COMMONWEALTH of VIRGINIA

Office of the Governor

Doug Domenech
Secretary of Natural Resources

Date: November 9, 2012

To: Senator Emmett W. Hanger, Jr.
Chairman, Senate Committee on Agriculture,
Conservation and Natural Resources

Delegate Beverly J. Sherwood
Chairwoman, House Committee on Agriculture,
Chesapeake and Natural Resources

From: Doug Domenech
Secretary of Natural Resources

Subject: Assessment of the Organization of Water Quality Programs in Virginia

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This report has been prepared as required by Chapters 803 and 835 of the 2012 Acts of Assembly which request a process for transferring the authority of the Virginia Soil and Water Conservation Board from administering the Municipal Separate Storm Sewer System Management Program (MS4) to the State Water Control Board in an effort to provide one stop permitting for constituents and directs the Department of Environmental Quality (DEQ) to seek authorization for delegation for the MS4 program from the Environmental Protection Agency (EPA). Chapters 803 and 835 of the 2012 Acts of Assembly also direct the Secretary of Natural Resources (SNR), working with the Directors of the DEQ and the Department of Conservation and Recreation (DCR), to assess the organization of water quality programs in the Commonwealth and report his findings to the Chairs of the House Committee on Agriculture, Chesapeake and Natural Resources and the Senate Committee on Agriculture, Conservation and Natural Resources by no later than November 1, 2012.

As part of this assessment, the SNR was tasked with identifying organizational measures that may streamline water quality permitting in the Commonwealth as well as changes that may provide for improved long-term and strategic planning for water quality improvements. This report was developed by the SNR and the Directors of the DCR and the DEQ utilizing a workgroup consisting of the DCR and the DEQ staff. Stakeholder groups were consulted and their views considered in the preparation of this report.

This report assesses the benefits of relocating the MS4 Stormwater program and the Virginia Stormwater Management Program from the DCR to the DEQ in addition to identifying other changes to improve long-term and strategic planning for water quality improvements. This assessment does not propose to add or reduce any regulatory requirements to existing programs at the DCR or the DEQ.

If you have any questions concerning this report please contact my office at (804) 786-0044.

This report has been prepared as required by Chapters 803 and 835 of 2012 Acts of Assembly.

Assessment of the Organization of Water Quality Programs in Virginia

A Report to the Chairmen of the Senate Committee on Agriculture, Conservation and Natural Resources, and the House Committee on Agriculture, Chesapeake and Natural Resources

submitted by Douglas W. Domenech, Secretary of Natural Resources

November 2012

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Commonly Used Abbreviations

AFO- Animal Feeding Operations
Ag- Agriculture
BMP- Best Management Practices
CAFO- Concentrated Animal Feeding Operations
CBIG- Chesapeake Bay Implementation Grant
CBP- Chesapeake Bay Program
CBRAP- Chesapeake Bay Regulatory and Accountability Program
CBLA- Chesapeake Bay Local Assistance
CDC- Conservation District Coordinators
DCR- Department of Conservation and Recreation
DEQ- Department of Environmental Quality
DSWM- Division of Stormwater Management (DCR)
ECOS- Environmental Council of States
EPA- Environmental Protection Agency
ESC- Erosion and Sediment Control
GIS-Geographic Information System
GPD- gallons per day
IP- Implementation plan
MS4- Municipal Separate Storm Sewer System
MSGP- Multi-Sector Stormwater General Permit
NPDES- National Pollution Discharge Elimination System
NPS- Nonpoint source
OLAP- Office of Land Application Programs (DEQ)
RFP- Request for Proposal
RMP- Resource Management Plan
SEAS- Shoreline Erosion Advisory Service
SNR- Secretary of Natural Resources
SWCD- Soil and Water Conservation District
SWPPP- Stormwater Pollution Prevention Plan
TMDL- Total Maximum Daily Load
TMDL IP- Total Maximum Daily Load Implementation Plan
VCWRLF - Virginia Clean Water Revolving Loan Fund
VDACS- Virginia Department of Agriculture and Consumer Services
VDH- Virginia Department of Health
VPA- Virginia Pollution Abatement
VPDES- Virginia Pollutant Discharge Elimination System
VRA- Virginia Resources Authority
VSMP- Virginia Stormwater Management Program
VTAP- Virginia Technical Approval Protocol
WIP- Watershed Implementation Plan
WQIF- Water Quality Improvement Fund
WQMA- Water Quality Monitoring and Assessment
WWTP- Wastewater Treatment Plants

Executive Summary

This report has been prepared as required by Chapters 803 and 835 of the 2012 Acts of Assembly which request a process for transferring the authority of the Virginia Soil and Water Conservation Board from administering the Municipal Separate Storm Sewer System Management Program (MS4) to the State Water Control Board in an effort to provide one stop permitting for constituents and directs the Department of Environmental Quality (DEQ) to seek authorization for delegation for the MS4 program from the Environmental Protection Agency (EPA). Chapters 803 and 835 of the 2012 Acts of Assembly also direct the Secretary of Natural Resources (SNR), working with the Directors of the DEQ and the Department of Conservation and Recreation (DCR), to assess the organization of water quality programs in the Commonwealth and report his findings to the Chairs of the House Committee on Agriculture, Chesapeake and Natural Resources and the Senate Committee on Agriculture, Conservation and Natural Resources by no later than November 1, 2012.

As part of this assessment, the SNR was tasked with identifying organizational measures that may streamline water quality permitting in the Commonwealth as well as changes that may provide for improved long-term and strategic planning for water quality improvements. This report was developed by the SNR and the Directors of the DCR and the DEQ utilizing a workgroup consisting of the DCR and the DEQ staff. Stakeholder groups were consulted and their views considered in the preparation of this report.

This report assesses the benefits of relocating the MS4 stormwater program and the Virginia Stormwater Management Program from the DCR to the DEQ in addition to identifying other changes to improve long-term and strategic planning for water quality improvements. This assessment does not propose to add or reduce any regulatory requirements to existing programs at the DCR or the DEQ.

Transfer of the Stormwater and Erosion and Sediment Control Programs from the DCR to the DEQ

In general, point source pollution activities are regulated by programs conducted by the DEQ, and nonpoint source pollution activities are managed by programs conducted by the DCR. The water quality permitting process is made more difficult under this bifurcated approach because no one agency has the responsibility and authority to look comprehensively at water quality permitting issues. **Moving only the MS4 program from the DCR to the DEQ would not achieve full consolidation of permitting functions; additional measures must be taken.**

MS4 permit requirements are established using other existing regulatory authority found in the Virginia Erosion and Sediment Control Law and Regulations, the Virginia Stormwater

Management Act and the Chesapeake Bay Preservation Act, which are administered by the DCR under the authority of the Virginia Soil and Water Conservation Board. The separation of these underlying legal authorities necessary for compliance with MS4 permit requirements is impractical and inefficient. The Virginia Stormwater Management Program (VSMP) Permit program, including MS4 permits would need to be moved to the DEQ, as well as the Erosion and Sediment Control (ESC) and the Chesapeake Bay Local Assistance (CBLA) Programs. Consolidation of the permitting functions would enable consistent planning, policies and procedures for all VPDES permit programs. Existing regional office permit, compliance and enforcement resources could be leveraged to manage EPA program concerns. A single point of contact for the regulated community, citizens and federal agencies would also streamline the permit process, improve customer service, and streamline Virginia's reporting obligations to EPA.

Consolidation of Water Quality Improvement Programs (point and nonpoint pollution) within a single agency

The advent of the Chesapeake Bay Total Maximum Daily Load[1] (TMDL) and its related water quality issues has demonstrated the difficulty of having water quality permitting programs in two separate agencies managing point and nonpoint pollution sources. It became apparent early in the development of Virginia's Chesapeake Bay TMDL Watershed Implementation Plan that even with significant consultation and collaboration between the DCR and the DEQ, the process was made more difficult because no one agency was given the responsibility and authority to look comprehensively at nutrient and sediment issues across the full spectrum of sources. With two agencies, significant issues related to the Watershed Implementation Plan (WIP) and the TMDL must be vetted through two management structures making the resolution of differences complicated. A single agency can set priorities and evaluate needs, and address stakeholder concerns more effectively. Consolidation of water quality programs would also ensure that Virginia always speaks with a single voice in response to the public, EPA, sister agencies, the General Assembly and others with regard to WIP and water quality issues. Additionally, a single water quality agency can provide comprehensive support to the critical voluntary conservation programs in partnership with soil and water conservation districts through effective administration of the Virginia Agricultural Cost-Share Program and careful separation of voluntary and regulated programs and focused outreach and education.

As the implementation of the WIP progresses over the next decade and beyond, the interaction between point and nonpoint sources and voluntary and regulatory programs will become more frequent and complex. Difficult policy and budgetary decisions must be made based on a

[1] TMDL is a term that represents the maximum amount of a pollutant a waterbody can assimilate and still meet water quality standards. A TMDL considers point sources such as residential, municipal, or industrial discharges and nonpoint sources such as residential, urban, or agricultural runoff.

comprehensive view of the impact of various sources and the interaction between them. A single water quality agency would allow Virginia to meet this responsibility in the most comprehensive and cost-effective manner possible. Virginia has many other waters subject to the TMDL process in addition to the Chesapeake Bay, which also would benefit from a single agency approach.

A single agency oversight for point and nonpoint water quality programs would provide for the comprehensive long-term and strategic planning needed to address these complicated and related water quality challenges. According to the Environmental Council of States (ECOS) staff, the majority of states have chosen to manage point and non-point source pollution programs within a single agency in order to manage pollution more comprehensively and effectively.

In addition to moving the Virginia Stormwater Management Program (VSMP) Permit program, including MS4 permits, and the Erosion and Sediment Control and Chesapeake Bay Local Assistance Programs from the DCR to the DEQ the following recommendations are being made to improve long-term strategic planning for voluntary and regulated water quality programs, streamline water permitting and increase the effectiveness of water quality programs in the Commonwealth:

- **Consolidate management of programs involved with the Chesapeake Bay Watershed Implementation Plan (WIP) to the DEQ;**
- **Consolidate management of programs related to water quality planning and TMDLs to the DEQ;**
- **Consolidate Water Quality Improvement Fund Grants (WQIF), Cost Share Program funding and other financial incentives to the DEQ;**
- **Consolidate management and administration of Nutrient Trading Programs to the DEQ;**
- **Co-locate the DCR and the DEQ regional offices when fiscally advantageous and logistically practical;**
- **Consolidate voluntary and regulatory nutrient management activities to the DEQ; and**
- **Move responsibility for coordination with the Soil and Water Conservation Board and staff support to the Soil and Water Conservation Board to the DEQ.**

This study does not intend or attempt to seek regulatory authority for any programs that are not currently regulated under state or federal law or programs specifically exempted from the Clean Water Act.

1 Introduction

This report has been prepared as required by Chapters 803 and 835 of the 2012 Acts of Assembly which request a process for removing the authority of the Virginia Soil and Water Conservation Board to administer the Municipal Separate Storm Sewer System Management Program (MS4) and transferring that responsibility to the State Water Control Board and directs the Department of Environmental Quality (DEQ) to seek authorization for delegation for the MS4 program from the Environmental Protection Agency (EPA). These provisions of Chapters 803 and 835 of the 2012 Acts of Assembly shall not become effective unless the provisions are reenacted by the 2013 Session of the General Assembly.

Chapters 803 and 835 of the 2012 Acts of Assembly also direct the Secretary of Natural Resources (SNR), working with the Directors of the DEQ and the Department of Conservation and Recreation (DCR), to assess the organization of water quality programs in the Commonwealth and report his findings to the Chairs of the House Committee on Agriculture, Chesapeake and Natural Resources and the Senate Committee on Agriculture, Conservation and Natural Resources by no later than November 1, 2012. As part of this assessment, the SNR shall consider organizational measures that may streamline water quality permitting in the Commonwealth as well as changes that may provide for improved long-term and strategic planning for water quality improvements.

The majority of the Commonwealth's water quality programs are concentrated within the DEQ and the DCR within the Natural Resources Secretariat. They include most point and nonpoint source pollution activities, both regulated and non-regulatory. In general, point source pollution activities are regulated by programs conducted by the DEQ, and nonpoint source pollution activities are managed by programs conducted by the DCR.

This report was developed by the SNR and the DEQ and the DCR Department Directors with the assistance of a workgroup consisting of the DEQ and the DCR staff. Issues were also discussed with relevant stakeholder groups and other agencies and their views were considered in the preparation of this report.

2 Organizational Structure of Water Quality Related Programs at the DCR and the DEQ

This report reviewed water quality related programs at both the DCR and the DEQ. This section provides a general overview of both the DCR's and the DEQ's organizational structures to assist the reader with understanding how water quality related programs are currently implemented.

2.1 The DCR's Organizational Structure

At the DCR, water quality related programs are grouped together into the Division of Stormwater Management. The Division of Stormwater Management is responsible for regulatory operations, regional operations and conservation and restoration programs. Specific duties within the Division of Stormwater Management are detailed in this report.

2.2 The DEQ's Organizational Structure

Within the DEQ, all water quality related programs are grouped within the Water Division and DEQ's regional offices. Central office staff coordinate with regional office staff to implement regulatory programs. Regional staff work closely with the public and the regulated community in their region to issue permits, conduct water quality monitoring and to develop TMDLs. Specific details on water quality related programs the DEQ conducts are provided in this report.

3 Permit Programs

Numerous water quality programs are conducted at the DCR and the DEQ that strive to protect and improve water quality in the Commonwealth. The DCR's activities focus on reducing nonpoint pollution by performing regulatory oversight of delegated local programs that impact water quality, by regulating municipal separate storm sewer systems, and by providing incentive programs to land owners to implement agricultural best management practices for water quality improvement in partnership with Virginia's 47 Soil and Water Conservation districts. Nonpoint source pollution is water pollution caused by diffuse runoff that is not confined to a single discharge point such as a wastewater treatment plant or industrial discharge pipe (i.e. point source pollution). The DEQ's activities focus on point source pollution that impacts water quality through regulatory programs consistent with federal and state requirements and on monitoring water quality within the Commonwealth's streams, rivers and the Chesapeake Bay. It is important to understand the programs conducted by both the DCR and the DEQ when examining ways to improve operational and programmatic efficiencies as well as the long-term and strategic planning process. The DCR and the DEQ water related programs are detailed in the summaries below. Statutory authorities and regulations applicable to the water related programs the DCR and the DEQ programs detailed in this report are included in Appendix 1 of this report. Budgetary information for the water related programs at the DCR and the DEQ listed below are included in Appendix 2 of this report.

3.1 DCR Office of Regulatory Programs

The DCR's Office of Regulatory Programs in the Division of Stormwater provides technical assistance to regional office staff, localities and the public, by issuing guidance and conducting training and certification programs, providing regulatory oversight of delegated construction and post construction local water quality programs, providing support to the DEQ in the development of local TMDLs, implementing the Commonwealth's nutrient management program, and issuing permits under two National Pollutant Discharge Elimination System (NPDES) General Permits (Construction and Small MS4) in addition to issuing Individual Municipal Separate Storm Sewer System (MS4) permits. The office is organized into five sections: Permitting; Training and Certification; Guidance and Local Program Development; Nutrient Management; and Project and Technical Support. Staff in these sections work together to protect water quality by managing urban and construction stormwater, erosion and sediment control, nutrient management, watershed program coordination, and overseeing implementation of the Chesapeake Bay Act and of the Chesapeake Bay Watershed Implementation Plan.

The Office of Regulatory Programs coordinated the submission of Virginia's Phase II Chesapeake Bay Watershed Implementation Plan (WIP) and currently oversees the local

implementation outreach efforts for the Commonwealth. The DCR coordinates with the DEQ and other state agencies to respond to WIP related issues as they arise.

3.1.1 Permitting Section

The Permitting Section of the DCR's office of Regulatory Programs implements the Virginia Stormwater Management Program, the Nonpoint Stormwater Offsets Program, and the Phase I (Large, Individual) and Phase II (Small) MS4 Programs. The development of the Virginia ePermitting System also falls within this Section. The DCR administers stormwater permits for qualifying construction projects under the NPDES Construction General Permit in conjunction with the Virginia Stormwater Management Program (VSMP) Permit Regulations (4VAC50-60). A stormwater permit is required to discharge stormwater from a construction activity for land disturbances of one acre or greater statewide and for 2,500 square feet or greater in areas defined by the Chesapeake Bay Preservation Act. As mandated by the Clean Water Act and the Code of Federal Regulations, federal permitting requirements have been incorporated into the VSMP permit regulations. Currently there are over 8000 permits issued under this program. Permits are required for the duration of the construction project. Stormwater permits are issued to control flooding and to protect water quality.

Pursuant to legislation enacted by the 2012 General Assembly, stormwater programs will be transferred to local government after July 1, 2014, and local government will run the Virginia Stormwater Management Program. Local government will be responsible for developing their stormwater programs and issuing and monitoring compliance with construction related general permits for stormwater management. During a transitional period, the state will continue to issue construction related general permits for stormwater management.

As localities begin to develop their stormwater programs, the DCR staff is providing technical support. The DCR is developing tools such as a required program elements checklist and a model ordinance and will work individually with localities to ensure their ordinances adequately address the VSMP regulations. The DCR is conducting an outreach campaign to inform localities and is developing a training program, to include a stormwater certification program, to provide the necessary technical information for local program staff to administer the program. The DCR also is developing the Virginia ePermitting System which will serve to track permits and best management practice implementation and to foster communications between the DCR and localities.

Entities designated as an MS4 based on federal and state definition require a permit to discharge stormwater through a stormwater conveyance system owned or operated by a government entity. The MS4 permit is based on population density as defined by the most recent census. Population centers of 100,000 or more are classified as Phase I (Large) MS4s and, in the Commonwealth, are issued NPDES Individual Permits by the DCR; there are currently eleven Phase I MS4s in the Commonwealth. The DCR staff also issue permits under the NPDES Phase II (Small) MS4

General Permit for a term of five years for urbanized areas. The current Phase II MS4 General Permit has over ninety permit holders statewide.

The Permitting Section also handles the Commonwealth's Nonpoint Source Offsets Program. In the Chesapeake Bay Watershed, a portion of the water quality criteria can be met through the purchase of credits from an approved nutrient bank provided they meet specific criteria. Nutrient banks are currently approved by the DEQ upon recommendation by the DCR. The DCR and the DEQ work collaboratively on this program. Based on 2012 legislation, this section will be developing regulations per the 2012 Nutrient Trading Act to expand nutrient trading in Virginia. The DCR will work with the DEQ to develop the regulations to govern the expanded program; this regulatory process has already begun.

3.1.2 Training and Certification Section

The Training and Certification Section of the DCR's Office of Regulatory Programs handles technical support, oversight, training and certification for the statewide local Erosion and Sediment Control Programs (4VAC30-50) and the Chesapeake Bay Preservation Local Assistance (CBLA) programs. As part of the DCR's Erosion and Sediment Control (ESC) Program, a network of local government-operated ESC programs regulate most private projects involving a land disturbing activity, while the DCR regulates land-disturbing activities on state and federal lands, as well as a specific group of activities undertaken by utility, interstate and intrastate pipeline and railroad companies. The DCR establishes statewide standards and guidance, approves annual standards and specifications for entities that the DCR directly regulates, periodically reviews local programs, operates a statewide certification program, and provides training and educational opportunities.

The Training and Certification Section serves over 35,000 customers through the programs. Training and certification as a Responsible Land Disturber, Erosion and Sediment Control Plan Reviewer, Inspector and Program Administrator are administered by the section. This includes scheduling and conducting training, exam development, administration, grading and results notification, as well as collection of fees associated with training and certification. Educating individuals and providing required certifications help to minimize the amount of sediment that enters Virginia's waterways, thereby minimizing impacts to water quality.

In addition to educating individuals, the DCR's Training and Certification section assists local governments with complying with the Chesapeake Bay Preservation Act of 1988 through its CBLA program. (See Va. Code § 10.1-2100 et seq.) The Chesapeake Bay Preservation Act establishes a cooperative relationship between the Commonwealth and local governments aimed at reducing and preventing nonpoint source pollution. Each Tidewater locality[2] must adopt a

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[2] As defined in § 10.1-2101 of the Code of Virginia.

program based on the Chesapeake Bay Preservation Area Designation and Management Regulations - (9VAC10-20 et seq.). The Chesapeake Bay Preservation Area Designation and Management Regulations, like the Bay Act, recognize local government responsibility for land use decisions. The regulations are designed to establish a framework for compliance but do not dictate precisely the parameters of each local program. The section is responsible for implementation of the regulations, including ensuring that local government comprehensive plans, zoning ordinances, and subdivision ordinances are in compliance with regulations implementing the Chesapeake Bay Act.

DCR continues to actively provide technical assistance to local staff as well as education and outreach to local staff, elected and appointed officials, consultants and advocacy groups. Department staff conduct technical assistance site visits, education & outreach events to elected officials, local staff and citizens and training workshops in order to promote a greater understanding and implementation of the Chesapeake Bay Preservation Act and its planning and zoning requirements. Further, staff liaisons regularly attend meetings of and maintain productive working relationships with the 8 Planning District Commissions (PDCs) within Tidewater Virginia. The staff liaisons also work closely with those PDCs to enhance local assistance efforts.

The Training and Certification Section is testing an initiative to coordinate local program compliance reviews between the Erosion and Sediment Control Programs and the Chesapeake Bay Preservation Local Assistance programs to increase efficiency and reduce the administrative burden on state and local staff. The section also is working to develop a training program for Post-Construction Stormwater (VSMP), to support the Best Management Practices (BMP) Clearinghouse Committee and to develop of the Virginia Technical Approval Protocol (VTAP) process to certify efficiencies of manufactured BMPs.

DCR also operates the Shoreline Erosion Advisory Service (SEAS) that has provided assistance to thousands of property owners in Virginia since its creation by the General Assembly in 1980. The SEAS program provides technical assistance to private landowners, state, federal agencies and localities experiencing shoreline erosion in tidal Virginia. These services include: site investigations, written reports, technical assistance, plan reviews, construction inspections and education.

3.1.3 Guidance and Local Program Development Section

The Guidance and Local Program Development Section of the DCR's Office of Regulatory Programs develops guidance for existing programs throughout the DCR's Stormwater Division. This section is working within the DCR to develop tools to assist localities in the administration of their Erosion and Sediment Control and Bay Act Programs and to facilitate the development of local VSMP programs. Development of local programs involves significant outreach efforts

with localities and the provision of programmatic tools such as a model ordinance, program requirement checklists and guidance on program implementation.

This section is also responsible for working with local governments and DCR Watershed Field Coordinators on the implementation of local Chesapeake Bay TMDL Watershed Implementation Plan strategies and funding for those strategies. Going forward, this will be an important component of the section's work and has been assigned to the section due to the staff's local government experience.

3.1.4 Nutrient Management Section

The Nutrient Management section of the DCR's Office of Regulatory Operations is responsible for carrying out obligations under the Nutrient Management Training and Certification Regulations (4 VAC5-15). The section maintains the regulations and provides technical support to the general public. The section oversees the Nutrient Management Planner Training and Certification program and maintains a database of all certified nutrient management planners who have a current certification. Members of the section also serve on expert panels and committees where nutrient management related issues are discussed.

The nutrient management section is also responsible for reviewing all nutrient management plans for animal feeding operations (AFO) permitted under the DEQ's Virginia Pollution Abatement (VPA) regulations and for biosolids applications regulated by the DEQ. The section maintains a contract with Clemson University to perform nutrient testing on manure samples required for all permitted operations. These results are kept in a data base by the section to use for reference and to use in establishing nitrogen and phosphorus values for inclusion into the Bay TMDL model. Virginia is one of only two Bay states which maintain such information.

The nutrient management section establishes the eligibility requirements for private laboratories to provide soil test information to farmers for use in developing the nutrient management plans. This section also reviews numerous nutrient management plans associated with the Agricultural Cost-Share program. Members of the section regularly consult with Virginia Tech and other universities to keep up with the latest available technologies in agriculture and nutrient management related issues.

3.1.5 Projects and Technical Assistance Section

The Projects and Technical Assistance section of the DCR's Office of Regulatory Operations guides the DCR's TMDL implementation plan (IPs) development efforts and watershed program coordination. This section initiates and manages projects designed to implement specific management measures and corrective actions as outlined in IPs to meet specific water quality objectives. Staff also provides knowledge and expertise related to water quality modeling, data

management, best management practices and assessment methodologies to support tracking of the implementation of the Chesapeake Bay Watershed Implementation Plan.

Staff participate on various Chesapeake Bay Program subcommittees and workgroups, in particular the Modeling Subcommittee and Watershed Technical Workgroup. Staff updates the Nonpoint Source (NPS) assessment reporting on a biennial basis for the Commonwealth's 305(b) report prepared by the DEQ and submitted to EPA and Congress.

Staff also assists in the development and use of geospatial data to support the development and implementation of the DCR's nonpoint source programs. They assist in database enhancements and maintenance (i.e., Ag BMP Tracking System) and enhance the Stormwater Division's web pages. Staff also are involved with maintaining the historical geospatial BMP implementation data reportable by hydrologic units that are used in a number of agency and stakeholder applications. They process GIS layers and query spatial databases, provide training to TMDL program staff in central and regional offices on use of geospatial data and implement spatial applications for the DCR Division of Stormwater Management (DSWM) programs, particularly those using the Nutrient Management, Ag BMP and AFO databases.

This section focuses on coordinating the annual progress reporting of agricultural BMPs, Nutrient Management, and other progress data to the Chesapeake Bay Program. They perform data retrieval and analyses of data from the Chesapeake Bay Watershed Model for the DCR management team to allow for more informed decisions and serve as technical resources in developing offset credits and evaluating proposals for new BMPs. In addition, staff conducts assessment of nutrients, sediment and bacteria reductions associated with grant proposals to evaluate and assist in scoring BMPs and/or project effectiveness.

Also located within the Projects and Technical Assistance section is the Virginia Healthy Waters initiative. The Virginia Healthy Waters initiative is an independent program with one contractual staff person assigned. It is an inter-agency partnership led by the DCR to identify and protect watersheds with high ecological integrity. The initiative arose from a need to raise awareness of how to protect streams, creeks and other water before they become impaired. Healthy Waters broadens the scope of conservation efforts to include both the protection of ecologically critical resources and restoration of degraded systems.

3.2 DEQ Offices of VPDES Permitting and Water Compliance

Section 402 of the Clean Water Act established the NPDES permitting program to limit pollutant discharges (including stormwater runoff) into streams, rivers, and bays. In the Commonwealth of Virginia, the DEQ administers the program as the Virginia Pollutant Discharge Elimination System (VPDES) and issues both individual permits and general permits to regulated entities.

The DEQ issues individual VPDES permits to both municipal and industrial facilities discharging pollutants to surface waters to regulate point source pollution. Permit requirements, special conditions, effluent limitations and monitoring requirements are determined for each facility on a site specific basis in order to meet federal effluent guidelines and applicable water quality standards. Currently there are 1008 active individual VPDES permitted facilities.

General permits are permits written for a general class of dischargers and contain limits and standards for a specific class of dischargers. In Virginia, general permits must be written as permits and adopted as regulations. There are 12 different types of VPDES general permits available in Virginia and more than 4,492 dischargers registered for coverage under these general permits. The Industrial Activity Stormwater General Permit, which regulates stormwater run-off from specific types of industrial sites, and the general permit for Domestic Sewage Discharges less than or equal to 1,000 GPD make up about 80% of the facilities with coverage under the DEQ's general permits.

The DEQ's industrial activity stormwater permits are based upon EPA's Multi-Sector Stormwater General Permit (MSGP). All industrial activity stormwater permits include the requirement that a SWPPP be developed for the permitted facility. The pollution prevention plan identifies all stormwater discharges at the facility, actual and potential sources of stormwater contamination, and requires the implementation of both structural and non-structural BMPs to reduce the impact of stormwater runoff on the receiving stream, and to meet water quality standards. Currently there are 1283 facilities covered under the VPDES Industrial Stormwater General Permit.

The DEQ oversees the Nutrient Trading Program in the Chesapeake Bay Watershed (9VAC25-820-10 et seq.) that governs facilities holding individual VPDES permits that discharge or propose to discharge total nitrogen or total phosphorus to the Chesapeake Bay or its tributaries. Under a general permit, the facilities are authorized to discharge to surface waters and exchange credits for total nitrogen and total phosphorus. In addition, DEQ certifies credits that are available for use as stormwater offsets under the program managed by the DCR. Trading of nutrient credits minimizes costs to the regulated facilities and allows for future growth.

VPDES facilities are required to monitor their discharge for compliance with their permit conditions and report the results to the DEQ on a routine basis. Using a risk based inspection approach, the DEQ conducts onsite inspections to assure permit compliance and improve and protect water quality.

3.3 Overlap between the DCR's Office of Regulatory Programs and DEQ's Offices of VPDES Permitting and Water Compliance

The DCR and the DEQ both contain state programs that regulate the management of pollutants carried by stormwater runoff. The DCR regulates stormwater discharges from construction sites, and from MS4s, while the DEQ regulates stormwater discharges associated with "industrial activities." This requires the regulated community to seek water related permits from both the DCR and the DEQ, depending on the activity a particular entity is seeking to perform. For example, localities that are issued MS4 permits by the DCR are likely to operate wastewater treatment plants which are regulated by VPDES permits issued by the DEQ. (VPDES permit holders are also likely to be covered under the general permit for the Nutrient Trading Program in the Chesapeake Bay Watershed.) Both the DCR and the DEQ conduct compliance activities at permitted facilities.

Nutrient trading is also managed by both the DCR and the DEQ. Currently, the DCR operates the nonpoint nutrient offset program for stormwater in coordination with DEQ, utilizing the DEQ statutory authority to approve nutrient credits. The 2012 General Assembly adopted the Nutrient Trading Act which gives the DCR the authority to establish regulations to expand Virginia's Nutrient Trading Program in the Chesapeake Bay Watershed to other sectors including MS4s (DCR), Industrial Stormwater (DEQ), and Confined Animal Feeding Operations (DEQ) as well as the establishment of certification and verification requirements for nonpoint source nutrient bank applications. This will require DCR to work with the DEQ and other state agencies to develop the regulations. The law calls for the Virginia Soil and Water Conservation Board to coordinate with the State Water Control Board on approval of the regulations. Coordinating nutrient trading programs among two agencies and regulatory boards adds more complexity to the development of nutrient trading programs.

Virginia's split responsibility for stormwater regulation between two agencies is unique. According to staff for the Environmental Council of States (ECOS), the majority of states have chosen to manage point and non-point source pollution programs within a single agency in order to manage pollution more efficiently and effectively. Consolidating the responsibility of managing stormwater within a single agency will promote consistency and minimize confusion with regard to how stormwater is managed. Additionally, this change would consolidate administration of the Virginia Nutrient Trading Program in the Chesapeake Bay Watershed within a single agency.

4 Nonpoint, Voluntary, and Monitoring Programs

4.1 DCR Office of Conservation and Restoration

The DCR's Office of Conservation and Restoration has two major program areas: Financial Incentives; and Resource Management Plans. Generally, the office deals with the non-regulatory component of the Stormwater Management Division.

4.1.1 Financial Incentives Section

The Financial Incentive section of the DCR's Office of Conservation and Restoration is responsible for the distribution, tracking and monitoring of funding to Soil and Water Conservation Districts (Districts) for implementation of the Virginia Agricultural Cost-Share Program and administration of the federal Chesapeake Bay Implementation Grant (CBIG), Chesapeake Bay Regulatory and Accountability Program (CBRAP), and the Clean Water Act Section 319 Funds. The section also distributes, tracks and monitors state Water Quality Improvement Fund (WQIF) grant funding to entities for nonpoint source programs, Chesapeake Bay and TMDL work.

Staff work with the Stormwater Management Division's field office assigned Conservation District Coordinators (CDC's) to share information, provide training and assist with technical questions. The Agricultural Cost-Share BMP tracking program is a part of this effort and this section ensures this web-based database is working correctly and information is updated as needed. Staff also: administer federal and state grant funds by working with federal agencies; develop the budget and work plan; create Requests for Proposals (RFP) and Memoranda of Understanding; prepare grant agreements and contracts for the DCR Director's review; reconcile with general accounting to ensure revenue and expenses are tracked correctly per grant and sub-grant; and ensure timely federal and state reporting requirements. Staff research and inform the agency of any new grant funding available and provide support with submission of grant applications.

4.1.2 Resource Management Plans

DCR is currently developing regulations for the establishment of an agricultural certainty program in the Commonwealth. The Resource Management Plan (RMP) regulations are in the proposed stage and are slated to be finalized by the Virginia Soil and Water Conservation Board at their December 2012 meeting with an effective date of February 2013. This voluntary program will provide eligible farmers with "certainty" or safe harbor from future regulations for a specific period of time as long as certain practices are continued. DCR will administer this new program with the assistance of Soil and Water Conservation Districts.

4.2 DEQ Office of Land Application Programs

The DEQ Office of Land Application Programs (OLAP) provides oversight of the regulatory programs related to management of activities that have a potential to discharge pollutants to state waters if not properly managed. The major components include land application of animal manure, biosolids, industrial residuals, and municipal wastewater. Non-discharging pollutant management activities are typically permitted through the Virginia Pollution Abatement (VPA) permit program, with some overlap into the VPDES permit program when the VPDES permit includes both discharging and non-discharging activities. The OLAP Central Office functions are regulatory and guidance development, as well as providing technical guidance related to compliance and enforcement. The DEQ regional offices issue permits, perform inspections, and provide compliance assistance to regulated facilities.

4.2.1 Animal Feeding Operations

The DEQ issues VPA permits to animal feeding operations (AFOs) confining livestock and poultry, primarily through general permits. The DEQ's regional staff performs routine inspections of permitted facilities to verify compliance with regulatory requirements, including manure handling, nutrient management and recordkeeping. Poultry litter brokers and end-users of poultry litter are also required to comply with regulatory requirements, but are generally not required to obtain permits. The DEQ works in conjunction with the VDACS to address pollutant discharges from small AFOs not required to obtain permits. Currently, 1041 AFOs are permitted in Virginia.

In order to align with recent changes to the EPA Concentrated Animal Feeding Operation (CAFO) regulations, the DEQ is preparing to issue VPDES permits to CAFOs that discharge pollutants to state waters. By federal definition, a CAFO is a point source that requires an NPDES permit if the facility discharges. EPA has authorized the DEQ to administer the VPDES CAFO program as a component of the federally delegated VPDES program. Currently the DEQ is working with EPA to identify which facilities will need to convert from VPA to VPDES permits.

4.2.2 Biosolids

The DEQ issues VPA individual permits to contractors that land apply biosolids obtained from municipal wastewater treatment plants to agricultural and silvicultural sites. The DEQ has issued 71 VPA permits to biosolids contractors since the program was transferred from the Virginia Department of Health (VDH) to the DEQ in 2008. DEQ expects that the number of biosolids permits will reach approximately 100 once all historic VDH permits are converted. The DEQ

regional staff perform routine inspections of permitted activities to verify compliance with regulatory requirements, including residuals treatment, handling, nutrient management and recordkeeping. The DEQ may also include biosolids special conditions in VPDES individual permits issued to municipal wastewater treatment plants that choose to land apply biosolids under the authority of their own VPDES permit. Approximately 40 VPDES permits include such provisions for biosolids land application.

The DEQ administers a training and certification program for persons that land apply Class B biosolids as well as training for biosolids monitors employed by local governments. This training includes biosolids use regulations, basic soil and crop science, soil fertility, nutrient management, and other relevant topics. As with any land applied nutrients, proper management of biosolids prevents nutrients from entering streams, rivers and ultimately the Chesapeake Bay.

4.2.3 Other Non-discharging Activities

The DEQ issues VPA or VPDES individual permits, as applicable, for water reclamation and reuse, land application of municipal or industrial wastewater and septage, as well as other pollutant management activities that have a potential to discharge to state waters. The DEQ's regional staff perform routine inspections of permitted activities to verify compliance with regulatory requirements, including waste residuals treatment, handling, nutrient management (as applicable) and recordkeeping.

4.3 DEQ Office of Ecology and Infrastructure

The DEQ's Office of Ecology and Infrastructure is involved with conducting water quality monitoring and assessment, establishing/updating water quality standards, administering financial assistance for water quality improvement projects under the Virginia Clean Water Revolving Loan Fund (VCWRLF) and the WQIF, and Chesapeake Bay Program coordination.

4.3.1 Water Quality Monitoring and Assessment

The DEQ's Water Quality Monitoring and Assessment (WQMA) Program is guided by a long-term monitoring strategy and an Annual Monitoring Plan, that complies with mandates of the federal Clean Water Act and Virginia Water Quality Monitoring, Information and Restoration Act (Va. Code §62.1-44-19.4 – 19.11). The WQMA includes surface water monitoring, biological monitoring, probabilistic monitoring, fish tissue monitoring, Chesapeake Bay monitoring, special studies and citizen monitoring programs. The DEQ staff in each of the regional offices collects water samples on a routine schedule at more than 1,000 locations across the Commonwealth. These water samples are shipped to a state laboratory or contract lab for analysis, and the results are compiled in a comprehensive Assessment Data Base, used for evaluation and reporting. Samples are typically tested for levels of nutrients, solids, bacteria

associated with human and animal residuals and occasionally for toxic metals, some pesticides and harmful organic compounds. The DEQ's scientists also perform on-the-spot field tests for dissolved oxygen, pH, temperature, salinity, and additional indicators of water quality. Sediment from the bottom of lakes and rivers is tested for the presence of aquatic insects which are sensitive indicators of water quality and pollution.

As part of the state and federal Chesapeake Bay Program, Virginia monitors water quality and biological characteristics of the Bay and its major tributaries. The objectives of these programs are the characterization of current conditions, identification of long-term trends, and improvement in understanding of processes that control water quality. Including measurements of both plankton and benthos is an important step towards determining the relationship between water quality and living resources. The results of these monitoring programs, compared to water quality standards established for the Bay and tidal tributaries, will provide a key measurement of the success of management actions toward the protection and restoration of the Bay.

A comprehensive, statewide Integrated Assessment Report is produced every even-numbered year to report on the status and trends of water quality in Virginia's rivers, streams, lakes and estuaries. The primary objective of the assessment program is to determine whether the Commonwealth's waters support their applicable designated uses. There are six designated uses that may be applied to surface waters: aquatic life, fish consumption, shellfishing, recreation, public water supply, and wildlife. Virginia's water quality standards define the water quality needed to support each of these uses by establishing the numeric criteria by which physical and chemical data are assessed against. If a waterbody contains more of a pollutant than is allowed by the water quality standards, it will not support one or more of its designated uses. Such waters are considered to have "impaired" quality. A draft of the most recent Integrated Assessment Report (also known as the 303(d)/305(b) Report) was released for public review and submitted to EPA in March 2012.

4.3.2 Watershed Programs

The monitoring data collected by the DEQ is analyzed and used to identify waters that do not meet water quality standards. Waters that do not meet standards are reported to the citizens of Virginia and the EPA in the Virginia Water Quality Assessment 305(b)/303(d) Integrated Report. Since 1998, the DEQ has developed plans, with public input, to restore and maintain the water quality for the impaired waters. These plans are called "Total Maximum Daily Loads," or TMDLs. TMDL is a term that represents the maximum amount of a pollutant a waterbody can assimilate and still meet water quality standards. A TMDL considers point sources such as residential, municipal, or industrial discharges and nonpoint sources such as residential, urban, or agricultural runoff. Virginia's goal is that all streams attain water quality standards and support all applicable designated uses. A TMDL is developed and is submitted to EPA for approval. Once approved, state law requires a TMDL Implementation Plan (TMDL IP) to be developed,

which identifies the actions needed to improve water quality, the costs associated with improving water quality, and a monitoring program.

TMDL development is a collaborative effort between several state agencies. The DEQ is the lead agency in the TMDL process and develops the list of impaired waters, TMDLs for these waters, and IPs for certain types of TMDLs, for example where reductions are required from permitted sources. The DEQ also administers the public participation component of the TMDL process, and formally submits the TMDLs to EPA and the State Water Control Board for approval. The DCR is the lead agency for nonpoint source pollution control activities and has responsibility for the development of IPs for TMDLs where nonpoint sources are the dominant contributor.

4.3.3 Financial Assistance for Water Quality Improvement Projects

The DEQ administers two financial assistance programs that provide low-interest loans and grants for water quality improvement projects. These are the Virginia Clean Water Revolving Loan Fund (VCWRLF) and the Water Quality Improvement Fund (WQIF).

The VCWRLF was created in 1987. The DEQ, on behalf of the State Water Control Board, manages the VCWRLF, reviews applications and provides funding recommendations to the State Water Control Board. The Virginia Resources Authority (VRA) serves as the financial manager of the Fund. Initially, the VCWRLF included a single program which was established to provide financial assistance in the form of low-interest loans to local governments for improvements at publicly-owned wastewater treatment facilities and/or collection systems. In 1999, 2001 and 2003 the scope of VCWRLF was expanded with the DEQ implementing additional programs to provide low interest loans related to agricultural and other nonpoint source water quality issues. In addition to the original Wastewater Loan Program, the following loan programs are now operated within the VCWRLF.

Agricultural BMP Loan Program: Loans provided to Virginia farmers to assist with implementation expenses relating to any of 22 structural BMPs which are designed to improve water quality in the Commonwealth. In some cases, these VCWRLF loans serve as the matching funds to grants provided by the DCR's Agricultural BMP cost-share programs.

Brownfield Loan Program: Loans provided to local governments, public authorities, partnerships or corporations for activities undertaken at Brownfield sites, as defined in Virginia Code §10.1 1230, for the purpose of reducing ground water contamination or reducing risk to public health.

Land Conservation Loan Program: Loans provided to local governments or holders, as defined in §10.1-1009 of the Code of Virginia, for acquiring fee simple title or permanent conservation or open space easements that (1) protect or improve water quality and prevent the pollution of state waters, and (2) protect the natural or open-space values of the property or assure its availability for agricultural, forestal, recreational, or open-space use.

Stormwater Loan Program: Loans provided to local governments for the construction of facilities or structures or implementation of best management practices that reduce or prevent pollution of state waters caused by stormwater runoff from impervious surfaces.

DEQ also oversees implementation of The Virginia Water Quality Improvement Act of 1997 (Va. Code Section 10.1-2117 through 2134), enacted in response to the need to finance the nutrient reduction strategies developed for the Chesapeake Bay and its tributaries. The Act established in the State treasury a special permanent, nonreverting fund, known as the WQIF. The Act directs the DEQ to assist local governments and individuals in reducing point source nutrient loads to the Chesapeake Bay with technical and financial assistance made available through grants provided from the WQIF. Reducing water quality impacts from point sources in targeted watersheds assists with attaining the goal of meeting water quality standards. To date, almost $744 million has been appropriated in general funds, bond proceeds and accrued interest to capitalize the WQIF Point Source Program. Currently, project eligibility is limited to design and installation of nutrient reduction technology at publicly owned wastewater treatment plants in the Chesapeake Bay watershed. The DEQ Director is required to sign an agreement with all eligible applicants with one exception. The Director may defer a grant if it is determined that the use of nutrient credits in accordance with the Chesapeake Bay Watershed Nutrient Credit Exchange Program (§62.1-44.19:12 et seq.) would be significantly more cost-effective than the installation of nutrient controls for the facility in question.

4.3.4 Chesapeake Bay Program Coordination

Since its inception in 1983, Virginia has been a partner in the multi state and federal Chesapeake Bay Program (CBP). The Governor provides representation on the highest level policy-making body of the CBP- the Executive Committee. The SNR and the DCR and DEQ directors participate on the Principals Staff Committee. Staff from the DCR and the DEQ serves on a number of coordinating, and technical committees of the CBP. Within the DEQ, one staff member is the primary point of contact for CBP coordination, working with other DEQ programs, the DCR, the SNR and other State Agencies. The DEQ's CBP coordinator provided critical liaison support between the DEQ and the DCR during formation and final approval of the Bay TMDL for nutrients and sediments, and drafting/approval of Virginia's Watershed Implementation Plan, to include the DEQ programs that support Bay restoration activities. The CBP coordinator also organizes the DEQ's contributions to the SNR's "Impaired Waters Cleanup Plan" Report (required by Va. Code §62.1-44.117 and §62.1-44.118). The Plan is updated annually, with progress reports generated once every 6 months between updates. Current activities center on implementing the WIP, drafting and tracking of interim WIP milestones (updated every two years), and representation on the CBP committees.

4.4 Overlap between the DCR's Office of Conservation and Restoration and DEQ's Office of Ecology and Infrastructure and DEQ's Office of Land Application Programs

Currently there are multiple areas in which the DCR's and the DEQ's programs overlap, including nutrient management, TMDLs, and financing water quality improvements. The DCR and the DEQ are both involved with nutrient management plans. The DCR is actively involved in training individuals to become certified nutrient management plan writers and reviews nutrient management plans for AFOs permitted under the DEQ's VPA regulations and for biosolids applications regulated by the DEQ. DEQ regulatory programs utilize nutrient management plans as a tool to prevent nutrients from entering streams, rivers and ultimately the Chesapeake Bay. Both agencies play roles in managing nutrients, which can cause confusion within the regulated community concerning nutrient management requirements. In some situations, the regulated community must interact with both the DCR and the DEQ to remain in compliance with nutrient management plans.

The DCR and the DEQ also share responsibility in the development and implementation of the TMDL program. The DCR's efforts primarily focus on reducing nonpoint pollution and coordinating on a regional level with Soil and Water Conservation Districts to implement measures that assist with meeting water quality standards. The DEQ regulates point sources, conducts water quality monitoring and shares data collected with the DCR. The DEQ assists the DCR by providing monitoring data on areas that have implemented BMPs to quantify the reductions in pollution a BMP is producing. The DCR and the DEQ work together to develop TMDLs for streams, rivers and the Chesapeake Bay. The DCR oversees the implementation of the Chesapeake Bay Watershed Implementation plan, and uses data reported from the DEQ to provide status reports to EPA.

The DCR and the DEQ are both involved with distributing grants from the WQIF. The DCR issues grants related to nonpoint source pollution projects and the DEQ issues grants to point sources. Both agencies distribute WQIF grants independently, based on the funding allocated for specific purposes as established in the budget bill.

5 Regional Agency Operations

5.1 DCR Office of Regional Operations

The DCR-DSWM has seven regional offices, located in Abingdon (co-located with the DEQ's Abingdon Office), Christiansburg, Glen Allen (co-located with the DEQ's Piedmont Office), Staunton, Suffolk, Tappahannock, and Warrenton as illustrated on Figure 4.1-1. Each regional office has approximately 10 positions. Regional staff conduct reviews of plans including VSMP and Erosion and Sediment Control development, VDOT road, and utility inspections (as applicable). The DCR regional staff conduct reviews of local ESC programs on a five-year rotating schedule. Additionally, The DCR staff in the Glen Allen and Tappahannock offices also conduct reviews of local government Chesapeake Bay Preservation Act Programs.

Nutrient Management staff are located in the DCR's regional offices and prepare nutrient management plans for private individuals and state agencies, some as required by permit for AFO or biosolids applications, others due to participation by individuals in the Agricultural Cost-Share program. Nutrient Management Plans are effective for three years before they need to be revised.

Watershed Field Coordinators are located in the DCR regional offices and work on TMDL implementation planning related to nonpoint sources of pollution. Additionally these staff participate in watershed roundtables and other community organizations that focus on local water quality improvements. These staff are contractual positions that are federally funded by EPA. In addition to these duties, these staff manage a number of grant projects.

Regional offices also house Conservation District Coordinators (CDCs) that are responsible for processing and tracking agricultural cost share best management practices funding and implementation in concert with the 47 Soil and Water Conservation Districts (SWCDs) in Virginia. SWCDs have boards with elected or appointed members, with some covering one locality, but most covering more than one locality. SWCDs were established to develop comprehensive programs and plans to conserve soil resources, control and prevent soil erosion, prevent floods and conserve, develop, utilize and dispose water. Today, the SWCDs serve as local resources for citizens, farmers and landowners in nearly all Virginia localities.

Since the mid-1980s, the DCR has relied heavily on SWCDs to help deliver many programs aimed at controlling and preventing nonpoint source (NPS) pollution, often on a hydrologic unit basis. With their volunteer boards and more than 150 full and part-time technical and administrative employees, SWCDs provide a valuable delivery system for Virginia's statewide NPS pollution prevention programs. Key NPS control and prevention efforts are:

- Implement, with the DCR's oversight, the Virginia Agricultural BMP Cost-Share Program;

- Target funding to address significant agricultural water quality problems in high priority hydrologic units;
- Implement ordinances in cooperation with local governments, that control water quality and quantity from predominantly urban construction and development;
- Support implementation of county ordinances, including agricultural provisions of local Chesapeake Bay Preservation Act ordinances and assisting with implementation of Virginia's Agricultural Stewardship Act;
- Provide technical expertise for design and installation of agricultural conservation practices implemented voluntarily by Virginia farmers;
- Educate using field days, public meetings and classroom programs; and
- Implement measures to improve water quality in impaired watersheds through the TMDL program.

5.2 DEQ Regional Operations

The DEQ has six regional offices located in Abingdon, Roanoke, Harrisonburg, Glen Allen, Woodbridge, and Virginia Beach as illustrated on Figure 4.1-2. Each regional office has approximately 85 positions. The DEQ's regional offices are the primary point of contact for most individuals regarding water programs. Regional staff issue water related permits and also conduct compliance inspections of permitted activities. VPDES and VPA permits are examples of two types of permits issued by the DEQ regional office staff. Water quality monitoring is also conducted by regional staff to assist with the development of TMDLs for water bodies. Using a regional approach to permitting, compliance, enforcement and water quality monitoring allows for staff to interact with the surrounding communities and the water bodies they are helping to protect. Regional staff conduct water planning activities, pollution response activities, water monitoring and oversee the application of biosolids. Central office staff coordinate regional operations to ensure consistency between regions. Central Office staff also work on projects that overlap several regions, including the Chesapeake Bay WIP.

Figure 4.1-1- Map of the DCR's regional offices

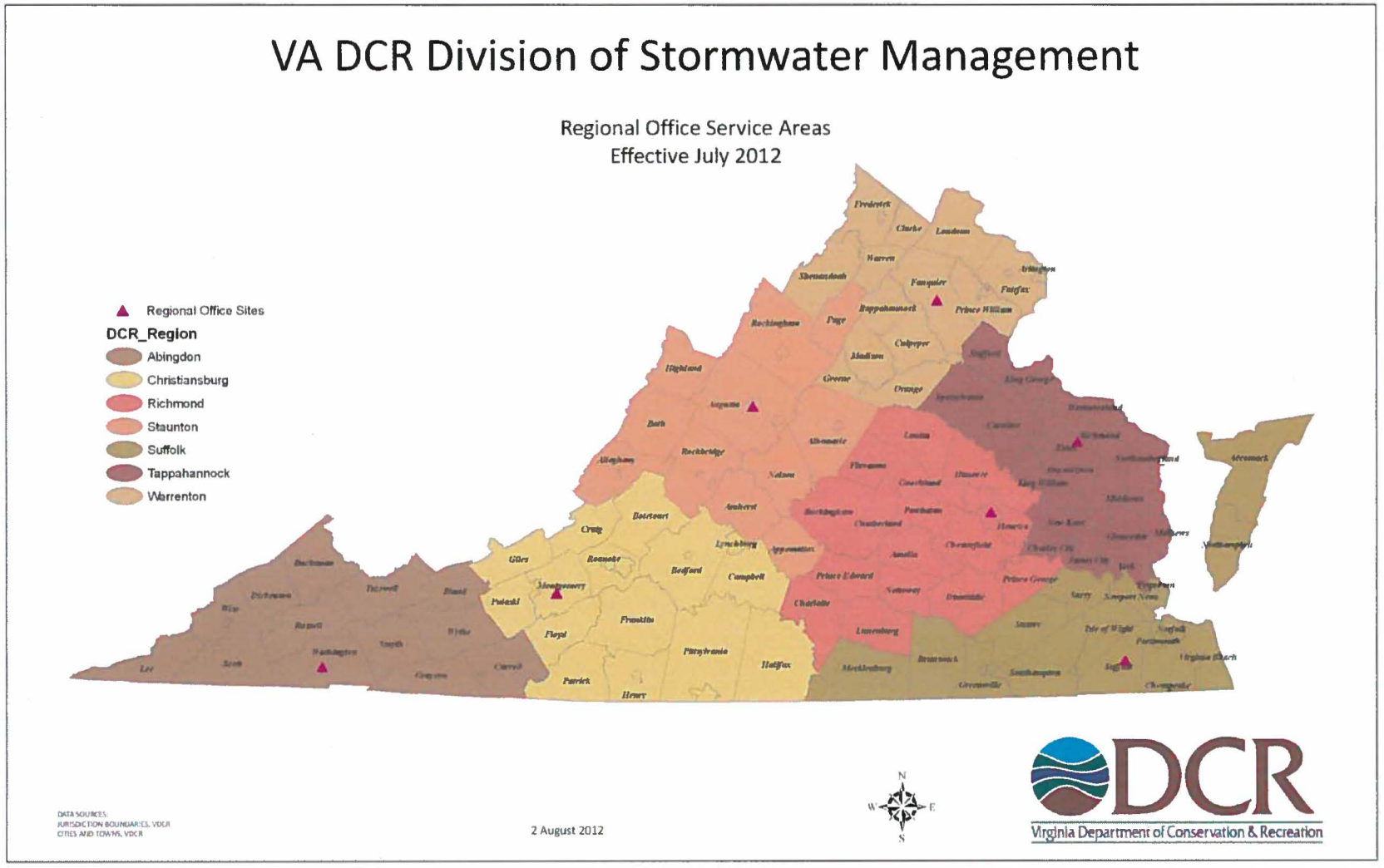
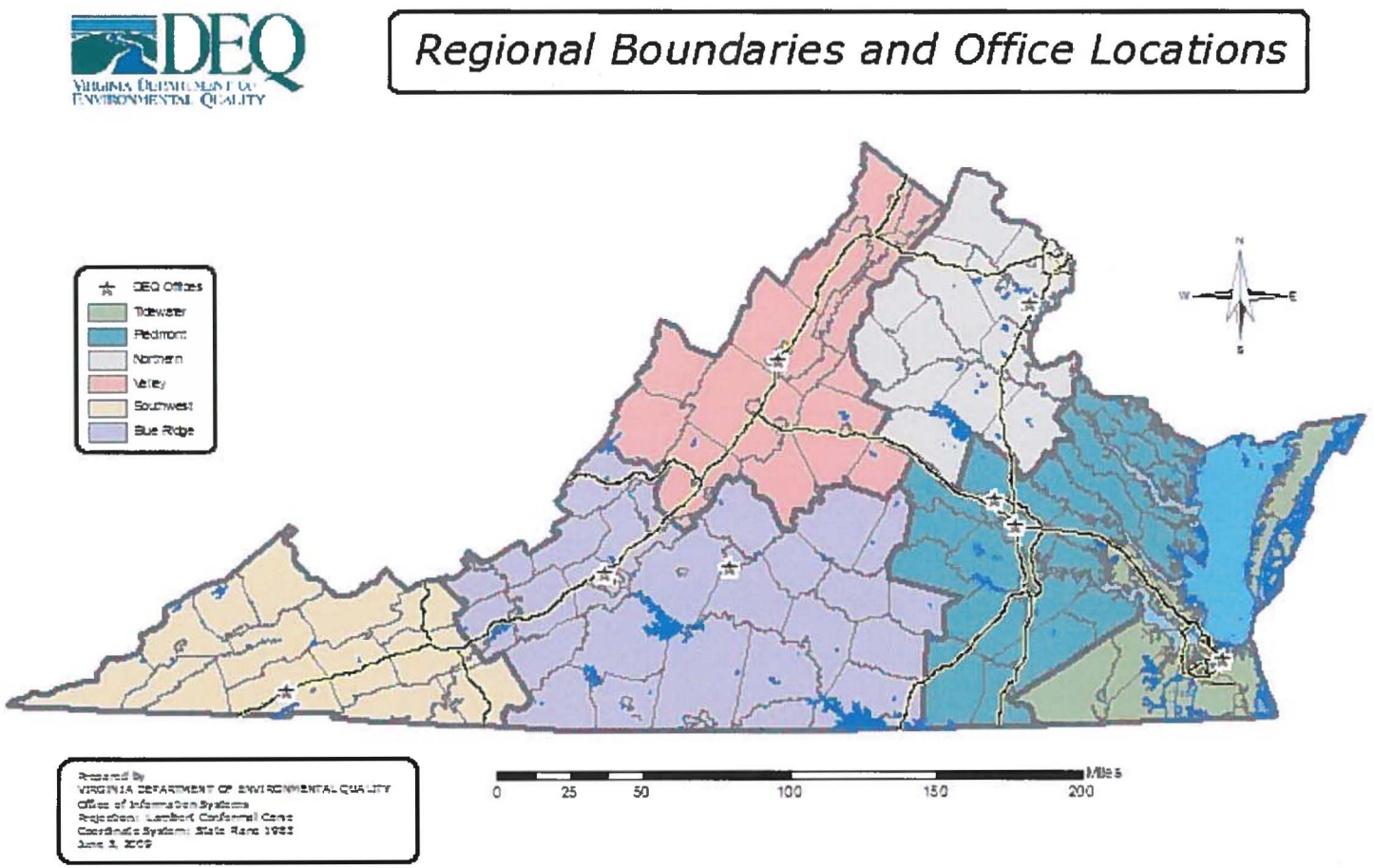


Figure 4.1-2- Map of the DEQ's regional offices



6 Conclusion

Both the DCR and the DEQ conduct water quality programs that focus on improving and protecting Virginia's waters. TMDL development is a collaborative effort between the two state agencies. The DEQ, the lead agency in the TMDL process, develops the list of impaired waters, TMDLs for these waters, and IPs for TMDLs related to point source pollution control activities. The DEQ also conducts water quality monitoring, administers the public participation component of the TMDL process, and formally submits the TMDLs to EPA and the State Water Control Board for approval. Regulating and permitting sources of point source water pollution, including issuing permits for stormwater runoff from industrial facilities, is also conducted by the DEQ. The DCR is the lead agency for nonpoint source pollution control activities and has responsibility for the development of IPs for TMDLs where nonpoint sources are the dominant contributor. The DCR mainly focuses their activities on managing and reducing nonpoint pollution by issuing stormwater permits, overseeing local implementation of state water quality laws including erosion and sediment control and the Chesapeake Bay Preservation Act and supporting voluntary conservation programs in partnership with soil and water conservation districts.

The DCR and the DEQ currently coordinate on many water quality issues and both agencies seek ways to improve operational and programmatic efficiencies and improve the long-term and strategic planning process for water quality improvement and protection. The consolidation of water quality programs within a single agency does not seek to change the regulatory status of any of the programs reviewed in this document.

The current organization reduces transparency, increases complexity, and is a source of potential confusion for the regulated community and the citizens. It is less effective and less efficient by virtue of invariable duplication of activity.

7 Recommendations

Based on the foregoing information, there appear to be improvements to water quality planning and management and efficiencies that may be gained by revising the organization of the water quality programs within the Natural Resources Secretariat.

7.1 Benefits to Consolidation of Stormwater Programs to the DEQ

Chapters 803 and 835 of the 2012 Acts of Assembly request information on (subject to re-enactment) the transfer of authority of the MS4 permits to the State Water Control Board from the Virginia Soil and Water Conservation Board. After examining the DCR and the DEQ programs that manage stormwater, it is evident that it would not be beneficial to move solely the MS4 program from the DCR to the DEQ. Transferring the MS4 permit program alone, without also transferring the other stormwater programs, would continue to require the DCR and the DEQ staff to coordinate concerning the permitting of stormwater and would continue to require the regulated community to interact with two agencies concerning stormwater related issues. **Instead, all stormwater related programs should be consolidated within one agency.** This includes moving the MS4 and VSMP programs and moving the ESC and CBLA programs to the DEQ. Agencies will work to inform and educate stakeholders on the transition process if the recommendations of this report are accepted.

Consolidating stormwater related programs within the DEQ would have the following benefits:

- **A single point of contact.**

  Citizens- Citizens would have one agency to contact with their concerns regarding stormwater, ESC, and wastewater related issues. Consolidating within one agency would eliminate potential duplication of two agencies responding to a single complaint.

  Regulated facilities- The DEQ works closely with localities to issue VPDES permits. The localities that have been issued MS4 or VSMP permits often operate wastewater treatment plants (WWTPs) and have been issued VPDES permits for these facilities. Localities would gain the benefit of contacting one agency regarding their stormwater, ESC and VPDES permits. The advent of nutrient trading between these point and nonpoint sources would also benefit from one state agency contact.

  EPA- Due to the numerous federally delegated programs the DEQ manages, the DEQ has a well established working relationship with EPA. EPA would interact with one agency concerning stormwater management and other water quality programs which would streamline the communication process between EPA and Virginia and Virginia

would speak to EPA with a single voice reflecting a single set of processes and priorities.

- **Improved long-term and strategic planning.**

  Consolidating strategic planning for stormwater and wastewater issues under one agency would allow for a comprehensive approach to stormwater and wastewater program management. Policies and procedures related to permitting, compliance, enforcement and resource allocation could be prioritized and focused on water quality improvements. Coordination of permitting and water quality planning functions such as TMDL's, water monitoring and nutrient trading would also be enhanced by consolidation in one agency. Management and administration under a single agency would also improve efficiency and streamline permitting by providing a single point of contact, consistent VPDES administrative processes and more comprehensive allocation of resources.

- **Improved compliance assistance with MS4 and VSMP permits.**

  The DCR inspects VSMP and Phase II MS4 permits and some Phase I MS4 permits and EPA audits Phase I permits with the DCR present. The DEQ regional staff currently conduct inspections of industrial stormwater permits and are capable of inspecting MS4 and VSMP permits. Designating a single agency to oversee stormwater permits will provide permittees with one agency to contact concerning maintaining compliance with all water quality permits.

- **Improved coordination between permit and TMDL requirements.**

  Designating one agency to issue all water quality permits and associated TMDL requirements will assist with meeting long-term and strategic planning goals concerning needed water quality improvements.

- **Improved data management.**

  Consolidation of MS4 and VSMP permits within the DEQ would consolidate all stormwater related permit information within one data system, making information on all stormwater related permits available within one agency, reducing the need for data transfers between agencies.

7.2 Benefits to Consolidating Water Quality Planning Programs to the DEQ

In addition to examining the benefits of transferring the MS4 permitting program from the DCR to the DEQ, the Secretary of Natural Resources was directed by Chapters 803 and 835 of the 2012 Acts of Assembly to work with the Directors of the DCR and the DEQ to assess the

organization of water quality programs. As part of this assessment the Secretary of Natural Resources considered measures to streamline water quality permitting in the Commonwealth and provide for improved long-term and strategic planning for water quality improvements. In addition to water quality permitting programs, voluntary conservation programs and outreach and education activities play a critical role in the Commonwealth's water quality. These programs compliment regulatory activities by reaching people and activities that are not practical or cost effective to regulate. While maintaining separation of voluntary and regulatory programs is essential to the continued success of voluntary programs, there are significant advantages from water quality management and long term strategic planning perspectives for consolidation in one agency. TMDLs and associated IPs, water quality monitoring and nutrient management planning are examples where voluntary and regulatory programs can work collaboratively to improve water quality. There will be no delay to Chesapeake Bay Restoration. The purpose of a proposed consolidation is to create better efficiency in delivery of water quality programs. The transition should be smooth and create no delays in administering the programs. The following recommendations identify areas in which consolidation of agency staff and programs will benefit long term and strategic planning.

- **Consolidate management of programs involved with the Chesapeake Bay Watershed Implementation Plan (WIP) to the DEQ**

  The advent of the Chesapeake Bay TMDL and its related water quality issues has demonstrated the difficulty of having water quality permitting programs in two separate agencies. It became apparent early in the development of Virginia's Chesapeake Bay TMDL Watershed Implementation Plan that even with significant consultation and collaboration between the DCR and the DEQ, the process was made more cumbersome because no single agency was responsible for looking comprehensively at nutrient and sediment issues across the full spectrum of sources. With two agencies, significant issues related to the WIP and the TMDL must be vetted through two management structures. A single agency can set priorities, evaluate needs, and respond to stakeholders much more efficiently and effectively. Consolidation of programs will also ensure that Virginia always speaks with a single voice with regard to TMDL and water quality issues. As the implementation of the TMDL progress over the next decade and beyond, the interaction between point and nonpoint sources as well as voluntary and regulatory programs will become more frequent and complex. Difficult policy and budgetary decisions must be made based on a comprehensive view of the impact of various sources and the interaction between them. A single water quality agency will allow Virginia to meet this responsibility in the most comprehensive and cost-effective manner possible.

- **Consolidate management of programs related to water quality planning and TMDLs to the DEQ**

The DCR provides information on nonpoint sources to the DEQ when the DEQ is establishing TMDLs. The DEQ conducts water quality monitoring to establish when TMDLs must be established to improve water quality. After receiving information on nonpoint sources from the DCR and the public, TMDLs are then established by the DEQ. Implementation plans for the TMDL waters are then developed by the DCR, and both DCR and DEQ implement prescribed measures identified in TMDL IPs. Consolidation of TMDL related programs within one agency allows for TMDLs to be established and implemented under the direction of one agency that can comprehensively address both point and nonpoint source pollution.

- **Consolidate Water Quality Improvement Fund Grants (WQIF), Cost-Share Program funding and other financial incentives to the DEQ**

  Both the DCR and the DEQ provide funding for water quality improvements. The DCR provides funding from the WQIF and federal grants for nonpoint source pollution reduction, while the DEQ focuses on point source pollution reduction by also providing funding from the WQIF and federal programs. Consolidation of this function will allow one agency to comprehensively manage funding needs for both point and nonpoint sources. All federal nonpoint grant funds would be received by one agency. The DEQ would assume the responsibility of distributing, tracking, and monitoring funding to SWCDs according to the requirements of the Natural Resources Commitment subfund of the WQIF.

- **Consolidate management and administration of Nutrient Trading Programs to the DEQ**

  Currently the nonpoint trading program is overseen by the DCR and the point source trading program is overseen by the DEQ. As a result of legislation passed by the 2012 General Assembly, the use of nutrient credits will be expanded, and greater interactions between point and nonpoint sources in regard to the use of nutrient credits will occur. Consolidation of nutrient trading activities within a single agency removes redundancy within state government and will ensure seamless management of this activity.

- **Co-locate the DCR and the DEQ regional offices when fiscally advantageous and logistically practical**

  Both the DCR and the DEQ operate regional offices which allows staff to more closely interact with the regulated community. Currently the DCR and the DEQ share regional office space at two regional offices. The DCR staff in programs being transferred to the DEQ would be transferred to office space within the DEQ's regional offices as office space becomes available and building leases expire. Due to the small number of regional staff remaining at the regional DCR offices after programs are

transferred, consideration should be given to housing the DCR regional staff at the DEQ regional offices as the DCR's leases expire. This would potentially increase coordination between natural resource staff, reduce building lease expenditures, and allow for the DCR staff to have access to DEQ resources.

- **Consolidate voluntary and regulatory nutrient management activities to the DEQ**

  Currently, both the DCR and the DEQ have roles associated with the proper management of nutrients, including biosolids from WWTPs and manure from AFOs. Consolidation of programs within the DEQ will allow nutrient management to be handled by a single agency, thereby reducing the number of agencies with whom the regulated community must interact. The regulated community would have their nutrient management plan reviewed by the same agency that issues their permit. Additionally, consolidation would provide clarity regarding responsibility for the regulatory and voluntary requirements in nutrient management plans, and streamline the process for developing and administering nutrient management regulations. Distinction between voluntary and regulatory nutrient management programs will be maintained.

- **Move responsibility for coordination with the Soil and Water Conservation Board and staff support to the Soil and Water Conservation Board to the DEQ**

  If water related programs and the SWCDs are being proposed to move from the DCR to the DEQ, it makes sense to assign the Soil and Water Conservation Board to the DEQ. The DEQ staff will work with the Soil and Water Conservation Board to support them in their efforts to assist SWCDs with implementing programs to improve water quality in impaired watersheds. The Soil and Water Conservation Board has responsibilities related to water quality regulations and the Soil and Water Conservation Districts and associated voluntary programs. Consolidation at DEQ would allow specific water quality regulations like Erosion and Sediment Control, Virginia Stormwater Management and Chesapeake Bay Preservation Act to move under the State Water Control Board while the Soil and Water Conservation Board would maintain responsibility for the Soil and Water Conservation Districts and voluntary regulations like Resource Management Plans and Nutrient Management Training and Certification. There is no change proposed in funding or technical assistance provided through the Dam Safety Program which will remain at DCR.

  With the reorganization of water programs within the Natural Resources Secretariat, responsibilities for coordinating with SWCDs will be transferred from the DCR to the DEQ. SWCDs play an integral role in implementing voluntary strategies and conducting outreach and education activities to control nonpoint source pollution. Since TMDLs and implementation plans would be developed by the same agency, it

would follow that the same agency should assist the SWCDs with subsequent implementation strategies. Maintaining separation of voluntary and regulatory programs will be critical to the continued success of the District's programs. The organizational structure within DEQ and continuing the SWCD responsibilities with the District's will help ensure the voluntary programs success. No changes will be made to the district employees that support conservation districts as a result of transferring DCR's responsibilities to coordinate with SWCDs to DEQ.

With respect to administration of the cost-share program, implementation of the Chesapeake Bay WIP will require that an unprecedented level of cost-share funding and assistance be provided through the SWCDs. The administration of such a large funding effort would be best managed through one agency, reducing potential inefficiencies in matching TMDL goals with provision of assistance.

7.3 Voluntary program perception concerns

While examining the benefits of consolidating water quality programs, DEQ became aware that there are potential perception problems with moving voluntary programs from DCR to DEQ. Some stakeholders view DEQ as "more regulatory" than DCR since historically DEQ has been involved with regulating permitted facilities more than DCR. DEQ is aware of this perception; however, DEQ currently oversees voluntary programs which are currently organized in the Division of Environmental Enhancement. Voluntary programs transferred from DCR to DEQ will be placed within a voluntary programs Division. This will provide these programs with direct oversight by a deputy director and will maintain these programs' separation from regulatory programs. There is nothing associated with this merger that would change the voluntary nature of these programs. Efforts underway in the programs at DCR are expected to continue.

In response to some perceived concerns within the agricultural community about placing voluntary, non-regulatory programs in DEQ, some individuals and stakeholders have suggested segregating regulatory and non-regulatory water quality programs into two separate state agencies. Leaving the non-regulatory programs at DCR or moving the programs to the Virginia Department of Agriculture and Consumer Services (VDACS) has been mentioned as potential options for the Soil and Water Conservation Board (SWCB) and the non-regulatory, non-point source programs it administers as well as the programs implemented by the Soil and Water Conservation Districts across the Commonwealth. If the SWCB is retained at DCR, it would remain as currently organized. If the SWCB is moved to VDACS it would reside within a proposed new division of VDACS and retain the regulations related to voluntary water quality programs while the State Water Control Board and DEQ would assume responsibility for regulatory programs previously administered by the SWCB.

7.4 Actions needed to implement changes

Legislation would be needed to implement the recommendations in this report which would transfer authority from DEQ to DCR. Following the legislative changes, regulations would need to be adopted to implement the stormwater and water quality programs being transferred from DCR. Appendix 1 contains a list of statutes and regulations that are applicable to programs mentioned in the report. Specific actions needed to implement recommendations are described below.

Prior to stormwater permits being issued by the DCR, EPA previously delegated to the DEQ authority to issue stormwater permits under the NPDES program. If implementing legislation is passed, the DEQ will notify EPA of the transfer of the stormwater programs from the DCR to the DEQ. Federal Regulations (40CFR 123.62 (c)) require a state to notify EPA when part or all of an approved program is transferred between state agencies. EPA must approve the program before the new agency may begin to issue permits. The DEQ will need to adopt stormwater regulations for the programs being transferred from the DCR and coordinate with EPA to receive approval to issue those stormwater permits.

In order to consolidate all point and nonpoint source programs within a single agency, the DCR's Stormwater Management Division's programs, staffing and funding would need to be transferred to the DEQ. This will allow for staff involved with TMDLs, including the Chesapeake Bay Watershed Implementation Plan, to be grouped within a single agency under a single management team. This also will move financial incentive staff as well as staff involved with nutrient management plans and nutrient trading to a single agency. Consolidation of these staff within a single agency will allow point and nonpoint sources of pollution to be examined simultaneously when evaluating measures to improve water quality.

With the reorganization of water programs within the Natural Resources Secretariat, responsibilities for interacting with SWCDs should be transferred from the DCR to the DEQ. SWCDs play an integral role in implementing strategies to control nonpoint source pollution and need to be directly involved with the water quality programs being managed by the DEQ.

The reorganization of water programs within the Secretary of Natural Resources does not add or reduce any regulatory requirements to existing programs currently overseen by the DCR or the DEQ. Separation between voluntary and regulatory programs will be maintained. This will be achieved by assigning the Soil and Water Conservation Board to the DEQ. The Soil and Water Conservation Board will continue to be directly involved with the Soil and Water Conservation Districts and regulations related to voluntary programs.

Direct appropriations, fund balances and FTE's should be transferred to DEQ as identified in Appendix 2. Also, as identified in Appendix 2, DCR has many vacant FTE's. It is critical to the success of this consolidation to allow DEQ to manage staffing levels as needed to ensure the most efficient services are provided to the affected stakeholders. The intent of the evaluation of DCR and DEQ water quality program consolidation was based on leveraged efficiencies and effective customer service, not cost savings. Full analysis of any potential cost savings cannot be determined until the DCR and DEQ consolidation is complete. DEQ management needs time to assess required service levels, staffing and other resource needs to effectively determine what if any cost savings can be achieved.

Appendix 1- The DCR's and the DEQ's water statutes and regulations relating to programs referenced in report

Relevant DCR Laws

Citation	Title
§ 10.1-104.1	Department to be lead agency for nonpoint source pollution program.
§ 10.1-104.2	Voluntary nutrient management training and certification program
§ 10.1-104.2:1	Nitrogen application rates; regulations
§ 10.1-104.3	Voluntary nutrient management training and certification program
§10.1-104.4	Nitrogen application rates; regulations
§10.1-104.5	Nutrient management plans required for golf courses; penalty
§ 10.1-104.6	Supplemental environmental projects
§ 10.1-401.7	Resource management plans; effect of implementation; exclusions
§ 10.1-401.8	Resource management plans; criteria
§ 10-1-401.9	Regulations under this article
§§ 10.1-502 thru 10.1-559	Soil and Water Conservation Board
§§ 10.1-560 thru 10.1- 571	Virginia Erosion and Sediment Control Law
§§ 10.1-603.2 thru 603.15	Virginia Stormwater Management Act
§§ 10.1-603.15:1 thru 10.1-603.15:5	Definitions (Nutrient credit trading)
§§ 10.1-2100. – 2115.	Chesapeake Bay Preservation Act

Relevant DCR Regulations

Citation	Title
4VAC5-15	Nutrient Management Training and Certification Regulations
4VAC50-30	Erosion and Sediment Control Regulations
4VAC50-50	Erosion and Sediment Control Certification Regulations
4VAC50-60	Virginia Stormwater Management Program (VSMP) Permit Regulations
4VAC50-70	Resource Management Plans
9VAC10-20	Chesapeake Bay Preservation Area Designation and Management Regulations

Relevant DEQ Laws - Federal and Virginia

Citation	Title
33 USC Chapter 26 Section 1313	Water Quality Standards and Implementation Plans
40 CFR 131	Water Quality Standards
40 CFR Part 122	EPA Administered Permit Programs: The National Pollutant Discharge Elimination System
40 CFR Part 123	State Program Requirements
40 CFR Part 412	Concentrated Animal Feeding Operations (CAFO) Point Source Category
40 CFR Part 503	Standards for the Use or Disposal of Sewage Sludge
§§ 62.1-44.2. thru 62.1-44.43:28	Short title; purpose (State Water Control Law)
§ 62.1-44.15	Powers and duties; civil penalties
§ 62.1-44.15:6	Permit fee regulations
§ 62.1-44.16.	Industrial wastes
§ 62.1-44.17.	Other wastes
§ 62.1-44.17:1	Permits for confined animal feeding operations
§ 62.1-44.17:1.1	Poultry waste management program
§ 62.1-44.19:3	Prohibition on land application, marketing and distribution of sewage sludge without permit; ordinances; notice requirement; fees
§ 62.1-44.19:3.1	Certification of sewage sludge land applicators
§ 62.1-44.19:3.2	Local enforcement of sewage sludge regulations
§ 62.1-44.19:3.3	Septage disposal

Relevant DEQ Regulations

Citation	Title
9VAC25-20	Fees for Permits and Certificates
9VAC25-31	Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation
9VAC25-32	Virginia Pollution Abatement (VPA) Permit Regulation
9VAC25-40	Regulation For Nutrient Enriched Waters and Dischargers Within the Chesapeake Bay Watershed
9VAC25-110	Virginia Pollutant Discharge Elimination System (VPDES) General Permit For Domestic Sewage Discharges of Less Than or Equal to 1,000 Gallons Per Day
9VAC25-115	General Virginia Pollutant Discharge Elimination System (VPDES) Permit for Seafood Processing Facilities
9VAC25-120	General Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation for Discharges from Petroleum Contaminated Sites, Groundwater Remediation and Hydrostatic Tests
9VAC25-151	General Virginia Pollutant Discharge Elimination System (VPDES) Permit For Discharges of Stormwater Associated With Industrial Activity
9VAC25-190	Virginia Pollutant Discharge Elimination System (VPDES) General Permit Regulation For Nonmetallic Mineral Mining
9VAC25-191	Virginia Pollutant Discharge Elimination System (VPDES) General Permit For Concentrated Animal Feeding Operations
9VAC25-192	Virginia Pollution Abatement (VPA) General Permit Regulation For Animal Feeding Operations
9VAC25-193	General Virginia Pollutant Discharge Elimination System (VPDES) Permit For Concrete Products Facilities
9VAC25-194	General Virginia Pollutant Discharge Elimination System (VPDES) Permit For Car Wash Facilities
9VAC25-196	General Virginia Pollutant Discharge Elimination System (VPDES) Permit for Noncontact Cooling Water Discharges of 50,000 Gallons Per Day or Less
9VAC25-260	Water Quality Standards
9VAC25-630	Virginia Pollution Abatement Regulation And General Permit For Poultry Waste Management
9VAC25-720	Water Quality Management Planning Regulation

9VAC25-740	Water Reclamation and Reuse Regulation
9VAC25-790	Sewage Collection And Treatment Regulations
9VAC25-800	Virginia Pollutant Discharge Elimination System (VPDES) General Permit For Discharges Resulting From The Application Of Pesticides To Surface Waters
9VAC25-810	General Virginia Pollutant Discharge Elimination System (VPDES) Permit For Coin-Operated Laundry
9VAC25-820	General Virginia Pollutant Discharge Elimination System (VPDES) Watershed Permit Regulation For Total Nitrogen And Total Phosphorus Discharges And Nutrient Trading In The Chesapeake Bay Watershed In Virginia
9VAC25-860	General Virginia Pollutant Discharge Elimination System (VPDES) Permit For Potable Water Treatment Plants

Appendix 2- The DCR's and the DEQ's Water Programs' Financial Summaries

The following cost tables represent direct costs of the DCR's and the DEQ's water quality programs. Indirect costs including Information Technology, Financial Management, Enforcement, and Policy have not been included in this summary but will be evaluated when DCR programs transfer.

DCR's Stormwater Management Program Financial Summary

FY 2013 Beginning Appropriation:

	Activity: Stormwater Management - Administration	
Expense category*		
Fund Code	0100 – General Fund	Total
FTE's filled in July 2012	1	1
Vacancies	1	1
Total FTEs	2	2
Service area 50301 – Stormwater Management - Administration	$ 250,000	$ 250,000

*Central Office rent costs, human resources support, IT systems support, procurement support, and finance support costs were not allocated as a part of this example

FY 2013 Beginning Appropriation:

	Activity: Conservation & Restoration Programs								
Expense Category *									
Fund Code	0100 – General Fund	0252 - Chesapeake Bay Restoration Fund	0280 - Indirect Cost Recoveries	0908 – Sludge Management Fund	0925 - SWCD Dam Maint/Sm Repair	0934 - Water Quality Improvement Fund	0936 - Natural Resource Commitment Fund	1000 – Federal Fund	Total
FTE's filled in July 2012	7			1				8	16
Vacancies	0			1				1	2
Total FTEs	7			2			0	9	18
Service area 50301 – Conservation & Restoration - Administration	$ 408,155								$ 408,155
Service area 50301 – Conservation & Restoration - Financial Incentives	$ 550,000	$ 312,662	$ 75,000	$ 108,901				$4,996,998	$6,043,561
Service area 50301 – Conservation & Restoration - Nutrient Management				$ 79,094				$ 233,702	$ 312,796

	Activity: Conservation & Restoration Programs (continued)								
Fund Code	0100 – General Fund	0252 - Chesapeake Bay Restoration Fund	0280 - Indirect Cost Recoveries	0908 – Sludge Management Fund	0925 - SWCD Dam Maint/Sm Repair	0934 - Water Quality Improvement Fund	0936 - Natural Resource Commitment Fund	1000 – Federal Fund	Total
Service area 50301 – Conservation & Restoration - Program & Technical Support	$ 200,000							$ 259,354	$ 459,354
Service area 50301 – Conservation & Restoration - SWC District Operations	$ 1,700,000								$ 1,700,000
Service area 50301 – Conservation & Restoration - Agriculture BMP Cost Share						$ 8,000,847	$ 24,642,157		$ 32,643,004
Service area 50320 – Conservation & Restoration - SWC District Operations	$ 4,387,091				$ 100,000				$ 4,487,091

	Activity: Conservation & Restoration Programs (continued)								
Fund Code	0100 – General Fund	0252 - Chesapeake Bay Restoration Fund	0280 - Indirect Cost Recoveries	0908 – Sludge Management Fund	0925 - SWCD Dam Maint/Sm Repair	0934 - Water Quality Improvement Fund	0936 - Natural Resource Commitment Fund	1000 – Federal Fund	Total
Service area 50322 – Conservation & Restoration - SWC District Technical Support	$ 402,395						$ 2,640,000		$ 3,042,395
Conservation & Restoration - Total	$ 7,647,641	$ 312,662	$ 75,000	$ 187,995	$ 100,000	$ 8,000,847	$ 27,282,157	$ 5,490,054	$ 49,096,356

*Central Office rent costs, human resources support, IT systems support, procurement support, and finance support costs were not allocated as a part of this example

FY2013 Beginning Appropriation:

Expense category *	**Activity: Regional Operations**				
Fund Code	0100 – General Fund	0200 – Special Fund	0902 – Stormwater Management Fund	1000 – Federal Fund	Total
FTE's filled in July 2012	19	2	8	22	51
Vacancies	6	0	2	6	14
Total FTEs	25	2	10	28	65
Service area 50301 – Regional Operations - Administration	$ 290,000				$ 290,000
Service area 50301 – Regional Operations - Abingdon	$ 425,000			$ 145,558	$ 570,558
Service area 50301 – Regional Operations - Christiansburg	$ 425,000	$ 100,000	$ 391,063	$ 192,189	$ 1,108,252
Service area 50301 – Regional Operations - Richmond	$ 750,000		$ 131,493	$ 269,424	$ 1,150,917
Service area 50301 – Regional Operations - Staunton	$ 950,000		$ 145,520	$ 484,993	$ 1,580,513
Service area 50301 – Regional Operations - Suffolk	$ 950,000		$ 126,148	$ 340,558	$ 1,416,706
Service area 50301 – Regional Operations - Tappahannock	$ 950,000		$ 417,414	$ 270,251	$ 1,637,665
Service area 50301 – Regional Operations - Warrenton	$ 550,000	$ 100,000	$ 153,173	$ 260,566	$ 1,063,739
Regional Operations - Total	$ 5,290,000	$ 200,000	$ 1,364,811	$ 1,963,539	$ 8,818,350

*Central Office rent costs, human resources support, IT systems support, procurement support, and finance support costs were not allocated as a part of this example

FY2013 Beginning Appropriation:

	Activity: Regulatory Programs				
Expense Category *					
Fund Code	0100 – General Fund	0200 – Special Fund	0902 – Stormwater Management Fund	1000 – Federal Fund	Total
FTE's filled in July 2012	6	4	5	2	17
Vacancies	1	1	1	0	3
Total FTEs	7	5	6	2	20
Service area 50301 – Regulatory Programs - Administration	$ 150,000		$ 231,744	$ 90,893	$ 472,637
Service area 50301 – Regulatory Programs - Training & Certification	$ 150,000	$ 784,811	$ 139,973		$ 1,074,784
Service area 50301 – Regulatory Programs - Permits		$ 305,200	$ 648,394		$ 953,594
Service area 50301 – Regulatory Programs - Program Guidance & Management	$ 1,200,000	$ 722,483		$ 61,059	$ 1,983,542
Regulatory Programs - Total	$ 1,500,000	$ 1,812,494	$ 1,020,111	$ 151,952	$ 4,484,557

*Central Office rent costs, human resources support, IT systems support, procurement support, and finance support costs were not allocated as a part of this example

The DEQ Water Programs' Financial Summary

FY 2013 Beginning Appropriation:

	Activity: Land Application Programs			
Expense Category *				
Fund Code	0100 – General Fund	0908 – Sludge Management Fund	1000 – Federal Funds	Total
FTE's filled in July 2012	8.00	16.35		24.35
Vacancies	0.00	2.55		2.55
Total FTEs	8.00	18.90		26.90
Service area 51225 – Water Protection Permitting Costs	$ 124,661	$ 270,333		$ 394,994
Service area 51226 – Water Protection Compliance and Enforcement Costs	$ 498,642	$ 1,189,910		$ 1,688,552
Service area 51227 – Water Protection Outreach Costs		$ 77,499		$ 77,499
Service area 51228 – Water Protection Planning				
Service area 51502 – Environmental Financial Assistance Costs		$ 102,000		$ 102,000
Service area 51503 – Virginia Water Facilities Revolving Loan Funds				
Service area 51510 – Virginia Water Quality Improvement Fund				
Total	$ 623,303	$ 1,639,742		$ 2,263,045

* Rent costs, human resources support, IT systems support and finance support costs were not allocated as a part of this example

FY 2013 Beginning Appropriation:

	Activity: Water Quality Permitting **				
Expense Category *					
Fund Code	0100 – General Fund	0907 – Va. Environmental Emergency Response Fund	0914 – State Water Control Board Permit Fees	1000 – Federal Funds	Total
FTE's filled in July 2012	42.70	3.50	32.50	3.50	82.20
Vacancies	12.25		3.00	0.75	16.00
Total FTEs	54.95	3.50	35.50	4.25	98.20
Service area 51225 – Water Protection Permitting Costs	$ 3,833,420	$ 253,519	$ 3,682,692	$676,633	$ 8,446,264
Service area 51226 – Water Protection Compliance and Enforcement Costs					
Service area 51227 – Water Protection Outreach Costs					
Service area 51228 – Water Protection Planning					
Service area 51502 – Environmental Financial Assistance Costs				$ 300,000	$ 300,000
Service area 51503 – Virginia Water Facilities Revolving Loan Funds					
Total	$ 3,833,420	$ 253,519	$ 3,682,692	$ 976,633	$ 8,746,264

* Rent costs, human resources support, IT systems support and finance support costs were not allocated as a part of this example

** Water permitting includes costs and FTEs for VPDES, groundwater, some VPA, and the Virginia Wetlands program

FY 2013 Beginning Appropriation:

	Activity: Water Compliance and Enforcement **			
Expense Category *				
Fund Code	0100 – General Fund	0914 – State Water Control Board Permit Fees	1000 – Federal Funds	Total
FTE's filled in July 2012	43.30	13.70	8.90	65.90
Vacancies	2.70	2.25	0.50	5.45
Total FTEs	46.00	15.95	9.40	71.35
Service area 51225 – Water Protection Permitting Costs				
Service area 51226 – Water Protection Compliance and Enforcement Costs	$ 2,974,605	$ 1,598,355	$ 3,109,299	$ 7,682,259
Service area 51227 – Water Protection Outreach Costs	$ 166,200			$ 166,200
Service area 51228 – Water Protection Planning				
Service area 51502 – Environmental Financial Assistance Costs				
Service area 51503 – Virginia Water Facilities Revolving Loan Funds				
Service area 51510 – Virginia Water Quality Improvement Fund				
Total	$ 3,140,805	$ 1,598,355	$ 3,109,299	$ 7,848,459

* Rent costs, human resources support, IT systems support and finance support costs were not allocated as a part of this example

** Water compliance and enforcement includes costs and FTEs for VPDES, groundwater, some VPA, and the Virginia Wetlands program

FY 2013 Beginning Appropriation:

	Activity: Water Quality Planning			
Expense Category *				
Fund Code	0100 – General Fund	0914 – State Water Control Board Permit Fees	1000 – Federal Funds	Total
FTE's filled in July 2012	21.10	0.00	13.40	34.50
Vacancies	0.00	0.00	2.00	2.00
Total FTEs	21.10	0.00	15.40	36.50
Service area 51225 – Water Protection Permitting Costs				
Service area 51226 – Water Protection Compliance and Enforcement Costs				
Service area 51227 – Water Protection Outreach Costs				
Service area 51228 – Water Protection Planning	$ 2,408,288	$ 71,972	$ 1,051,453	$ 3,531,713
Service area 51502 – Environmental Financial Assistance Costs	$ 170,930		$1,000,000	$1,170,930
Service area 51503 – Virginia Water Facilities Revolving Loan Funds				
Service area 51510 – Virginia Water Quality Improvement Fund				
Total	$ 2,579,218	$ 71,972	$ 2,051,453	$ 4,702,643

* Rent costs, human resources support, IT systems support and finance support costs were not allocated as a part of this example

FY 2013 Beginning Appropriation:

	Activity: Water Protection Monitoring and Assessment			
Expense Category *				
Fund Code	0100 – General Fund	0914 – State Water Control Board Permit Fees	1000 – Federal Funds	Total
FTE's filled in July 2012	48.15	0.00	6.10	54.25
Vacancies	8.50	0.00	0.50	9.00
Total FTEs	56.65	0.00	6.60	63.25
Service area 51225 – Water Protection Permitting Costs				
Service area 51226 – Water Protection Compliance and Enforcement Costs				
Service area 51227 – Water Protection Outreach Costs				
Service area 51229 – Water Protection Monitoring	$ 5,212,091	$ 158,286	$ 1,301,397	$ 6,671,774
Service area 51502 – Environmental Financial Assistance Costs	$ 266,904		$1,100,000	$ 1,366,904
Service area 51503 – Virginia Water Facilities Revolving Loan Funds				
Service area 51510 – Virginia Water Quality Improvement Fund				
Total	$ 5,478,995	$ 158,286	$ 2,401,397	$ 8,038,678

* Rent costs, human resources support, IT systems support and finance support costs were not allocated as a part of this example

FY 2013 Beginning Appropriation:

	Activity: Virginia Wastewater Treatment Construction Assistance Loan Program			
Expense Category *				
Fund Code	0100 – General Fund	0914 – State Water Control Board Permit Fees	1000 – Federal Funds	Total
FTE's filled in July 2012	1.78	0.00	8.90	10.68
Vacancies	0.33	0.00	1.67	2.00
Total FTEs	2.11	0.00	10.57	12.68
Service area 51225 – Water Protection Permitting Costs				
Service area 51226 – Water Protection Compliance and Enforcement Costs				
Service area 51227 – Water Protection Outreach Costs	$ 140,798		$ 703,988	$ 844,786
Service area 51228 – Water Protection Planning				
Service area 51502 – Environmental Financial Assistance Costs				
Service area 51503 – Virginia Water Facilities Revolving Loan Funds	$ 1,705,946		$21,453,097	$23,159,043
Service area 51510 – Virginia Water Quality Improvement Fund				
Total	$ 1,846,744		$ 22,157,085	$24,003,829

* Rent costs, human resources support, IT systems support and finance support costs were not allocated as a part of this example

FY 2013 Beginning Appropriation:

	Activity: Water Quality Improvement Fund **			
Expense Category *				
Fund Code	0100 – General Fund	0934 – Water Quality Improvement Fund	1000 – Federal Funds	Total
FTE's filled in July 2012	0.00	0.00		0.00
Vacancies	0.00	0.00		0.00
Total FTEs	0.00	0.00		0.00
Service area 51225 – Water Protection Permitting Costs				
Service area 51226 – Water Protection Compliance and Enforcement Costs				
Service area 51502 – Environmental Financial Assistance Costs				
Service area 51503 – Virginia Water Facilities Revolving Loan Funds				
Service area 51510 – Virginia Water Quality Improvement Fund		$ 87,569,394		$ 87,569,394
Total		$ 87,569,394		$ 87,569,394

* Rent costs, human resources support, IT systems support and finance support costs were not allocated as a part of this example

** As of July 2012, there was approximately $115.1 million of grant commitments remaining on 57 signed WQIF point source grant agreements. There is also a separate bond fund that has $17.9 million of available bond authority remaining as of July 1, 2012. This $17.9 million authority, combined with the $87.6 million appropriation above, equates to a total funding available in FY 2013 of $105.5 million. Thus, the current funding shortfall for existing grant commitments is approximately $9.6 million as of July 2012. These numbers change weekly as payments are made or revised and grant agreements are made, revised or closed.