# Chapter 7. WATER QUALITY PROGRAMS

# This chapter provides an overview of DEQ’s on-going commitment to the protection of water quality.

# Chapter 7.1. Water POLLUTION CONTROL

# Virginia Pollutant Discharge Elimination System (VPDES)

# The Commonwealth of Virginia has operated a successful state discharge permit program since 1946. The Federal Water Pollution Control Act (the Clean Water Act) was amended in 1972 to require a uniform permit program nationwide, allowing all states to uniformly control industrial and municipal wastewater discharges. Some states elected to have the federal government manage their permit program. Virginia requested delegation of authority from EPA to administer its own permit program in conformance with NPDES regulations. In April 1975, Virginia received the authority to administer the NPDES program as the VPDES permit program. The VPDES Permit Regulation, 9VAC25-31, establishes the procedures and requirements for this Program.

VPDES permits establish limits on the quantity and/or concentration of pollutants allowed in the discharge to ensure that the VA Water Quality Standards are maintained and all beneficial uses of receiving streams are protected. The VPDES permits implement the applicable requirements of federal effluent guidelines, as well as the Virginia Water Quality Standards. Effluent limits are written to ensure that the most appropriate of these regulations is applied to the discharge. The permittee must monitor the quality of the effluent and report the results to DEQ. The permit also requires the facility to be properly operated and maintained. Permits may also contain additional requirements detailed as “Special Conditions” in the permit. Examples of these special conditions are:

1. Pretreatment programs for publicly owned treatment works (POTW’s) – requirements for the POTW to have the ability to control the discharges from contributing industries.

2. Stormwater pollution prevention plans.

3. Whole Effluent Toxicity Program – this program requires the permittee to perform aquatic toxicity testing on the discharged effluent to determine reasonable potential for toxicity.

4. Land Application of Sewage Sludge.

DEQ is also utilizing the concept of general permits to streamline the permitting process and conserve resources of both the permittee and DEQ.

***Individual Permits***

* *Municipal Facilities*

As of December 2021, VPDES individual permits were in effect for 548 municipal wastewater treatment facilities. The term “municipal” generally refers to facilities that treat predominantly domestic sewage, but which may also treat wastewaters from indirect industrial sources transmitted to the facility through a central sanitary sewer collection system. Facilities classified as “municipal” may be either publicly- or privately-owned. The total number of municipal VPDES permits is further sub-characterized to include 448 “minor” municipal facilities [with design capacities greater than or equal to 1,000 gallons per day, but less than 1.0 million gallons per day (MGD)], and 100 “major” municipal facilities [with design capacities greater than or equal to 1.0 MGD]. These facilities treat an estimated 95 percent of all the sewage in Virginia

* *Industrial Facilities*

As of December 2021, VPDES individual permits were in effect for 270 industrial facilities. The “industrial” category refers to the discharge of liquids or other wastes generated at locations where business or trade is conducted, services or industrial operations are performed, natural resources are developed, or raw materials are changed or manufactured into useful products. The total number of industrial VPDES permits is further sub-categorized to include 231 “minor” and 39 “major” industrial facilities. “Major” and “minor” VPDES permit status for industrial facilities are assigned through an agreement between EPA and DEQ. At a national level, regulations have been adopted by EPA identifying minimum industrial wastewater treatment levels [referred to as federal “effluent limitation guidelines” (ELGs)] to be achieved for at least 57 different industrial sectors. Industrial sectors with promulgated federal ELGs include chemical, cement, electroplating, iron and steel, machinery, mining, pharmaceutical, power generation, pulp and paper, textile, and a number of other industrial and manufacturing activities.

* *Concentrated Animal Feeding Operations*

As of December 10, 2021, VPDES individual permits were in effect for 10 Concentrated Animal Feeding Operations (CAFOs). Virginia State Water Control Law (§ 62.1-44.17:1.A1) limits the applicability of the VPDES regulations to CAFOs to the extent necessary to comply with federal regulation, thus the owner of a CAFO is not required to obtain VPDES permit coverage for the potential to discharge.

***General Permits***

General permits (GPs) are written for a general class of discharge with similar effluent characteristics. Virginia was granted GP authority from EPA in May 1991. GPs have streamlined the VPDES permit process, and reduced the paperwork, time and expense of obtaining a permit and allow staff resources to be concentrated on individual permits. GPs are promulgated as regulations and typically require a facility owner or operator to apply for GP coverage through the submittal of a Registration Statement. The following DEQ-administered VPDES GPs are available in Virginia:

* Petroleum Contaminated Sites, Groundwater Remediation, and Hydrostatic Tests (VAG83)
* Stormwater Discharges Associated With Industrial Activity (VAR05)
* Non-Metallic Mineral Mining (VAG84)
* Domestic Sewage Discharges <= 1,000 GPD (VAG40)
* Noncontact Cooling Water Discharges (VAG25)
* Seafood Processing Facilities (VAG52)
* Vehicle Wash and Laundry Facilities (VAG75)
* Concrete Product Facilities (VAG11)
* Watershed Permit for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Bay Watershed (VAN00)
* Pesticide Discharges (VAG87)
* Potable Water Treatment Plants (VAG64)
* Stormwater Discharges From Small Municipal Separate Storm Sewer Systems (MS4s) (VAR040)
* Stormwater Discharges From Construction Activities (VAR10) – See information on Virginia’s Stormwater Management Program below;

The DEQ administers Virginia Pollution Abatement (VPA) general permits for Animal Feeding Operations and Poultry Waste Management to address potential discharges of animal wastes. CAFOs may also be covered by a VPA permit rather than a VPDES permit if the facility does not have a point-source discharge to surface waters.

There are 5,034 dischargers in Virginia registered for coverage under the general permits (GPs) mentioned above, not including the Construction GP, Pesticide GP, and certain projects and hydrostatic testing under the Petroleum, Groundwater Remediation and Hydrostatic Testing GP There are 6,761 active Construction GPs. The administration of the majority of VAR10 Construction Stormwater GPs has been delegated to approved local, state, federal, or utility authorities under the Virginia Stormwater Management Program (VSMP), 9VAC25-870. VSMP delegated authorities receive and accept Registration Statement and fee collection submittals, and undertake stormwater management plan review and approvals to ensure consistency with the requirements of the VAR10 GP. The Pesticide Discharges general permit does not require a discharger to register in order to be covered under the permit. Additionally, the Petroleum Contaminated Sites, Groundwater Remediation, and Hydrostatic Tests general permit does not require short term projects (14 days or less) and hydrostatic testing discharges to register in order to be covered under the permit.

As of December 2021, there were 5,034 dischargers in Virginia registered for VPDES GP coverage as follows:

| **VPDES General Permit** | **Number in effect**  **as of October 31, 2019** |
| --- | --- |
| VAG40, Domestic Sewage | 2,855 |
| VAG52, Seafood Processing | 43 |
| VAG83, Petroleum, Remediation and Hydrostatic Testing | 33 (Some automatic coverage) 1 |
| VAR05, Industrial Storm Water | 1,235 |
| VAG84, Nonmetallic Mineral Mining | 181 |
| VAG11, Concrete Products | 224 |
| VAG75, Vehicle Wash and Laundry | 91 |
| VAG25, Noncontact Cooling Water | 20 |
| VAN, Nutrient Trading | 144 |
| VAG87, Application of Pesticides | (Automatic coverage) 2 |
| VAG64, Potable Water Treatment Plants | 107 |
| VAR04, Small MS4 | 101 |
| **Total**: | **5,034** |

Table 7.1-1 VPDES General Permit Registrations

1 The VAG83 Petroleum Contaminated Sites, Groundwater Remediation, and Hydrostatic Tests general permit does not require short term projects (14 days or less) and hydrostatic testing discharges to register in order to be covered under the permit. Short term projects include emergency repairs, dewatering projects, utility work and repairs in areas of known contamination, tank placement or removal in areas of known contamination, pilot studies, pilot tests, aquifer tests and new well construction discharges of groundwater.

2 The VAG87 Pesticide GP does not require an operator to submit a Registration Statement to DEQ for a pesticide discharge to be authorized. Any operator that meets the eligibility requirements and applies pesticides under one of the five pesticide use patterns (Mosquito and Other Flying Insect Pest Control; Weed and Algae Pest Control; Animal Pest Control; Forest Canopy Pest Control. and Intrusive Vegetation Pest Control) in, over, or near surface waters in Virginia is automatically covered under the VAG87 GP.

***Fees for Permits and Certificates***

The 1992 General Assembly enacted Section 62.1-44.15:6 of Article 2.1 of the Code of Virginia, which established a fee assessment and collection system for permits and certificates. In response to this action, the SWCB adopted the “Fees for Permits and Certificates” regulation, 9VAC25-20, which established fee schedules for VPDES, Virginia Pollution Abatement (VPA), Virginia Water Protection (VWP), and Surface and Ground Water Withdrawal individual and GPs, and the land application of biosolids and industrial residuals. VPDES permit fees for MS4s (both individual and general permits) and for registration under the Construction Stormwater GP (VAR10) are found in the VSMP Regulation, 9VAC25-870.

The assessment of fees allows DEQ to recover a portion of the cost of processing applications for permits or certificates that DEQ has the authority to issue. In 2002, the General Assembly amended and reenacted Section 62.1-44.15:6 of the Code of Virginia. These amendments increased the existing permit fees, and were intended to make the water permit program "self-funding". The fee regulation was modified to incorporate the amendments to the law, and the modification became effective on July 1, 2002. In 2004, the General Assembly again amended and reenacted Section 62.1-44.15:6 of the Code of Virginia, and made the increased fees permanent. The fee regulation was modified again to incorporate the new amendments, and the changes became effective on July 1, 2004. The major change to the law and regulation was for VPDES and VPA individual permits. The reapplication fee was eliminated for these permits and replaced with an Annual Permit Maintenance Fee, payment of which is due by October 1 of each year. In 2010, the State Water Control Board adopted amendments to the Annual Permit Maintenance Fee section of the Fee Regulation to address budget changes made by the 2010 General Assembly. The new fee schedule became effective August 18, 2010 and allows for annual adjustments to the base Annual Permit Maintenance Fees based on changes to the Consumer Price Index.

Agricultural operations and maintenance dredging for federal navigation channels are exempt from payment of permit fees. In addition, there are no fees for filing for coverage under the following GPs:

* VPDES General Permit for Domestic Discharges of Less Than or Equal to 1,000 GPD (VAG40);
* VPDES General Permit for Discharges from Petroleum Contaminated Sites, Groundwater Remediation, and Hydrostatic Tests (VAG83),
* VPDES General Permit for Discharges Resulting from the Application of Pesticides to Surface Waters (VAG87)
* VPA General Permit for Pollutant Management Activities for Animal Feeding Operations and Animal Waste Management (VPG1)
* VPA General Permit for Poultry Waste Management (VPG2); and
* VWP General Permit for Surface Water Impact (Wetlands, Streams and/or Open Water) of Less than 4,356 sq. ft. (1/10 acre).

Application fees for all other VPDES permits range from $500 for an Industrial Stormwater general permit to $24,000 for a VPDES “Industrial Major” permit. Fees also apply to major permit modifications requested by a permit or certificate holder. Participants in the Virginia Environmental Excellence Program (VEEP) may be eligible for discounted Annual Permit Maintenance Fees based on their VEEP level of participation and other criteria.

***Whole Effluent Toxicity Program***

Requirements to monitor for the aggregate toxicity effect of pollutants present in a discharge are included in VPDES individual permits as special conditions, or as General Permit application submittal requirements. DEQ’s Whole Effluent Toxicity (WET) Program originated in the early 1980’s. The aim of the program is to involve all industrial and municipal VPDES permit holders that potentially discharge toxic pollutants into a systematic program of biological testing. The testing is designed to identify wastewater discharges that are toxic to aquatic life.

The need for WET testing is determined at the time of permit issuance, reissuance, or modification, using information provided by the permittee as part of the VPDES permit application, as well as additional data generated by the DEQ or other sources. Generally, WET special conditions include quarterly acute, or acute and chronic toxicity testing using vertebrate and invertebrate species. The duration of testing may be based on a time period with a regular frequency, an event prior to discharge, or until a certain number of tests have been performed. The WET data generated for a particular outfall are evaluated for reasonable potential for toxicity. If the data do not show reasonable potential, the permittee may continue biological testing at a much-reduced frequency. However, if the data show reasonable potential, a WET numeric effluent limit is developed and put into the permit with a compliance schedule.

***Pretreatment Program***

Virginia’s Industrial Pretreatment Program controls industrial discharges to Publicly Owned Treatment Works (POTWs). Municipal sewage treatment plants are usually not designed to treat toxic industrial wastes. Such wastes may interfere with the plant’s biological treatment processes, pass through untreated into receiving waters or contaminate POTW sludge to the extent that lawful disposal is precluded. POTWs with industrial contributors may be required to develop a Pretreatment Program and become the Control Authority. EPA delegated oversight and regulation of the POTW pretreatment programs to the DEQ on April 14, 1989.

Standards imposed on industrial users include general standards, prohibitive discharge standards, categorical standards, and local limits developed by POTWs. General standards are narrative prohibitions against pass-through and interference and are applicable to all industrial users. Prohibitive discharge standards are also applicable to all industrial users and include limitations on parameters such as pH and temperature, measured in industrial discharges. Categorical standards are federal technology-based standards developed for certain categories of industries discharging to POTWs. In addition, POTWs are required to develop local limits for substances that have the potential to cause interference with treatment or pass through in toxic amounts to receiving waters.

Pretreatment facilities are controlled through municipal ordinances and are required to self-monitor and report biennially to the municipality, which reports to DEQ.

***The Virginia Compliance Auditing System***

The DEQ monitors the performance of municipal and industrial dischargers through a computerized compliance auditing system. Under the VPDES permit program, major facilities are required to submit monthly plant performance reports based upon self-monitoring of the parameters listed in the discharge permit. Facilities authorized to discharge under individual VPDES permits report on an individually assigned frequency. These discharge-monitoring reports (DMRs) indicate the quality of plant effluent and whether any bypasses have occurred. Data from DMRs are electronically transferred or manually entered by the regional offices into DEQ's Comprehensive Environmental Data System (CEDS), which compares all parameters to permit limits or other permit conditions, or other orders to detect any violations.

When a permit or other enforceable requirement is not met, it is observed through CEDS, the system assesses weighting points according to the severity and frequency of the exceedance(s). In addition to the automatic detection of effluent exceedances through CEDS, compliance schedules, as well as other required due dates both in permits and enforcement actions, are also tracked through CEDS. Weighting points are also assigned for single event alleged violations reported to DEQ by permittees, the public or other sources. All weighting point values are assessed and tallied for the previous six months. When accumulated values exceed specified limits, or any time an alleged violation is observed which is determined to cause environmental harm, enforcement action may be initiated. Additional enforcement activity may result from problems discovered during on-site inspections.

The accumulated records of weighting point values are used as a tool to aid objective focus when determining appropriate enforcement activity. The program also ensures that permittees are fully aware of problems as they develop and have an opportunity to improve treatment in order to maintain compliance.

***Virginia Pollution Abatement Permits***

A Virginia Pollution Abatement (VPA) Permit may be issued by the DEQ whenever an owner handles wastes or wastewater in a manner that does not involve discharging to a sewage treatment facility or to state waters pursuant to a valid VPDES permit. The Virginia Pollution Abatement Permit Regulation (9 VAC 25-32) was adopted in 1996. Pollution abatement facilities approved through the VPA permit program may include pits, ponds, and lagoons for waste storage, treatment, or recycling. Permits are also required for the land application and distribution and marketing of biosolids, land application of certain industrial wastes, and on-site facilities, such as land treatment systems. The basis for approval for such systems includes assurance that waste or wastewater will not discharge directly into state surface waters except under prescribed extreme rainfall conditions, and for protection of ground water quality.

To address and gauge compliance with the state’s groundwater standards, whenever pits, ponds, lagoons, and/or land treatment is part of a proposed or VPA-permitted facility, a ground water monitoring program may be required as part of, or prior to, receiving approval for a VPA permit. Land application is a no-discharge alternative to conventional discharging systems. Land treatment is frequently a cost-effective alternative to direct discharge to surface waters, and can be a technically sound means of waste or wastewater utilization.

***Biosolids***

Prior to 1994, DEQ administered the regulatory program for biosolids (treated sewage sludge). The Virginia Department of Health (VDH) administered the program from 1994-2007. In 2008, DEQ once again assumed regulatory oversight at the direction of the 2007 Virginia General Assembly. Virginia State Water Control Law now requires that any person that land applies or distributes and markets biosolids (treated sewage sludge) in Virginia must obtain either a VPDES or VPA permit.

Wastewater treatment plants that land apply biosolids may do so under the authorization of their VPDES discharge permit, may obtain a separate VPA permit, or may contract with a land applier that holds a VPA permit. All biosolids permits require that biosolids meet minimum requirements for pathogen reduction, vector attraction reduction, and pollutant concentrations. Permits require the implementation of a nutrient management plan (NMP) written to the standards and criteria established by the Virginia Department of Conservation and Recreation. NMPs require that land application rates be limited by nitrogen in all cases, and phosphorus where soil test levels exceed certain thresholds. Permits include mandatory setbacks from a number of geographic features such as surface water, wells, and springs, as well as homes and property lines.

DEQ also administers a training and certification program for persons that land apply biosolids. DEQ coordinates with VDH regarding public health concerns. Only biosolids that meet stricter pathogen reduction criteria may be distributed and marketed in Virginia.

***Animal Feeding Operations***

The DEQ animal waste program regulates farms under both the Virginia Pollution Abatement (VPA) Permit Regulation (9VAC25-32 et seq.) and the Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation (9VAC25-31 et seq.). An animal feeding operation (AFO) is a lot or facility where animals are stabled or confined for a total of 45 days or more in any 12-month period, and where crops or vegetative growth is not maintained in the normal growing season over the lot or facility. AFOs that confine more than 300 animal units of livestock and handle liquid manure are required to obtain coverage under the VPA Regulation and General Permit for AFOs and Animal Waste Management (9VAC25-192 et seq.). The VPA AFO general permit governs the management of animal waste by the farm and by those who receive the manure from the permitted farm. Poultry operations that confine more than 200 animal units (20,000 chickens or 11,000 turkeys) must register for coverage under the VPA General Permit for Poultry Waste Management (9VAC25-630 et seq.). The VPA Regulation and General Permit for Poultry Waste Management governs the management of poultry waste at confined poultry feeding operations and poultry waste utilized or stored by those who receive the poultry waste from the permitted farm including poultry waste brokers. Concentrated Animal Feeding Operations (CAFOs) are AFOs that meet a specific number and type of confined animals. CAFOs that discharge into State Waters may be required to obtain a VPDES CAFO individual permit. Of the 1,026 farms covered by a DEQ permit, there are 118 farms covered under the VPA AFO general permit, 893 farms covered under the VPA Poultry Waste Management general permit, 10 farms covered by the VPDES CAFO individual permit.

**VPDES Compliance Inspection Program**

The DEQ Virginia Pollutant Discharge Elimination System (VPDES) Permit program, the Pretreatment program, the Virginia Pollution Abatement (VPA) Permit program, and the VPDES and VPA general permit program rely primarily on the concept of permittee self-monitoring and reporting for compliance determinations. To insure proper operation and maintenance of facilities and confirm self-monitoring information is representative and accurate, the DEQ conducts facility inspections as the principal form of regulatory compliance surveillance. The DEQ utilizes a risk-based protocol to identify facilities needing increased or decreased inspection frequency and/or complexity while using staff resources most effectively to accomplish inspection goals.

***Inspection Program Objectives***

The objectives of the inspection program are:

* + - to assure that facilities are in compliance with statutes, regulations, and permit requirements, thereby protecting the quality of state waters
    - to improve facility performance by providing advice and assistance,
    - to support permit development,
    - to maintain a regulatory presence,
    - to support administrative, civil, and criminal enforcement actions,
    - to support development and implementation of the pretreatment program.

Each inspection of a wastewater treatment facility will not accomplish every objective but most inspections are useful in accomplishing several of the above objectives. Therefore, inspection frequencies are scheduled to provide maximum coverage of facilities within available DEQ resources. See Table 7.1-1.

| **Facility Type** | **Annually** | **Biennially** | **5 Years** |
| --- | --- | --- | --- |
| VPDES Municipal Major (≥1.0 MGD) |  | **X** |  |
| VPDES Municipal Minor (≥0.04 & ≤1.0 MGD) |  |  | **X** |
| VPDES Municipal Small (≥0.001 & ≤0.04 MGD)1 |  |  | **X** |
| VPDES Industrial Major (DEQ/EPA Majors list) |  | **X** |  |
| VPDES Industrial Minor (not a Major or Small) |  |  | **X** |
| VPDES Industrial Small2 |  |  | **X** |
| VPDES General |  |  | **X** |
| VPDES Sampling3 |  |  | **X** |
| VPG (AFO and Poultry) | **X** |  |  |
| VPA (High Priority)4 | **X** |  |  |
| VPA (Low Priority)5 |  |  | **X** |

Table 7.1-2 Inspection Frequency by Facility Type

Includes multiple home and non-residential domestic wastewater facilities covered by General Permit.

2 Small is an industrial facility with low environmental impact potential such as discharges of non-contact cooling water, sand and gravel operations, car washes, etc.

3 Sampling inspections are conducted in accordance with the Risk Based Inspection Strategy.

4 High priority is assigned to facilities with high environmental impact potential or high public concern and includes animal feeding operations, wood preserving operations, sludge disposal activities, and other facilities so classified by the Regional Offices. An inspection of sludge disposal permitted facilities includes, as a minimum, an inspection of the storage facilities and at least one land application site per permitted facility per year.

5 Low Priority is a VPA facility with low environmental impact potential.

***Erosion and Sediment Control and Stormwater Management***

In addition to the VPDES program, DEQ oversees the implementation of the Virginia Erosion and Sediment Control Law and Virginia Stormwater Management Act and their attendant regulations to control stormwater runoff associated with construction and post-construction activities. These programs incorporate the federal NPDES requirements for the regulation of stormwater from construction activities along with Virginia’s state stormwater program requirements.

Land-disturbance equal to or greater than 10,000 square feet requires an erosion and sediment control plan be submitted to the appropriate regulating authority for review and approval. ESC regulations specify the "minimum standards" that must be followed on all regulated activities including: criteria, techniques and policies. All localities administer the Virginia Erosion and Sediment Control Program (VESCP) on most land-disturbing activities on privately owned lands. DEQ implements the VESCP for 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.

Additionally, land disturbance activities equal to or greater than one acre, or less than one acre that are part of a larger common plan of development or sale that ultimately disturbs one or more acres, are regulated under the Virginia Stormwater Management Program (VSMP) Regulations (9VAC25-870) and the General Permit for Discharges of Stormwater from Construction Activities (9VAC25-880) to control water quality impacts, localized flooding, and stream channel erosion from new and redevelopment projects. These stormwater requirements serve to further safeguard the commonwealth’s receiving waters as well as fulfill the commonwealth’s commitment to reduce nonpoint source pollution from new and redevelopment projects under the Chesapeake Bay Total Maximum Daily Load (TMDL).

The construction general permit requires the operator to implement a site-specific stormwater pollution prevention plan (SWPPP) that outlines the steps that must be taken to comply with the permit, including post-construction water quality and quantity requirements, to reduce pollutants in the stormwater runoff from the construction site. The SWPPP also specifies all potential pollutant sources that could enter stormwater leaving the construction site and covers methods used to reduce pollutants in stormwater runoff during and after construction. As of July 1, 2014, any locality that operates a regulated MS4 is required to implement the VSMP for private and local public projects. Localities not required to establish a VSMP may choose to opt to do so. DEQ serves as the VSMP authority for projects on state and federal lands, activities undertaken by utility, interstate and intrastate pipeline and railroad companies, or any project in a locality that choose not to administer the VSMP. As of October 31, 2021, there were 5,827 active Construction GPs – of which more than 80 percent, the local government is the VSMP authority.

DEQ conducts periodic inspections of sites covered under the construction general permit. To ensure that local government programs are implemented in accordance with the erosion and sediment control program, DEQ conducts reviews of these programs once per 5 years. DEQ is developing a similar program to conduct reviews of the VSMP implemented by localities.

Additionally, any land-disturbing activities equal to or greater than 2,500 square feet and less than one acre located in areas designated as subject to the Chesapeake Bay Preservation Act must also comply with the minimum standards of the Virginia Erosion and Sediment Control regulations and the technical criteria and program requirements of the Virginia Stormwater Management Program regulations. However, construction general permit coverage is not required for those activities less than one acre.

***Water Quality Planning and TMDLs***

DEQ uses Water Quality Management Plans (WQMPs), required by section 303(e) of the Clean Water Act, as the link between the water quality assessment required for this report and water quality-based controls. These plans recommend control measures for the water quality problems identified and characterized in the 305(b) report. Control measures recommended in the plans are implemented through the VPDES permit system for point sources and regulated nonpoint sources such as some stormwater, and through the voluntary incentive-based application of Best Management Practices (BMPs) for nonpoint sources. WQMPs establish the strategy for returning impaired waters to meet water quality standards and for preventing the degradation of high quality waters.

Section 303(d) of the 1972 Clean Water Act requires the states to identify waters not in compliance with water quality standards, establish priorities, develop a biennial list of the impaired waters, and develop Total Maximum Daily Loads (TMDLs) for the waters on the 303(d) list. In July 1992, EPA promulgated regulations, 40 CFR 130.7, for 303(d) of the CWA. TMDLs were to be implemented through existing pollution reduction regulations and voluntary strategies.

The State Water Control Law, Chapter 3.1, Article 1 of the Code of Virginia, authorizes the State Water Control Board to control and plan for the reduction of pollutants impacting the chemical and biological quality of the state’s waters that result in the degradation of designated uses.

In 1997, the Virginia General Assembly enacted the Water Quality Monitoring, Information, and Restoration Act, §62.1-44.19:4 through 19:8 of the Code of Virginia. This statute directs DEQ to develop a list of impaired waters and develop TMDLs for these waters. Also, the state statute directs DEQ to develop implementation plans for the TMDLs. For more information on TMDL and TMDL Implementation programs, including the Clean Water Act 303(d) Program Vision, please see Chapter 7.2 of this report.