

WASTEWATER INFRASTRUCTURE WORKING GROUP REPORT

December 2022

Wastewater Infrastructure Working Group

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EXECUTIVE SUMMARY

In July of 2019 the Secretary of Natural and Historic Resources, the Secretary of Health and Human Resources, and the Secretary of Commerce and Trade signed a joint letter of agreement (Appendix A) establishing an interagency Wastewater Infrastructure Work Group to assess wastewater infrastructure needs in the Commonwealth and to develop policy recommendations. The Wastewater Infrastructure Work Group explored the prevalence of failing septic systems, particularly in Tidewater and Southwest Virginia, learned about a pilot program to assess and resolve problems with small municipal sewer systems, and discussed existing barriers to adequate waste treatment. The Wastewater Infrastructure Work Group recommended establishing a policy that prioritizes the Commonwealth’s commitment to providing all Virginians access to affordable wastewater treatment that supports their health, local economies, and clean water. To position the Commonwealth to seek and prioritize limited funding, the Wastewater Infrastructure Work Group identified research and data needs to more comprehensively and effectively assess wastewater infrastructure problems. Several

recommendations from the Wastewater Infrastructure Work Group centered on educating students and the public about wastewater treatment and preventing infrastructure failures through adequate oversight and proper maintenance. Finally, the Wastewater Infrastructure Work Group identified opportunities to maximize the use of existing funding sources for wastewater treatment and recommended increased funding.

In 2021, the General Assembly approved Chapter 382 of the Acts of Assembly (SB1396) which codified certain recommendations from the Wastewater Infrastructure Work Group. SB 1396 amended the Code of Virginia (the Code) to strengthen the Commonwealth's wastewater infrastructure by adding § 62.1-223.1 to the Code establishing a policy for the Commonwealth to prioritize universal access to wastewater treatment that is protective of public health and the environment, and supports local economic growth and stability. To further this policy, § 62.1-223.1 endorses education, collaboration among government entities, coordination and innovative use of available wastewater infrastructure funding, the consideration of climate change impacts in wastewater regulations, and a preference for community-based solutions. SB 1396 also added § 62.1-223.2 to the Code to codify the Wastewater Infrastructure Policy Working Group (the Working Group) to consist of appropriate government entities and stakeholders to support and advise the Administration and General Assembly regarding the Commonwealth's wastewater policy. The legislation also added § 62.1-223.3 to the Code, which directs the Department of Environmental Quality (DEQ) in partnership with the Virginia Department of Health (VDH) to estimate the amount of wastewater infrastructure funding necessary to implement the Commonwealth's wastewater policy every four years. The legislation amended § 32.1-164 of the Code to authorize VDH to include considerations for the impacts of climate change in the regulations for design and permitting of onsite sewage systems. Lastly, the legislation amended

§ 32.1-164.1.01 of the Code to authorize VDH to use the funds collected and deposited into the Onsite Sewage Indemnification Fund for loans and grants to assist qualifying homeowners with repairing or improving onsite sewage systems.

In 2022, the WWIWG members focused much of their work on implementing a significant increase in wastewater infrastructure funding and collecting data to inform the Commonwealth wastewater infrastructure needs assessment. Additionally, work began on collaborating with the Department of Education to incorporate wastewater principles into k-12 curricula.

The WWIWG plans to continue working through the recommendations provided in the 2021 report and notes the following additional recommendations from their work in 2022:

- Funding for operations and maintenance of WW treatment facilities and onsite septic systems is needed
- Resources are needed to fully and expediently implement the significant additional funding received this year

PROBLEM STATEMENT

While the majority of Virginia residents have access to adequate wastewater treatment, even in 2022 a number of individuals and communities throughout the Commonwealth continue to lack access to affordable wastewater solutions that are protective of their health and the environment, and some Virginians even live without access to any indoor plumbing. Inadequate and failing wastewater treatment, whether onsite sewage (septic) or sewerage systems, threatens human health, water quality, and economic development in the Commonwealth.

Despite significant efforts by multiple state agencies, local government organizations, the federal government and nongovernmental organizations, the existence of pockets of failing

wastewater infrastructure remains a statewide issue of grave concern. The goal of the Working Group is to better understand the scope and extent of the problem, to provide specific and actionable recommendations for improving coordination and alignment of programs, and to identify means to target limited state and federal resources to deliver the greatest results for individuals and communities in need.

WWIWG 2022 ACTION SUMMARY

WWIWG Meetings

The WWIWG met four times in 2022. Each of the meetings were held at the VDH central office and include both in person and virtual meeting options for the public. During the first meeting on April 26, 2022, the WWIWG received wastewater infrastructure funding updates from DEQ and VDH; these funding sources are discussed in detail later in this report. The WWIWG also received an updated from DEQ on the U.S. EPA mandated wastewater infrastructure needs assessment of capital costs to achieve water quality goals of the Clean Water Act. The WWIWG then walked through activities being undertaken by DEQ, DHCD, and VDH related to recommendations from the WWIWG 2021 report to the General Assembly.

At the June 30, 2022 meeting, DEQ and VDH again provided updates on wastewater infrastructure funding. Discussion focused on funds allocated to DEQ and VDH from the American Rescue Plan Act for wastewater infrastructure improvements. DEQ provided an update on the wastewater infrastructure needs assessment, and the WWIWG continued discussion on implementation of recommendations from the 2021 report to the General Assembly.

On September 29, 2022, the WWIWG held its third meeting of the year. The focus of the meeting was discussion on drafting the WWIWG's 2022 report to the General Assembly. DEQ

and VDH also provided updates on available wastewater infrastructure funding programs. There was a considerable amount of public feedback regarding communities in the City of Suffolk with significant wastewater infrastructure needs.

On December 21, 2022, the WWIWG held its fourth meeting of the year. The focus of the meeting was discussion on final draft of the WWIWG's 2022 report to the General Assembly. There was a considerable amount of public feedback regarding communities in the City of Suffolk with significant wastewater infrastructure needs. Links to the full summaries and presentations at these meetings are available on the Virginia Townhall website.

Agency Staffing Updates

In 2022, there were two significant staffing updates at DEQ and VDH that positively affected the WWIWG. Scott Morris was brought on as the Chief Deputy and is now Director of the Water Division at DEQ. Dr. Morris was selected to represent DEQ on the WWIWG, and is the new chair of the WWIWG. In early 2022, VDH brought on board Nicole Sandberg to serve as the Wastewater Infrastructure Manager in the Office of Environmental Health Services. This is a new position at VDH responsible for overseeing a comprehensive assessment of onsite sewage system needs throughout the Commonwealth, developing and implementing the new Septic System Indemnification Fund Grant and Loan Program, and implementation of a new grant program to disperse American Rescue Plan Act funding directed to onsite sewage system repairs. This position also serves as a liaison to the Wastewater Infrastructure Workgroup.

RESEARCH DATA NEEDS TO FULLY ASSESS WASTEWATER INFRASTRUCTURE PROBLEMS

In 2021, the WWIWG noted the lack of adequate and timely data on the extent of wastewater infrastructure needs was a barrier to adequately respond to wastewater infrastructure

needs. The WWIWG made several recommendations to address this barrier, including providing continued and sufficient funding to support the ongoing collaboration between the Center for Coastal Resources Management at the Virginia Institute for Marine Science (CCRM), College of William and Mary and VDH to document septic failure hotspots. To assist in this continued collaboration, the General Assembly provided that \$100,000 from the Virginia Water Quality Improvement Fund be transferred to VDH in fiscal years 2022 and 2023 to conduct analysis on statewide septic hot spots. VDH has received those funds and is working with CCRM to contract to expand the existing hot spot maps west of I-95 and update the map with current repair permit information.

In 2021, the WWIWG also recommended sufficiently funding VDH's ongoing effort to create and maintain a complete inventory of all onsite sewage systems in the VDH Environmental Health Database (EHD) and in non-EHD data systems.

The WWIWG also previously recommend sufficiently funding VDH data import capabilities in EHD to complete the inventory of all onsite sewage systems. In 2020, VDH received a Centers for Disease Control and Prevention Environmental Health Capacity Grant to strengthen VDH's capacity to detect, prevent, and control environmental health hazards through data driven and evidence-based approaches. As part of this 5-year grant, VDH committed to develop an online GIS mapping tool to share information on installed water and wastewater systems statewide and associated hazards to those systems. VDH has completed an internal version of the mapping tool that includes the location of all known onsite sewage systems within the Commonwealth. These locations were obtained through a combination of EHD data and real estate records.

Another effort that will assist VDH in developing a more complete inventory of all onsite sewage systems is the agency's response to Chapter 486 of the 2022 Virginia Acts of Assembly (HB 769).¹ Pursuant to the legislation, effective July 1, 2023, VDH will manage enforcement of the septic tank pump out programs within the Eastern Shore, Middle Peninsula, and Northern Neck Regions of Virginia. Local governments are currently tasked with enforcement of these pump out requirements under the Chesapeake Bay Preservation Act. As part of the legislation, VDH is developing a web-based reporting system to collect septic pump out information. While use of the tool will be required within the areas covered in the bill, it will be opened to use statewide. This tool will help build a more complete inventory of systems as more pump outs are voluntarily reported through the system.

The 2021 WWIWG report recommended funding for VDH to provide a public facing interface for onsite sewage system data. VDH is using a portion of the funds provided for HB 769 to develop this interface. The interface will help sewage haulers and property owners looking for information on recent septic pump outs with the areas designated in HB 769, but will be accessible statewide and have broader benefits for onsite sewage system owners and onsite systems professionals. The first step in this process is a webinar with onsite sewage system professionals on December 14, 2022, to understand how the public interface can best be set up to meet their needs.

Additional legislation, SB 200, sought to address a recommendation from the WWIWG and the Virginia Coastal Policy Center (VCPC) at William and Mary Law School to amend the Virginia Freedom of Information Act to provide confidentiality protection to renters filing waste treatment-related complaints against their landlords. The bill would have limited disclosure of

¹ <https://lis.virginia.gov/cgi-bin/legp604.exe?221+ful+CHAP0486+pdf>

the complainant's information only to the hearing before the Sewage Handling and Disposal Appeal Review Board or when the matter was the subject of litigation. The bill passed the Senate, but was left in the House General Laws subcommittee.

Throughout 2022, VDH held a series of meetings with stakeholders to discuss necessary revisions to the Sewage Handling and Disposal Regulations. VDH's meetings included a subgroup to specifically discuss considerations for the impacts climate change on onsite sewage system design pursuant to SB 1396 from the 2021 General Assembly session. In Eastern and Southwest Virginia, flooding events have become a recurring and significant impact on properties served by onsite sewage systems. Stakeholders used a hazard analysis and critical control points (HAACP) model to assess hazards presented by this flooding and possible methods to address those impacts through the regulations. VDH plans to submit a Notice of Intended Regulatory Action for the regulations in early 2023 to continue the process to revise the regulations forward.

PREVENT THE HUMAN HEALTH, WATER QUALITY, AND ECONOMIC IMPACTS THROUGH PUBLIC EDUCATION AND PROPER MAINTENANCE

In 2021, the WWIWG found that public education, statewide maintenance requirements, and enhanced oversight of wastewater infrastructure to protect human health, water quality, and local economies from failed wastewater treatment is warranted. The WWIWG recommended incorporating an understanding of wastewater treatment in appropriate K-12 curricula, such as STEM modules, math, science or environmental science courses to meet these goals. A preliminary meeting was held with the Department of Education regarding the incorporation of wastewater treatment lessons into the K-12 curricula. A determination was made that such lessons could be incorporated through the existing voluntary lesson opportunities; however, this

would require some engagement to provide additional resources to teachers. The Wastewater Infrastructure Working Group is evaluating alternatives for points of contact for lesson training and lesson plan development to ensure teachers have the resources needed to successfully integrate lessons into lessons plans.

In 2021, the WWIWG recommended consideration of extending a requirement to either report maintenance of conventional onsite systems statewide or to specifically require periodic system pump outs. As previously noted, HB 769 directs VDH to take over enforcement of septic tank pump outs within the Eastern Shore, Middle Peninsula, and Northern Neck regions of Virginia effective July 1, 2023. This transition is intended to improve compliance with Chesapeake Bay Preservation Act pump out requirements, as well as homeowner awareness and understanding of the importance of proper system maintenance.

VDH also sent more than 7,000 letters to alternative onsite sewage system owners in 2022 to improve awareness and compliance with operation and maintenance requirements. In 2022, VDH reported 31,165 pounds of total nitrogen reduction from alternatives systems within the Chesapeake Bay, nearly 12,000 pounds more than ever reported.

The Wastewater Infrastructure Working Group is evaluating the inclusion of training and reminders to teachers for the Septic Smart Week to increase public awareness. The U.S. EPA has a number of education materials that will be made available to teachers to increase awareness.

ELIMINATE BARRIERS TO FULLY UTILIZE EXISTING RESOURCES AND INCREASE FUNDING

VDH Wastewater Funding Programs

A significant focus of the WWIWG's recommendation in 2021 was to fully utilize existing funding resources and increase funding sources for wastewater infrastructure. In August

2021, the General Assembly allocated \$11.5 million from the Commonwealth's American Rescue Plan Act funding for VDH to help low-income homeowners repair failing onsite sewage systems and private wells. This is the first time that VDH has received this level of funding, and the first time the agency has received funding that can be used statewide to assist homeowners with water and wastewater needs. VDH named this program the Septic and Well Assistance Program (SWAP).

VDH developed SWAP to allow for the repair of failing onsite sewage systems, straight pipes, and pit privies with fully regulatory compliant conventional onsite sewage systems, alternative onsite sewage systems, alternative discharging sewage systems or sewer connections as appropriate. The program also covers the replacement of inadequate private wells, spring, and cisterns with fully regulatory compliant private wells or public water supply connections.

The SWAP program splits funding into two mechanisms; direct funded projects and local partner projects. VDH has allocated \$7.2 million to direct funded project where property owners in need come directly to VDH to apply for assistance. The local health department conducts an assessment of the property owner income to verify they are at or below 200 percent of the Federal Poverty Guidelines.² VDH then posts qualifying owners' projects on the state procurement system, eVA, for bidding by properly licensed contractors following the issuance of a permit.

VDH opened the application process for direct funded projects in January 2022. By September 2, 2022, VDH had received 263 applications for 302 SWAP projects. VDH stopped accepting applications for direct funded projects on September 2, 2022, to ensure that all

² <https://aspe.hhs.gov/topics/poverty-economic-mobility/poverty-guidelines>

applications can be fully funded. The first project was installed in March, and by December 2022, 67 projects have been installed with 60 more projects under contract for installation.

In addition to direct funded projects, VDH posted three rounds of request for applications for local partner funding with a maximum possible funding of \$300,000 per partner. Eligible local partners are local governments, soil and water conservation districts, planning district commissions, Tribes, regional commissions, and nonprofits. VDH received six applications for local partner projects totaling just under \$1.8 million in funding. These local partners will provide funding to qualifying property owners with failing onsite sewage systems and private wells in the local partner's area. The first two local partner agreements were issued to the Middle Peninsula Planning District Commission and the Northern Neck Planning District Commission.

The SWAP program has filled a critical need for additional funding, as evidenced by the hundreds of applications received within only a few months. However, it also highlights the need for additional funding. The program does include funding for the first two years of maintenance for alternative system; however, longer-term solutions for maintenance assistance is needed.

VDH also received a one-year extension to the Virginia Environmental Endowment (VEE) and Smithfield Foundation onsite sewage system repair grant. This program pays for the installation of nitrogen reducing onsite sewage system repairs and sewer connections in Isle of Wight, James City, and Surry counties. VDH has installed 17 repairs under the program, with 16 additional applications for repairs. These projects account for an allocation of \$483,709 of the \$500,000 in total received from VEE and the Smithfield Foundation.

Lastly, VDH has received \$250,000 in Most Effective Basin funding from DEQ for the repair of failing onsite sewage systems in the Northern Neck region. VDH is working with DEQ

to obtain additional Most Effective Basin funding to assist with repairs in the Eastern Shore and Northern Neck regions of Virginia.

DEQ Wastewater Funding Programs

DEQ currently has 17 full-time employees within the Clean Water Financing and Assistance Program (CWFAP) with primary responsibility for the development of implementation plans and administration of water quality loans and grants for the Commonwealth. In addition to developing, implementing, and administering the new DEQ ARPA Wastewater fund appropriations, the program administers the Water Quality Improvement Fund – point source portion, the Stormwater Local Assistance Fund, and the Virginia Clean Water Revolving Loan Fund (VCWRLF). During the fiscal year (FY) 2023 VCWRLF solicitation, the program received 73 applications requesting funding, 64 of which were authorized by the State Water Control Board in November. The program has received an average of 22 applications each year over the past 10 years, making the FY 2023 application total a three-fold increase. Considering the substantial increase in wastewater funding administered by the CWFAP team and demand for water quality loans and grants, additional resources may be needed in the future if this trend continues, to ensure loans and grants are administered in a timely manner and to minimize impact to project timelines.

American Rescue Plan Act (ARPA) Wastewater Funds

Background

On March 11, 2021, the American Rescue Plan Act (ARPA) was signed into law. The United States Secretary of the Treasury issued the Coronavirus State and Local Fiscal Recovery Funds (SLFRF) Final Rule (Final Rule)³ to implement the funds established under

³ 87 Fed. Reg. 4338 (Jan. 27, 2022) (to be codified at 31 C.F.R. pt. 35).

ARPA. The Final Rule provides much of the information referenced here. Section 9901 of ARPA amended Title VI of the Social Security Act to add section 602, which establishes the Coronavirus State Fiscal Recovery Fund, and section 603, which establishes the Coronavirus Local Fiscal Recovery Fund.⁴ Through these funds Congress provided State, local, and Tribal governments with significant resources to respond to the COVID-19 public health emergency and its economic impacts through four categories of eligible uses. Section 602(c)(1) provides that funds may be used:

- a. To respond to the public health emergency or its negative economic impacts, including assistance to households, small businesses, and nonprofits, or aid to impacted industries such as tourism, travel, and hospitality;
- b. To respond to workers performing essential work during the COVID-19 public health emergency by providing premium pay to eligible workers;
- c. For the provision of government services to the extent of the reduction in revenue due to the COVID-19 public health emergency relative to revenues collected in the most recent full fiscal year prior to the emergency; and
- d. To make necessary investments in water, sewer, or broadband infrastructure.⁵

By permitting funds to be used for water and sewer infrastructure needs, Congress recognized the critical role that clean drinking water and services for the collection and treatment of wastewater and stormwater play in protecting public health. Understanding that State, local, and Tribal governments have a broad range of water and sewer infrastructure needs, the Final Rule provides these governments with wide latitude to identify investments in water and sewer

⁴ American Rescue Plan Act of 2021 (ARPA) § 9901, Pub. L. No. 117-2, codified at 42 U.S.C. § 802 *et seq.*

⁵ *See* ARPA § 602(c)(1)(D), Pub. L. No. 117-2, codified at 42 U.S.C. § 802.

infrastructure that are of the highest priority for their own communities, which may include projects on privately-owned infrastructure.

On August 10, 2021, Governor Northam signed legislation passed during the Virginia General Assembly's 2021 Special Session II that appropriated certain ARPA funds received by the Commonwealth, including appropriations for investments in wastewater infrastructure in the Commonwealth.⁶ Section k. of 2021 Special Session II Va. Acts Ch. 1, titled, "CSOs and Wastewater" outlines the following eligible uses of state ARPA wastewater funds:

- 1) *\$5,750,000 to the Department of Health (601) to provide improvement funds for well and septic systems for homeowners at or below 200 percent of the federal poverty guidelines.*
- 2) *\$75,000,000 to the Department of Environmental Quality (440) for septic, straight pipe, and sewer collection system repair, replacement, and upgrades.*
- 3) *\$125,000,000 to the Department of Environmental Quality (440) for grants to the cities of Alexandria,⁷ Lynchburg, and Richmond to pay a portion of the costs of combined sewer overflow control projects. The City of Alexandria⁸ is to receive \$50,000,000; the City of Lynchburg is to receive \$25,000,000; and the City of Richmond is to receive \$50,000,000. In order to receive these funds, the locality must certify that it is providing a 100 percent match to the funds it will receive pursuant to this paragraph.*

⁶ 2021 Special Session II Va. Acts Ch. 1.

⁷ 2022 Special Session I Va. Acts Ch. 1 Item 479.20 changed the appropriation language to reference the "City of Alexandria, Virginia Sanitation Authority" rather than the "City of Alexandria." Specifically, 2022 Special Session I Va. Acts Ch. 1 provides: "\$125,000,000 to the Department of Environmental Quality (440) for grants to the *City of Alexandria, Virginia Sanitation Authority and the cities of Lynchburg and Richmond* to pay a portion of the costs of combined sewer overflow control projects. The City of Alexandria, *Virginia Sanitation Authority* is to receive \$50,000,000; the City of Lynchburg is to receive \$25,000,000; and the City of Richmond is to receive \$50,000,000. In order to receive these funds, the locality must certify that it is providing a 100 percent match to the funds it will receive pursuant to this paragraph."

⁸ *See id.*

4) *\$100,000,000 to the Department of Environmental Quality (440) to reimburse eligible entities as provided for in the Enhanced Nutrient Removal Certainty (ENRC) Program established in § 62.1-44.19:14, Code of Virginia, for capital costs incurred for the design and installation of nutrient removal technology, and to reimburse the Town of Pound⁹ and the City of Petersburg for capital costs incurred for infrastructure improvements that are eligible for reimbursement under the Virginia Water Facilities Revolving Fund established in §§ 62.1-225, Code of Virginia. Such reimbursements shall be in accordance with eligibility determinations made by the Department of Environmental Quality.¹⁰*

Items 2, 3, and 4 in this section of 2021 Special Session II Va. Acts Ch. 1, as modified by 2022 Special Session I Va. Acts Ch. 1, will be administered by DEQ and are included in DEQ's ARPA implementation plan.

Additionally, on June 22, 2022, Governor Youngkin signed legislation passed during the Virginia General Assembly's 2022 Special Session I. This legislation, the Commonwealth's budget bill, appropriated additional ARPA funds received by the Commonwealth, including the following in Item 486 under the heading "Drinking Water, Wastewater, and CSOs":

⁹ 2022 Special Session I Va. Acts Ch. 1 Item 479.20 changed the appropriation language to reference the "Wise County Public Service Authority for capital costs incurred for infrastructure improvements in the Town of Pound" rather than listing the "Town of Pound" itself as an eligible recipient. Specifically, 2022 Special Session I Va. Acts Ch. 1 provides: "\$100,000,000 to the Department of Environmental Quality (440) to reimburse eligible entities as provided for in the Enhanced Nutrient Removal Certainty (ENRC) Program established in § 62.1-44.19:14, Code of Virginia, for capital costs incurred for the design and installation of nutrient removal technology, and to reimburse *the Wise County Public Service Authority for capital costs incurred for infrastructure improvements* in the Town of Pound and the City of Petersburg for capital costs incurred for infrastructure improvements that are eligible for reimbursement under the Virginia Water Facilities Revolving Fund established in § 62.1-225, Code of Virginia. Such reimbursements shall be in accordance with eligibility determinations made by the Department of Environmental Quality."

¹⁰ 2021 Special Session II Va. Acts Ch. 1.

- 1) *\$1,600,000 in the first year and \$4,150,000 in the second year to the Department of Health (601) for the continuation of funding to provide improvement funds for well and septic systems for homeowners at or below 200 percent of the federal poverty guidelines.*
- 2) *\$165,000,000 in the first year to the Department of Environmental Quality (440) for additional grants to the City of Alexandria, Virginia Sanitation Authority and the cities of Lynchburg and Richmond to pay a portion of the costs of combined sewer overflow control projects. The City of Alexandria, Virginia Sanitation Authority is to receive \$40,000,000; the City of Lynchburg is to receive \$25,000,000; and the City of Richmond is to receive \$100,000,000.*
- 3) *\$75,900,000 in the first year to the Department of Environmental Quality (440) for grants to the City of Fredericksburg and King George County Service Authority for wastewater projects; to the Towns of Wachapreague, Accomac, Parksley, and Exmore for sewer projects; to the Town of Quantico for water and sewer improvements; and to the City of Falls Church for stormwater improvements. The City of Fredericksburg is to receive \$27,000,000; the King George County Service Authority is to receive \$16,000,000; the Town of Wachapreague is to receive \$2,400,000; the Town of Exmore is to receive \$3,500,000; the Town of Accomac is to receive \$4,500,000; the Town of Parksley is to receive \$1,500,000; the Town of Quantico is to receive \$17,000,000; and the City of Falls Church is to receive \$4,000,000.*
- 4) *\$25,000,000 in the first year and \$25,000,000 in the second year to the Department of Health (601) for the continuation of funding to support equal access to drinking water at small and disadvantaged community waterworks. These funds shall be limited in their use*

to qualifying municipal and private drinking water projects and shall not be used for improvements to the department's internal systems or processes.

- 5) *\$5,700,000 in the first year to the Department of Environmental Quality (440) for grants to the Town of Colonial Beach for water and sewer improvements.*
- 6) *\$29,551,500 the first year to the Department of Environmental Quality (440) for grants to the City of Petersburg for water and wastewater upgrades at Poor Creek Pump Station.*
- 7) *\$10,000,000 in the first year to the Department of Conservation and Recreation (199) for improvements to identified high hazard water impounding structures consistent with the provisions of the Dam Safety, Flood Prevention, and Protection Assistance Fund established pursuant to § 10.1-603.17, Code of Virginia.*
- 8) *\$150,000 in the first year to the Department of Health (601) for the Town of Goshen for repairs to their water storage tank.*
- 9) *\$325,000 the first year to the Department of Environmental Quality (440) for a grant to the Town of Occoquan for outfall sediment removal projects and for stormwater dredging activities.*
- 10) *\$3,000,000 the first year to the Department of Environmental Quality (440) for a grant to the Town of Dumfries to support Municipal Separate Storm Sewer System permit activities.*
- 11) *\$3,000,000 the first year to the Department of Environmental Quality (440) for a grant to the County of Prince William to assist with the connection of Bristow Manor to the Prince William County wastewater collection system.¹¹*

¹¹ 2022 Special Session I Va. Acts Ch. 2.

The wastewater and stormwater portion of items 2, 3, 5, 6, 9, 10, and 11 in this section of 2022 Special Session I Va. Acts Ch. 2 will be administered by DEQ and are included in DEQ's ARPA implementation plan.

Implementation Plan

DEQ has developed an Implementation Plan to provide guidance and assistance to localities and other potential grant recipients for the administration of DEQ's portion of the ARPA wastewater funds. For the most effective delivery of services, the funds appropriated to DEQ will be administered through five separate programs, each with its own specific plan: 1) Sewer Collection System (SCS) Program, 2) Septic Local Partner Program (SLPP), 3) Combined Sewer Overflow (CSO) Program, 4) Enhanced Nutrient Removal Certainty Program, Pound and Petersburg (ENRCPP) Program, and 5) 2022 Appropriation Program. All five plans will incorporate guidance provided in the United States Department of the Treasury's Final Rule.

Sewer Collection System (SCS) Program

A total of \$75,000,000 in ARPA funds have been appropriated for septic, straight pipe, and sewer collection system repair, replacement, and upgrades. Of this total, approximately \$65,000,000 will be allocated to projects that provide sewer collection system repair, replacement and upgrades as the wastewater treatment solution. SCS Program projects can include eliminating septic systems and straight pipe discharges with connection to a new or existing sewer collection system.

Applications were solicited electronically for projects requesting SCS Program ARPA funds from October 15, 2022 through December 15, 2022. The projected timeline

includes application evaluation through January 31, 2023 and project list authorization by March 1, 2023.

Septic Local Partner Program (SLPP)

A total of \$75,000,000 in ARPA funds have been appropriated for septic, straight pipe, and sewer collection system repair, replacement, and upgrades. Of this total, approximately \$5,000,000 will be allocated to local partners to develop and implement a funding program for projects that provide septic system repair, replacement and upgrades as the wastewater treatment solution. SLPP projects can also include eliminating failing septic systems, pit privies and straight pipe discharges and connection to a new or existing sewer collection system.

Applications were solicited electronically for projects requesting SLPP Program ARPA funds from October 15, 2022 through December 15, 2022. The projected timeline includes application evaluation through January 31, 2023 and project list authorization by March 1, 2023.

Combined Sewer Overflow (CSO) Program

A total of \$290,000,000 in ARPA funds have been appropriated for grants to the City of Alexandria, Virginia Sanitation Authority and the cities of Lynchburg and Richmond to pay a portion of the costs of combined sewer overflow control projects. The City of Alexandria, Virginia Sanitation Authority is to receive \$90,000,000 and provide \$50,000,000 in local match funds; the City of Lynchburg is to receive \$50,000,000 and provide \$25,000,000 in local match funds; and the City of Richmond is to receive \$150,000,000 and provide \$50,000,000 in local match funds.

Applications will be solicited electronically for projects requesting CSO Program ARPA funds from September 1, 2022 through February 28, 2023. Applications will be evaluated and authorized by the DEQ Director on a rolling basis.

Enhanced Nutrient Removal Certainty Program, Pound,¹² Petersburg (ENRCPP) Program

A total of \$100,000,000 in ARPA funds have been appropriated to reimburse eligible entities as provided for in the Enhanced Nutrient Removal Certainty (ENRC) Program established in § 62.1-44.19:14, Code of Virginia, for capital costs incurred for the design and installation of nutrient removal technology, and to reimburse the Wise County Public Service Authority for capital costs incurred for infrastructure improvements in the Town of Pound and the City of Petersburg for capital costs incurred for infrastructure improvements that are eligible for reimbursement under the Virginia Water Facilities Revolving Fund established in §§ 62.1-225, Code of Virginia.

Applications were solicited electronically for projects requesting ENRCPP ARPA funds from September 1, 2022 through October 15, 2022, evaluated through November 15, 2022 and an ENRCPP ARPA fund project list was authorized by the DEQ Director on November 22, 2022.

2022 Appropriation Program

A total of \$117,476,500 in ARPA funds have been appropriated for grants to specific localities for specific wastewater and stormwater projects. DEQ will be administering these ARPA funds pursuant to 2022 Special Session I Va. Acts Ch. 2.

¹² *Supra* note 7.

Applications will be solicited electronically for projects requesting 2022 Appropriation Program ARPA funds from September 1, 2022 through February 28, 2023. Applications will be evaluated and authorized by the DEQ Director on a rolling basis.

Outreach

DEQ staff conducted outreach meetings with direct ARPA fund recipients during the months of August and September 2022. Two webinars providing ARPA SCS and SLPP program information were held in September 2022, recordings of both webinars were made available on DEQ's [ARPA webpage](#).

Path Forward

Grant agreement execution will begin in 2023. In accordance with the timeline provided in the Final Rule, all grant agreements must be executed by December 31, 2024 and all projects must be complete with funds fully disbursed by December 31, 2026.

Wastewater Infrastructure Policy Goal Progress – ARPA

Through implementation of ARPA Wastewater funds, the Commonwealth has begun to resolve the backlog of wastewater infrastructure needs in disadvantaged communities and households. Because these funds are grant dollars, with no repayment required, communities that cannot afford to finance wastewater projects are able to complete these necessary projects without placing a financial burden on their ratepayers. Scoring criteria for SCS and SLPP applications include several factors related to a community's ability to afford the project, fiscal stress, the state revolving fund affordability criteria, and median household income.

Additionally, implementation of these funds helps advance the Commonwealth Wastewater Infrastructure policy by including scoring criteria that prioritize regional and

community-based solutions and evaluate whether or not the projects protect public health and the environment and support local economic growth and stability.

Water Quality Improvement Fund (WQIF) – Point Source

Background

The purpose of the Virginia Water Quality Improvement Act of 1997 (Act) is “to restore and improve the quality of state waters and to protect them from impairment and destruction for the benefit of current and future citizens of the Commonwealth” (Section 10.1-2118 of the *Code of Virginia*). The Act was amended in 2005 to better reflect current water quality needs and priorities in Virginia particularly the implementation of Chesapeake Bay “Tributary Strategy Plans” and the removal of Virginia waters on the Clean Water Act list of impaired waters. Because this is a shared responsibility between state and local governments and individuals, the Act also creates The Water Quality Improvement Fund (Fund). The Code establishes the purpose of the Fund “to provide Water Quality Improvement Grants to local governments, soil and water conservation districts, institutions of higher education and individuals for point and nonpoint source pollution prevention, reduction and control programs” (Section 10.1-2128.B. of the *Code of Virginia*).

DEQ has the responsibility to provide technical and financial assistance to local governments, institutions of higher education and individuals for the control of point source pollution. The Department of Conservation and Recreation has the responsibility to provide technical and financial assistance to local governments, soil and water conservation districts, institutions of higher education and individuals for nonpoint source pollution prevention, reduction and control programs. Because of the nature of nonpoint source pollution controls, the Department of Conservation and Recreation will seek the assistance and support of other state

agencies to provide the necessary expertise and resources to properly implement the nonpoint source elements of the Act.¹³

The WQIF is currently a special-purpose grant program, and the type and location of a point source project eligible for funding is specified under Section 10.1-2131 of the Act. Until all tributary strategy plans are developed and implemented, grants shall only be made for the purpose of financing the cost of design and installation of nutrient removal technology at publicly-owned treatment works designated by DEQ as a significant discharger or eligible nonsignificant discharger and for design and installation of certain wastewater conveyance infrastructure that conveys wastewater from one eligible facility to another.

Wastewater Infrastructure Policy Goal Progress – WQIF

Through implementation of WQIF point source funds, the Commonwealth helps resolve the backlog of wastewater infrastructure needs in disadvantaged communities and households. Because these funds are grant dollars, with no repayment required, communities that cannot afford to finance WQIF eligible wastewater projects are able to complete these necessary projects without placing a financial burden on their ratepayers. In accordance with the Water Quality Improvement Act the cost share percentage for grantees is based on median household income, reasonable sewer cost, and annual residential sewer charge for the service area.

Additionally, by adding design and installation of certain wastewater conveyance infrastructure as an eligible project type, the Commonwealth advanced the Commonwealth's wastewater infrastructure policy goal to prioritize regional and community-based solutions.

Virginia Clean Water Revolving Loan Fund (VCWRLF)

¹³ Virginia Water Quality Improvement Fund Guidelines, Secretary of Natural Resources, May 2012.

Background

The Virginia Clean Water Revolving Loan Fund (VCWRLF) was created in 1987 to provide a perpetual source of funding for wastewater infrastructure projects. Initially, the VCWRLF included a single program to provide financial assistance in the form of low-interest loans to local governments for needed improvements at publicly-owned wastewater treatment facilities and/or collection systems. Since then, the scope of the VCWRLF has been expanded to include:

- Publicly owned wastewater collection and treatment facilities
- Publicly owned stormwater best management practices
- Remediation of contaminated brownfield properties
- Land conservation
- Living shorelines
- Agricultural best management practices
- Local program for on-site septic systems

The federal Bipartisan Infrastructure Law (BIL) was signed into law on November 15, 2021. The BIL provides additional appropriations for fiscal years 2022 through 2026 for state Clean Water State Revolving Loan Funds, including the VCWRLF. In addition, the BIL provides more principal forgiveness (or grant) funding and now allows for states to utilize 2% of appropriated funds for technical assistance.

Wastewater Infrastructure Policy Goal Progress – VCWRLF

Through administration of the VCWRLF, the Commonwealth helps resolve the backlog of wastewater infrastructure needs in disadvantaged communities and households. Communities most in need qualify for the program's hardship interest rate and are eligible

to receive principal forgiveness. Since the BIL was signed into law, the program is able to provide even more principal forgiveness funding for projects that communities would otherwise be unable to afford. Additionally, in 2023, the program is planning to collaborate with disadvantaged communities and others to develop the newly funded technical assistance (TA) program. It is anticipated that at least one piece of the TA program will mirror the offerings included in Southwest Virginia Pilot Program.

**CONSIDERATIONS OF STAKEHOLDER RESPONSES DURING THE 2021
REGIONAL ROUNDTABLE SESSIONS.**

WWIWG members discussed a number of other actions under way that related to recommendations and stakeholder feedback submitted in the 2021 report. A summary of these additional actions can be found in appendix A.

APPENDICES

Appendix A: April 26, 2022 WWIWG Response to Recommendations Table

Appendix A

WW WG 2021 Recommendations Summary	Comments
1. Research Data Needs to Fully Assess Wastewater Infrastructure Problems	
Investments in sufficient and ongoing documentation of wastewater infrastructure needs must be maintained and used to determine and prioritize scope of funding needs to address onsite system failures. Specifically, the Working Group recommends providing continued and sufficient funding to support the ongoing CCRM and VDH collaboration to document onsite/community septic system “hot spots” in the coastal plain and to extend the analysis statewide.	VIMS funding for climate change impacts, statewide hot spot mapping expansion - with public access, SWAP grant funding
Providing continued and sufficient funding to complete and periodically update the VDH/CCRM interactive mapping tool by collecting information provided by EHS about onsite and community system problem areas in their local health districts	
Sufficiently fund and continue the VDH ongoing effort to create and maintain a complete inventory of all onsite systems in the VDH EHD and in non-EHD data systems, collect data on septic systems currently not included in EHD, develop data import capabilities in EHD to complete the inventory, and provide a public facing interface for onsite sewage system data	Northern Neck, Middle Peninsula, Eastern Shore inventory management moved to VDH and associated funding
Creating a public portal for viewing the onsite system data housed in EHD to assist funding agencies in prioritizing and effectively directing limited resources	VDH can host a website for the WWIWG.
Suggest legislative amendments to the Virginia Freedom of Information Act to provide confidentiality protection to renters filing waste treatment-related complaints against their landlords.	SB 200 was introduced in 2022 session, bill passed Senate, did not pass House - consider future bill through the FOIA council
Consideration of proactive, regional planning to document longer term wastewater treatment needs and long-term management, particularly for communities not served by municipal wastewater treatment facilities	DEQ CWFAP funded Southwest Virginia Regional Wastewater Study in planning districts 1, 2, 3 - draft report due 9/30/2022 - consider use in other PDCs statewide

WW WG 2021 Recommendations Summary	Comments
2. Prevent the Human Health, Water Quality, and Economic Impacts through Public Education and Proper Maintenance	
<p>Incorporating an understanding of wastewater treatment in appropriate public K-12 curricula, such as STEM modules, math, science or environmental science courses</p>	<p>HB 362 - The bill requires the Department of Education to develop an interdisciplinary program of instruction on the causes of potential solutions for climate change. The bill directs the Department of Education to collaborate with the Department of Environmental Quality and the Department of Health in creating the program for instruction. Assigned to Education, K-12 subcommittee. Bill failed to report from subcommittee. HB636-This bill requires the Board of Education (in consultation with DEQ, VDH, and other stakeholders) to develop and implement a program of instruction for grades kindergarten through 12 that is aligned to the Standards of Learning and emphasizes environmental literacy as an essential skill and concept of citizenship. The established plan would (i) prepare students to understand, analyze, and address the major environmental challenges facing the Commonwealth and the US, (ii) provide field experiences as part of regular school curricula, and (iii) create opportunities for the enhanced and ongoing professional development of teachers. Assigned to Education committee. Bill laid on the table in committee.</p>
<p>Work with partner state agencies, local governments, and stakeholders to rebrand community and onsite wastewater treatment as critical infrastructure on par with drinking water, roads, and bridges and to use innovative online educational platforms to engage the public</p>	
<p>Consideration of extending a requirement to either report maintenance of conventional onsite systems statewide or to specifically require periodic system pump outs. Evaluating a statewide septic maintenance requirement should be done with affected stakeholders and local governments</p>	
<p>Further evaluation of a local or regional authority approach for wastewater management with stakeholders and local governments as it could prove more effective than single homeowner maintained onsite systems</p>	<p>Recommendation to utilize Commonwealth wastewater needs assessment data to implement this recommendation, potentially using incentives</p>

WW WG 2021 Recommendations Summary	Comments
Engaging local governments and other stakeholders on consideration of a requirement for community systems with 10 or more homes to hire a Responsible Management Entity (RME) to provide for management throughout the life of the system, even if the number of homes served falls below 10, and to prohibit HOAs from owning community systems	VDH currently engaging workgroups to revise septic regs to incorporate this recommendation
For disadvantaged communities with either multiple onsite or community systems, the Working Group recommends providing incentives for RMEs to offer pro bono services	Once septic regs are revised, consider this recommendation
	Consider additional recommendation to add funding for WQIF nonpoint source, non-Ag program, which could be used for ongoing septic maintenance, similar to Virginia Housing's \$40M allocation for PDCs
3. Eliminate Barriers to Fully Utilize Existing Resources and Increase Funding	
Priorities should be articulated in an Executive Directive and state code establishing the Commonwealth's wastewater strategic policy and, at a minimum, should include the following:	During the 2021 General Assembly session the Commonwealth's Wastewater Infrastructure Policy was established to accomplish this recommendation: § 62.1-223.1. State policy as to community and onsite wastewater treatment.
Proactively direct state funding to resolve the backlog of existing and perpetual community and onsite system needs in disadvantaged communities and households	It is the policy of the Commonwealth to prioritize universal access to wastewater treatment that protects public health and the environment and supports local economic growth and stability. To further this policy, the Commonwealth endorses (i) public education about the importance of adequate wastewater treatment; (ii) collaboration among local, state, and federal government entities, including consistent collaboration and coordination of grant requirements and timelines; (iii) the prioritized, focused, and innovative use of state and federal funding to address needs determined pursuant to § 62.1-223.3; (iv) a preference for community-based and regional projects as opposed to cumulative and repetitive site-by-site individual solutions; (v) the use of integrated solutions across sewer and onsite wastewater treatment systems; and (vi) the incorporation of the effects of climate change into wastewater treatment regulatory and funding programs.
Where possible, ensure funding programs support the full suite of needs including the maintenance, repair, and replacement of onsite systems and connections to municipal wastewater treatment.	
Where possible, municipal wastewater system rehabilitation and expansion should be the prioritized solution for long-term sustainability	
Prioritize regional solutions over multiple single household or individual community solutions in areas of concern, including extending sewer lines to provide connections for disadvantaged communities.	
Consider the cumulative, long-term costs of multiple onsite repairs and replacements versus the installation of a community-based solution to wastewater treatment needs.	

WW WG 2021 Recommendations Summary	Comments
Where appropriate, provide full funding prior to project construction to eliminate the barrier caused by grant programs that only reimburse homeowners after private funds are expended.	
Maintain multiple state funding programs (described in Appendix B) but call upon program managers to consistently collaborate, coordinating grant requirements and timelines as much as possible. Collaboration with federal and private partners must also be emphasized.	
Utilize information on the backlog of need to consistently advocate to the U.S. Congress for federal resources, including stimulus funding	
VDH work with private, state and federal funding partners to develop a toolkit for their local health districts' EHS and share this toolkit with local governments and utilities as well as planning district/regional commissions	
Working Group should explore development of a single, simplified grant or loan application for the multiple state and federal funding programs	
Working Group agrees that providing additional funding to established and proven programs is an effective first step in addressing wastewater infrastructure financial assistance needs in the Commonwealth	
Maintain this funding for planning district commissions 1, 2 and 3 and identify additional fiscally distressed regions for similar assistance.	
Support DEQ's continued partnership with local planning district/regional commissions but also recommend engaging new partners such as local community banks	DEQ has explored a partnership with community banks, this concept would result in increased cost to the borrower.
Explore with local governments and other stakeholders the potential benefits of establishing sanitary districts, authorized under Virginia Code § 21-113, to provide additional avenues to finance, construct, operate and maintain community-wide remedies for failing septic	