"Guidance" means Guidance Memo No. GM17-2003, Interstate Natural Gas Infrastructure Projects - Procedures for Evaluating and Developing Additional Conditions for Section 401 Water Quality Certification Pursuant to 33 USC § 1341 ("401" Certification) dated May 19, 2017.

~~"Karst feature" means but is not limited to sinkholes, caverns and swallets.~~ "Karst feature" means any sinkhole, sinkhole lineament, cave, cavern, swallet, spring, or similar feature found in an area identified as an area of karst geology characterized by the presence of soluble bedrock such as limestone, dolomite, marble or gypsum. Karst features shall include all such features identified in Appendix L of the EIS and any subsequently identified features in areas of karst geology.

"Owner" means Atlantic Coast Pipeline, LLC (Atlantic) a company formed by four major U.S. energy companies including Dominion Resources, Inc. (Dominion); Duke Energy Corporation; Piedmont Natural Gas Co., Inc.; and Southern Company Gas, Inc~~.~~, Dominion Energy Transmission, Inc. has been contracted by Atlantic to construct and operate the project.

"Project" means an interstate natural gas transmission pipeline approximately 605~~-~~ miles in length to transport up to 1.5 MMDth/d of natural gas from supply areas in the Appalachian region of West Virginia to demand areas in Virginia and North Carolina. In Virginia, the 42-inch pipeline will cross Highland, Bath, Augusta, Nelson, Buckingham, Cumberland, Prince Edward, Nottoway, Dinwiddie, Brunswick, and Greensville Counties, and include a compressor station and interconnection with existing pipelines in Buckingham County. A 20-inch lateral will run from a compressor station in Northampton County, North Carolina through Greensville and Southampton Counties and the Cities of Suffolk and Chesapeake, Virginia. Two short 16-inch laterals will serve electric generating facilities in Brunswick and Greensville Counties. Approximately 307 miles of pipeline traverse the Commonwealth of Virginia.

"Riparian buffer" means a vegetated area near a stream, usually forested, which helps shade and partially protect a stream from the impact of adjacent land uses.

III. SCOPE OF CERTIFICATION

This Certification ~~applies to~~addresses Project activities in upland areas outside of the Corps jurisdictional areas under 33 U.S.C. § 1344 ~~which may result in an indirect discharge to waters of the United States or~~and water withdrawal activities that are exempt from coverage under the Virginia Water Protection Permit Program Regulation (9 VAC 25-210-10, *et seq.*). ~~These activities include~~In the manner and to the extent described herein, this includes all proposed upland ~~land-disturbing~~ activities associated with the construction, operation, maintenance, and repair of the pipeline, any components thereof or appurtenances thereto, and related access roads and rights-of-way as well as certain project-related surface water withdrawals. This Certification covers all relevant upland Project activities within the route identified in the Environmental Impact Statement.

~~This~~As this Certification and the conditions contained in Section V are intended to ~~apply to~~address Project activities that are outside the jurisdictional scope of the Virginia Water Protection Permit Program Regulation, ~~and accordingly should~~this Certification shall not be interpreted as limiting or otherwise relieving the Owner of

any conditions for any portion of the Project that are imposed pursuant to the Virginia Water Protection Permit Program Regulation ~~or~~, to any permit issued by the Corps ~~for any portion of the Project.~~ or Virginia Marine Resources Commission in response to the September 16, 2015 joint permit application, or to any other separate state or federal permit, license, or approval required for the Project.

In addition, this Certification operates in conjunction with other regulatory actions including: (a) regulations adopted for land disturbing activities pursuant to the Stormwater Management Act (Va. Code § 62.1-44.15:24, *et seq*.) and Erosion and Sediment Control Law (Va. Code § 62.1-44.15:51, *et seq*.); and, (b) all requirements of the Annual Standards and Specifications applicable to the Project approved by the Department on July 5, 2017. These completed regulatory actions remain in full force and effect, and this Certification shall not be interpreted as limiting, modifying, or otherwise relieving the Owner of any conditions imposed pursuant thereto.

The Department's 401 Water Quality Certification for the ~~Corp's~~Corps' Nationwide Permit 12 issued April 7, 2017 and this additional Certification issued pursuant to Guidance Memo No. GM17-2003, Interstate Natural Gas Infrastructure Projects – Procedures for Evaluating and Developing Additional Conditions for Section 401 Water Quality Certification Pursuant to 33 USC § 1341 ("401" Certification) together constitute the Commonwealth of Virginia's 401 Certification for the Project.

~~The~~ Pursuant to 33 U.S.C. § 1341 (a)(3), the Board reserves the right to impose further conditions if any existing plans and/or mitigation measures are amended by the Owner and/or FERC that may materially reduce the water quality protection provided thereunder.

IV. INFORMATION EXAMINED

In developing this Certification and the additional conditions imposed herein, the Board and Department have considered the record relevant to water quality considerations associated with the Project, including but not limited to:

1. All applicable FERC documents, including Draft and Final Environmental Impact ~~Statement~~Statements issued by FERC and the associated docket materials including all Appendices ~~to,~~ and the ~~Final Environmental Impact Statement;~~FERC order granting a Certificate of Public Convenience and Necessity (Certificate) on October 13, 2017;

2. The Department's initial Request for Information (RFI) dated May 19, 2017 in accordance with the Guidance, the Department's subsequent June 15, 2017 RFI and the Owner's June 1, 2017, June 23, 2017~~,~~ and June 27, 2017 responses~~;~~ including but not limited to requested supplemental responses dated November 1, 2017 and November 6, 2017;

3. Proceedings of the multi-agency technical work session held June 6-7, 2017 (Lexington, Virginia);

4. Documents submitted for approval by the Department pursuant to requirements of the Stormwater Management Act (Va. Code § 62.1-44.15:24, *et seq*.) and Erosion and Sediment Control Law (Va. Code § 62.1-44.15:51, *et seq*.);

5. Corps Nationwide Permit 12 and Norfolk District Regional Conditions; ~~and~~

6. Guidance Memo No. GM17-2003, Interstate Natural Gas Infrastructure Projects- Procedures for Evaluating and Developing Additional Conditions for Section 401 Water Quality Certification Pursuant to 33 USC § 1341 ("401" Certification~~).~~); and,

7. Public comments submitted during the public comment period, including both written (electronic or paper copy) and oral comments provided during the August 7, 10 and 14, 2017 public hearings.

V. CONDITIONS

In consideration of the recommendations of the Department, the Board finds that there are additional reasonable and prudent conditions that will provide the Commonwealth with an increased degree of assurance that upland Project activities which may result in a discharge to surface waters will be conducted in a manner that ~~is protective of~~will not violate applicable water quality standards. This Certification is only valid provided the Owner complies with the following conditions, limitations, and/or requirements:

1. The Owner shall follow the measures detailed in its June 1, 2017, June 23, 2017~~,~~ and June 27, 2017 responses to the Department's May 19, 2017 and June 15, 2017 Requests for Information~~. These measures are expressly incorporated herein and shall be enforceable conditions of this Certification~~ including but not limited to requested supplemental responses dated November 1, 2017 and November 6, 2017.

2. Riparian Buffer Requirements

   d. Removal of riparian buffers not directly associated with the ~~Project~~Project's construction activities is prohibited. Disturbance and removal of riparian buffers from Project-related upland land disturbing activities that would occur within 50 feet of any perennial, intermittent, or ephemeral surface waters shall be avoided where possible, and minimized to the maximum extent practicable if 50 feet is not possible. Removal of riparian buffers not associated with crossings shall not be allowed where stream bank stability under normal flow conditions would be compromised.

   e. The construction limit of disturbance (LOD) in upland areas approaching waterbody and wetland crossings shall be reduced from 125 feet to 75 feet wide and ~~extended~~shall apply 50 feet from each side of the stream or wetland crossing ~~as an additional upland~~to minimize the extent of riparian buffer disturbance. For any upland area approaching a waterbody or wetland crossing where this reduced LOD is not possible, a written justification shall be provided to the Department for review and approval prior to initiating land disturbing activity in that area.

   ~~a) A 100 foot riparian buffer shall be maintained between any perennial, intermittent, or ephemeral surface waters and all fueling, maintenance, parking and hazardous material storage activities. These measures are expressly incorporated herein and shall be enforceable conditions of this Certification.~~

   f. No refueling, hazardous materials storage, equipment maintenance, or equipment parking will take place within 100-feet of the waterbody or wetland crossing, except as allowed by the approved Annual Standards and Specifications.

3. Karst Terrain Requirements

a. An addendum to the Karst Survey Report (February 21, 2017~~) shall be revised and submitted~~), and any subsequent revisions or addenda to the same approved by FERC, will be provided to the Department ~~should there be any changes in~~ upon completion of field survey activities and final pipeline alignments ~~necessitating additional field survey activities. The revised Karst Survey Report shall be submitted to the~~

~~Department for review and approval~~ , and prior to ~~initiation of~~ land disturbing activities ~~in~~, that address those ~~areas~~properties in Virginia where the Owner could not previously conduct karst surveys due to land access restrictions.

b. The Owner shall follow the measures as detailed in the Karst Terrain Assessment, Construction, Monitoring and Mitigation Plan (January 20, 2017~~). These measures are expressly incorporated herein and shall be enforceable conditions of this Certification.~~), and any subsequent revisions or addenda to the same approved by FERC.

c. To further evaluate flow paths for karst features in the vicinity of the project, the Owner shall develop a Supplemental Karst ~~Dye Tracing~~Evaluation Plan to be submitted ~~and approved by~~ to the Department~~. The Karst Dye Tracing Plan shall evaluate dye trace studies to determine hydrological connections and relationships associated with karst features. The Karst Dye Tracing Plan shall at a minimum, evaluate the features identified in Attachment B of the Department's June 15, 2017 request letter. These include any such features in the construction right-of-way and all other disturbed areas, including access roads and staging areas, as identified by the Karst Survey Report. Any dye trace studies proposed in the approved Karst Dye Tracing Plan shall be completed prior to initiation of land disturbing activities in karst terrain. The Plan is expressly incorporated herein and shall be an enforceable condition of this Certification.~~ for review and concurrence prior to initiation of land disturbing activities in karst terrain. The Department, with assistance from the Virginia Department of Conservation and Recreation (DCR) identified areas of concern in Attachment B of the Department's June 15, 2017 request letter. The Owner will conduct contingency planning in accordance with the findings and conclusions of the Supplemental Plan, as appropriate, in order to monitor and mitigate a potential accidental release or spill during construction in Virginia's karst terrain.

d. The Owner shall: (1) conduct a survey to identify wells, cisterns, springs, and other surface waters within 1,000 feet of the project centerline in areas known to have karst topography; and, (2) conduct one water quality sampling event to evaluate wells and springs used for human consumption and located between 500 feet to 1000 feet from the project centerline. The sampling shall include the parameters identified in Resource Report 2, Section 2.1.6, and any subsequent revisions or addenda to the same approved by FERC. The survey and/or water quality sampling event shall be conducted by the Owner at the request of a property owner and only if the property owner provides permission for access. This survey and/or water quality sampling event shall be conducted before the pipeline is placed into operation. The Owner must complete any survey and water quality evaluation requests received at least 30 days prior to placing the project in service.

e. The Owner shall provide a financial responsibility demonstration to the Department in the amount of five million dollars ($5,000,000), to support the Complaint Resolution Process contained in Resource Report 2, Section 2.1.6 in the event of private water supply used for human consumption is impacted from project construction activities.

This demonstration requirement may be satisfied by any of the financial assurance mechanisms that are set forth in 9 VAC 25-650-90 through 9 VAC 25-650-130. The mechanism or combination of mechanisms shall not be accessible by third parties and shall be used by the Department to implement the Complaint Resolution Process contained in Resource Report 2, Section 2.1.6 when necessary due to the Owner's failure to do the same.

The mechanism or combination of mechanisms shall be submitted to the Department for review and approval and must contain such wording and terms as specified by the Department to satisfy this condition.

The demonstration, having been approved by the Department, shall be made available prior to initiation of land disturbing activities in karst terrain and shall be maintained until 180 days after all land disturbing activity associated with the construction of the pipeline, and related access roads and rights-of-way have achieved final stabilization as required by the Erosion and Sediment Control Law (Va. Code § 62.1-44.15:51, *et seq.*). The Department will notify the Owner when the conditions to release the financial demonstration have been met.

4. Surface Water Withdrawals

a. Any surface water withdrawals for the purposes of hydrostatic testing shall not violate applicable Water Quality Standards and shall be managed so that no more than 10% of the instantaneous flow rate from the channel is removed; the intake screens shall be designed so that screen openings are not larger than 1 millimeter and the screen face intake velocities are not greater than 0.25 feet per second.

b. Any surface water withdrawals for the purposes of horizontal directional drilling or dust control that do not exceed 10,000 gallons per day from non-tidal waters or two million gallons per day from tidal waters shall not violate applicable Water Quality Standards and shall be managed so that no more than 10% of the instantaneous flow rate from the channel is removed, and the intake screens shall be designed so that screen openings are not larger than 1 millimeter and the screen face intake velocities are not greater than 0.25 feet per second.

c. Daily withdrawals from horizontal directional drilling or dust control activities ~~shall not~~that exceed 10,000 gallons per day from non-tidal waters and ~~2~~two million gallons per day from tidal waters ~~per day. Any daily withdrawals greater than noted above shall~~must comply with the requirements of the Virginia Water Protection Permit Program Regulation. The Owner shall record and track the daily volumes of water withdrawn for horizontal directional drilling or dust control activities and make such records available during inspection or upon request by the Department.

d. Hydrostatic test water shall be released to upland areas through ~~an~~ energy dissipating dewatering ~~device~~devices. The energy dissipating dewatering devices ~~will~~must be sized to accommodate the rate and volume of release and be monitored and regulated to prevent erosion and over pumping of the energy dissipating dewatering devices. There shall be no direct point source discharge or intentional indirect discharge of hydrostatic test water to surface waters. The upland discharge of hydrostatic test waters shall be monitored in accordance with the General Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation for Discharges from Petroleum Contaminated Sites, Groundwater Remediation and Hydrostatic Tests (9 VAC 25-120-10, *et seq.*) ("VPDES General Permit"). The Owner shall record and track the daily volumes of water withdrawn for hydrostatic testing activities and make such records available during inspection or upon request by the Department. In the event of an inadvertent indirect discharge to surface waters, the Owner shall be responsible for ensuring that such discharge complies with all requirements of the VPDES General Permit, including the requirement to notify the Department within 14 days. ~~These measures are expressly incorporated herein and shall be enforceable conditions of this Certification.~~

~~4.~~5. The Owner shall implement water quality monitoring in accordance with the Virginia Water Quality Monitoring Plan (June 2017 and additional information submitted June 23, 2017 and June 27, 2017). ~~The Plan is expressly incorporated herein and shall be an enforceable condition of this Certification.~~

~~5.~~6. The Owner shall ~~follow~~implement the measures ~~intended to minimize the potential for impacts as detailed~~identified in the Spill Prevention, Control, and Countermeasure (SPCC) Plan Rev 2 (June 21, 2017~~). The Plan is expressly incorporated herein~~), and ~~shall be an enforceable condition of this Certification~~any subsequent revisions or addenda to the same approved by FERC.

~~6.~~7. All construction and installation associated with the Project, except as permitted by the Corps, shall be accomplished in such a manner that construction material or waste material shall not be placed into any perennial, intermittent, or ephemeral surface waters or karst features. ~~These measures are expressly incorporated herein and shall be enforceable conditions of this Certification.~~

~~7.~~8. The Owner shall ~~follow~~implement the measures intended to minimize the potential for ~~impacts~~discharges of soil or rock as detailed in the Blasting Plan Rev 3 (November 1, 2016) and the Best in Class Steep ~~Slopes and Slide Prone Areas~~Slope Management Program (June 23, 2017 and June 27, 2017~~). These measures are expressly incorporated herein and shall be enforceable conditions of this Certification~~), and any subsequent revisions or addenda to the same approved by FERC. The Owner shall notify the Department immediately, but no later than 24 hours after discovery, if blasting or landslide activity ~~impacts~~ results in unpermitted discharges of soil or rock to any perennial, intermittent, or ephemeral surface waters ~~or~~. Any potential impacts to karst features~~.~~ will be addressed in accordance with the Karst Terrain Assessment, Construction, Monitoring and Mitigation Plan (January 20, 2017).

~~8.~~9. The Owner shall follow the measures intended to minimize the potential for impacts as detailed in the Plan to Protect Water Quality from Acid Forming Materials (June 23, 2017 and June 27, 2017~~). These measures are expressly incorporated herein and shall be an enforceable condition of this Certification~~), and any subsequent revisions or addenda to the same approved by FERC.

~~9.~~10. The Temporary Construction Site (CY GWNF-6 Spr 04-A) located near the Town of Deerfield above the losing portion of Hamilton Branch shall maintain a vegetative buffer of 400 feet from Rt. 629 and follow the procedures for a Restricted Refueling Area as detailed in the SPCC Plan Section 5.0. ~~These measures are expressly incorporated herein and shall be an enforceable condition of this Certification.~~

~~10.~~11. The Project, including all relevant records, is subject to inspection at reasonable hours and intervals by the Department or any authorized representative of the Department to determine compliance with this Certification.

12. The Owner shall provide the Department ~~shall be provided~~with written or electronic notification at least ~~30 calendar~~10 business days prior to any planned Construction Spread pre-construction conferences ~~and worker environmental training.~~.

~~11.~~13. The Owner shall immediately notify the Department of any modification of this Project and shall demonstrate in a written statement that said modifications will not violate any conditions listed in this Certification. If such demonstration cannot be made, the Owner shall apply for a modification of this Certification. ~~These measures are expressly incorporated herein and shall be an enforceable condition of this Certification.~~

14. The Owner shall comply with the requirements of the Stormwater Management Act (Va. Code § 62.1-44.15:24, *et seq*.) and Erosion and Sediment Control Law (Va. Code § 62.1-44.15:51, *et seq*.) and the Virginia Water Protection Permit Program Regulations (9 VAC 25-210-10, *et seq*.). The enforceability under this Certification is in addition to the independent enforcement authority of each individual program and/or permit.

15. This Certification is subject to revocation for failure to comply with the above conditions ~~and~~ after a proper hearing. ~~Any~~Any unpermitted or unauthorized direct or indirect discharge to State waters shall be subject to enforcement ~~review~~ under the State Water Control Law.

~~12.~~16. The terms and conditions of this Certificate shall remain in effect until 180 days after all land disturbing activity associated with the construction, operation, maintenance, and repair of the pipeline, and related access roads and rights-of-way have achieved final stabilization as required by the Erosion and Sediment Control Law (Va. Code § 62.~~1441~~1-44.15:51, *et seq*.)

VI. CONCLUSION

The additional conditions contained in Section V of this Certification along with the requirements imposed by the VWP regulation, the Corps Section 404 permitting requirements, and prior regulatory actions associated with the approval and requirements of the July 2017 Annual Standards and Specifications, and the April 7, 2017 Section 401 Water Quality Certification of the Corps Nationwide Permit 12 provide reasonable assurance that water quality standards will not be violated. The conditions included in this Certification for upland areas are in addition to any other federal or state permit or regulatory requirements with which the Project must comply, including federal resource agency requirements embodied in the FERC certificate.

This Certification constitutes the Commonwealth's final decision on the upland activities associated with the construction, operation, maintenance, and repair of the Project under the requirement of Clean Water Act §- 401. The provisions of this Certification are severable and should any provision(s) of this Certification be declared invalid or unenforceable, the remainder of the Certification, including without limitation any additional conditions imposed hereunder, shall continue in full force and effect. The Commonwealth reserves its right to review this certification decision and take any appropriate action in accordance with 33 U.S.C. § 1341(a)(3).

By: _____ Date: _____

VPDES General Permit Regulation for Potable Water Treatment Plants: The current VPDES Potable Water Treatment Plant General Permit will expire on June 30, 2018 and the regulation establishing this general permit is being amended to reissue another five-year permit. The staff is bringing this final regulation before the Board to request adoption. This regulation took into consideration the recommendations of a technical advisory committee (TAC) formed for this regulatory action. The TAC consisted of an industry representative, an environmental group representative, a Health Department representative and DEQ staff. The Board's authorization of the proposal was received at the July 19, 2017 meeting. A Notice of Public Comment Period (NOPC) was held August 21, 2017 to October 20, 2017 with a public hearing on September 28, 2017. Two people attended the public hearing but did not provide comment. Public comments were received from Augusta County Service Authority and EPA Region 3. The comments and responses are summarized in the Town Hall Agency Background Document. Substantive changes to the existing regulation are:

- Revised the "continuation of permit coverage" subsection so it is generic and not dependent on specific dates. Dates were removed but allowances for continuance of permit coverage are the same or can be implemented the same;
- Removing the requirement to submit a groundwater monitoring plan with the registration if the plan has been previously submitted and approved;
- Allowing for electronic submittals of registration statements;
- Defining how to estimate discharge flow as "a technical evaluation of the sources contributing to the discharge";
- Eliminated the requirement for grab samples to occur within 15 minutes of commencement of the discharge when the discharge is continuous;
- Removing the allowance for reduced monitoring for reverse osmosis plants;
- Eliminated the requirement that the daily inspection of the effluent and the facility must be done when the facility is discharging;
- Requiring a corrective action plan when groundwater is contaminated; and,
- Changing the requirement to conduct whole effluent toxicity testing from facilities with a one-time daily maximum flow of greater than or equal to 50,000 gallons per day to facilities with a daily maximum flow rate greater than or equal to 50,000 gallons per day over three consecutive monitoring periods.
- Clarifying throughout the regulation where the requirements apply to the process wastewater treatment or discharge versus the drinking water treatment.

General Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation for Noncontact Cooling Water Discharges of 50,000 Gallons Per Day Or Less - Amendments to 9VAC25-196 and Reissuance of General Permit: The current VPDES Noncontact Cooling Water General Permit will expire on March 1, 2018, and the regulation establishing this general permit is being amended to reissue another five-year permit. The staff is bringing this final regulation before the Board to request adoption. DEQ staff received requests from six individuals to be appointed to the technical advisory committee (TAC) for this regulatory action. On the date of the TAC meeting there was not a quorum of TAC members. The proposed regulation takes into consideration the recommendations of two members of the proposed TAC, both consultants representing permittees, and DEQ staff.
The Board's authorization of the proposal was received at the July 19, 2017 meeting. A Notice of Public Comment Period (NOPC) was held August 21, 2017 to October 20, 2017 with a public hearing on September 28, 2017. Two people attended the public hearing but did not provide comment. Public comments were received from EPA Region 3. The comments and responses are summarized in the Town Hall Agency Background Document. Substantive changes to the existing regulation are:

- Requiring the permittees to notify a Municipal Separate Storm Sewer System (MS4) owner of the existence of the discharge at the time of registration under the general permit and include a copy of that notification with the registration statement;
- Removed the Effluent Limitations and Monitoring Requirements for the first four years of the previous permit term as these requirements are not applicable for this reissuance;
- Clarification that the "1/3 Months" monitoring frequency equals the following three-month periods each year of permit coverage: January through March, April through June, July through September, and October through December; and

Requiring the permittee to develop an operations and maintenance manual for equipment or systems used to meet effluent limitations within 90 days of permit coverage.

General Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation For Discharges From Petroleum Contaminated Sites, Groundwater Remediation and Hydrostatic Tests - Amendments to 9VAC25-120 and Reissuance of General Permit: The current VPDES Petroleum Sites and Hydrostatic Testing General Permit will expire on February 25, 2018, and the regulation establishing this general permit is being amended to reissue another five-year permit. The staff is bringing this final regulation before the Board to request adoption. The proposed regulation takes into consideration the recommendations of a technical advisory committee formed for this regulatory action. The technical advisory committee consisted of an industry representative, consultants, and DEQ staff. The Board's authorization of the proposal was received at the July 19, 2017 meeting. A Notice of Public Comment Period (NOPC) was held August 21, 2017 to October 20, 2017 with a public hearing on September 28, 2017. Two people attended the public hearing but did not provide comment. Public comments were received from EPA Region 3. The comments and responses are summarized in the Town Hall Agency Background Document. Substantive changes to the existing regulation are:

- Including "associated distribution equipment" as components that can be hydrostatically tested under general permit coverage;
- Including "associated distribution equipment" as components that can be hydrostatically tested under general permit coverage;
- Clarification that dewatering projects "shall be managed to control the volume and velocity of the discharge, including peak flow rates and total volume, to minimize erosion at outlets and to minimize downstream channel and stream bank erosion";
- Requiring that hydrostatic discharge flows "be managed to control the volume and velocity of the discharge, including peak flow rates and total volume, to minimize erosion at outlets and to minimize downstream channel and stream bank erosion"; and
- Clarification that total residual chlorine data below the quantification level of 0.1 mg/L shall be reported as "<QL".

Exempt Action Final: Amendments of the Virginia Water Quality Management Planning Regulation for the Roanoke River Basin – Non-TMDL wasteload allocations (9VAC25-720-80 B): Section 9VAC25-720-80 B of the Water Quality Management Plan (WQMP) Regulation identifies the non-TMDL wasteload allocations for the Roanoke River Basin. Staff proposes to amend 9VAC25-720-80 B by modifying the wasteload allocation (WLA) for the South Hill WWTP (VPDES Permit No. VA0069337). The current regulation has one WLA for the facility, a summer (Apr – Nov) allocation for 5-day carbonaceous biochemical oxygen demand (CBOD5). This WLA is based on a 1991 stream analysis and modeling effort that used the CBOXYSAG model to establish the assimilative capacity of Flat Creek. For the expansion of the South Hill WWTP from a design flow of 2.0 to 3.0 MGD, the Regional Model for Free Flowing Streams (Version 4.0) was used in lieu of the CBOXYSAG model to develop modified WLAs and effluent limits for the WWTP. The modified WLAs derived by the model and proposed for 9VAC25-720-80 B include an increase in the summer (Apr – Nov) CBOD5 allocation from 60.6 to 113.5 kg/day and the addition of a summer (Apr – Nov) Total Kjeldahl Nitrogen (TKN) allocation of 45 kg/d. The proposed amendments also include the addition of a new winter (Dec – Mar) tier with WLAs of 204 kg/day CBOD5 and 56.8 kg/d TKN.

General VPDES Permit Regulation for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (VAR04) Amendments to 9VAC25-890 and Reissuance of the General Permit: The current General VPDES Permit Regulation for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4s) will expire on June 30, 2018, 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 formed for this regulatory action. The technical advisory committee consisted of representatives of state and federal agencies, local governments, consultants, planning district commissions, non-profit environmental groups, and DEQ staff. A Notice of Intended Regulatory Action (NOIRA) for the amendment was issued on July 11, 2016. Public comments are summarized in the Agency Background Document.

9VAC25-890-1. Definitions.

The words and terms used in this chapter shall have the meanings defined in the Virginia Stormwater Management Act (Article 2.3 (§ 62.1-44.15:24 et seq.) of Chapter 3.1 of Title 62.1 of the Code of Virginia), ~~this chapter,~~ and 9VAC25-870 unless the context clearly indicates otherwise, except that for the purposes of this chapter:

"Date brought on line" means the date when the ~~operator~~ permittee determines that a new stormwater management facility is properly functioning ~~to meet its designed pollutant load reduction~~.

"High-priority facilities" means facilities owned or operated by the permittee that actively engaged in the following activities: (i) composting facilities, (ii) equipment storage and maintenance facilities, (iii) materials storage yards, (iv) pesticide storage facilities, (v) public works yards, (vi) recycling facilities, (vii) salt storage facilities, (viii) solid waste handling and transfer facilities, and (ix) vehicle storage and maintenance yards.

~~"MS4 Program Plan" means the completed registration statement and all approved additions, changes and modifications detailing the comprehensive program implemented by the operator under this state permit to reduce the pollutants in the stormwater discharged from its municipal separate storm sewer system (MS4) that has been submitted and accepted by the department.~~

~~"Operator" means the MS4 operator that has been issued coverage under the General Permit for Discharges of Stormwater from small municipal separate storm sewer systems.~~

"MS4 Regulated Service Area" or "Service Area" means for Phase II permittees, the drainage area served by the permittee's MS4 that is located within an urbanized area as determined by the 2010 decennial census performed by the Bureau of the Census. MS4 regulated service area may also be referred to as "served by the MS4" as it pertains to the tables in Part II.A. of this permit.

"Physically interconnected" means that one MS4 is connected to a second MS4 in such a manner that it allows for direct discharges to the second system.

"Pollutants of concern" or "POC" means pollutants specifically identified in a U.S. Environmental Protection Agency (USEPA) approved Total Maximum Daily Load (TMDL) report as causing a water quality impairment.

9VAC25-890-10. Purpose; Delegation of Authority; Effective Date of the State Permit.

A. This general permit regulation governs point source stormwater discharges from regulated small municipal separate storm sewer systems (small MS4s) to surface waters of the Commonwealth of Virginia. Non-municipal stormwater or wastewater discharges are not authorized by this permit except in accordance with 9 VAC 25-890-20 C.

B. This general permit will become effective on ~~July 1, 2013~~July 1, 2018, and will expire ~~five years from the effective date~~ June 30, 2023.

C. The Director of the Department of Environmental Quality, or his designee, may perform any act of the board provided under this chapter, except as limited by § 62.1-44.14 of the Code of Virginia

9VAC25-890-15. Applicability of Incorporated References Based on the Dates That They Became Effective.

Except as noted, when a regulation of the ~~United States~~U.S. Environmental Protection Agency set forth in ~~the Code of Federal Regulations~~Title 40 CFR is referenced and incorporated herein, that regulation shall be as it exists and has been published in the ~~July 1, 2012~~July 1, 2017, update.

9VAC25-890-20. Authorization to Discharge.

A. Any ~~operator~~ permittee covered by this general permit is authorized to discharge stormwater from the small municipal separate storm sewer system (MS4) to surface waters of the Commonwealth of Virginia provided that :

1. ~~t~~The ~~operator~~permittee submits a complete and accurate registration statement in accordance with 9VAC25-890-30 and that registration statement is accepted by the board~~.~~;

2. The permittee submits any permit fees required by 9VAC25-870-700 et seq. (Part XIII)~~.~~; ~~and~~

3. The permittee complies with the requirements of 9VAC25-890-40; and

4. The board has not notified the owner that the discharge is ineligible for coverage in accordance with subsection C of this section.

B. The ~~operator~~ permittee is not authorized by this general permit to discharge to surface waters specifically named in other board regulations that prohibit such discharges.

C. The board will notify an operator that the discharge is not eligible for coverage under this general permit in the event of any of the following:

1. The permittee is required to obtain an individual permit in accordance with 9VAC25-870-410 B;

2. The permittee is proposing discharges to surface waters specifically named in other board regulations that prohibit such discharges;

3. The permittee fails to implement BMPs to the MEP standard in order to demonstrate progress toward meeting the water quality requirements as listed in 9 VAC 25-31-220 D.1.a

~~C~~D. Nonstormwater discharges or flows into the small MS4 are authorized by this state permit and do not need to be addressed in the MS4 Program required under 9VAC25-890-40, ~~Section II B 3~~Part I E 3, if:

1. The nonstormwater discharges or flows are covered by a separate individual or general VPDES or state permit for nonstormwater discharges;

2. The individual nonstormwater discharges or flows have been identified ~~in writing~~ by the department as de minimis discharges that are not significant sources of pollutants to surface waters and do not require a separate VPDES permit;

3. The nonstormwater discharges or flows are identified ~~at 9VAC25-870-400 D 2 c (3)~~ below and have not been identified by the ~~operator~~ permittee or by the board as significant contributors of pollutants to the small MS4~~; or~~:

a. dechlorinated water line flushing;

b. landscape irrigation;

c. diverted stream flows;

d. rising ground waters;

e. uncontaminated ground water infiltration (as defined at 40 CFR Part 35.2005(20));

f. uncontaminated pumped ground water;

g. discharges from potable water sources;

h. foundation drains;

i. air conditioning condensation;

j. irrigation water;

k. springs;

l. water from crawl space pumps;

m. footing drains;

n. lawn watering;

o. individual residential car washing;

p. flows from riparian habitats and wetlands;

q. dechlorinated swimming pool discharges;

r. street wash water;

s. discharges or flows from firefighting activities; or

t. other activities generating discharges identified by the Department as not requiring VPDES authorization.

4. The immediate discharge of materials ~~resulting from a spill is~~ necessary to ~~prevent loss of life~~protect life~~, personal injury,~~ or ~~severe~~ property ~~damage~~as determined by fire department personnel or emergency management officials or any discharge in accordance with 9 VAC 25-31-40. The ~~operator~~permittee shall take, or ensure that the responsible party takes, all reasonable steps to minimize or prevent any adverse effect on human health or the environment. This state permit does not transfer liability for a spill itself from the party(ies) responsible for the spill to the ~~operator~~permittee nor relieve the party(ies) responsible for a spill from the reporting requirements of 40 CFR Part 117 and 40 CFR Part 302.

~~D~~E. In the event the operator is unable to meet certain conditions of this permit due to circumstances beyond the operator's control, the operator shall submit a written explanation of the circumstances that prevented state permit compliance to the department in the annual report. Circumstances beyond the control of the operator include but are not limited to abnormal climatic conditions; weather conditions that make certain requirements unsafe or impracticable; or unavoidable equipment failures caused by weather conditions or other conditions beyond the reasonable control of the operator (operator error is not a condition beyond the control of the operator). The failure to provide adequate program funding, staffing or equipment maintenance shall not be an acceptable explanation for failure to meet state permit conditions. The board will determine, at its sole discretion, whether the reported information will result in an enforcement action.

~~E~~F. Discharges that are excluded from ~~obtaining a state permit~~permitting requirements pursuant to 9VAC25-870-300 are exempted from the regulatory requirements of this state permit.

~~F~~G. ~~Pursuant to 9VAC25-870-400 D 3, f~~For those portions of ~~a~~the small MS4 engaging in activities that are covered under a separate VPDES permit for discharges associated with industrial ~~stormwater discharges~~activities, the ~~operator~~permittee shall follow the conditions established ~~under~~ by the separate VPDES permit.

H. Upon termination of ~~separate VPDES~~ permit coverage for those activities addressed in by 9VAC 25-890.20 G, the discharges from the outfalls previously ~~separate VPDES~~ authorized under the VPDES permit for stormwater discharges associated with industrial activities ~~outfalls~~ shall meet the conditions of this state permit provided it has been determined by the board that an individual MS4 permit is not required.

~~G~~I. Stormwater discharges from specific MS4 ~~operator~~permittee activities that have been granted conditional exclusion for "no exposure" of industrial activities and materials to stormwater under the separate VPDES permitting program shall comply with this state permit unless a separate VPDES permit is obtained. The department is responsible for determining compliance with the conditional exclusion under the State Water Control Law and attendant regulations.

~~H~~J. Receipt of this general permit does not relieve any ~~operator~~permittee of the responsibility to comply with any other applicable federal, state or local statute, ordinance or regulation.

~~I~~K. Continuation of permit coverage.

1. Any ~~operator~~ permittee that was authorized to discharge under the state permit ~~issued~~ effective ~~in 2008~~July 1, 2013 and that submits a complete registration statement ~~in accordance with Section III M of 9VAC25-890-40~~on or before June 1, 2018 is authorized to continue to discharge under the terms of the ~~2008~~ July 1, 2013 state permit until such time as the board either:

~~1~~a. Issues coverage to the ~~operator~~ permittee under this state permit; or

~~2~~b. Notifies the ~~operator~~ permittee that the discharge is not eligible for coverage under this state permit.

2. When the permittee is not in compliance with the conditions of the expiring or expired general permit the board may choose to do any or all of the following:

a. Initiate enforcement action based upon the 2013 general permit;

b. Issue a notice of intent to deny coverage under the new general permit. If coverage under the general permit is denied, the permittee would then be required to cease the activities authorized by the continued general permit or be subject to enforcement action for operating without a state permit;

c. Issue a new state permit with appropriate conditions; or

d. Take other actions authorized by the VPDES and VSMP Regulations (9 VAC 25-31 and 9VAC25-870).

9VAC25-890-30. ~~State Permit Application (~~Registration Statement~~).~~

A. Deadline for submitting a registration statement~~.~~

1. Operators of small MS4s ~~designated~~described under 9VAC25-870-400 B, that are applying for initial coverage under this general permit must submit a complete registration statement to the department within 180 days of notice of designation, unless the board grants a later date.

2. In order to continue uninterrupted coverage under the general permit, operators of small MS4s shall submit a new registration statement ~~at least 90 days before the expiration date of the existing state permit~~ no later than June 1, 2018, unless permission for a later date has been granted by the board. The board shall not grant permission for registration statements to be submitted later than the expiration date of the existing state permit.

B. ~~Registration statement.~~ The registration statement shall include the following information:

1. The name and location ~~(county or city name)~~ of the small MS4 ~~for which the registration statement is submitted~~;

2. The name of the owner or operator of the small MS4;

3. The mailing address of the owner or operator of the small MS4;

4. The~~,~~ type (city, county, incorporated town, unincorporated town, college or university, local school board, military installation, transportation system, federal or state facility, or other)~~, and address of the operator of the small MS4~~;

5. The name, title, mailing address, phone number and email address for the following individuals:

a. The responsible official who meets the criteria established in 9VAC 25-870-370 A.3;

b. The MS4 permit contact; and

c. The annual permit maintenance fee contact.

6. The following outfall information:

a. The unique outfall identifier;

b. The estimated MS4 acreage served;

c. The name of the receiving surface water to which the outfall discharges;

d. Whether or not the receiving water is listed as impaired in the Virginia 2014 303(d)/305(b) Water Quality Assessment Integrated Report; and

e. The name of any applicable TMDL or TMDLs for the segment of the receiving water.

~~3~~7. The 6th Order Hydrologic Unit Code(s) as identified in the ~~most recent version of~~ Virginia~~'s 6th Order~~ National Watershed Boundary Dataset (~~available on the department website~~version 5, July 2016) currently receiving discharges or that have potential to receive discharges from the small MS4;

~~4~~8. The estimated drainage area, in acres, served by the small MS4 directly discharging to any impaired receiving surface waters listed in the ~~2010~~2014 Virginia 305(b)/303(d) Water Quality Assessment Integrated Report, and a description of the land use for each ~~such~~ drainage area;

~~5. A listing of any TMDL wasteloads allocated to the small MS4. This information may be found on the department website;~~

~~6~~9. The name(s) of any physically interconnected MS4s to which the small MS4 discharges;

~~7. For operators that had coverage under the previous VSMP General Permit, a copy of the currently implemented MS4 Program Plan. The operator shall continue to implement this plan and any updates as required by this state permit in accordance with Table 1 in 9VAC25-890-40;~~

~~8. For operators applying for initial coverage designated under 9VAC25-890-10 A, a schedule of development of an MS4 Program Plan that includes the following:~~

~~a. A list of best management practices (BMPs) that the operator proposes to implement for each of the stormwater minimum control measures and their associated measurable goals pursuant to 9VAC25-890-40, Section II B, that includes:~~

~~(1) A list of the existing policies, ordinances, schedules, inspection forms, written procedures, and any other documents necessary for best management practice implementation, upon which the operator expects to rely for such implementation; and~~

~~(2) The individuals, departments, divisions, or units responsible for implementing the best management practices;~~

~~b. The objective and expected results of each best management practice in meeting the measurable goals of the stormwater minimum control measures;~~

~~c. The implementation schedule for BMPs including any interim milestones for the implementation of a proposed new best management practice; and~~

~~d. The method that will be utilized to determine the effectiveness of each best management practice and the MS4 Program as a whole;~~

~~9~~10. A list of all existing signed agreements between the operator and any applicable third parties where the operator has entered into an agreement in order to implement minimum control measures or portions of minimum control measures;

~~10. The name, address, telephone number and email address of either the principal executive officer or ranking elected official as defined in 9VAC25-870-370;~~

~~11. The name, position title, address, telephone number and email address of any duly authorized representative as defined in 9VAC25-870-370;~~

11. For those permittees whose regulated MS4 is located partially or entirely in the Chesapeake Bay watershed, a draft second phase Chesapeake Bay TMDL Action Plan in accordance with Section I.C.5 of the General VPDES Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems effective July 1, 2013; and

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

C. The registration statement shall be signed in accordance with ~~9VAC25-870-3704~~ 9VAC 25-890-40 Part III K.4.

D. An operator may file its own registration statement, or the operator and other operators of small MS4s may jointly submit a registration statement. If responsibilities for meeting the stormwater minimum control measures will be shared

with other municipalities or governmental entities, the registration statement must describe which stormwater minimum control measures the operator will implement and identify the entities that will implement the other stormwater minimum control measures within the area served by the small MS4.

E. ~~Where to submit.~~ The registration statement ~~shall be submitted to the department~~may be delivered to the DEQ Central Office, Office of VPDES Permit or by electronic mail to an electronic mailbox specified by the Department.

9VAC25-890-40. General Permit.

Any MS4 operator whose registration statement is accepted by the ~~department~~ board will receive ~~coverage under~~ the following ~~state~~ general permit and shall comply with the requirements therein and be subject to ~~all applicable requirements of the Virginia Stormwater Management Act (Article 2.3 (§ 62.1-44.15:24 et seq.) of Chapter 3.1 of Title 62.1 of the Code of Virginia) and the Virginia Stormwater Management Program (VSMP) Regulations (9VAC25-870)~~ the requirements of 9VAC25-870 and 9VAC25-31.

General Permit No.: VAR04
Effective Date: July 1, ~~2013~~2018
Expiration Date: June 30, ~~2018~~2023

GENERAL VPDES PERMIT FOR DISCHARGES OF STORMWATER FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS
AUTHORIZATION TO DISCHARGE UNDER THE VIRGINIA STORMWATER MANAGEMENT PROGRAM REGULATIONS, VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM REGULATIONS, AND THE VIRGINIA ~~STORMWATER MANAGEMENT ACT~~STATE WATER CONTROL LAW

In compliance with the provisions of the Clean Water Act, as amended and pursuant to the ~~Virginia Stormwater Management Act~~State Water Control Law and regulations adopted pursuant thereto, ~~this state permit authorizes~~ operators of small municipal separate storm sewer systems are authorized to discharge to surface waters within the boundaries of the Commonwealth of Virginia, except those waters specifically named in State Water Control Board regulations which prohibit such discharges.

The authorized discharge shall be in accordance with the registration statement filed with DEQ, this cover page, ~~Section~~ Part I—Discharge Authorization and Special Conditions, ~~Section~~ Part II—~~MS4 Program~~TMDL Special Conditions and ~~Section~~ Part III—Conditions Applicable To All State and VDPES Permits, as set forth herein. ~~The operator shall utilize all legal authority provided by the laws and regulations of the Commonwealth of Virginia to control discharges to and from the MS4. This legal authority may be a combination of statute, ordinance, permit, specific contract language, order or interjurisdictional agreements.~~

~~For operators of small MS4s that are applying for initial coverage under this general permit, the schedule to develop and implement the MS4 Program Plan shall be submitted with the completed registration statement.~~

~~For operators that have previously held MS4 state permit coverage, the operator shall update the MS4 Program Plan in accordance with the following schedule. Until such time as the required updates are completed and implemented, the operator shall continue to implement the MS4 Program consistent with the MS4 Program Plan submitted with the registration statement.~~

~~Table 1: Schedule of MS4 Program Plan Updates Required in this Permit~~		
~~Program Update Requirement~~	~~Permit Reference~~	~~Update Completed By~~
~~Public Education Outreach Plan (Minimum Control Measure 1—Public Education and Outreach on Stormwater Impacts)~~	~~Section II B 1~~	~~12 months after permit coverage~~
~~Illicit Discharge Procedures—(Minimum Control Measure 3—Illicit Discharge Detection and Elimination)~~	~~Section II B 3~~	
~~Individual Residential Lot Special Criteria (Minimum Control Measure 5—Post-Construction Stormwater~~	~~Section II B 5 c (1) (d)~~	

~~Management in New Development and Development on Prior Developed Lands)~~		
~~Operator-Owned Stormwater Management Inspection Procedures (Minimum Control Measure 5 – Post-Construction Stormwater Management in New Development and Development on Prior Developed Lands)~~	~~Section II B 5~~	
~~Identification of Locations Requiring SWPPPs (Minimum Control Measure 6 – Pollution Prevention/Good Housekeeping for Municipal Operations)~~	~~Section II B 6 b~~	
~~Nutrient Management Plan (NMP) Locations - (Minimum Control Measure 6 – Pollution Prevention/Good Housekeeping for Municipal Operations)~~	~~Section II B 6 c (1) (a)~~	
~~Training Schedule and Program - (Minimum Control Measure 6 – Pollution Prevention/Good Housekeeping for Municipal Operations)~~	~~Section II B 6~~	
~~Updated TMDL Action Plans (TMDLs approved before July of 2008) – (Special Conditions for Approved Total Maximum Daily Loads (TMDL) Other Than Chesapeake Bay)~~	~~Section I B~~	~~24 months after permit coverage~~
~~Chesapeake Bay TMDL Action Plan – (Special Condition for Chesapeake Bay TMDL)~~	~~Section I C~~	
~~Stormwater Management Progressive Compliance and Enforcement – (Minimum Control Measure 4 - Construction Site Stormwater Runoff Control)~~	~~Section II B 5~~	
~~Daily Good Housekeeping Procedures (Minimum Control Measure 6 – Pollution Prevention/Good Housekeeping for Municipal Operations)~~	~~Section II B 6 a~~	
~~Other TMDL Action Plans for applicable TMDLs approved between July 2008 and June 2013 - (Special Conditions for Approved Total Maximum Daily Loads (TMDL) Other Than Chesapeake Bay)~~	~~Section I B~~	~~36 months after permit coverage~~
~~Outfall Map Completed - (Minimum Control Measure 3 – Illicit Discharge Detection and Elimination) - Applicable to new boundaries identified as "urbanized" areas in the 2010 Decennial Census~~	~~Section II B 3 a (3)~~	~~48 months after permit coverage~~
~~SWPPP Implementation - (Minimum Control Measure 6 – Pollution Prevention/Good Housekeeping for Municipal Operations)~~	~~Section II B 6 b (3)~~	
~~NMP Implementation - (Minimum Control Measure 6 – Pollution Prevention/Good Housekeeping for Municipal Operations)~~	~~Section II B 6 c (1) (b)~~	~~60 months after permit coverage~~

*Updates should be submitted with the appropriate annual report.

SECTIONPART I
DISCHARGE AUTHORIZATION AND SPECIAL CONDITIONS

A. Coverage under this state permit. During the period beginning with the date of coverage under this general permit and lasting until the expiration and reissuance of this state permit, the operator permittee is authorized to discharge stormwater and those authorized non-stormwater discharges described in 9 VAC 25-890-20 C in accordance with this state permit from the small municipal separate storm sewer system identified in the registration statement into surface waters within the boundaries of the Commonwealth of Virginia and consistent with 9VAC25-890-30.

B. Special conditions for approved total maximum daily loads (TMDL) other than the Chesapeake Bay TMDL. An approved TMDL may allocate an applicable wasteload to a small MS4 that identifies a pollutant or pollutants for which additional stormwater controls are necessary for the surface waters to meet water quality standards. The MS4 operator shall address the pollutants in accordance with this special condition where the MS4 has been allocated a wasteload in an approved TMDL.

1. The operator shall maintain an updated MS4 Program Plan that includes a specific TMDL Action Plan for pollutants allocated to the MS4 in approved TMDLs. TMDL Action Plans may be implemented in multiple phases over more than one state permit cycle using the adaptive iterative approach provided adequate progress to reduce the pollutant discharge in a manner consistent with the assumptions and requirements of the specific TMDL wasteload is demonstrated in accordance with subdivision 2 e of this subsection. These TMDL Actions Plans shall identify the best management practices and other interim milestone activities to be implemented during the remaining terms of this state permit.

a. In accordance with Table 1, the operator shall update the MS4 Program Plans to address any new or modified requirements established under this special condition for pollutants identified in TMDL wasteload allocations approved prior to July 9, 2008.

b. In accordance with Table 1, the operator shall update the MS4 Program Plan to incorporate approvable TMDL Action Plans that identify the best management practices and other interim milestone activities that will be implemented during the remaining term of this permit for pollutants identified in TMDL wasteload allocations approved either on or after July 9, 2008, and prior to issuance of this permit.

c. Unless specifically denied in writing by the department, TMDL Action Plans and updates developed in accordance with this section become effective and enforceable 90 days after the date received by the department.

2. The operator shall:

a. Develop and maintain a list of its legal authorities such as ordinances, state and other permits, orders, specific contract language, and interjurisdictional agreements applicable to reducing the pollutant identified in each applicable WLA;

b. Identify and maintain an updated list of all additional management practices, control techniques and system design and engineering methods, beyond those identified in Section II B, that have been implemented as part of the MS4 Program Plan that are applicable to reducing the pollutant identified in the WLA;

c. Enhance its public education and outreach and employee training programs to also promote methods to eliminate and reduce discharges of the pollutants identified in the WLA;

d. Assess all significant sources of pollutant(s) from facilities of concern owned or operated by the MS4 operator that are not covered under a separate VPDES permit and identify all municipal facilities that may be a significant source of the identified pollutant. For the purposes of this assessment, a significant source of pollutant(s) from a facility of concern means a discharge where the expected pollutant loading is greater than the average pollutant loading for the land use identified in the TMDL. (For example, a significant source of pollutant from a facility of concern for a bacteria TMDL would be expected to be greater at a dog park than at other recreational facilities where dogs are prohibited);

e. Develop and implement a method to assess TMDL Action Plans for their effectiveness in reducing the pollutants identified in the WLAs. The evaluation shall use any newly available information, representative and adequate water quality monitoring results, or modeling tools to estimate pollutant reductions for the pollutant or pollutants of concern from implementation of the MS4 Program Plan. Monitoring may include BMP, outfall,

or in-stream monitoring, as appropriate, to estimate pollutant reductions. The operator may conduct monitoring, utilize existing data, establish partnerships, or collaborate with other MS4 operators or other third parties, as appropriate. This evaluation shall include assessment of the facilities identified in subdivision 2 d of this subsection. The methodology used for assessment shall be described in the TMDL Action Plan.

3. Analytical methods for any monitoring shall be conducted according to procedures approved under 40 CFR Part 136 or alternative methods approved by the Environmental Protection Agency (EPA). Where an approved method does not exist, the operator must use a method consistent with the TMDL.

4. The operator is encouraged to participate as a stakeholder in the development of any TMDL implementation plans applicable to their discharge. The operator may incorporate applicable best management practices identified in the TMDL implementation plan in the MS4 Program Plan or may choose to implement BMPs of equivalent design and efficiency provided that the rationale for any substituted BMP is provided and the substituted BMP is consistent with the assumptions and requirements of the TMDL WLA.

5. Annual reporting requirements.

a. The operator shall submit the required TMDL Action Plans with the appropriate annual report and in accordance with the associated schedule identified in this state permit.

b. On an annual basis, the operator shall report on the implementation of the TMDL Action Plans and associated evaluation including the results of any monitoring conducted as part of the evaluation.

6. The operator shall identify the best management practices and other steps that will be implemented during the next state permit term as part of the operator's reapplication for coverage as required under Section III M.

7. For planning purposes, the operator shall include an estimated end date for achieving the applicable wasteload allocations as part of its reapplication package due in accordance with Section III M.

C. Special condition for the Chesapeake Bay TMDL. The Commonwealth in its Phase I and Phase II Chesapeake Bay TMDL Watershed Implementation Plans (WIP) committed to a phased approach for MS4s, affording MS4 operators up to three full five-year permit cycles to implement necessary reductions. This permit is consistent with the Chesapeake Bay TMDL and the Virginia Phase I and II WIPs to meet the Level 2 (L2) scoping run for existing developed lands as it represents an implementation of 5.0% of L2 as specified in the 2010 Phase I WIP. Conditions of future permits will be consistent with the TMDL or WIP conditions in place at the time of permit issuance.

1. Definitions. The following definitions apply to this state permit for the purpose of the special condition for discharges in the Chesapeake Bay Watershed:

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

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

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

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

2. Chesapeake Bay TMDL planning.

a. In accordance with Table 1, the operator shall develop and submit to the department for its review and acceptance an approvable Chesapeake Bay TMDL Action Plan. Unless specifically denied in writing by the department, this plan becomes effective and enforceable 90 days after the date received by the department. The plan shall include:

(1) A review of the current MS4 program implemented as a requirement of this state permit including a review of the existing legal authorities and the operator's ability to ensure compliance with this special condition;

(2) The identification of any new or modified legal authorities such as ordinances, state and other permits, orders, specific contract language, and interjurisdictional agreements implemented or needing to be implemented to meet the requirements of this special condition;

(3) The means and methods that will be utilized to address discharges into the MS4 from new sources;

(4) An estimate of the annual POC loads discharged from the existing sources as of June 30, 2009, based on the 2009 progress run. The operator shall utilize the applicable versions of Tables 2 a-d in this section based on the river basin to which the MS4 discharges by multiplying the total existing acres served by the MS4 on June 30, 2009, and the 2009 Edge of Stream (EOS) loading rate:

Table 2 a: Calculation Sheet for Estimating Existing Source Loads for the James River Basin

***Based on Chesapeake Bay Program Watershed Model Phase 5.3.2**

Subsource	Pollutant	Total Existing Acres Served by MS4 (6/30/09)	2009 EOS Loading Rate (lbs/acre)	Estimated Total POC Load Based on 2009 Progress Run
Regulated Urban Impervious	Nitrogen		9.39	
Regulated Urban Pervious			6.99	
Regulated Urban Impervious	Phosphorus		1.76	
Regulated Urban Pervious			0.5	
Regulated Urban Impervious	Total Suspended Solids		676.94	
Regulated Urban Pervious			101.08	

Table 2 b: Calculation Sheet for Estimating Existing Source Loads for the Potomac River Basin

***Based on Chesapeake Bay Program Watershed Model Phase 5.3.2**

Subsource	Pollutant	Total Existing Acres Served by MS4 (6/30/09)	2009 EOS Loading Rate (lbs/acre)	Estimated Total POC Load Based on 2009 Progress Run
Regulated Urban Impervious	Nitrogen		16.86	
Regulated Urban Pervious			10.07	
Regulated Urban Impervious	Phosphorus		1.62	
Regulated Urban Pervious			0.41	

Regulated Urban Impervious	Total Suspended Solids		1,171.32	
Regulated Urban Pervious			175.8	

Table 2 c: Calculation Sheet for Estimating Existing Source Loads for the Rappahannock River Basin

***Based on Chesapeake Bay Program Watershed Model Phase 5.3.2**

Subsource	Pollutant	Total Existing Acres Served by MS4 (6/30/09)	2009 EOS Loading Rate (lbs/acre)	Estimated Total POC Load Based on 2009 Progress Run
Regulated Urban Impervious	Nitrogen		9.38	
Regulated Urban Pervious			5.34	
Regulated Urban Impervious	Phosphorus		1.41	
Regulated Urban Pervious			0.38	
Regulated Urban Impervious	Total Suspended Solids		423.97	
Regulated Urban Pervious			56.01	

Table 2 d: Calculation Sheet for Estimating Existing Source Loads for the York River Basin

***Based on Chesapeake Bay Program Watershed Model Phase 5.3.2**

Subsource	Pollutant	Total Existing Acres Served by MS4 (6/30/09)	2009 EOS Loading Rate (lbs/acre)	Estimated Total POC Load Based on 2009 Progress Run
Regulated Urban Impervious	Nitrogen		7.31	
Regulated Urban Pervious			7.65	
Regulated Urban Impervious	Phosphorus		1.51	
Regulated Urban Pervious			0.51	

Regulated Urban Impervious	Total Suspended Solids		456.68	
Regulated Urban Pervious			72.78	

(5) A determination of the total pollutant load reductions necessary to reduce the annual POC loads from existing sources utilizing the applicable versions of Tables 3 a-d in this section based on the river basin to which the MS4 discharges. This shall be calculated by multiplying the total existing acres served by the MS4 by the first permit cycle required reduction in loading rate. For the purposes of this determination, the operator shall utilize those existing acres identified by the 2000 U.S. Census Bureau urbanized area and served by the MS4.

Table 3 a: Calculation Sheet for Determining Total POC Reductions Required During this Permit Cycle for the James River Basin

***Based on Chesapeake Bay Program Watershed Model Phase 5.3.2**

Subsource	Pollutant	Total Existing Acres Served by MS4 (6/30/09)	First Permit Cycle Required Reduction in Loading Rate (lbs/acre)	Total Reduction Required First Permit Cycle (lbs)
Regulated Urban Impervious	Nitrogen		0.04	
Regulated Urban Pervious			0.02	
Regulated Urban Impervious	Phosphorus		0.01	
Regulated Urban Pervious			0.002	
Regulated Urban Impervious	Total Suspended Solids		6.67	
Regulated Urban Pervious			0.44	

Table 3 b: Calculation Sheet for Determining Total POC Reductions Required During this Permit Cycle for the Potomac River Basin

***Based on Chesapeake Bay Program Watershed Model Phase 5.3.2**

Subsource	Pollutant	Total Existing Acres Served by MS4 (6/30/09)	First Permit Cycle Required Reduction in Loading Rate (lbs/acre)	Total Reduction Required First Permit Cycle (lbs)
Regulated Urban Impervious	Nitrogen		0.08	
Regulated Urban Pervious			0.03	

Regulated Urban Impervious	Phosphorus		0.01	
Regulated Urban Pervious			0.001	
Regulated Urban Impervious	Total Suspended Solids		11.71	
Regulated Urban Pervious			0.77	

Table 3 c: Calculation Sheet for Determining Total POC Reductions Required During this Permit Cycle for the Rappahannock River Basin

***Based on Chesapeake Bay Program Watershed Model Phase 5.3.2**

Subsource	Pollutant	Total Existing Acres Served by MS4 (6/30/09)	First Permit Cycle Required Reduction in Loading Rate (lbs/acre)	Total Reduction Required First Permit Cycle (lbs)
Regulated Urban Impervious	Nitrogen		0.04	
Regulated Urban Pervious			0.02	
Regulated Urban Impervious	Phosphorus		0.01	
Regulated Urban Pervious			0.002	
Regulated Urban Impervious	Total Suspended Solids		4.24	
Regulated Urban Pervious			0.25	

Table 3 d: Calculation Sheet for Determining Total POC Reductions Required During this Permit Cycle for the York River Basin

***Based on Chesapeake Bay Program Watershed Model Phase 5.3.2**

Subsource	Pollutant	Total Existing Acres Served by MS4 (6/30/09)	First Permit Cycle Required Reduction in Loading Rate (lbs/acre)	Total Reduction Required First Permit Cycle (lbs)
Regulated Urban Impervious	Nitrogen		0.03	
Regulated Urban Pervious			0.02	

Regulated Urban Impervious	Phosphorus		0.01	
Regulated Urban Pervious			0.002	
Regulated Urban Impervious	Total Suspended Solids		4.60	
Regulated Urban Pervious			0.32	

(6) The means and methods, such as management practices and retrofit programs that will be utilized to meet the required reductions included in subdivision 2 a (5) of this subsection, and a schedule to achieve those reductions. The schedule should include annual benchmarks to demonstrate the ongoing progress in meeting those reductions;

(7) The means and methods to offset the increased loads from new sources initiating construction between July 1, 2009, and June 30, 2014, that disturb one acre or greater as a result of the utilization of an average land cover condition greater than 16% impervious cover for the design of post-development stormwater management facilities. The operator shall utilize Table 4 to develop the equivalent pollutant load for nitrogen and total suspended solids. The operator shall offset 5.0% of the calculated increased load from these new sources during the permit cycle.

(8) The means and methods to offset the increased loads from projects as grandfathered in accordance with 9VAC25-870-48, that disturb one acre or greater that begin construction after July 1, 2014, where the project utilizes an average land cover condition greater than 16% impervious cover in the design of post-development stormwater management facilities. The operator shall utilize Table 4 to develop the equivalent pollutant load for nitrogen and total suspended solids.

(9) The operator shall address any modification to the TMDL or watershed implementation plan that occurs during the term of this state permit as part of its permit reapplication and not during the term of this state permit.

Table 4: Ratio of Phosphorus Loading Rate to Nitrogen and Total Suspended Solids Loading Rates for Chesapeake Bay Basins

Ratio of Phosphorus to Other POCs (Based on All Land Uses 2009 Progress Run)	Phosphorus Loading Rate (lbs/acre)	Nitrogen Loading Rate (lbs/acre)	Total Suspended Solids Loading Rate (lbs/acre)
James River Basin	1.0	5.2	420.9
Potomac River Basin	1.0	6.9	469.2
Rappahannock River Basin	1.0	6.7	320.9
York River Basin	1.0	9.5	531.6

(10) A list of future projects and associated acreage that qualify as grandfathered in accordance with 9VAC25-870-48;

(11) An estimate of the expected costs to implement the requirements of this special condition during the state permit cycle; and

(12) An opportunity for receipt and consideration of public comment regarding the draft Chesapeake Bay TMDL Action Plan.

b. As part of development of the Chesapeake Bay TMDL Action Plan, the operator may consider:

(1) Implementation of BMPs on unregulated lands provided any necessary baseline reduction is not included toward meeting the required reduction in this permit;

(2) Utilization of stream restoration projects, provided that the credit applied to the required POC load reduction is prorated based on the ratio of regulated urban acres to total drainage acres upstream of the restored area;

(3) Establishment of a memorandum of understanding (MOU) with other MS4 operators that discharge to the same or adjacent eight digit hydrologic unit within the same basin to implement BMPs collectively. The MOU shall include a mechanism for dividing the POC reductions created by BMP implementation between the cooperative MS4s;

(4) Utilization of any pollutant trading or offset program in accordance with §§ 62.1-44.19:20 through 62.1-44.19:23 of the Code of Virginia, governing trading and offsetting;

(5) A more stringent average land cover condition based on less than 16% impervious cover for new sources initiating construction between July 1, 2009, and June 30, 2014, and all grandfathered projects where allowed by law; and

(6) Any BMPs installed after June 30, 2009, as part of a retrofit program may be applied towards meeting the required load reductions provided any necessary baseline reductions are not included.

3. Chesapeake Bay TMDL Action Plan implementation. The operator shall implement the TMDL Action Plan according to the schedule therein. Compliance with this requirement represents adequate progress for this state permit term towards achieving TMDL wasteload allocations consistent with the assumptions and requirements of the TMDL. For the purposes of this permit, the implementation of the following represents implementation to the maximum extent practicable and demonstrates adequate progress:

a. Implementation of nutrient management plans in accordance with the schedule identified in the minimum control measure in Section II related to pollution prevention/good housekeeping for municipal operations;

b. Implementation of the minimum control measure in Section II related to construction site stormwater runoff control in accordance with this state permit shall address discharges from transitional sources;

c. Implementation of the means and methods to address discharges from new sources in accordance with the minimum control measure in Section II related to post-construction stormwater management in new development and development of prior developed lands and in order to offset 5.0% of the total increase in POC loads between July 1, 2009, and June 30, 2014. Increases in the POC load from grandfathered projects initiating construction after July 1, 2014, must be offset prior to completion of the project; and

d. Implementation of means and methods sufficient to meet the required reductions of POC loads from existing sources in accordance with the Chesapeake Bay TMDL Action Plan.

4. Annual reporting requirements.

a. In accordance with Table 1, the operator shall submit the Chesapeake Bay Action Plan with the appropriate annual report.

b. Each subsequent annual report shall include a list of control measures implemented during the reporting period and the cumulative progress toward meeting the compliance targets for nitrogen, phosphorus, and total suspended solids.

c. Each subsequent annual report shall include a list of control measures, in an electronic format provided by the department, that were implemented during the reporting cycle and the estimated reduction achieved by the control. For stormwater management controls, the report shall include the information required in Section II B 5 e and shall include whether an existing stormwater management control was retrofitted, and if so, the existing stormwater management control type retrofit used.

d. Each annual report shall include a list of control measures that are expected to be implemented during the next reporting period and the expected progress toward meeting the compliance targets for nitrogen, phosphorus, and total suspended solids.

5. The operator shall include the following as part of its reapplication package due in accordance with Section III M:

~~a. Documentation that sufficient control measures have been implemented to meet the compliance target identified in this special condition. If temporary credits or offsets have been purchased in order to meet the compliance target, the list of temporary reductions utilized to meet the required reduction in this state permit and a schedule of implementation to ensure the permanent reduction must be provided; and~~

~~b. A draft second phase Chesapeake Bay TMDL Action Plan designed to reduce the existing pollutant load as follows:~~

~~(1) The existing pollutant of concern loads by an additional seven times the required reductions in loading rates using the applicable Table 3 for sources included in the 2000 U.S. Census Bureau urbanized areas;~~

~~(2) The existing pollutant of concerns loads by an additional eight times the required reductions in loading rates using the applicable Table 3 for expanded sources identified in the U.S. Census Bureau 2010 urbanized areas;~~

~~(3) An additional 35% reduction in new sources developed between 2009 and 2014 and for which the land use cover condition was greater than 16%; and~~

~~(4) Accounts for any modifications to the applicable loading rate provided to the operator as a result of TMDL modification.~~

~~SECTION II~~
~~MUNICIPAL SEPARATE STORM SEWER SYSTEM MANAGEMENT PROGRAM~~

~~A~~B. The ~~operator of a small MS4 must~~permittee shall develop, implement, and enforce a MS4 Program designed to reduce the discharge of pollutants from the small MS4 to the maximum extent practicable (MEP), to protect water quality, to ensure compliance by the ~~operator~~ permittee with water quality standards, and to satisfy the appropriate water quality requirements of the ~~Clean Water Act~~State Water Control Law and its attendant regulations. The permittee shall utilize the legal authority provided by the laws and regulations of the Commonwealth of Virginia to control discharges to and from the MS4. This legal authority may be a combination of statute, ordinance, permit, policy, specific contract language, order or interjurisdictional agreements. The MS4 Program ~~must~~shall include the minimum control measures described in ~~paragraph B~~Part I E ~~of this section~~. Implementation of best management practices consistent with the provisions of an iterative MS4 Program required pursuant to this ~~section~~general permit constitutes compliance with the standard of reducing pollutants to the "maximum extent practicable," protects water quality in the absence of a TMDL wasteload allocation, ensures compliance by the ~~operator~~ permittee with water quality standards, and satisfies the appropriate water quality requirements of the Clean Water Act and regulations in the absence of a TMDL WLA. The requirements of this section and those special conditions set out in ~~Section I B~~Part II also apply where a WLA is applicable.

C. The MS4 Program Plan

1. The MS4 Program Plan shall include, at a minimum, the following:

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

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

c. For each of the Minimum Control Measures in Part I.E, the following information shall be included:
i. Each specific requirement as listed in Part I.E for each minimum control measure;
ii. A description of the BMP(s) that the permittee anticipates will be implemented in order to demonstrate compliance with the permit conditions in Part I.E of this permit;
iii. All standard operating procedures or policies necessary to implement the BMP(s);
iv. The measurable goal by which each BMP or strategy will be evaluated; and
v. The person(s), positions, or departments responsible for implementing each BMP or strategy; and

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

2. If the permittee is receiving initial coverage under this General VPDES Permit for the Discharge of Stormwater, the permittee shall:

a. No later than six (6) months following the date of permit coverage, submit to the Department a schedule for the development of each component of the MS4 Program Plan in accordance with Part I.C.1 that does not exceed the expiration date of this permit; and

b. Provide to the Department a copy of the MS4 Program Plan upon completion of development.

3. If the permittee was previously covered under the General VPDES Permit for the Discharge of Stormwater from MS4 effective July 1, 2013, the permittee shall post the most up to date version of MS4 Program Plan on the permittee's stormwater website or location where the small MS4 Program Plan can be obtained as required by Part I.E.2. Until such time that the MS4 Program Plan is updated in accordance with Part I.E, the permittee shall continue to implement the MS4 Program Plan in effect at the time that coverage is issued under this general permit.

4. Revisions to the MS4 Program Plan are expected throughout the life of this permit as part of the iterative process to reduce pollutant loading and protect water quality to the MEP. As such, revisions made in accordance with this permit as a result of the iterative process do not require modification of this permit. The permittee shall summarize revisions to the MS4 Program Plan as part of the Annual Report as described in Part I.D.2 below.

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

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

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

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

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

d. The agreement between the parties shall be documented in writing and retained by the permittee with the MS4 Program Plan for as long as the agreement is active.

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

7. If the operator on another governmental entity regulated under 9VAC25-870-380 to satisfy all of the state permit obligations, including the obligation to file periodic reports required by Section II E 3, the operator must note that fact in the registration statement, but is not required to file the periodic reports. The operator remains responsible for compliance with the state permit requirements if the other entity fails to implement the control measure (or component thereof).

D. Annual Reporting Requirements

1. The permittee shall submit an Annual Report to the Department, no later than October 1st of each year. The report shall cover the previous year from July 1st to June 30th.

2. The Annual Report shall include the following general information:

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

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

c. A signed certification as per Part III.K.
Each annual reporting item as specified in the Minimum Control Measures in Part I.E; and

d. An evaluation of the MS4 Program implementation, including a review of each MCM, to determine the MS4 Program's effectiveness and whether or not changes to the MS4 Program plan are necessary.

3. For permittees receiving initial coverage under this General VPDES Permit for the Discharge of Stormwater, the annual report shall include a status update on each component of the MS4 Program Plan being developed. Once the MS4 Program Plan has been updated to include implementation of a specific Minimum Control Measure (MCM) in Part I.E, the permittee shall follow the reporting requirements established in Part I.D.2 above.

4. For those permittees with requirements established under Part II.A, the Annual Report shall include a status report on the implementation of the Chesapeake Bay TMDL Action Plan in accordance with Part II.A of this permit including any revisions to the plan.

5. For those permittees with requirements established under Part II.B, the Annual Report shall include a status report on the implementation of the Local TMDL Action Plans in accordance with Part II.B of this permit including any revisions to the plan.

6. For the purposes of this permit, the MS4 Program Plan and Annual Report shall be maintained separately and submitted to the Department as required by this permit as two separate documents.

~~B~~E. Minimum control measures.

~~NOTE regarding minimum control measures for public education and outreach on stormwater impacts and public involvement/participation: "Public" is not defined in this permit. However, the department concurs with the following EPA statement, which was published in the Federal Register Volume 64, No. 235, page 68,750 on December 8, 1999, regarding "public" and its applicability to MS4 programs: "EPA acknowledges that federal and state facilities are different from municipalities. EPA believes, however, that the minimum measures are flexible enough that they can be implemented by these facilities. As an example, DOD commentators asked about how to interpret the term "public" for military installations when implementing the public education measure. EPA agrees with the suggested interpretation of "public" for DOD facilities as "the resident and employee population within the fence line of the facility." The department recommends that nontraditional MS4 operators, such as state and federal entities and local school districts, utilize this statement as guidance when determining their applicable "public" for compliance with this permit.~~

1. Public ~~e~~Education and ~~o~~Outreach ~~on stormwater impacts.~~

a. The ~~operator~~permittee shall ~~continue to~~ implement ~~the~~a public education and outreach program ~~as included in the registration statement until the program is updated to meet the conditions of this state permit. Operators who have not previously held MS4 permit coverage shall implement this program in accordance with the schedule provided with the completed registration statement.~~ designed to:

~~b. The public education and outreach program should be designed with consideration of the following goals:~~

(~~1~~i) Increas~~inge~~ ~~target audience~~the public's knowledge ~~about the steps that can be taken~~of how to reduce stormwater pollution, placing priority on reducing impacts to impaired waters and other local water pollution concerns;

(~~2~~ii) Increas~~inge~~ ~~target audience~~the public's knowledge of hazards associated with illegal discharges and improper disposal of waste, including pertinent legal implications; and

(~~3~~iii) Implement~~ing~~ a diverse program with strategies that are targeted towards ~~audiences~~individuals or groups most likely to have significant stormwater impacts.

~~c~~b. The ~~updated program shall be designed to~~permittee shall~~:~~

~~(1) I~~identify~~, at a minimum,~~no less than three (3) high-priority ~~water quality~~stormwater issues to meet the goal of education the public in accordance with Part I E.1.a.~~,~~ High-priority issues may include but are not limited to the following examples ~~that contribute to the discharge of stormwater (e.g.,~~ Chesapeake Bay nutrients, pet wastes~~,~~ ~~and~~ local ~~bacteria~~receiving water impairments, TMDLs, high-quality receiving waters, and illicit discharges from commercial sites~~) and a rationale for the selection of the three high priority water quality issues;~~.

(~~2) Identify and estimate the population size of the target audience or audiences who is most likely to have significant impacts for each high priority water quality issue;~~

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

i. Clearly identify the high priority stormwater issues;

ii. Explain the importance of the high priority stormwater issues;

iii. Include measures or actions the public can take to minimize the impact of the high priority stormwater issues; and

iv. Provide a contact name and phone number or location where the public can find out more information.

d. The permittee shall use two or more of the strategies listed in Table 1 below to communicate to the public the high priority stormwater issues identified in accordance with Part I.E.1.b above including how to reduce stormwater pollution.

Table 1: Strategies for Public Outreach and Education

Strategies	Examples *(Provided as example and are not meant to be all inclusive or limiting)*
Traditional Written Materials	Informational brochures, newsletters, fact sheets, utility bill inserts, recreational guides for targeted groups of citizens
Alternative Materials	Bumper stickers, refrigerator magnets, t-shirts, drink koozies
Signage	Temporary or permanent signage in public places or facilities, vehicle signage, bill boards, storm drain stenciling
Media Materials	Information disseminated through electronic media, radio, television, movie theatre, newspaper
Speaking Engagements	Presentations to school, church, industry, trade, special interest, or community groups
Curriculum Materials	Materials developed for school-aged children, students at local colleges or universities, or extension classes offered to local citizens
Training Materials	Materials developed to disseminate during workshops offered to local citizens, trade organization, or industrial officials.

(~~3) Develop relevant message or messages and associated educational and outreach materials (e.g., various media such as printed materials, billboard and mass transit advertisements, signage at select locations, radio advertisements, television advertisements, websites, and social media) for message distribution to the selected target audiences while considering the viewpoints and concerns of the target audiences including minorities, disadvantaged audiences, and minors;~~

~~(4) Provide for public participation during public education and outreach program development;~~

~~(5) Annually conduct sufficient education and outreach activities designed to reach an equivalent 20% of each high-priority issue target audience. It shall not be considered noncompliance for failure to reach 20% of the target audience. However, it shall be a compliance issue if insufficient effort is made to annually reach a minimum of 20% of the target audience; and~~

~~(6) Provide for the adjustment of target audiences and messages including educational materials and delivery mechanisms to reach target audiences in order to address any observed weaknesses or shortcomings.~~

~~d~~c. The ~~operator~~permittee may coordinate their public education and outreach efforts with other MS4 ~~operators~~permittees; however, each operator shall be individually responsible for meeting all of its state permit requirements.

~~e. Prior to application for continued state permit coverage required in Section III M, the operator shall evaluate the education and outreach program for:~~

~~(1) Appropriateness of the high-priority stormwater issues;~~

~~(2) Appropriateness of the selected target audiences for each high-priority stormwater issue;~~

~~(3) Effectiveness of the message or messages being delivered; and~~

~~(4) Effectiveness of the mechanism or mechanisms of delivery employed in reaching the target audiences~~.

~~f~~e. The MS4 Program Plan shall ~~describe how the conditions of this permit shall be updated in accordance with Table 1~~include~~.~~:

i. A list of the high priority stormwater issues the permittee will communicate to the public as part of the public education and outreach program;
ii. The rationale for selection of each high priority stormwater issue and an explanation of how each education or outreach strategy is intended to have a positive impact on stormwater discharges;
iii. Identification of the public audience to receive each high priority stormwater message;
iv. The strategies (from Table 1) to be used to communicate each high priority stormwater message; and
v, The anticipated time periods the messages will be communicated or made available to the public.

g. The ~~operator~~ Annual Report shall include the following information ~~in each annual report submitted to the department during this permit term~~:

(1) A list of the ~~education and outreach activities conducted during the reporting period for each high-priority water quality issue, the estimated number of people reached, and an estimated percentage of the target audience or audiences that will be reached~~ high-priority stormwater issues the permittee addressed in the public education and outreach program; and

(2) A list of the ~~education and outreach activities that will be conducted during the next reporting period for each high-priority water quality issue, the estimated number of people that will be reached, and an estimated percentage of the target audience or audiences that will be reached~~strategies used to communicate each high-priority stormwater issue..

2. Public involvement ~~/p~~and Participation.

a. ~~Public involvement.~~

~~(1) The operator shall comply with any applicable federal, state, and local public notice requirements.~~

~~(2)~~ The ~~operator~~permittee shall develop and implement procedures for the following:

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

ii. The public to provide input on the permittee's MS4 Program;

iii. Receiving public input or complaints;

iv. Responding to public input or complaints; and

v. Maintaining documentation of public input received and the permittee's response:

~~(a) Maintain an updated MS4 Program Plan. Any required updates to the MS4 Program Plan shall be completed at a minimum of once a year and shall be updated in conjunction with the annual report. The operator shall post copies of each MS4 program plan on its webpage at a minimum of once a year and within 30 days of submittal of the annual report to the department~~.

~~(b) Post copies of each annual report on the operator's web page within 30 days of submittal to the department and retain copies of annual reports online for the duration of this state permit; and~~

b. No later than three (3) months after this permit's effective date, the permittee shall develop and maintain a webpage dedicated to the MS4 Program and stormwater pollution prevention. The following information shall be posted on the webpage:

i. The effective MS4 permit and coverage letter;

ii. The most current MS4 Program Plan or location where the MS4 Program Plan can be obtained;

iii. The annual report for each year of the term covered by this permit;

iv. A mechanism for the public to report potential illicit discharges, improper disposal, or spills to the MS4, complaints regarding land disturbing activities, or other potential stormwater pollution concerns in accordance with Part I.E.2.a.i above; and

v. Methods for how the public can provide input on the permittee's MS4 Program in accordance with Part I.E.2.a.ii above.

~~(c) Prior to applying for coverage as required by Section III M, notify the public and provide for receipt of comment of the proposed MS4 Program Plan that will be submitted with the registration statement. As part of the reapplication, the operator shall address how it considered the comments received in the development of its MS4 Program Plan. The operator shall give public notice by a method reasonably calculated to give actual notice of the action in question to the persons potentially affected by it, including press releases or any other forum or medium to solicit public participation.~~

~~b~~c. ~~Public participation.~~ The ~~operator~~permittee shall ~~participate, through promotion, sponsorship, or other involvement, in a minimum of~~implement no less than four (4) ~~local activities~~ activities ~~annually~~per year from two or more of the categories listed in Table 2 to provide an opportunity for public involvement to improve water quality and support local restoration and clean-up projects. (~~e.g., stream cleanups; hazardous waste cleanup days; and meetings with watershed associations, environmental advisory committees, and other environmental organizations that operate within proximity to the operator's small MS4). The activities shall be aimed at increasing public participation to reduce stormwater pollutant loads; improve water quality; and support local restoration and clean-up projects, programs, groups, meetings, or other opportunities for public involvement.~~

Public Involvement Opportunities	Examples *(Provided as example and are not meant to be all inclusive or limiting)*
Monitoring	Establish or support citizen monitoring group
Restoration	Stream or Watershed clean-up day, Adopt-a-Water Way Program,
Educational events	Booth at community fair, Demonstration of stormwater control projects, Presentation of stormwater materials to schools to meet applicable education Standards of Learning (SOLs) or curriculum requirements, Watershed Walks, Participation on environmental advisory committees
Disposal/Collection Events	Household hazardous chemicals collection, Vehicle fluids collection
Pollution Prevention	Adopt-a-Storm Drain Program, Implement a Storm Drain Marking Program, Promote

	use of residential stormwater BMPs, Implement Pet Waste Stations in Public Areas, Adopt-a-Street Program.

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

~~c~~c. The MS4 Program Plan shall include ~~written procedures for implementing this program.~~:

i. The web page address where mechanisms for the public to report potential illicit discharges, improper disposal, or spills to the MS4, complaints regarding land disturbing activities, or other potential stormwater pollution concerns;

ii. The web page address that contains the methods for how the public can provide input on the permittee's MS4 Program; and

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

~~d~~f. ~~Each~~The ~~a~~Annual ~~r~~Report shall include the following information:

~~(1) A web link to the MS4 Program Plan and annual report; and~~

~~(2) Documentation of compliance with the public participation requirements of this section.~~

i. A summary of any public input on the MS4 Program received and how the permittee responded;

ii. A webpage link to the permittee's MS4 Program and stormwater website;

iii. A description of the public involvement activities implemented by the permittee;

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

v. The name of any other MS4 permittees who participated in the public involvement opportunities;

3. Illicit discharge detection and elimination.

a. The ~~operator~~permittee shall develop and maintain an accurate ~~storm sewer system~~ MS4 map and information table ~~and shall update it in accordance with the schedule set out in Table 1~~as follows.

~~(1)~~i. ~~The storm sewer system~~A map of the storm sewer system owned or operated by the permittee within the Census Urbanized Area identified by the 2010 decennial Census that includes ~~must show the following~~, at a minimum:

(~~a~~1) ~~The location of all~~ MS4 outfalls discharging to surface waters, except as follows:~~.~~

(a) In cases where the outfall is located outside of the MS4 ~~operator's~~permittee's legal responsibility, the ~~operator~~permittee may elect to map the known point of discharge location closest to the actual outfall. ~~Each mapped outfall must be given a unique identifier, which must be noted on the map~~; and

(b) In cases where the MS4 outfall discharges to receiving water channelized underground, the permittee may elect to map the point downstream at which the receiving water emerges above ground as a point of discharge. If there are multiple outfalls discharging to an underground channelized receiving water, the map shall identify that the point of discharge represents more than one outfall.

(2) A unique identifier for each mapped item required in Part I.E.3; and

(~~b~~3) The name and location of ~~all~~receiving waters ~~receiving~~to which the MS4 outfall or point of discharge discharges ~~from the MS4 outfalls and the associated HUC~~.

~~(2)~~ii. The permittee shall maintain an ~~associated~~ information table associated with the storm sewer system map that includes the following information for each outfall or point of discharge for those cases in which the permittee elects to map the known point of discharge in accordance with Part I.E.3.a.i(1) above~~shall include for each outfall the following~~:

(~~a~~1) ~~The~~ A unique identifier as specified on the storm sewer system map;

(~~b~~2) The latitude and longitude of the outfall or point of discharge;

(3) The estimated ~~MS4~~ regulated acreage ~~served~~draining to the outfall or point of discharge;

(~~c~~4) The name of the receiving ~~surface~~ water; ~~and~~

(5) The 6th order Hydrologic Unit Code of the receiving water;

(6) An indication as to whether the receiving water is listed as impaired in the Virginia ~~2010~~ 2014 303(d)/305(b) Water Quality Assessment Integrated Report; and

(d) The name of any ~~applicable~~ EPA approved ~~TMDL or~~ TMDLs for which the permittee is assigned a wasteload allocation.

~~(3) Within 48 months of coverage under this state permit, the operator shall have a complete and updated storm sewer system map and information table that includes all MS4 outfalls located within the boundaries identified as "urbanized" areas in the 2010 Decennial Census and shall submit the updated information table as an appendix to the annual report.~~

iii. No later December 31, 2018, the permittee shall submit to DEQ a GIS-compatible shapefile(s) of the permittee's MS4 map as described in Part I.E.3.a above. If the permittee does not have an MS4 map in a GIS format, the permittee shall provide the map as a PDF document.

~~(4)~~iv. No later than October 1st of each year, ~~T~~the ~~operator~~permittee shall ~~maintain a copy of the current~~update the storm sewer system map and outfall information table ~~for review upon request by the public or by the department~~ to include any new outfalls constructed or TMDLs approved or both during the immediate preceding reporting period.

~~(5)~~v. The ~~operator~~permittee shall ~~continue~~provide written notification ~~to identify other points of discharge. The operator shall notify in writing the~~ any downstream, adjacent MS4 of any known physical interconnection established or discovered after the effective date of this permit.

b. The ~~operator~~ permittee shall ~~effectively~~ prohibit, through ordinance, policy, standard operating procedures, or other legal mechanism, to the extent allowable under federal, state, or local law, regulation, or ordinance, unauthorized non-stormwater discharges into the storm sewer system ~~to the extent allowable under federal, state, or local law, regulation, or ordinance. Categories of n~~Non-stormwater discharges or flows ~~(i.e., illicit discharges)~~ identified in ~~9VAC25-870-400 D 2 c (3)~~ 9VAC 25-890-20 C 3 ~~must be~~ shall only be addressed ~~only~~ if they are identified by the ~~operator~~ permitttee as significant contributor~~s~~ of pollutants discharging to the ~~small~~ MS4. Flows that have been identified ~~in writing~~ by the department as de minimis discharges are not significant sources of pollutants to surface water ~~and do not require a VPDES permit~~.

c. The ~~operator~~ permittee shall ~~develop,~~maintain and implement~~, and update, when appropriate,~~ illicit discharge detection and elimination (IDDE) written procedures to detect, identify, and address unauthorized non-stormwater discharges, including illegal dumping, to the small MS4, including illegal dumping with the goal of eliminating the unauthorized discharge. ~~These~~Written procedures shall include:

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

~~(1)~~ii. ~~Written d~~Dry weather field screening ~~methodologies~~ protocls to detect, identify, and eliminate illicit discharges to the MS4. The protocol shall include ~~that include field observations and field screening monitoring and that provide~~:

(~~a~~1) A prioritized schedule of field screening activities and rationale for prioritization determined by the ~~operator~~ permittee based on such criteria as age of the infrastructure, land use, historical illegal discharges, dumping or cross connections.

~~(b) The minimum number of field screening activities the operator shall complete annually to be determined as follows: (i) if the total number of outfalls in the small MS4 is less than 50, all outfalls shall be screened annually or (ii) if the small MS4 has 50 or more total outfalls, a minimum of 50 outfalls shall be screened annually.~~

(2) If the total number of MS4 outfalls is equal to or less than 50, a schedule to screen all outfalls annually;

(3) If the total number of MS4 outfall is greater than 50, a schedule to screen a minimum of 50 outfalls annually such that no more than 50% are screened in the previous 12-month period; and

(~~c~~4) A ~~Methodologies~~mechanism to track the ~~to collect the general information such as~~following information:

(a) The outfall unique identifier;

(b) ~~t~~Time since the last ~~rain~~precipitation event~~,~~;

(c) ~~t~~The estimated quantity of the last ~~rain~~precipitation event~~,~~;

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

(e) Whether or not a discharge was observed~~,~~;

(f) If a discharge was observed, the estimated discharge rate (e.g., width and depth of ~~water~~discharge ~~surface, approximate depth of water, approximate flow velocity, and~~ flow rate~~),~~; and

(g) ~~v~~Visual ~~observations~~characteristics of the discharge (e.g., order, color, clarity, floatables, deposits or stains, vegetation condition, structural condition, and biology).

~~(d)~~iii. A time frame upon which to conduct an investigation(s) ~~or investigations~~ to identify and locate the source of any observed ~~continuous or intermittent~~ unauthorized non-stormwater discharge. ~~prioritized as follows: (i) illicit discharges suspected of being sanitary sewage or significantly contaminated must be investigated first and (ii) investigations of illicit discharges suspected of being less hazardous to human health and safety such as noncontact cooling water or wash water may be delayed until after all suspected sanitary sewage or significantly contaminated discharges have been investigated, eliminated, or identified.~~ Priority of investigations shall be given to discharges of sanitary sewage and those believed to be a risk to human health and public safety. Discharges authorized under a separate VPDES or state permit require no further action under this permit.

~~(e)~~iv. Methodologies to determine the source of all illicit discharges ~~shall be conducted~~. If the permittee is unable to identify the source ~~I~~of an illicit discharge ~~is found, but~~ within six months of t~~he~~ beginning ~~of~~ the investigation ~~neither the source nor the same nonstormwater discharge has been identified~~, then the ~~operator~~ permittee shall document ~~such~~that the source remains unidentified ~~in accordance with Section II B 3 f~~. If the observed discharge is intermittent, the ~~operator~~ permittee ~~must~~shall document ~~that a minimum of three separate investigations~~that attempts ~~were made in an attempt~~ to observe the discharge ~~when it was~~ flowing were unsuccessful. ~~If these attempts are unsuccessful, the operator shall document such in accordance with Section II B 3 f.~~

~~(f) Mechanisms to eliminate identified sources of illicit discharges including a description of the policies and procedures for when and how to use legal authorities~~.

~~(g)~~v. Method~~s~~ologies for conducting a follow-up investigation as necessary for illicit discharges that are continuous or that permittees expect to occur more frequent than a one-time discharge in order to verify that the discharge has been eliminated~~.~~'

~~(h)~~vi. A mechanism to track all illicit discharge investigations to document the following:

(~~i~~a) ~~t~~The date ~~or dates~~ that the illicit discharge was initially observed ~~and reported~~;

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

(~~iii~~c) ~~a~~Any follow-up to the investigation;

(~~iv~~d) ~~r~~Resolution of the investigation; and

(~~v~~e) ~~t~~The date that the investigation was closed.

~~d. The operator shall promote, publicize, and facilitate public reporting of illicit discharges into or from MS4s. The operator shall conduct inspections in response to complaints and follow-up inspections as needed to ensure that corrective measures have been implemented by the responsible party.~~

~~e~~d. The MS4 Program Plan shall include ~~all procedures developed by the operator to detect, identify, and address nonstormwater discharges to the MS4 in accordance with the schedule in Table 1. In the interim, the operator shall continue to implement the program as included as part of the registration statement until the program is updated to meet the conditions of this permit. Operators, who have not previously held MS4 permit coverage, shall implement this program in accordance with the schedule provided with the completed registration statement.~~:

i. The MS4 map and information table required by Part I.E.3.~~a~~ above. The map and information table may be incorporated into the MS4 Program Plan by reference. The map shall be made available to the Department within 14 days upon request;

ii. Copies of written notifications of new physical interconnections given by the permittee to other MS4s; and

iii. The IDDE procedures described in Part I.E.3.c above.

~~f~~e. The Annual ~~r~~Report~~ing requirements. Each annual report~~ shall include:

i. A confirmation statement that the MS4 map and information table are up to date as of June 30th of the reporting year;

~~(1) A list of any written notifications of physical interconnection given by the operator to other MS4s;~~

~~(2)~~ii. The total number of outfalls screened during the reporting period as part of the dry weather screening program~~, the screening results, and detail of any follow-up actions necessitated by the screening results; and~~;

~~(3)~~iii. ~~A summary of each investigation conducted by the operator of any suspected illicit discharge.~~A list of illicit discharges to the MS4 including spills reaching the MS4 with information as follows ~~The summary must include~~:

(1) The source of the illicit discharge;

(~~i~~2) ~~t~~The date that the ~~suspected~~ discharge was observed, reported, or both;

(~~ii~~3) Whether the discharge was discovered by the permittee during dry weather screening, reported by the public, or other method (describe);

(4) ~~h~~How the investigation was resolved~~,~~; ~~including any~~

(5) A description of any follow-up activities~~,~~; and

(~~iii~~6) ~~resolution of the investigation and t~~The date the investigation was closed.

4. Construction site stormwater runoff control.

a. ~~Applicable oversight requirements.~~ The ~~operator~~ permittee shall utilize its legal authority, such as ordinances, permits, orders, specific contract language, and interjurisdictional agreements, to address discharges entering the MS4 ~~from the following land-disturbing activities:~~. The permittee shall control construction site stormwater runoff as follows:

~~(1) Land-disturbing activities as defined in § 62.1-44.15:51 of the Code of Virginia that result in the disturbance of 10,000 square feet or greater;~~

~~(2) Land-disturbing activities in jurisdictions in Tidewater Virginia, as defined in § 62.1-44.15:68 of the Code of Virginia, that disturb 2,500 square feet or greater and are located in areas designated as Resource Protection Areas (RPA), Resource Management Areas (RMA) or Intensely Developed Acres (IDA), pursuant to the~~

~~Chesapeake Bay Preservation Area Designation and Management Regulations adopted pursuant to the Chesapeake Bay Preservation Act;~~

~~(3) Land-disturbing activities disturbing less than the minimum land disturbance identified in subdivision (1) or (2) above for which a local ordinance requires that an erosion and sediment control plan be developed; and~~

~~(4) Land-disturbing activities on individual residential lots or sections of residential developments being developed by different property owners and where the total land disturbance of the residential development is 10,000 square feet or greater. The operator may utilize an agreement in lieu of a plan as provided in § 62.1-44.15:55 of the Code of Virginia for this category of land disturbances.~~

i. If the permittee is a city, county, or town that has adopted a Virginia Erosion and Sediment Control Program (VESCP), the permittee shall implement the VESCP consistent with the Virginia Erosion and Sediment Control Law § 62.1-44.15:51 of the Code of Virginia and Virginia Erosion and Sediment Control Regulations 9 VAC 25-840 et seq.;

ii. If the permittee is a town that has not adopted a VESCP, the permittee shall rely on the surrounding city or county in which the town is located to implement a VESCP consistent with the Virginia Erosion and Sediment Control Law § 62.1-44.15:51 of the Code of Virginia and Virginia Erosion and Sediment Control Regulations 9 VAC 25-840 et seq.;

iii. If the permittee is a state agency, public institution of higher education including community colleges, colleges, and universities, or federal entity and has developed Standards and Specifications in accordance with the Virginia Erosion and Sediment Control Law § 62.1-44.15:51 of the Code of Virginia and Virginia Erosion and Sediment Control Regulations 9 VAC 25-840 et seq., the permittee shall implement the most recent Department approved Standards and Specifications; or

iv. If the permittee is a state agency, public institution of higher education including community colleges, colleges, and universities, or federal entity and has not developed Standards and Specifications in accordance with the Virginia Erosion and Sediment Control Law § 62.1-44.15:51 of the Code of Virginia and Virginia Erosion and Sediment Control Regulations 9 VAC 25-840 et seq., the permittee shall inspect all land-disturbing activities as defined in § 62.1-44.15:51 of the Code of Virginia that result in the disturbance of 10,000 square feet or greater, or 2,500 square feet or greater in accordance with areas designated under the Chesapeake Bay Preservation Act, as follows:
   (1) During or immediately following initial installation of erosion and sediment controls;
   (2) At least once per every two-week period;
   (3) Within 48 hours following any runoff producing storm event; and
   (4) At the completion of the project prior to the release of any performance bond~~:~~.

v. If the permittee is a subdivision of a local government such as a school board or other local government body, the permittee shall inspect those projects resulting in a land disturbance as defined in § 62.1-44.15:51 of the Code of Virginia as described below occurring on lands owned or operated by the permittee that result in the disturbance of 10,000 square feet or greater, 2,500 square feet or greater in accordance with areas designated under the Chesapeake Bay Preservation Act, or in accordance with more stringent thresholds established by the local government:
   (1) During or immediately following initial installation of erosion and sediment controls;
   (2) At least once per every two-week period;
   (3) Within 48 hours following any runoff producing storm event; and
   At the completion of the project prior to the release of any performance bond

~~b. Required plan approval prior to commencement of the land disturbing activity. The operator shall require that land disturbance not begin until an erosion and sediment control plan or an agreement in lieu of a plan as provided in § 62.1-44.15:55 is approved by a VESCP authority in accordance with the Erosion and Sediment Control Law (§ 62.1-44.15:51 et seq. of the Code of Virginia). The plan shall be:~~

~~(1) Compliant with the minimum standards identified in 9VAC25-840-40 of the Erosion and Sediment Control Regulations; or~~

~~(2) Compliant with department-approved annual standards and specifications. Where applicable, the plan shall be consistent with any additional or more stringent, or both, erosion and sediment control requirements established by state regulation or local ordinance.~~

~~c. Compliance and enforcement.~~

~~(1) The operator shall inspect land-disturbing activities for compliance with an approved erosion and sediment control plan or agreement in lieu of a plan in accordance with the minimum standards identified in 9VAC25-840-40 or with department-approved annual standards and specifications.~~

~~(2) The operator shall implement an inspection schedule for land-disturbing activities identified in Section II B 4 a as follows:~~

~~(a) Upon initial installation of erosion and sediment controls;~~

~~(b) At least once during every two-week period;~~

~~(c) Within 48 hours of any runoff-producing storm event; and~~

~~(d) Upon completion of the project and prior to the release of any applicable performance bonds.~~

~~Where an operator establishes an alternative inspection program as provided for in 9VAC25-840-60 B 2, the written schedule shall be implemented in lieu of Section II B 4 c (2) and the written plan shall be included in the MS4 Program Plan.~~

~~(3) Operator inspections shall be conducted by personnel who hold a certificate of competence in accordance with 9VAC25-850-40. Documentation of certification shall be made available upon request by the VESCP authority or other regulatory agency.~~

~~(4) The operator shall promote to the public a mechanism for receipt of complaints regarding regulated land-disturbing activities and shall follow up on any complaints regarding potential water quality and compliance issues.~~

~~(5) The operator shall utilize its legal authority to require compliance with the approved plan where an inspection finds that the approved plan is not being properly implemented.~~

~~(6) The operator shall utilize, as appropriate, its legal authority to require changes to an approved plan when an inspection finds that the approved plan is inadequate to effectively control soil erosion, sediment deposition, and runoff to prevent the unreasonable degradation of properties, stream channels, waters, and other natural resources.~~

~~(7) The operator shall require implementation of appropriate controls to prevent nonstormwater discharges to the MS4, such as wastewater, concrete washout, fuels and oils, and other illicit discharges identified during land-disturbing activity inspections of the MS4. The discharge of nonstormwater discharges other than those identified in 9VAC25-890-20 through the MS4 is not authorized by this state permit.~~

~~(8) The operator may develop and implement a progressive compliance and enforcement strategy provided that such strategy is included in the MS4 Program Plan and is consistent with 9VAC25-840.~~

~~d. Regulatory coordination. The operator shall implement enforceable procedures to require that large construction activities as defined in 9VAC25-870-10 and small construction activities as defined in 9VAC25-870-10, including municipal construction activities, secure necessary state permit authorizations from the department to discharge stormwater.~~

~~e~~b. ~~MS4 Program requirements.~~ The ~~operator's~~ MS4 Program Plan shall include:

i. If the permittee implements a construction site stormwater runoff control program in accordance with Part I.E.4.a.i, the local ordinance citations for the VESCP program.

ii. If the permittee implements a construction site stormwater runoff control program in accordance with Part I.E.4.a.iii:

(1) The most recently approved Standards and Specification or if incorporated by reference, the location where the Standards and Specification can be viewed; and

(2) A copy of the most recent Standard and Specification approval letter from the Department;

~~(1)~~iii. A description of the legal authorities utilized to ensure ~~compliance with the minimum control measure in Section II related to~~ Part I E 4 a above to control construction site stormwater runoff control such as ordinances, permits, orders, specific contract language, policies, and interjurisdictional agreements;

~~(2) Written plan review procedures and all associated documents utilized in plan review;~~

~~(3) For the MS4 operators who obtain department-approved standards and specifications, a copy of the current standards and specifications;~~

~~(4)~~ iv. Written inspection procedures to ensure the erosion and sediment controls are properly implemented and all associated documents utilized during inspection including the inspection schedule;

~~(5)~~v. Written procedures for requiring compliance through ~~and~~ corrective action or enforcement action to the extent allowable by under federal, state, or local law, regulation, ordinance or other legal mechanisms~~, including a progressive compliance and enforcement strategy, where appropriate~~; and

~~(6)~~vi. The roles and responsibilities of each of the ~~operator's~~ permittees departments, divisions, or subdivisions in implementing the ~~minimum control measure in Section II related to~~ construction site stormwater runoff control requirements in Part I E 4. ~~If the operator utilizes another entity to implement portions of the MS4 Program Plan, a copy of the written agreement must be retained in the MS4 Program Plan. The description of each party's roles and responsibilities, including any written agreements with third parties, shall be updated as necessary.~~

~~Reference may be made to any listed requirements in this subdivision provided the location of where the reference material can be found is included and the reference material is made available to the public upon request.~~

~~F~~c.. ~~Reporting requirements.~~ The Annual Report ~~operator~~ shall ~~track regulated land-disturbing activities and submit~~include the following ~~information in all annual reports~~:

~~(1) Total number of regulated land-disturbing activities;~~

~~(2) Total number of acres disturbed;~~

i. If the permittee implements a construction site stormwater runoff program in accordance with Part I.E.4.a.iii:

(1) A confirmation statement that land disturbing projects that occurred during the reporting period have been conducted in accordance with the current DEQ approved Standards and Specifications for Erosion and Sediment Control; and

(2) If one or more of the land disturbing projects were not conducted with the DEQ approved Standards and Specifications, an explanation as to why the project(s) did not conform to the approved Standards and Specifications.

~~(3)~~ii. Total number of inspections conducted; and

~~(4)~~iii ~~A summary of the enforcement actions taken, including t~~The total number and type of enforcement actions implemented and they type of enforcement actions~~taken during the reporting period~~.

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

a. ~~Applicable oversight requirements.~~ The ~~operator~~ permittee shall address post-construction stormwater runoff that enters the MS4 from the following land-disturbing activities~~:~~ by implementing a post construction stormwater runoff management program as follow:

~~(1) New development and development on prior developed lands that are defined as large construction activities or small construction activities in 9VAC25-870-10;~~

~~(2) New development and development on prior developed lands that disturb greater than or equal to 2,500 square feet, but less than one acre, located in a Chesapeake Bay Preservation Area designated by a local government located in Tidewater, Virginia, as defined in § 62.1-44.15:68 of the Code of Virginia; and~~

~~(3) New development and development on prior developed lands where an applicable state regulation or local ordinance has designated a more stringent regulatory size threshold than that identified in subdivision (1) or (2) above.~~

i. If the permittee is a city, county, or town, with an approved Virginia Stormwater Management Program (VSMP), the permittee shall implement the VSMP consistent with the Virginia Stormwater Management Act § 62.1-44.15:24 of the Code of Virginia and VSMP Regulations 9 VAC 25-870 et seq. as well as develop an inspection and maintenance program in accordance with Parts I.E.5.b and c;

ii. If the permittee is a town that has not adopted a VSMP, the permittee shall rely on the surrounding city or county in which the town is located to implement a VSMP consistent with the Virginia Stormwater Management Act § 62.1-44.15:24 of the Code of Virginia and VSMP Regulations 9 VAC 25-870 et seq. and develop an inspection and maintenance program in accordance with Parts I.E.5.b and c;

iii. If the permittee is a state agency, public institution of higher education including community colleges, colleges, and universities, or federal entity and has developed Standards and Specifications in accordance with the Virginia Stormwater Management Act § 62.1-44.15:24 of the Code of Virginia and VSMP

Regulations 9 VAC 25-870 et seq., the permittee shall implement the most recent Department approved Standards and Specifications and develop an inspection and maintenance program in accordance with Parts I.E.5.b;

~~i.~~iv. If the permittee is a, state agency, public institution of higher education including community colleges, colleges, and universities, or federal entity and has not developed Standards and Specifications in accordance with the Virginia Stormwater Management Act § 62.1-44.15:24 of the Code of Virginia and Virginia Stormwater Management Program Regulations 9 VAC 25-870 et seq., the permittee shall implement a post construction stormwater runoff control through compliance with 9 VAC 25-870 of the VSMP Regulations and with the implementation of a maintenance and inspection program consistent with Part I.E.5.b below; orIf the permittee is a subdivision of a local government such as a school board or other local government body, the permittee shall implement a post construction stormwater runoff control through compliance with 9 VAC 25-870 of the Virginia Stormwater Management Program Regulations or in accordance with more stringent local requirements, if applicable, and with the implementation of a maintenance and inspection program consistent with Part I.E.5.b below.

~~b. Required design criteria for stormwater runoff controls. The operator shall utilize legal authority, such as ordinances, permits, orders, specific contract language, and interjurisdictional agreements, to require that activities identified in Section II B 5 a address stormwater runoff in such a manner that stormwater runoff controls are designed and installed:~~

~~(1) In accordance with the appropriate water quality and water quantity design criteria as required in Part II (9VAC25-870-40 et seq.) of 9VAC25-870;~~

~~(2) In accordance with any additional applicable state or local design criteria required at project initiation; and~~

~~(3) Where applicable, in accordance with any department-approved annual standards and specifications.~~

~~Upon board approval of a Virginia Stormwater Management Program authority (VSMP Authority) as defined in § 62.1-44.15:24 of the Code of Virginia and reissuance of the Virginia Stormwater Management Program (VSMP) General Permit for Discharges of Stormwater from Construction Activities, the operator shall require that stormwater management plans are approved by the appropriate VSMP Authority prior to land disturbance. In accordance with § 62.1-44.15:27 M of the Code of Virginia, VSMPs shall become effective July 1, 2014, unless otherwise specified by state law or by the board.~~

~~c~~b. ~~Inspection, operation, and maintenance verification of stormwater management facilities.~~ The permittee shall implement an inspection and maintenance program for those stormwater management facilities owned or operated by the permittee that discharges to the MS4 as follows:

~~(1) For stormwater management facilities not owned by the MS4 operator, the following conditions apply:~~

~~(a) The operator shall require adequate long-term operation and maintenance by the owner of the stormwater management facility by requiring the owner to develop a recorded inspection schedule and maintenance agreement to the extent allowable under state or local law or other legal mechanism;~~

~~(b) The operator or his designee shall implement a schedule designed to inspect all privately owned stormwater management facilities that discharge into the MS4 at least once every five years to document that maintenance is being conducted in such a manner to ensure long-term operation in accordance with the approved designs.~~

~~(c) The operator shall utilize its legal authority for enforcement of maintenance responsibilities if maintenance is neglected by the owner. The operator may develop and implement a progressive compliance and enforcement strategy provided that the strategy is included in the MS4 Program Plan.~~

~~(d) Beginning with the issuance of this state permit, the operator may utilize strategies other than maintenance agreements such as periodic inspections, homeowner outreach and education, and other methods targeted at promoting the long-term maintenance of stormwater control measures that are designed to treat stormwater runoff solely from the individual residential lot. Within 12 months of coverage under this permit, the operator shall develop and implement these alternative strategies and include them in the MS4 Program Plan.~~

~~(2) For stormwater management facilities owned by the MS4 operator, the following conditions apply:~~

~~(a)~~i. The ~~operator~~ permittee shall ~~provide for~~ develop and maintain written inspection and maintenance procedures in order to ensure adequate long-term operation and maintenance of its stormwater management facilities ~~in accordance with written inspection and maintenance procedures included in the MS4 Program Plan.~~;

~~(b)~~ii. The ~~operator~~ permittee shall inspect ~~these~~ stormwater management facilities owned or operated by the permittee no less than once per year~~annually~~. The ~~operator~~permittee may choose to implement an alternative schedule to inspect these stormwater management facilities based on facility type and expected maintenance needs provided that the alternative schedule and rationale is included in the MS4 Program Plan~~.~~; and

~~(c)~~iii. ~~The operator shall conduct maintenance on its stormwater management facilities as necessary~~. If during the inspection of the stormwater management facility conducted in accordance with Part I.E.5.b.ii, it is determined that maintenance is required, the permittee shall conduct the maintenance in accordance with the written procedures developed under Part I.E.5.b.i.

c. For those permittees described in Part I.E.5.a.i or ii above, the permittee shall:

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

(1) An inspection frequency of no less than once per five years for all privately owned stormwater management facilities that discharge into the MS4; and
(2) Adequate long-term operation and maintenance by the owner of the stormwater management facility by requiring the owner to develop a recorded inspection schedule and maintenance agreement to the extent allowable under state or local law or other legal mechanism;

ii. Utilize its legal authority for enforcement of the maintenance responsibilities if maintenance is neglected by the owner; and

The permittee may develop and implement a progressive compliance and enforcement strategy provided that the strategy is included in the MS4 Program Plan

~~d. MS4 Program Plan requirements. The operator's MS4 Program Plan shall be updated in accordance with Table 1 to include:~~

~~(1) A list of the applicable legal authorities such as ordinance, state and other permits, orders, specific contract language, and interjurisdictional agreements to ensure compliance with the minimum control measure in Section II related to post-construction stormwater management in new development and development on prior developed lands;~~

~~(2) Written policies and procedures utilized to ensure that stormwater management facilities are designed and installed in accordance with Section II B 5 b;~~

~~(3) Written inspection policies and procedures utilized in conducting inspections;~~

~~(4) Written procedures for inspection, compliance and enforcement to ensure maintenance is conducted on private stormwater facilities to ensure long-term operation in accordance with approved design;~~

~~(5) Written procedures for inspection and maintenance of operator-owned stormwater management facilities;~~

~~(6) The roles and responsibilities of each of the operator's departments, divisions, or subdivisions in implementing the minimum control measure in Section II related to post-construction stormwater management in new development and development on prior developed lands. If the operator utilizes another entity to implement portions of the MS4 Program Plan, a copy of the written agreement must be retained in the MS4 Program Plan. Roles and responsibilities shall be updated as necessary.~~

~~e~~d. ~~Stormwater management facility tracking and reporting requirements.~~ The ~~operator~~permittee shall maintain an ~~updated~~ electronic database or spreadsheet of all known ~~operator~~ permittee owned or operated and privately-owned stormwater management facilities that discharge into the MS4. The database shall also include all BMPs implemented by the permittee to meet the Chesapeake Bay TMDL load reduction as required in Part II.A. The database shall include the following information as applicable:

~~(1)~~i. The stormwater management facility type;

~~(2)~~ii. ~~A general description of t~~The stormwater management facility~~'s~~ or BMP's location~~, including the address or~~ as latitude and longitude;

~~(3)~~iii. The acres treated by the stormwater management facility or BMP, including total acres, ~~as well as the breakdown of~~ pervious acres, and impervious acres;

~~(4)~~iv. The date the facility was brought online (MM/YYYY). If the date brought online is not known, the ~~operator~~permittee shall use June 30, 2005, ~~as the date brought online for all previously existing stormwater management facilities~~;

~~(5)~~v. The sixth order hydrologic unit code (HUC) in which the stormwater management facility is located;

~~(6) The name of any impaired water segments within each HUC listed in the 2010 § 305(b)/303(d) Water Quality Assessment Integrated Report to which the stormwater management facility discharges;~~

~~(7)~~vi. Whether the stormwater management facility or BMP is ~~operator~~ owned or operated by the permittee or privately-owned;

vii. Whether or not the stormwater management facility is part of the permittee's Chesapeake Bay TMDL Action Plan required in Part II.A or Local TMDL Action Plan required in Part II. B, or both;

~~(8)~~viii. If the stormwater management facility is privately owned, ~~W~~whether a maintenance agreement exists ~~if the stormwater management facility is privately owned~~; and

~~(9)~~ ix. The date of the ~~operator's~~ permittee's most recent inspection of the stormwater management facility or BMP.

e. The electronic database or spreadsheet shall be updated no later than 30 days after a new stormwater management facility is brought online, a new BMP is implemented to meet a TMDL load reduction as required in Part II, or discovered if it is an existing stormwater management facility.

f. The permittee shall use the DEQ Construction Stormwater Database or other application as specified by DEQ, to report each stormwater management facility installed after July 1, 2014 to address the control of post construction runoff from land disturbing activities for which the permittee is required to obtain a General VPDES Permit for Discharges of Stormwater from Construction Activities.

g. No later than October 1st of each year, the permittee shall electronically report the stormwater management facilities and best management practices implemented between July 1st and June 30th of each year using the DEQ BMP Warehouse and associated reporting template for any practices not reported in accordance with Part I.E.5.f above including stormwater management facilities installed to control post development stormwater runoff from land disturbing activities less than 1 acre in accordance with the Chesapeake Bay Preservation Act regulations (9 VAC 25-830 et seq.) and for which a General VPDES Permit for Discharges of Stormwater from Construction Activities was not required.

h. The MS4 Program Plan shall include:

i. If the permittee implements a Virginia Stormwater Management Program in accordance with Part I.E.5.a.i and ii of this permit

(1) A copy of the VSMP approval letter issued by the Department;
(2) Written inspection procedures and all associated documents utilized in the inspection of privately owned stormwater management facilities; and
(3) Written procedures for compliance and enforcement of inspection and maintenance requirements for privately owned BMPs.

ii. If the permittee implements a post development stormwater runoff control program in accordance with Part I.E.5.a.iii:

(1) The most recently approved Standards and Specification or if incorporated by reference, the location where the Standards and Specification can be viewed; and
(2) A copy of the most recent Standard and Specification approval letter from the Department.

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

iv. Written inspection procedures and all associated documents utilized during inspection of stormwater management facilities owned or operated by the permittee;

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

vi. The stormwater management facility spreadsheet or database incorporated by reference and the location or link where the spreadsheet or database can be reviewed.

~~In addition, the operator shall annually track and report the total number of inspections completed and, when applicable, the number of enforcement actions taken to ensure long-term maintenance.~~

~~The operator shall submit an electronic database or spreadsheet of all stormwater management facilities brought online during each reporting year with the appropriate annual report. Upon such time as the department provides the operators access to a statewide web-based reporting electronic database or spreadsheet, the operator shall utilize such database to complete the pertinent reporting requirements of this state permit.~~

i. The Annual Report shall include the following information:

i. If the permittee implements a Virginia Stormwater Management Program in accordance with Part I.E.5.a.i and ii of this permit:

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

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

ii. Total number of inspections conducted on stormwater management facilities owned or operated by the permittee;

iii. A description of the significant activities performed on the stormwater management facilities owned or operated by the permittee to ensure it continues to perform as designed. This does not activities such as grass mowing or trash collection;

iv. A confirmation statement that the permittee submitted stormwater management facility information through the Virginia Construction Stormwater General Permit database for those land disturbing activities for which the permittee was required to obtain coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities in accordance with Part I.E.5.f above or a statement that the permittee did not complete any projects requiring coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities; and

v.A confirmation statement that the permittee electronically reported BMPs using the DEQ BMP Warehouse in accordance with Part I.E.5.g above and the date on which the information was submitted.

6. Pollution prevention~~/~~ and good housekeeping for ~~municipal operations~~facilities owned or operated by the permittee~~.~~

a. ~~Operations and maintenance activities. The MS4 Program Plan submitted with the registration statement shall be implemented by the operator until updated in accordance with this state permit. In accordance with Table 1, t~~The ~~operator~~ permittee shall ~~develop~~ maintain and implement written procedures ~~designed to minimize or prevent pollutant discharge from: (i) daily operations such as~~ for those activities at facilities owned or operated by the permittee such as road, street, and parking lot maintenance~~;~~, ~~(ii)~~vehicle and equipment maintenance~~;~~, and ~~(iii)~~ the application, storage, transport, and disposal of pesticides, herbicides, and fertilizers. ~~The written procedures shall be utilized as part of the employee training. At a minimum, the written procedures shall be~~ designed to:

~~(1)~~i. Prevent illicit discharges;

~~(2)~~ii. Ensure the proper disposal of waste materials, including landscape wastes;

~~(3)~~iii. Prevent the discharge of wastewater or ~~municipal~~permittee vehicle wash water or both into the MS4 without authorization under a separate VPDES permit;

~~(4) Prevent the discharge of wastewater into the MS4 without authorization under a separate VPDES permit;~~

~~(5)~~iv. Require implementation of best management practices when discharging water pumped from utility construction and maintenance activities;

~~(6)~~v. Minimize the pollutants in stormwater runoff from bulk storage areas (e.g., salt storage, topsoil stockpiles) through the use of best management practices;

~~(7)~~vi. Prevent pollutant discharge into the MS4 from leaking municipal automobiles and equipment; and

~~(8)~~vii. Ensure that the application of materials, including fertilizers and pesticides, is conducted in accordance with the manufacturer's recommendations.

b. ~~Municipal facility pollution prevention and good housekeeping.~~The written procedures established in accordance with Part I E 6 a above shall be utilized as part of the employee training program.

~~(1) Within 12 months of state permit coverage, the operator shall identify all municipal high priority facilities. These high priority facilities shall include: (i) composting facilities, (ii) equipment storage and maintenance facilities, (iii) materials storage yards, (iv) pesticide storage facilities, (v) public works yards, (vi) recycling facilities, (vii) salt storage facilities, (viii) solid waste handling and transfer facilities, and (ix) vehicle storage and maintenance yards.~~

~~(2)~~c. ~~Within 12 months of state permit coverage, the operator shall identify which of the municipal high priority facilities have a high potential of discharging pollutants. Municipal high priority facilities that have a high potential for discharging pollutants are those facilities identified in subsection (1) above.~~ The permittee shall maintain and implement a site Stormwater Pollution Prevention Plan (SWPPP) for each high priority facility owned or operated by the permittee with a high potential to discharge pollutants ~~that are~~ not covered under a separate VPDES permit and for which any of the following materials or activities occur and are expected to have exposure to stormwater resulting from rain, snow, snowmelt or runoff:

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

~~(b)~~ii. Materials or residuals on the ground or in stormwater inlets from spills or leaks;

~~(c)~~iii. Material handling equipment ~~(except adequately maintained vehicles)~~;

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

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

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

~~(g)~~vii. Waste material except waste in covered, non-leaking containers (e.g., dumpsters);

~~(h)~~viii. Application or disposal of process wastewater (unless otherwise permitted); or

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

~~(3) The operator shall develop and implement specific stormwater pollution prevention plans for all high priority facilities identified in subdivision 2 of this subsection. The operator shall complete SWPPP development and implementation shall be completed within 48 months of coverage under this state permit. Facilities covered under a separate VPDES permit shall adhere to the conditions established in that permit and are excluded from this requirement.~~

~~(4)~~d. Each SWPPP as required in Part I E 6 c above shall include the following:

~~(a)~~i. A site description that includes a site map identifying all outfalls, direction of stormwater flow(s), existing source controls, and receiving water bodies;

~~(b)~~ii. A ~~discussion~~ description and checklist of the potential pollutants and pollutant sources;

~~(c)~~iii. A ~~discussion~~description of all potential non-stormwater discharges;

~~(d)~~iv. Written procedures designed to reduce and prevent pollutant discharge;

~~(e)~~v. A description of the applicable training as required in ~~Section II B 6 d~~Part I E 6 h below;

~~(f)~~vi. Procedures to conduct an annual comprehensive site compliance evaluation;

~~(g)~~vii. An inspection and maintenance schedule for each type of site specific source controls~~. The date of each inspection and associated findings and follow-up shall be logged in each SWPPP~~;

viii. An inspection log for each site specific source control including the date and inspection findings.

~~(h)~~ix. ~~The contents of each SWPPP shall be evaluated and modified as necessary to accurately reflect any discharge, release, or spill from the high priority facility reported in accordance with Section III G. For each such~~ A log of each unauthorized discharge, release, or spill, ~~the SWPPP must include~~incident reported in accordance with Part III G including the following information:

(1) ~~d~~Date of incident;

(2) ~~m~~Material discharged, released, or spilled; and

(3) Estimated quantity discharged, released or spilled~~; and~~

d. No later than June 30th of each year, the permittee shall annually review any high priority facility owned or operated by the permittee for which a SWPPP has not been developed to determine if the facility has a high potential to discharge pollutants as described in Part I.E.6.c. If the facility is determined to be a high priority facility with a high potential to discharge pollutants, the permittee shall develop a SWPPP meeting the requirements of Part I.E.6.d no later than December 31st of that same year.

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

~~(i)~~f. ~~A copy of each~~The SWPPP shall be kept at ~~each~~the high priority facility with a high potential to discharge ~~and shall be kept updated~~ and utilized as part of staff training required in ~~Section II B 6 d~~Part I E 6 l below. The SWPPP and associated documents may be maintained as a hard copy or electronically as long as the documents are available to employees at the applicable site.

g. If activities change at a facility such that the facility no longer meets the criteria of a high priority facility with a high potential to discharge pollutants as described in Part I.E.6.c, the permittee may remove the facility from the list of high priority facilities with a high potential to discharge pollutants.

~~c~~h. ~~Turf and landscape management.~~

~~(1)~~ The ~~operator~~permittee shall maintain and implement turf and landscape nutrient management plans that have been developed by a certified turf and landscape nutrient management planner in accordance with § 10.1-104.2 of the Code of Virginia on all lands owned or operated by the ~~MS4 operator~~permittee where nutrients are applied to a contiguous area greater than one acre. If nutrients are being applied to achieve final stabilization of a land disturbance project, application shall follow the manufacturer's recommendations. ~~Implementation shall be in accordance with the following schedule:~~

~~(a) Within 12 months of state permit coverage, the operator shall identify all applicable lands where nutrients are applied to a contiguous area of more than one acre. A latitude and longitude shall be provided for each such piece of land and reported in the annual report.~~

~~(b) Within 60 months of state permit coverage, the operator shall implement turf and landscape nutrient management plans on all lands where nutrients are applied to a contiguous area of more than one acre. The following measurable outcomes are established for the implementation of turf and landscape nutrient management plans: (i) within 24 months of permit coverage, not less than 15% of all identified acres will be covered by turf and landscape nutrient management plans; (ii) within 36 months of permit coverage, not less than 40% of all identified acres will be covered by turf and landscape nutrient management plans; and (iii) within 48 months of permit coverage, not less than 75% of all identified acres will be covered by turf and landscape nutrient management plans. The operator shall not fail to meet the measurable goals for two consecutive years.~~

(c)i. MS4 operatorsPermittees with lands regulated under § 10.1-104.4 of the Code of Virginia including state agencies, state colleges and universities, and other state government entities, shall continue to implement turf and landscape nutrient management plans in accordance with this statutory requirement.

(2) Operators shall annually track the following:

(a) The total acreage of lands where turf and landscape nutrient management plans are required; and

(b) The acreage of lands upon which turf and landscape nutrient management plans have been implemented.

(3)j The operator permittee shall not apply any deicing agent containing urea or other forms of nitrogen or phosphorus to parking lots, roadways, and sidewalks, or other paved surfaces.

k. The permittee shall require through the use of contract language, training, standard operating procedures, etc. that contractors employed by the permittee and engaging in activities with the potential to discharge pollutants use appropriate control measures to minimize the discharge of pollutants to the MS4.

dl. Training. The operatorpermittee shall conduct training for employees. The training requirements may be fulfilled, in total or in part, through regional training programs involving two or more MS4 localities provided; however, that each operator shall remain individually liable for its failure to comply with the training requirements in this permit. Training is not required if the topic is not applicable to the operator's operations and therefore does not have applicable personnel provided the lack of applicability is documented in the MS4 Program Plan. The operator shall determine and document the applicable employees or positions to receive each type of training. The operator shall develop an annual written training plan in writing for applicable staff including a schedule of training events that ensures implementation of the training requirements as the follows ing:

(1)i. The operator shall provide biennial training to applicable fField personnel received training in the recognition and reporting of illicit discharges no less than once per 24 months.;

(2)ii. The operator shall provide biennial training to applicable eEmployees in good housekeeping and pollution prevention practices that are to be employed duringperforming road, street, and parking lot maintenance receive training in pollution prevention and good housekeeping associated with those activities no less than once per 24 months;.

(3)iii. The operator shall provide biennial training to applicable eEmployees working in and around maintenance, public works, or recreational facilities receive training in good housekeeping and pollution prevention practices that are to be employed in and around maintenance and public worksassociated with those facilities no less than once per 24 months.;

(4)iv. The operator shall ensure that eEmployees, and require that contractors hired by the permittee, who apply pesticides and herbicides are properly trained or certified in accordance with the Virginia Pesticide Control Act (§ 3.2-3900 et seq. of the Code of Virginia).;

(5)v. The operator shall ensure that eEmployees and contractors serving as plan reviewers, inspectors, program administrators, and construction site operators obtain the appropriate certifications as required under the Virginia Erosion and Sediment Control Law and its attendant regulations.;

(6)vi. The operator shall ensure that applicable eEmployees and contractors implementing the stormwater program obtain the appropriate certifications as required under the Virginia Erosion and Sediment Control Stormwater Management Law Act and its attendant regulations.; and

(7) The operators shall provide biennial training to applicable employees in good housekeeping and pollution prevention practices that are to be employed in and around recreational facilities.

(8) vii. The appropriate emergency response eEmployees whose duties include emergency response shall have been trainінged in spill responses. A summary of the training or certification program provided to emergency response employees shall be included in the first annual report. Training of emergency responders such as firefighters and law enforcement officers on the handling of spill releases as part of a larger emergency response training shall satisfy this training requirement and be documented in the training plan.

(9)m. The operatorpermittee shall keepmaintain documentation onof each training event conducted to fulfill the requirements of Part I.E.6.l above for a minimum of three years after the training event. The documentation shall include

the following information:
i. ~~including t~~The ~~training~~ date of the training event~~,~~;
ii. ~~t~~The number of employees attending the training event~~,~~; and
iii. ~~t~~The objective of the training event ~~for a period of three years after each training event~~.

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

~~e. The operator shall require that municipal contractors use appropriate control measures and procedures for stormwater discharges to the MS4 system. Oversight procedures shall be described in the MS4 Program Plan.~~

~~f~~o. ~~At a minimum, t~~The MS4 Program Plan shall ~~contain~~ include:

~~(1)~~i. The written ~~protocols~~ procedures ~~being used to satisfy~~for the ~~daily~~ operations and maintenance ~~requirements~~activities as required by Part I E 6 a;

~~(2)~~ii. A list of all ~~municipal~~ high-priority facilities owned or operated by the permittee ~~that identifies those facilities that have a high potential for chemicals or other materials to be discharged in stormwater and a schedule that identifies the year in which an individual SWPPP will be developed for those facilities~~ required ~~to have a SWPPP~~ in accordance with Part I E 6 c and e and whether or not the facility has a high potential to discharge~~. Upon completion of a SWPPP, the SWPPP shall be part of the MS4 Program Plan. The MS4 Program Plan shall include the location in which the individual SWPPP is located~~;

~~(3)~~iii. A list of lands ~~where nutrients are applied to a contiguous area of more than one acre. Upon completion of a turf and landscape nutrient management plan, the turf and landscape nutrient management plan shall be part of the MS4 Program Plan~~ for which turf and landscape nutrient management plans are required in accordance with Part I E 6 I and j above including the following information:

(1). The total acreage on which nutrients are applied;

(2) The date of the most recently approved nutrient management plan for the property; and

(3)~~.~~ The MS4 Program Plan shall include the location in which the individual turf and landscape nutrient management plan is located~~.; and~~

iv. A summary of mechanisms the permittee uses to ensure contractors working on behalf of the permittees implement the necessary good housekeeping and pollution prevention procedures, and stormwater pollution plans as appropriate; and

~~(4)~~v. ~~The annual~~ written training plan ~~for the next reporting cycle~~ as required in Part I E 6 l.

~~g~~p. The Annual ~~r~~Report~~ing requirements.~~ shall include the following:

~~(1)~~i. A summary ~~report on~~of ~~the development and implementation of the~~ any daily operational procedures developed or modified in accordance with Part I.E.6.a during the reporting period;

~~(2)~~ii. A summary ~~report on~~ of ~~the development and implementation of the required~~any new SWPPPs developed in accordance with Part I E 6 c during the reporting period;

iii. A summary of any SWPPPs modified in accordance with Part I E 6 e during the reporting period;

~~(3)~~ iv.A summary ~~report on~~of ~~the development and implementation of the~~ any new turf and landscape nutrient management plans developed that includes:

~~(a)~~ (1) Location and ~~T~~the total acreage of each land~~s where turf and landscape nutrient management plans are required~~ area; and

~~(b)~~(2) ~~The acreage of lands upon which turf and landscape nutrient management plans have been implemented~~The date of the approved nutrient management plan~~; and~~.

~~(4)~~v. A ~~summary report on~~list of the ~~required~~ training events conducted in accordance with Part I E 6 l, including the following information:

(1)~~a list of training events, t~~The date of the training ~~date~~event~~,~~;

(2) ~~t~~The number of employees that attend~~inged~~ the training event; and

(3) ~~t~~The objective of the training event.

~~C. If an existing program requires the implementation of one or more of the minimum control measures of Section II B, the operator, with the approval of the board, may follow that program's requirements rather than the requirements of Section II B. A program that may be considered includes, but is not limited to, a local, state or tribal program that imposes, at a minimum, the relevant requirements of Section II B.~~

~~The operator's MS4 Program Plan shall identify and fully describe any program that will be used to satisfy one or more of the minimum control measures of Section II B.~~

~~If the program the operator is using requires the approval of a third party, the program must be fully approved by the third party, or the operator must be working towards getting full approval. Documentation of the program's approval status, or the progress towards achieving full approval, must be included in the annual report required by Section II E 3. The operator remains responsible for compliance with the permit requirements if the other entity fails to implement the control measures (or component thereof).~~

~~D. The operator may rely on another entity to satisfy the state permit requirements to implement a minimum control measure if: (i) the other entity, in fact, implements the control measure; (ii) the particular control measure, or component thereof, is at least as stringent as the corresponding state permit requirement; and (iii) the other entity agrees to implement the control measure on behalf of the operator. The agreement between the parties must be documented in writing and retained by the operator with the MS4 Program Plan for the duration of this state permit.~~

~~In the annual reports that must be submitted under Section II E 3, the operator must specify that another entity is being relied on to satisfy some of the state permit requirements.~~

~~If the operator is relying on another governmental entity regulated under~~ 9VAC25-870-380 ~~to satisfy all of the state permit obligations, including the obligation to file periodic reports required by Section II E 3, the operator must note that fact in the registration statement, but is not required to file the periodic reports.~~

~~The operator remains responsible for compliance with the state permit requirements if the other entity fails to implement the control measure (or component thereof).~~

~~E. Evaluation and assessment.~~

~~1. MS4 Program Evaluation. The operator must annually evaluate:~~

~~a. Program compliance;~~

~~b. The appropriateness of the identified BMPs (as part of this evaluation, the operator shall evaluate the effectiveness of BMPs in addressing discharges into waters that are identified as impaired in the 2010 § 305(b)/303(d) Water Quality Assessment Integrated Report); and~~

~~c. Progress towards achieving the identified measurable goals.~~

~~2. Recordkeeping. The operator must keep records required by the state permit for at least three years. These records must be submitted to the department only upon specific request. The operator must make the records, including a description of the stormwater management program, available to the public at reasonable times during regular business hours.~~

~~3. Annual reports. The operator must submit an annual report for the reporting period of July 1 through June 30 to the department by the following October 1 of that year. The reports shall include:~~

~~a. Background Information.~~

~~(1) The name and state permit number of the program submitting the annual report;~~

~~(2) The annual report permit year;~~

~~(3) Modifications to any operator's department's roles and responsibilities;~~

~~(4) Number of new MS4 outfalls and associated acreage by HUC added during the permit year; and~~

(5) Signed certification;

b. The status of compliance with state permit conditions, an assessment of the appropriateness of the identified best management practices and progress towards achieving the identified measurable goals for each of the minimum control measures;

c. Results of information collected and analyzed, including monitoring data, if any, during the reporting period;

d. A summary of the stormwater activities the operator plans to undertake during the next reporting cycle;

e. A change in any identified best management practices or measurable goals for any of the minimum control measures including steps to be taken to address any deficiencies;

f. Notice that the operator is relying on another government entity to satisfy some of the state permit obligations (if applicable);

g. The approval status of any programs pursuant to Section II C (if appropriate), or the progress towards achieving full approval of these programs; and

h. Information required for any applicable TMDL special condition contained in Section I.

F. Program Plan modifications.

1. Program modifications requested by the operator. Modifications to the MS4 Program are expected throughout the life of this state permit as part of the iterative process to reduce the pollutant loadings and to protect water quality. As such, modifications made in accordance with this state permit as a result of the iterative process do not require modification of this permit unless the department determines that the changes meet the criteria referenced in 9VAC25-870-630 or 9VAC25-870-650. Updates and modifications to the MS4 Program may be made during the life of this state permit in accordance with the following procedures:

a. Adding (but not eliminating or replacing) components, controls, or requirements to the MS4 Program may be made by the operator at any time. Additions shall be reported as part of the annual report.

b. Updates and modifications to specific standards and specifications, schedules, operating procedures, ordinances, manuals, checklists, and other documents routinely evaluated and modified are permitted under this state permit provided that the updates and modifications are done in a manner that (i) is consistent with the conditions of this state permit, (ii) follow any public notice and participation requirements established in this state permit, and (iii) are documented in the annual report.

c. Replacing, or eliminating without replacement, any ineffective or infeasible strategies, policies, and BMPs specifically identified in this permit with alternate strategies, policies, and BMPs may be requested at any time. Such requests must be made in writing to the department and signed in accordance with 9VAC25-870-370, and include the following:

(1) An analysis of how or why the BMPs, strategies, or policies are ineffective or infeasible, including information on whether the BMPs, strategies, or policies are cost prohibitive;

(2) Expectations regarding the effectiveness of the replacement BMPs, strategies, or policies;

(3) An analysis of how the replacement BMPs are expected to achieve the goals of the BMPs to be replaced;

(4) A schedule for implementing the replacement BMPs, strategies, and policies; and

(5) An analysis of how the replacement strategies and policies are expected to improve the operator's ability to meet the goals of the strategies and policies being replaced.

d. The operator follows the public involvement requirements identified in Section II B 2 (a).

2. MS4 Program updates requested by the department. In a manner and following procedures in accordance with the Virginia Administrative Process Act, the Virginia Stormwater Management regulations, and other applicable state law and regulations, the department may request changes to the MS4 Program to assure compliance with the statutory requirements of the Virginia Stormwater Management Act and its attendant regulations to:

a. Address impacts on receiving water quality caused by discharges from the MS4;

b. Include more stringent requirements necessary to comply with new state or federal laws or regulations; or

~~c. Include such other conditions necessary to comply with state or federal law or regulation.~~

~~Proposed changes requested by the department shall be made in writing and set forth the basis for and objective of the modification as well as the proposed time schedule for the operator to develop and implement the modification. The operator may propose alternative program modifications or time schedules to meet the objective of the requested modification, but any such modifications are at the discretion of the department.~~

PART II

TMDL SPECIAL CONDITIONS

A. Chesapeake Bay TMDL Special Condition

1. The Commonwealth in its Phase I and Phase II Chesapeake Bay TMDL Watershed Implementation Plans (WIP) committed to a phased approach for MS4s, affording MS4 permittees up to three full five-year permit cycles to implement necessary reductions. This permit is consistent with the Chesapeake Bay TMDL and the Virginia Phase I and II WIPs to meet the Level 2 (L2) scoping run for existing developed lands as it represents an implementation of an additional 35% of L2 as specified in the 2010 Phase I and II WIPs. In combination with the 5% reduction of L2 that has already been achieved for a total reduction at the end of this permit term of 40% of L2. Conditions of future permits will be consistent with the TMDL or WIP conditions in place at the time of permit issuance.

2. The following definitions apply to this state permit for the purpose of the Chesapeake Bay TMDL special condition for discharges in the Chesapeake Bay Watershed:

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

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

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

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

3. Reduction Requirements

   No later than the expiration date of this permit, the permittee shall reduce the load of total nitrogen, total phosphorus and total suspended solids from existing developed lands served by the MS4 as of June 30, 2009 within the **2010** Census Urbanized Area by at least **40%** of the Level 2 (L2) Scoping Run Reductions. The 40% reduction is the sum of 1) the first phase reduction of 5% of the L2 Scoping Run Reductions based on the lands located within the 2000 Census Urbanized Areas required by June 30, 2018; 2) the second phase reduction of at least 35% of the L2 Scoping Run based on lands within the 2000 Census Urbanized Areas required by June 30, 2023; and 3) the reduction of at least 40% of the L2 Scoping Run based on lands within the 2010 expanded Census Urbanized Areas required by June 30, 2023. The required reduction shall be calculated using Tables 3a, 3b, 3c, and 3d below as applicable:

a. **Table 3a: Calculation Sheet for Estimating Existing Source Loads and Reduction Requirements for the James River, Lynnhaven, and Little Creek Basins**

Pollutant	Subsource	A. Loading Rate[1] (lbs/ac/yr)	B. Existing Developed Lands as of 6/30/09 served by the MS4 within the 2010 CUA (acres)[2]	C. Loading (lbs/yr) [3]	D. MS4 Required Chesapeake Bay Total L2 Loading Rate Reduction	E. Percentage of L2 Required Reduction by 6/30/2023	F. 40% Cumulative Reduction Required by 6/30/2023 (lbs/yr) [4]	G.Sum of 40% Cumulative Reduction (lb/yr) [5]
Nitrogen	Regulated Urban Impervious	9.39			9%	40%		
	Regulated Urban Pervious	6.99			6%	40%		
Phosphorus	Regulated Urban Impervious	1.76			16%	40%		
	Regulated Urban Pervious	0.5			7.25%	40%		
Total Suspended Solids	Regulated Urban Impervious	676.94			20%	40%		
	Regulated Urban Pervious	101.08			8.75%	40%		

[1] Edge of Stream Loading rate based on the Chesapeake Bay Watershed Model Progress Run 5.3.2

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

[3] $Column\ C = Column\ A \times Column\ B$

[4] $Column\ F = Column\ C \times (Column\ D \div 100) \times (Column\ E \div 100)$

[5] Column G = The sum of the Subsource Cumulative Reduction Required by 6/30/23 (lbs/yr) as calculated in Column F.

b. **Table 3b: Calculation Sheet for Estimating Existing Source Loads and Reduction Requirements for the Potomac River Basin**

Pollutant	Subsource	A. Loading Rate[1] (lbs/ac/yr)	B. Existing Developed Lands as of 6/30/09 served by the MS4 within the 2010 CUA (acres)[2]	C. Loading (lbs/ac/yr) [3]	D. MS4 Required Chesapeake Bay Total L2 Loading Rate Reduction	E. Percentage of L2 Required Reduction by 6/30/2023	F.40% Cumulative Reduction Required by 6/30/2023 (lbs/yr) [4]	G. Sum of 40% Cumulative Reduction (lb/yr) [5]
Nitrogen	Regulated Urban Impervious	16.86			9%	40%		
	Regulated Urban Pervious	10.07			6%	40%		
Phosphorus	Regulated Urban Impervious	1.62			16%	40%		
	Regulated Urban Pervious	0.41			7.25%	40%		
Total Suspended Solids	Regulated Urban Impervious	1171.32			20%	40%		
	Regulated Urban Pervious	175.8			8.75%	40%		

[1] Edge of Stream Loading rate based on the Chesapeake Bay Watershed Model Progress Run 5.3.2

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

[3] $Column\ C = Column\ A \times Column\ B$

[4] $Column\ F = Column\ C \times (Column\ D \div 100) \times (Column\ E \div 100)$

[5] Column G = The sum of the Subsource Cumulative Reduction Required by 6/30/23 (lbs/yr) as calculated in Column F.

c. **Table 3c: Calculation Sheet for Estimating Existing Source Loads and Reduction Requirements for the Rappahannock River Basin**

Pollutant	Subsource	A. Loading Rate[1] (lbs/ac/yr)	B. Existing Developed Lands as of 6/30/09 served by the MS4 within the 2010 CUA (acres)[2]	C. Loading (lbs/ac/yr) [3]	D. MS4 Required Chesapeake Bay Total L2 Loading Rate Reduction	E. Percentage of L2 Required Reduction by 6/30/2023	F. 40% Cumulative Reduction Required by 6/30/2023 (lbs/yr) [4]	G. Sum of 40% Cumulative Reduction (lb/yr) [5]
Nitrogen	Regulated Urban Impervious	9.38			9%	40%		
	Regulated Urban Pervious	5.34			6%	40%		
Phosphorus	Regulated Urban Impervious	1.41			16%	40%		
	Regulated Urban Pervious	0.38			7.25%	40%		
Total Suspended Solids	Regulated Urban Impervious	423.97			20%	40%		
	Regulated Urban Pervious	56.01			8.75%	40%		

[1] Edge of Stream Loading rate based on the Chesapeake Bay Watershed Model Progress Run 5.3.2

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

[3] $Column\ C = Column\ A \times Column\ B$

[4] $Column\ F = Column\ C \times (Column\ D \div 100) \times (Column\ E \div 100)$

[5] Column G = The sum of the Subsource Cumulative Reduction Required by 6/30/23 (lbs/yr) as calculated in Column F.

d. **Table 3d: Calculation Sheet for Estimating Existing Source Loads and Reduction Requirements for the York River and Poquoson Coastal Basin**

Pollutant	Subsource	A. Loading Rate[1] (lbs/ac/yr)	B. Existing Developed Lands as of 6/30/09 served by the MS4 within the 2010 CUA (acres)[2]	C. Loading (lbs/ac/yr) [3]	D. MS4 Required Chesapeake Bay Total L2 Loading Rate Reduction	E. Percentage of L2 Required Reduction by 6/30/2023	F. 40 % Cumulative Reduction Required by 6/30/2023 (lbs/yr) [4]	G.Sum of 40% Cumulative Reduction (lb/yr) [5]
Nitrogen	Regulated Urban Impervious	7.31			9%	40%		
	Regulated Urban Pervious	7.65			6%	40%		
Phosphorus	Regulated Urban Impervious	1.51			16%	40%		
	Regulated Urban Pervious	0.51			7.25%	40%		
Total Suspended Solids	Regulated Urban Impervious	456.68			20%	40%		
	Regulated Urban Pervious	72.78			8.75%	40%		

[1] Edge of Stream Loading rate based on the Chesapeake Bay Watershed Model Progress Run 5.3.2

[2] To determine the existing developed acres required in Column B, the permittee should first determine the extent of their regulated service area based on the 2010 Census Urbanized Area. Next, permittees will need to delineate the lands within the 2010 CUA served by

the MS4 as pervious or impervious as of the baseline date of June 30, 2009.

[3] $Column\ C = Column\ A \times Column\ B$

[4] $Column\ F = Column\ C \times (Column\ D \div 100) \times (Column\ E \div 100)$

[5] Column G = The sum of the Subsource Cumulative Reduction Required by 6/30/23 (lbs/yr) as calculated in Column F.

4. No later than the expiration date of this permit, the permittee shall offset 40% of the increased loads from new sources initiating construction between July 1, 2009, and June 30, 2019 and designed in accordance with 9VAC 25-870 Part II.C if the following conditions apply:

   a. The activity disturbed one acre or greater; and

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

   The permittee shall utilize Table 4 to develop the equivalent pollutant load for nitrogen and total suspended solids for new sources meeting the requirements of this condition.

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

   a. The activity disturbs one acre or greater; and

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

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

Table 4: Ratio of Phosphorus Loading Rate to Nitrogen and Total Suspended Solids Loading Rates for Chesapeake Bay Basins

Ratio of Phosphorus to Other POCs (Based on All Land Uses 2009 Progress Run)	Phosphorus Loading Rate (lbs/acre)	Nitrogen Loading Rate (lbs/acre)	Total Suspended Solids Loading Rate (lbs/acre)
James River Basin Lynnhaven, and Little Creek, Basins	1.0	5.2	420.9
Potomac River Basin	1.0	6.9	469.2
Rappahannock River Basin	1.0	6.7	320.9
York River Basin (including Poquoson Coastal Basin)	1.0	9.5	531.6

6. Reductions achieved in accordance with the General VPDES Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems effective July 1, 2013 shall be applied to the total reduction requirements to demonstrate compliance with Part II.A.3, 4, and 5.

7. Reductions shall be achieved in each river basin as calculated in Part II.A.3 or for reductions in accordance with Part II.A.4 and 5 in the basin in which the new source or grandfathered project occurred.

8. Loading and reduction values greater than or equal to 10 pounds calculated in accordance with Part II.A.3, 4, and 5 of this general permit shall be calculated and reported to the nearest pound without regard to mathematical rules of precision. Loading and reduction values of less than 10 pounds reported in accordance with Part II.A.3, 4, and 5 of this general permit shall be calculated and reported to two significant digits.

9. Reductions required in Part II.A.3, 4, and 5 shall be achieved through one or more of the following:

   a. BMPs approved by the Chesapeake Bay Program;

   b. BMPs approved by DEQ; or

   c. A trading program described in Part II.A.10 below.

10. The permittee may acquire and use total nitrogen and total phosphorus credits in accordance with § 62.1-44.19:21 and total suspend solids in accordance with § 62.1-44.19:21.1 of the Code of Virginia for purposes of compliance with the required reductions in Part II.A.3.a through d, 4, and 5 of this permit, provided the use of credits has been approved by the Department. The exchange of credits is subject to the following requirements:

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

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

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

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

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

    f. Sediment credits shall be derived from one of the following:
       i. Implementation of best management practices in a defined area outside of an MS4 service area, in which case the necessary baseline sediment reduction for such defined area shall be achieved prior to the permittee's use of additional reductions as credit; or
       ii. A point source waste load allocation established by the Chesapeake Bay total maximum daily load, in which case the credit is the difference between the waste load allocation specified as an annual mass load and any lower monitored annual mass load that is discharged as certified on a form supplied by the Department.

    g. Sediment credits shall not be associated with phosphorus credits used for compliance with the stormwater nonpoint nutrient runoff water quality criteria established pursuant to § 62.1-44.15:28.

11. No later than 12 months after the permit effective date, the permittee shall submit an updated Chesapeake Bay TMDL Action Plan for the reductions required in Part II.A.3, 4, and 5 that includes the following information:

    a. Any new or modified legal authorities, such as ordinances, permits, policy, specific contract language, orders, and inter-jurisdictional agreements, implemented or needing to be implemented to meet the requirements of Part II.A.3, 4, and 5.

b. The load and cumulative reduction calculations for each river basin calculated in accordance with Part II.A.3, 4, and 5.

c. The total reductions achieved as of July 1, 2018 for each pollutant of concern in each river basin;

d. A list of BMPs implemented prior to July 1, 2018 to achieve reductions associated with the Chesapeake Bay TMDL including:

i. The date of implementation; and
ii. The reductions achieved.

e. The BMPs to be implemented by the permittee prior to the expiration of this permit to meet the cumulative reductions calculated in Part II.A.3, 4, and 5, including as applicable:

i. Type of BMP;
ii. Project name;
iii. Location;
iv. Percent Removal Efficiency for each pollutant of concern; and
v. Calculation of the reduction expected to be achieved by the BMP calculated and reported in accordance with the methodologies established in Part II.A.8.for each pollutant of concern.

f. A summary of any comments received as a result of public participation required in Part II A.12 below, the permittee's response, identification of any public meetings to address public concerns, and any revisions made to Chesapeake Bay TMDL Action Plan as a result of public participation.

12. Prior to submittal of the action plan required in Part II.A.11, the permittee shall provide an opportunity for public comment on the additional BMPs proposed to meet the reductions not previously approved by the Department in the first phase Chesapeake Bay TMDL Action Plan for no less than 15 days.

13. The Chesapeake Bay TMDL Action Plan shall be incorporated by reference into the MS4 Program Plan required by Part I.B. of this permit.

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

a. A list of BMPs implemented during the reporting period but not reported to BMP Warehouse in accordance with Part I.E.5.g and the estimated reduction of pollutant(s) of concern achieved by each and reported in pounds per year;

b. If the permittee acquired credits during the reporting period to meet all or a portion of the required reductions in Part II.A.3,4 or 5, a statement that credits were acquired;

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

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

B. Local TMDL Special Condition

1. The permittee shall develop a local TMDL action plan designed to reduce loadings for pollutants of concern if the permittee discharges the pollutant(s) of concern to an impaired water for which a TMDL has been approved by the Environmental Protection Agency (EPA) as described below:

   a. For TMDLs approved by the EPA prior to July 1, 2013 and in which an individual or aggregate wasteload has been allocated to the permittee, the permittee shall update the previously approved local TMDL action plans to meet the conditions of Part II.B.3, 4, 5, 6, and 7 as applicable, no later than 18 months after the permit effective date and continue implementation of the action plan; and

   b. For TMDLs approved by EPA on or after July 1, 2013 and prior to June 30, 2018 and in which an individual or aggregate wasteload has been allocated to the permittee, the permittee shall develop and initiate implementation of action plans to meet the conditions of Part II.B.3, 4, 5, 6, and 7 as applicable for each pollutant for which wasteloads have been allocated to the permittee's MS4 no later than 30 months after the permit effective date.

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

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

   a. The TMDL project name;

   b. The EPA approval date of the TMDL;

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

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

   e. The BMPs designed to reduce the pollutant(s) of concern in accordance with Parts II.B.4, 5, and 6;

   f. Any calculations required in accordance with Part II.B.4, 5, or 6;

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

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

4. Bacterial TMDLs

   a. If the permittee is an approved VSMP authority, the permittee shall select and implement at least three of the strategies listed in Table 5 below designed to reduce the load of bacteria to the MS4. Selection of the strategies shall correspond to sources identified in Part II.B.3.e above.

   b. If the permittee is not an approved VSMP authority, the permittee shall select at least one strategy listed in Table 5 designed to reduce the load of bacteria to the MS4 relevant to sources of bacteria applicable within the MS4 regulated service area. Selection of the strategies shall correspond to sources identified in Part II.B.3.e

above.

Table 5: Strategies for Bacteria Reduction Stormwater Control/Management Strategy

Source	Strategies *(Provided as an example and not meant to be all inclusive or limiting)*
Domestic Pets (dogs and cats)	• Provide signage to pick up dog waste, providing pet waste bags and disposal containers. • Adopt and enforce pet waste ordinances or policies, and/or leash laws or policies. • Place dog parks away from environmentally sensitive areas. • Maintain dog parks by removing disposed of pet waste bags and cleaning up other sources of bacteria. • Protect riparian buffers and provide unmanicured vegetative buffers along streams to dissuade stream access.
Urban Wildlife	• Educate the public on how to reduce food sources accessible to urban wildlife (e.g., manage restaurant dumpsters/grease traps, residential garbage, feed pets indoors). • Install storm drain inlet/outlet controls. • Clean out storm drains to remove waste from wildlife. • Implement and enforce urban trash management practices. • Implement rooftop disconnection programs or site designs that minimize connections to reduce bacteria from rooftops • Implement a program for removing animal carcasses from roadways and properly disposing of the same (either through proper storage or through transport to a licensed facility).
Illicit Connections/Illicit Discharges to the MS4	• Implement an enhanced dry weather screening and Illicit, Discharge, Detection, and Elimination program beyond the requirements of Part I.E.3 to identify and remove illicit connections and identify leaking sanitary sewer lines infiltrating to the MS4 and implement repairs. • Implement a program to identify potentially failing septic systems. • Educate the public on how to determine whether their septic system is failing. • Implement septic tank inspection and maintenance program. • Implement an educational program beyond any requirements in Part I.E.1 though I.E.6 above to explain to citizens why they should not dump materials into the MS4. • Marinas
Dry Weather Urban Flows (irrigations, carwashing, powerwashing, etc.)	• Implement public education programs to reduce dry weather flows from storm sewers related to lawn/park irrigation practices, carwashing, powerwashing and other non-stormwater flows. • Provide irrigation controller rebates. • Implement and enforce ordinances or policies related to outdoor water waste. • Inspect commercial trash areas, grease traps, washdown practices, and enforce corresponding ordinances or policies.
Birds (Canadian geese, gulls, pigeons, etc.)	• Identify areas with high bird populations and evaluate deterrents, population controls, habitat modifications and other measures that may reduce bird-associated bacteria loading. • Prohibit feeding of birds.
	• Enhance maintenance of stormwater management facilities owned or

Other Sources	operated by the permittee • Enhance requirements for third parties to maintain stormwater management facilities • Develop BMPs for locating, transporting, and maintaining portable toilets used on permittee-owned sites. Educate third parties that use portable toilets on BMPs for use. • Provide public education on appropriate recreational vehicle (RV) dumping practices.

5. Local Sediment, Phosphorus, and Nitrogen TMDLs

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

i. One or more of the BMPs from the Virginia Stormwater BMP Clearinghouse listed in 9VAC 25-870-65 or other approved BMPs found on the Virginia Stormwater BMP Clearinghouse Website;

ii. One or more BMPs approved by the Chesapeake Bay Program; or

iii. Land disturbance thresholds lower than Virginia's regulatory requirements for Erosion and Sediment Control and post development Stormwater Management.

b. The permittee may meet the local TMDL requirements for sediment, phosphorus, or nitrogen through BMPs implemented to meet the requirements of the Chesapeake Bay TMDL in Part II.A. as long as the BMPs are implemented in the watershed for which local water quality is impaired.

c. The permittee shall calculate the anticipated load reduction achieved from each BMP and include the calculations in the action plan required in Part II.B.3.g.

d. No later than 36 months after the effective date of this permit, the permittee shall submit to the Department the anticipated end date(s) by which the permittee will meet each WLA for sediment, phosphorus, or nitrogen. The proposed end date may be developed in accordance with Part II.B.2.

6. Polychlorinated Biphenyl (PCB) TMDLs

a. For each PCB TMDL Action Plan, the permittee shall include an inventory of potentially significant sources of PCBs owned or operated by the permittee that drains to the MS4 that includes the following information:

i. Location of the potential source;
ii. Whether or not the potential source is from current site activities or activities previously conducted at the site that have been terminated (i.e. legacy activities); and
iii. A description of any measures being implemented or to be implemented to prevent exposure to stormwater and the discharge of PCBs from the site;

b. If at any time during the term of this permit, the permittee discovers a previously unidentified significant source of PCBs within the permittee's MS4 regulated service area, the permittee shall notify DEQ in writing within 30 days of discovery.

7. Prior to submittal of the action plan required in Part II.B.1, the permittee shall provide an opportunity for public comment proposed to meet the local TMDL Action Plan requirements for no less than 15 days.

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

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

~~SECTION~~PART III
CONDITIONS APPLICABLE TO ALL STATE AND VPDES PERMITS

NOTE: Discharge monitoring is not required for this general permit. If the operator chooses to monitor stormwater discharges or control measures, the operator must comply with the requirements of subsections A, B, and C, as appropriate.

A. Monitoring.

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitor~~ed~~ing activity.

2. Monitoring shall be conducted according to procedures approved under 40 CFR Part 136 or alternative methods approved by the U.S. Environmental Protection Agency, unless other procedures have been specified in this state permit. Analyses performed according to test procedures approved under 40 CFR Part 136 shall be performed by an environmental laboratory certified under regulations adopted by the Department of General Services (1VAC30-45 or 1VAC30-46).

3. The operator shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will ~~insure~~ensure accuracy of measurements.

B. Records.

1. Monitoring records~~/~~ and reports shall include:

a. The date, exact place, and time of sampling or measurements;

b. The individual(s) who performed the sampling or measurements;

c. The date(s) and time(s) analyses were performed;

d. The individual(s) who performed the analyses;

e. The analytical techniques or methods used; and

f. The results of such analyses.

2. The operator shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this state permit, and records of all data used to complete the registration statement for this state permit, for a period of at least three years from the date of the sample, measurement, report or request for coverage. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the operator, or as requested by the board.

C. Reporting monitoring results.

1. The operator shall submit the results of the monitoring ~~required by~~as may be performed in accordance with this state permit with the annual report unless another reporting schedule is specified elsewhere in this state permit.

2. Monitoring results shall be reported on a ~~D~~discharge ~~M~~monitoring ~~R~~report (DMR); on forms provided, approved or specified by the department; or in any format provided that the date, location, parameter, method, and result of the monitoring activity are included.

3. If the operator monitors any pollutant specifically addressed by this state permit more frequently than required by this state permit using test procedures approved under 40 CFR Part 136 or using other test procedures approved by the U.S. Environmental Protection Agency or using procedures specified in this state permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the department.

4. Calculations for all limitations ~~that~~ which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this state permit.

D. Duty to provide information. The operator shall furnish ~~to the department~~, within a reasonable time, any information ~~that~~which the board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this state permit or to determine compliance with this state permit. The board, department, or EPA may require the operator to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from his discharge on the quality of surface waters, or such other information as may be necessary to accomplish the purposes of the CWA and Virginia Stormwater Management Act. The operator shall also furnish to the board, department, or EPA upon request, copies of records required to be kept by this state permit.

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

F. Unauthorized stormwater discharges. Pursuant to § ~~62.1-44.15:26~~62.1-44.5 of the Code of Virginia, except in compliance with a state permit issued by the ~~board~~department, it shall be unlawful to cause a stormwater discharge from a MS4.

G. Reports of unauthorized discharges. Any operator of a small MS4 who discharges or causes or allows a discharge of sewage, industrial waste, other wastes or any noxious or deleterious substance or a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, ~~or~~ 40 CFR Part 302, or § 62.1-44.34:19 of the Code of Virginia that occurs during a 24-hour period into or upon surface waters; or who discharges or causes or allows a discharge that may reasonably be expected to enter surface waters, shall notify the department of the discharge immediately upon discovery of the discharge, but in no case later than within 24 hours after said discovery. A written report of the unauthorized discharge shall be submitted to the department within five days of discovery of the discharge. The written report shall contain:

1. A description of the nature and location of the discharge;

2. The cause of the discharge;

3. The date on which the discharge occurred;

4. The length of time that the discharge continued;

5. The volume of the discharge;

6. If the discharge is continuing, how long it is expected to continue;

7. If the discharge is continuing, what the expected total volume of the discharge will be; and

8. Any steps planned or taken to reduce, eliminate and prevent a recurrence of the present discharge or any future discharges not authorized by this state permit.

Discharges reportable to the department under the immediate reporting requirements of other regulations are exempted from this requirement.

H. Reports of unusual or extraordinary discharges. If any unusual or extraordinary discharge including a "bypass" or "upset," as defined herein, should occur from a facility and the discharge enters or could be expected to enter surface waters, the operator shall promptly notify, in no case later than within 24 hours, the department by telephone after the discovery of the discharge. This notification shall provide all available details of the incident, including any adverse effects on aquatic life and the known number of fish killed. The operator shall reduce the report to writing and shall submit it to the department

within five days of discovery of the discharge in accordance with ~~Section III~~Part III I 2. Unusual and extraordinary discharges include but are not limited to any discharge resulting from:

1. Unusual spillage of materials resulting directly or indirectly from processing operations;

2. Breakdown of processing or accessory equipment;

3. Failure or taking out of service of some or all of the facilities; and

4. Flooding or other acts of nature.

I. Reports of noncompliance. The operator shall report any noncompliance which may adversely affect surface waters or may endanger public health.

1. An oral report to the department shall be provided within 24 hours ~~to the department~~ from the time the operator becomes aware of the circumstances. The following shall be included as information ~~which~~ that shall be reported within 24 hours under this ~~paragraph~~subdivision:

a. Any unanticipated bypass; and

b. Any upset ~~which~~ that causes a discharge to surface waters.

2. A written report shall be submitted within five days and shall contain:

a. A description of the noncompliance and its cause;

b. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and

c. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The ~~board or its designee~~department may waive the written report on a case-by-case basis for reports of noncompliance under ~~Section III~~Part III I if the oral report has been received within 24 hours and no adverse impact on surface waters has been reported.

3. The operator shall report all instances of noncompliance not reported under ~~Sections III~~Part III I 1 or 2, in writing~~,~~ ~~at~~ as part of the ~~time the next monitoring~~ annual reports are submitted. The reports shall contain the information listed in ~~Section III~~Part III I 2.

NOTE: The ~~immediate (within 24 hours)~~ reports required ~~to be provided to the department~~ in ~~Sections III~~Part III G, H and I ~~may~~ shall be made to the ~~appropriate Regional Office Pollution Response Program as found at http://deq.virginia.gov/Programs/PollutionResponsePreparedness.aspx.~~ department. Reports may be made by telephone, email, or by fax. For reports outside normal working hours, leaveing a recorded message ~~and this~~ shall fulfill the immediate reporting requirement. For emergencies, the Virginia Department of Emergency ~~Services~~ Management maintains a 24-hour telephone service at 1-800-468-8892.

4. Where the operator becomes aware of a failure to submit any relevant facts, or submittal of incorrect information in any report, including a registrations statement, to the department, ~~it~~the operator shall promptly submit such facts or correct information.

J. Notice of planned changes.

1. The operator shall give notice to the department as soon as possible of any planned physical alterations or additions to the permitted facility or activity. Notice is required only when:

a. The operator plans an alteration or addition to any building, structure, facility, or installation ~~from which there is or may be a discharge of pollutants, the construction of which commenced:~~ that may meet one of the criteria for determining whether a facility is a new source in 9VAC25-870-420:

~~(1) After promulgation of standards of performance under § 306 of the Clean Water Act that are applicable to such source; or~~

~~(2) After proposal of standards of performance in accordance with § 306 of the Clean Water Act that are applicable to such source, but only if the standards are promulgated in accordance with § 306 within 120 days of their proposal;~~

b. The operator plans an alteration or addition that would significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this state permit; or

2. The operator shall give advance notice to the department of any planned changes in the permitted facility or activity; which may result in noncompliance with state permit requirements.

K. Signatory requirements.

1. Registration statement. All registration statements shall be signed as follows:

a. For a corporation: by a responsible corporate officer. For the purpose of this ~~subsection~~chapter, a responsible corporate officer means: (i) ~~A~~a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy-making or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions ~~which~~that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for state permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

c. For a municipality, state, federal, or other public agency: ~~B~~by either a principal executive officer or ranking elected official. For purposes of this ~~subsection~~chapter, a principal executive officer of a public agency includes:

(~~1~~i) ~~T~~the chief executive officer of the agency, or

(~~2~~ii) ~~A~~a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

2. Reports, etc. All reports required by state permits, including annual reports, and other information requested by the board or department shall be signed by a person described in ~~Section III~~Part III K 1~~,~~ or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described in ~~Section III~~Part III K 1;

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the operator. (A duly authorized representative may thus be either a named individual or any individual occupying a named position~~.~~); and

c. The signed and dated written authorization is submitted to the department.

3. Changes to authorization. If an authorization under ~~Section III~~Part III K 2 is no longer accurate because a different individual or position has responsibility for the overall operation of the ~~facility~~MS4, a new authorization satisfying the requirements of ~~Section III~~Part III K 2 shall be submitted to the department prior to or together with any reports, or information to be signed by an authorized representative.

4. Certification. Any person signing a document under ~~Sections III~~Part III K 1 or 2 shall make the following certification:

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

L. Duty to comply. The operator shall comply with all conditions of this state permit. Any state permit noncompliance constitutes a violation of the Virginia Stormwater Management Act and the Clean Water Act, except that noncompliance with certain provisions of this state permit may constitute a violation of the Virginia Stormwater Management Act but not the Clean Water Act. ~~State p~~Permit noncompliance is grounds for enforcement action; for state permit termination, revocation and reissuance, or modification; or denial of a state permit renewal application.

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

M. Duty to reapply. If the operator wishes to continue an activity regulated by this state permit after the expiration date of this state permit, the operator shall submit a new registration statement at least 90 days before the expiration date of the existing state permit, unless permission for a later date has been granted by the board. The board shall not grant permission for registration statements to be submitted later than the expiration date of the existing state permit.

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

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

P. Oil and hazardous substance liability. Nothing in this state permit shall be construed to preclude the institution of any legal action or relieve the operator from any responsibilities, liabilities, or penalties to which the operator is or may be subject under §§ 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law or § 311 of the Clean Water Act.

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

R. Disposal of solids or sludges. Solids, sludges or other pollutants removed in the course of treatment or management of pollutants shall be disposed of in a manner so as to prevent any pollutant from such materials from entering surface waters~~.~~ and in compliance with all applicable state and federal laws and regulations.

S. Duty to mitigate. The operator shall take all reasonable steps to minimize or prevent any discharge in violation of this state permit that has a reasonable likelihood of adversely affecting human health or the environment.

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

U. Bypass.

1. "Bypass," as defined in 9VAC25-870-10, means the intentional diversion of waste streams from any portion of a treatment facility. The operator may allow any bypass to occur that does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to ~~assure~~ensure efficient operation. These bypasses are not subject to the provisions of ~~Sections III~~Part III U 2 and ~~U~~ 3.

2. Notice.

a. Anticipated bypass. If the operator knows in advance of the need for a bypass, the operator shall submit prior notice ~~shall be submitted~~to the department, if possible at least 10 days before the date of the bypass.

b. Unanticipated bypass. The operator shall submit notice of an unanticipated bypass as required in ~~Section III~~Part III I.

3. Prohibition of bypass.

a. ~~Bypass~~ Except as provided in Part III U 1, bypass is prohibited, and the board or ~~its designee~~department may take enforcement action against an operator for bypass, unless:

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

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

(3) The operator submitted notices as required under ~~Section III~~Part III U 2.

b. The ~~board or its designee~~department may approve an anticipated bypass, after considering its adverse effects, if the ~~board or its designee~~department determines that it will meet the three conditions listed above in ~~Section III~~Part III U 3 a.

V. Upset.

1. An "upset", as defined in 9VAC25-870-10, ~~constitutes~~ means an ~~affirmative defense to an action brought for~~ exceptional incident in which there is unintentional and temporary noncompliance with technology based state permit effluent limitations ~~if~~because of factors beyond the ~~requirements of Section III V 2 are met. A determination made during administrative review~~ reasonable control of ~~claims that noncompliance was caused by upset, and before an action for noncompliance, is not a final administrative action subject to judicial review~~.

~~2.~~the operator. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

~~3.~~ 2. An upset constitutes an affirmative defense to an action brought for noncompliance with technology-based state permit effluent limitations if the requirements of Part IIII V 4 are met. A determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is not a final administrative action subject to judicial review

3. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

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

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

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

c. The operator submitted notice of the upset as required in ~~Section III~~Part III I; and

d. The operator complied with any remedial measures required under ~~Section III~~Part III S.

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

W. Inspection and entry. The operator shall allow the department as the board's designee, EPA, or an authorized representative (including an authorized contractor ~~acting as a representative of the administrator~~), upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon the operator's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this state permit;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this state permit;

3. Inspect and photograph at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this state permit; and

4. Sample or monitor at reasonable times, for the purposes of ~~assuring~~ ensuring~~state~~ permit compliance or as otherwise authorized by the Clean Water Act and the Virginia Stormwater Management Act, any substances or parameters at any location.

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

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

Y. Transfer of state permits.

1. State permits are not transferable to any person except after notice to the department. Except as provided in ~~Section III~~Part III Y 2, a state permit may be transferred by the operator to a new operator only if the state permit has been modified or revoked and reissued, or a minor modification made, to identify the new operator and incorporate such other requirements as may be necessary under the Virginia Stormwater Management Act and the Clean Water Act.

2. As an alternative to transfers under ~~Section III~~Part III Y 1, this state permit may be automatically transferred to a new operator if:

a. The current operator notifies the department at least ~~two~~30 days in advance of the proposed transfer of the title to the facility or property;

b. The notice includes a written agreement between the existing and new operators containing a specific date for transfer of state permit responsibility, coverage, and liability between them; and

c. The ~~board~~ department does not notify the existing operator and the proposed new operator of its intent to modify or revoke and reissue the state permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in ~~Section III~~Part III Y 2 b.

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

~~**9VAC25-890-50. Delegation of Authority.**~~

~~The director, or his designee, may perform any act of the board provided under this chapter, except as limited by § 62.1-44.14 of the Code of Virginia~~.

~~**Forms (9VAC25-890)**~~

~~Application Form 1 - General Information, Consolidated Permits Program, EPA Form 3510-1 (August 1990)~~

Amendments to the Water Quality Standards to Designate a Portion of Laurel Fork as Exceptional State Waters: Staff will request Board approval to proceed to Notice of Public Comment and hearing with proposed amendments to the Water Quality Standards regulation to designate as Exceptional State Waters (ESW) an approximately two-mile segment of Laurel Fork in Highland County. 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. The majority of the stream segment lies within private property referred to as "Rifle Ridge Farm". "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. To be considered for ESW designation, the 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. Staff conducted a site visit on October 7, 2016 and concluded that the environmental exceptional quality. Another segment of Laurel Fork farther downstream within the George Washington National Forest (GWNF) received ESW designation in 2005. The petitioned portioned portion is very similar in appearance and ecology to this previously designated segment. At the December 12, 2016 meeting of the State Water Control Board, the Board instructed staff to initiate a rulemaking to consider amending section 9 VAC 25-260-30. A.3 of
the Water Quality Standards to designate a segment of Laurel Fork in Highland County as Exceptional State Waters. The segment is from approximately 0.33 miles upstream of the confluence with Collins Run downstream to a point approximately 0.5 miles upstream from the confluence of Mullenax Run. The segment lies mostly within jointly owned property belonging to the family of the petitioner, McChesney Goodall. Near the far upstream terminus of the segment, the stream meanders in such a way that a relatively short portion on the western side of it borders property owned by Tamarack of Highland, LLC and then reenters Rifle Ridge in its entirety. A Notice Of Intended Regulatory Action 30-day comment period was published in the Virginia Register on May 15, 2017. Five comments were received during the public comment period. The petitioner (McChesney Goodall, part owner of Rifle Ridge Farm) provided comment in support of the designation stating the need to protect the beauty, biological integrity, and the unique ecology and its associated endemic species as reasons. Lucille Miller provided similar reasons in support of the designation. Opposing comment was received from two family members involved with management of the Tamarack property (Charles & Sallie Seabury) and from Highland New Wind Development, LLC (HNWD). HNWD leases land from Tamarack with expectations of constructing a wind farm for electricity generation, The property managers and HNWD have conveyed their opposition to the ESW designation as it relates to the inclusion of the portion of the stream bordering the Tamarack property. They object to the petition to the extent that the petition includes property that is part of Tamarack based on their concern that there may be
potential negative impacts from the ESW designation to future development of electricity generating wind farm and timbering operations. HNWD stated their opinion that claims of property ownership along both sides of the petitioned segment are 'fatal flaws' in the petition and as such require the State Water Control Board to disqualify the petition from consideration.

Approval of five TMDL reports and amendment of the Water Quality Management Planning regulation to include the corresponding TMDL wasteload allocations: Staff will ask the Board to approve portions of five TMDL reports and adopt the corresponding amendments to Virginia'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 reports have been reviewed by EPA for required TMDL elements, however, remain in draft form awaiting State Water Control Board approval. Staff will propose the following Board actions:
<u>Approval of five TMDL reports, Amendment of Water Quality Management Planning regulation to incorporate twelve new and three revised WLAs</u>
1. The report titled, *"Bacteria TMDL Development and a Proactive Approach to Address the Benthic Impairment for Woods Creek, Rockbridge County and City of Lexington, Virginia,"* proposes *E. coli* reductions for the Woods Creek watershed and provides a new *E. coli* waste load allocation of 3.97E+11 cfu/year. The report also proposes a proactive approach to address the benthic impairment on Woods Creek. Therefore, no waste load allocation is provided.

2. The report titled, *"Bacterial TMDL Development for the Kerr Reservoir Tributaries Watersheds,"* proposes *E. coli* reductions for the Bluestone Creek, Little Bluestone Creek, Upper Allen Creek, Layton Creek, Lower Allen Creek, Kettles Creek, Cotton Creek, Smith Creek, Lizard Creek, and Unnamed Tributary-XUQ01A04 to Allen Creek watersheds and provides new *E. coli* waste load allocations of 1.37E+11 cfu/year, 1.49E+12 cfu/year, 2.25E+11 cfu/year, 1.94E+11 cfu/year, 1.28E+12 cfu/year, 5.63E+10 cfu/year, 6.59E+10 cfu/year, 6.56E+11 cfu/year, 9.67E+10 cfu/year, 4.84E+9 cfu/year, respectively.
3. The report titled, *"Bacteria TMDL for McClure River Dickenson County, Virginia,"* proposes *E. coli* reductions for the McClure River watershed and provides a new *E. coli* waste load allocation of 4.56E+12 cfu/year.
4. The report titled, *"Total Maximum Daily Loads of Bacteria for Poquoson River and Back Creek in the City of Poquoson and York County, Virginia,"* proposes Fecal Coliform reductions for the Poquoson River and Back Creek watersheds and provides revised Fecal Coliform waste load allocations of 3.01E+14 counts/year and 1.76E+13 counts/year, respectively.
5. The report titled, *"Total Maximum Daily Loads of Bacteria for Back River in York County and the Cities of Hampton, Poquoson, and Newport News, Virginia,"* proposes Fecal Coliform reductions for the Back River watershed and provides a revised Fecal Coliform waste load allocation of 4.38E+14 counts/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 process for amending the Water Quality Management Planning regulation is specified in §2.2-4006A.14 and §2.2-4006B of the Code of Virginia. The amendments consist of adding twelve new and three revised WLAs that are included in the TMDL reports reviewed by EPA. Staff will therefore propose that the Board, in accordance with §2.2-4006A.14 and §2.2-4006B of the Code of Virginia, adopt the amendments to the Water Quality Management Planning regulation (9 VAC 25-720). The proposed final amendments to the Water Quality Management Planning regulation are exempt from the provisions of Article II of the Administrative Process Act. The TMDL WLAs were published in the Virginia Register (Volume 33, Issue 25) on August 7, 2017, with a public comment period ending on September 6, 2017. Staff received no comments.

Petition to Amend Virginia's Selenium Water Quality Criteria: At the upcoming meeting of the State Water Control Board (Board), the Board will consider the Petition to Amend Virginia's Selenium Water Quality Criteria found in Virginia's Water Quality Standards Regulation (9 VAC 25-260-140.B). The matter is before the Board due to a petition submitted by the Virginia Coal and Energy Alliance to initiate a rulemaking that contained the information required under State Code (§2.2-4007: *Petitions for new or amended regulations; opportunity for public comment*) and Virginia Regulation (9VAC25-11-60: *Petition for Rulemaking*). By letter dated December 12, 2016, the Virginia Coal and Energy Alliance (VCEA) submitted a petition to DEQ and the Board in accordance with State Code (§2.2-4007) and Virginia Regulation (9VAC25-11-60) to take action on updated Selenium water quality criteria that were published July 13, 2016, by the U.S. Environmental Protection Agency (EPA). EPA recommended that States adopt one Selenium criterion into their water quality standards composed of four parts:

- two fish tissue elements – Selenium concentrations in egg-ovary and whole-body and/or muscle, and
- two water column elements - 4-day average and intermittent exposure.

VCEA's petition contended that: "*Virginia's acute and chronic selenium criteria are over 25 years old, do not reflect the latest scientific information, and are unnecessarily stringent to protect aquatic life. As long as the outdated and obsolete criteria remain on the books, we are concerned that our members will be placed in peril of unreasonable compliance obligations, misguided enforcement actions and baseless lawsuits*."

The Board received the petition at its meeting on May 17, 2017 and, in accordance with provisions of the Administrative Process Act, announced a public comment period on the petition which ran from June 12th through July 5th. Three comment documents were received by DEQ from the Sierra Club (on behalf of Appalachian Mountain Advocates, Sierra Club and So. Appalachian Mountain Stewards), Appalachian Voices and Virginia Coal and Energy Alliance.

SUMMARY OF COMMENTS RECEIVED ON THE PETITION

Commenter	Comment Summary
Sierra Club	• If not properly designed and implemented, criteria giving primacy to fish tissue concentrations in determining compliance render citizen enforcement more difficult and make it much more likely that selenium pollution will not be adequately addressed. • Particularly concerned with two aspects of the Petition, which the Board should reject: 1. Petitioners recommend reliance on a water column value in waters where insufficient fish tissue is available for representative tissue sampling. This is directly contrary to EPA's criterion and would violate fundamental principles of the Clean Water Act. 2. Petitioners request that the Board consider "authorizing longer term compliance schedules . . . since compliance with criteria-based limits may in some cases take more than five years." No need for extended compliance schedules, given that selenium criteria are already in effect. • The Board should provide concrete guidance on proper implementation and enforcement of fish tissue-based criterion elements. Without effective guidance, any fish tissue-based criterion will be effectively unenforceable, and imperil the waterbodies and aquatic ecosystems subject to selenium discharges. • The Board should use a four-day average to determine compliance with the "Monthly Average" chronic water column element. • If the Board adopts EPA's Intermittent Exposure Water Column Element, it should provide additional clarification. • Virginia must specify when a "Steady State" has been achieved. • Virginia must utilize the water column element to determine "Reasonable Potential" when setting limits in Section 402 Permits.
Appalachian Voices	• Concerned with request to reject EPA's approach of using a water column number where insufficient fish tissue is available. Would likely still harm aquatic life and wildlife that feeds on aquatic life; could also preclude return of fish in waters previously impaired by pollutants but have historically supported fish populations. • Request for a longer compliance schedule is unnecessary and will likely be detrimental to health of Virginia streams. Some Virginia mining permits already include selenium limits, and Virginia has had selenium criteria for several decades. • Proposed chronic selenium criterion is less protective of aquatic life and more difficult to effectively enforce than existing standard. EPA's suggested methodology for determining the monthly selenium level is ambiguous and will likely reduce citizens' ability to enforce water quality standards. • If Virginia moves forward with adopting EPA's selenium criteria, it must provide technical documents sufficient to provide concrete instruction regarding criteria implementation. • Guidance should be given specifying that more recent water column data supersedes older fish tissue data. • Specify that a 4-day average is an acceptable representation of the monthly average, and should suggest the use of this element, rather than the intermittent element. • Require the use of the water column criterion for permittees who expect ongoing land and water disturbances, such as surface coal mines. Such sites should be considered new inputs until full bond release. • Use the water column number to determine Reasonable Potential Analysis within the mining-related NPDES permitting process.
Virginia Coal and Energy Alliance	• Writes in support of its May 17, 2017 petition to initiate a rulemaking to revise Virginia's selenium water quality criteria.

	• Urges the Board to focus specifically on areas where deviations from EPA's recommended criteria are needed: 1. Some of the fish species used in EPA's toxicity dataset do not occur in some or all of Virginia's waters; adjust the fish tissue criteria so that they are reflective of, and protective of, the fish species that are actually present in Virginia. 2. Consider regional criteria specific to Virginia's coalfields region, given its unique geography, geology and hydrology. 3. Criteria should not be applied to waters in which viable fish populations do not exist, such as stream reaches with limited or unsuitable habitat, as is often characteristic of ephemeral and headwater streams in the coalfields. Where a waterbody does not have an actual, existing aquatic life use, the use simply does not apply and the criteria adopted to protect such a use also do not apply. 4. Allow for compliance schedules longer than five years. 5. Allow for the use of mixing zones and zones of initial dilution as addressed in EPA's guidance.

RELEVANT ISSUES

EPA's recommendations for updated Selenium criteria are very complex and differ significantly from Virginia's typical criteria listings for protection of aquatic life from toxicants, which are usually expressed as sets of acute and chronic water column concentrations for fresh and marine waters. Because this is the first fish tissue-based aquatic life criterion, EPA also developed four technical support documents to assist in implementation. The technical support materials cover:

- Water Quality Standards adoption,
- NPDES permitting,
- Waterbody assessment and 303(d) (Impaired Waters) listing, and
- Fish tissue monitoring

EPA released these technical support documents for public comment from October 13, 2016 to February 2, 2017. While the comment period on the technical support documents has closed, they have not been finalized by EPA for use by the States and it is unknown when that final action will occur.

It is the DEQ staff's view that EPA's technical support documents and implementation guidance are as important as the criteria themselves. The "*How*" to protect aquatic life from a toxicant is as vital as the "*What*" to allow as acceptable levels of the contaminant. It could be premature to initiate a rulemaking on Selenium without having final implementation guidance for the associated actions of NPDES permitting, waterbody assessment and 303(d) impairment listing, and fish tissue monitoring. It is unknown when EPA will finalize their implementation guidance; past history for other criteria changes recommended by EPA have involved very lengthy periods between receipt of comment and final issuance, some on the order of several years. Also, staff believes that Virginia's stakeholders want and should receive as much certainty as possible on implementation methods along with revised standards; recent examples are proposals for amended bacteria criteria (data period to generate a geometric-mean) and ammonia criteria (justification for extended compliance schedules, beyond permit term).

At the Board meeting, DEQ staff will summarize the comments received and the relevant factors considered, and will make a recommendation on whether or not to proceed with a formal rulemaking to amend the Selenium criteria found in Virginia's Water Quality Standards Regulation (9 VAC 25-260-140.B).

Atlantic Waste Disposal, Inc., Waverly (Sussex County) - Consent Special Order w/ Civil Charges and Supplemental Environmental Project: On May 30, 2008, DEQ issued Virginia Water Protection (VWP) individual permit 07-2407 (Permit) to Atlantic Waste Disposal, Inc. for wetland and stream impacts associated with the construction of reengineered side slopes for stormwater control. The Permit authorized permanent impacts to 0.94 acres of a forested wetland, which is an unnamed tributary to Pigeon Swamp. On September 22, 2014, DEQ issued coverage under Stormwater Permit VAR051428, retroactive to July 1, 2014, to Atlantic allowing the discharge of stormwater associated with industrial activity from the Landfill to Black Swamp, Pigeon Swamp, and Warwick Swamp, in strict compliance

with the terms and conditions of the Stormwater Permit. On December 3, 2015, DEQ staff observed leachate and sediment which discharged from the northeastern slope of the Landfill impacting 3.4 acres of forested wetlands in Black Swamp. On December 9, 2015, Atlantic reported that leachate discharged into Black Swamp north of Cell 12A. On December 21, 2015, the Department issued an NOV No. 15-12-PRO-700 to Atlantic Waste for unauthorized discharges to state waters and VWP Permit violations observed on December 3rd. On December 28, 2015, Atlantic verbally reported that SB-4, SB-9, and SB-11 were contaminated with leachate and SB-9 and SB-11 were discharging into Black Swamp. On December 29, 2015, Atlantic personnel observed and reported multiple discharges of stormwater commingled with leachate into Pigeon Swamp. On December 30, 2015, Atlantic reported that SB-5 began discharging into Pigeon Swamp.
On January 5, 2016, DEQ conducted an inspection of the Atlantic Landfill. DEQ staff observed that SB-3 was discharging stormwater contaminated with leachate. Atlantic personnel again observed a discharge of leachate into Pigeon Swamp. On January 15, 2016, Atlantic reported that lift station 3 overflowed and leachate was released, which flowed into forested wetlands on the west side of the Landfill. On January 25, 2016, Atlantic reported that a chimney drain on the west side off the Landfill between SB-3 and SB-4 was discharging contaminated stormwater into a forested area. On February 2, 2016, DEQ issued NOV W2016-02-P-001 to Atlantic for violations of the Stormwater Permit and the VWP Permit. On February 16, 2016, Atlantic personnel reported a discharge to Pigeon Swamp. In addition, Atlantic reported that lift station 3 had overflowed. On February 25, 2016, Atlantic notified DEQ verbally that on February 23-24, 2016, rainfall overwhelmed the stormwater controls at the Landfill. As a result SB-2 and SB-9 discharged to Black Swamp, SB-5 and SB-6 discharged to Pigeon Swamp, SB-4 did not discharge but was contaminated with leachate, and leachate discharged from Cell 5a impacted future Cell 8b and future Impoundment 10. On February 25, 2016, DEQ staff conducted a visit to the Landfill. Leachate contaminated stormwater was discharging from SB-2, SB-3, SB-5, SB-6, and SB-9. The following day, DEQ staff conducted a visit to the Landfill. Leachate contaminated stormwater was still discharging from SB-2, SB-3, and SB-9. On March 4, 2016, DEQ conducted an inspection of the Landfill and observed discharges of leachate contaminated stormwater from Sediment Basins SB-2, SB-9, and SB-10. As a result of on-site land disturbance, approximately 16 inches of eroded sediment has accumulated within more than 1 acre of forested wetlands west of Cell 2A. In addition, approximately 24 inches of eroded sediment has accumulated within more than 1 acre of forested wetlands southwest of Cell 7B. These areas of forested wetlands are part of Pigeon Swamp. On April 14, 2016, DEQ issued NOV W2016-04-P-001 to Atlantic for violations of the VPDES and VWP Regulations and for impacting forested wetlands in Pigeon Swamp. Landfill injunctive relief of leachate control will be conducted under a separate solid waste enforcement action through the Land Protection Program. This Order requires stream monitoring and implementation of a wetland restoration plan. Civil Charge/Supplemental Environmental Project: $120,000 - payment of $30,000.00 and satisfaction of the remaining $90,000 through completion of a supplemental environmental project.

FY 2018 Virginia Clean Water Revolving Loan Fund Final Authorizations: Title IV of the Clean Water Act requires the yearly submission of a Project Priority List and Intended Use Plan in conjunction with Virginia's Clean Water Revolving Loan Fund Capitalization Grant application. Section 62.1-229 of Chapter 22, Code of Virginia, authorizes the Board to establish to whom loans are made, the loan amounts, and repayment terms. The next step in this yearly process is for the Board to set the loan terms and authorize the execution of the loan agreements. By memorandum dated August 31, 2017, the Director of DEQ targeted 26 projects totaling $105,744,102 in loan assistance from available and anticipated FY 2018 resources and authorized the staff to present the proposed funding list for public comment. A public meeting was convened on October 26th. 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. No comments were received.

The staff has conducted initial meetings with the FY 2018 targeted recipients and has finalized the recommended loan amounts, interest rates and loan terms in accordance with the Board's guidelines. No changes to the previously approved funding list are being recommended.

The loan authorizations listed below are submitted for Board consideration. In accordance with Board guidelines, a residential user charge impact analysis was conducted for each wastewater and stormwater 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. The ceiling rate for wastewater projects with 20 year terms will be set at 1.5% below market, 25 year ceiling loan rates will be 1.25 % below market, and 30 year ceiling loan rates will be 1.0% below market, based on VRA's evaluation of the market conditions that exist the month prior to each loan closing. The ceiling rate for stormwater projects with 20 year terms will be set at 1.0% below market, with an additional interest rate reduction of 1% if the local government has adopted a dedicated source of revenue to implement a stormwater control program (Vienna). In accordance with Board Guidelines, the interest rate for land conservation projects with 10 year terms is 3% below the prime rate, which is currently 4.25%, resulting in an interest rate of 1.25%.

Congress has not finalized the federal SRF appropriation for FY 2018. As such, we are unsure as to the amount, if any, that could be made available as principal forgiveness in FY 2018. 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 2018 Proposed Interest Rates and Loan Authorizations

	Locality	***Loan Amount***	***Rates & Loan Terms***
1	City of Lynchburg	$23,600,000	0%, 20 years
2	City of Norfolk	$10,000,000	0%, 20 years
3	City of Richmond	$9,550,000	0%, 20 years
4	City of Richmond	$8,994,513	0%, 20 years
5	Hampton Roads Sanitation District	$6,691,500	CRT
6	Town of Pound	$711,651	0%, 25 years
7	Town of St. Paul	$2,050,000	0%, 20 years
8	City of Richmond	$4,092,126	0%, 20 years
9	County of Allegheny	$1,092,854	0%, 20 years
10	Town of Marion	$423,700	CRT
11	Town of Bridgewater	$300,000	CRT
12	Town of Bridgewater	$145,000	CRT
13	City of Petersburg	$2,000,000	0%, 20 years
14	Town of Coeburn	$1,869,028	0%, 25 years
15	Town of Nickelsville	$919,048	0%, 20 years
16	Pepper's Ferry Regional WWTA	$12,500,000	1%, 20 years
17	The Sanitary Board of Bluefield	$8,172,792	CRT
18	Hampton Roads Sanitation District	$2,377,100	CRT
19	Wise County PSA	$627,533	0%, 20 years
20	Hampton Roads Sanitation District	$1,750,000	CRT
21	Hampton Roads Sanitation District	$1,680,000	CRT
22	City of Portsmouth (stormwater)	$2,574,741	0%, 20 years
23	City of Richmond (stormwater)	$1,458,010	0%, 20 years
24	Town of Vienna (stormwater)	$115,000	CRT – 1%
25	NOVA Park Authority (land conservation)	$1,625,000	1.25%, 10 years
26	Meadowview Biological Research Station (land conservation)	$424,506	1.25%, 10 years
	Total Request	**$105,744,102**	**CR = Ceiling Rate /Term**