



**Resiliency Master Planning Framework Technical Advisory Committee
Finance Subcommittee
Existing Commonwealth Resiliency Funding Sources**

March 29, 2021



Existing Commonwealth Resiliency Funding Sources - Agenda

- **Summary of Primary Existing Funding Entities**
- **VRA Resiliency Funding Programs**
- **DCR Resiliency Funding Programs**
- **DEQ Resiliency Funding Programs**
- **Other Miscellaneous Existing Funding Options**
- **Recommendations for New Resiliency Funding Options and/or Improvements to Existing Resiliency Funding Options**



Existing and Potential Virginia Resiliency Funding Sources



Virginia Department of
Emergency Management



CHESAPEAKE BAY FOUNDATION
Saving a National Treasure



Virginia Tobacco Region Revolving Fund



Virginia Resources Authority – Resiliency Funding Options



Virginia Resources Authority – Resiliency Funding Options

By statute, VRA can fund several infrastructure project types that contribute to local government and Commonwealth resiliency

- Water and wastewater related infrastructure
- Dam safety and flood prevention
- Stormwater and soil drainage management facilities
- Land conservation and preservation
- Dredging
- Solid waste and recycling facilities
- Public safety and emergency response
- Brownfield remediation



Virginia Resources Authority – Resiliency Funding Options

- **Virginia Pooled Financing Program (VPFP)**
- **Dam Safety Flood Protection and Protection Assistance Fund (DSFPPAF)**
 - Administered in partnership with DCR
 - Currently a grant only program primarily for planning / engineering studies for public or private entities
 - Fund can be used to make loans
- **Community Flood Preparedness Fund (CFPF)**
 - To be administered in partnership with DCR
 - Can be used to fund loans or grants for local governments, PDCs, and tribal governments
- **Virginia Clean Water Revolving Loan Fund (CWRLF) and Stormwater Local Assistance Fund (SLAF)**
 - Administered in partnership with DEQ
 - Loans and grants primarily for wastewater treatment improvements; can also fund land conservation/preservation and brownfield project



Virginia Resources Authority – VPFP

Virginia Pooled Financing Program (VPFP)

- **General municipal pool program available only to Virginia local governments**

- **Can fund any of VRA's 19 authorized project areas, including resiliency projects:**
 - Water and wastewater related infrastructure
 - Dam safety and flood prevention
 - Stormwater and soil drainage management facilities
 - Land conservation and preservation
 - Dredging
 - Solid waste and recycling facilities
 - Public safety and emergency response
 - Brownfield remediation



Virginia Resources Authority – VPFP

Virginia Pooled Financing Program (VPFP)

- Typically three VPFP issuances per year: spring, summer, and fall
- Local governments can apply using an application available through VRA's website
- Localities benefit from the VPFP public bond ratings: AAA / AA blended rates
- Economies of scale through shared costs of issuance among locality participants
- Loan terms up to 30 years and based on the estimated useful life of the improvements



Virginia Resources Authority – VPFP

Virginia Pooled Financing Program (VPFP) strengths and challenges for resiliency funding

■ Primary Strengths

- Reliable market access
- Competitive market-based interest rates
- Shared costs of issuance among localities

■ Primary Challenges

- Grants are not available and funding is not subsidized at below market rates; loans must be repaid on time when due
- Only available to Virginia local governments (private entities and individual property owners are not eligible)
- Credit underwriting is stringent to ensure there is no default on a local borrower loan, so some borrowers / projects may not receive loan approval if an adequate repayment source is not identified



DCR Resiliency Funding Sources



Dam Safety, Flood Prevention & Protection Assistance Fund

Administered in Partnership with VRA

- Va. Code § 10.1-603.17 established the Dam Safety, Flood Prevention and Protection Assistance Fund.
- The DCR Director is authorized to provide assistance to:
 - Local governments in the development and implementation of flood prevention or protection studies (Va. Code §10.1-603.19 A.), and
 - Private entities and local governments for engineering studies related to certain approved dam safety activities (Va. Code §10.1-603.19 C.)
- DCR publishes annual program guidelines related to eligibility and awards
- All grant funds awarded require a 50 percent match



Dam Safety, Flood Prevention & Protection Assistance Fund

Administered in Partnership with VRA

- Dam Safety activities include the design, repair, and safety modifications of a dam or impounding structure, as defined in §10.1-604, and identified in dam safety reports generated pursuant to §10.1-607 or §10.1-609; or the mapping and digitization of dam break inundation zones. The term includes, without limitation, the construction, modification, or repair of dams, levees, flood walls, channel improvements, or diversions.
- Flood prevention or protection activities include the construction of dams, levees, flood walls, channel improvements or diversions, local flood proofing, evacuation of flood-prone areas or land use controls which reduce or mitigate damage from flooding.
- Flood prevention or protection studies include hydraulic and hydrologic studies of floodplains with historic and predicted floods, the assessment of flood risk and the development of strategies to prevent or mitigate damage from flooding.



Community Flood Preparedness Fund

Administered in Partnership with VRA

- The Fund was created in 2020 when the Governor signed the Clean Energy and Community Flood Preparedness Act.
- The Act also allows for funds to be used to support flood prevention or protection studies of statewide or regional significance. The fund is intended to address identified issues on a statewide basis, and the guidelines and review of proposals submitted will necessarily take in to account differences in the various physiographic regions and varying types of flood risks across the Commonwealth.
- By statute, DCR is to develop and issues guidelines for fund distribution in consultation with the Secretary of Natural Resources and the Special Assistant to the Governor for Coastal Adaptation and Protection



Community Flood Preparedness Fund

Administered in Partnership with VRA

- Statutory Requirements for the Fund (§ 10.1-603.25.E.)
- All expenditures from the fund will be guided by these specific statutory requirements:
 - “Localities shall use moneys from the Fund primarily for the purpose of implementing flood prevention and protection projects and studies in areas that are subject to recurrent flooding as confirmed by a locality-certified floodplain manager.
 - Moneys in the Fund may be used to mitigate future flood damage and to assist inland and coastal communities across the Commonwealth that are subject to recurrent or repetitive flooding.
 - No less than 25 percent of the moneys disbursed from the Fund each year shall be used for projects in low-income geographic areas.
 - Priority shall be given to projects that implement community-scale hazard mitigation activities that use nature-based solutions to reduce flood risk.”



Grant Programs that May Benefit Resilience

(Based on existing needs DCR is not recommending changes to these programs)

Virginia Land Conservation Foundation (VLCF): Grants for Farmlands and Forest Preservation, Historic Area Preservation, Natural Area Preservation, Open Spaces and Parks includes

- ConserveVirginia Categories include resilience in the scoring criteria
- Certain buffer requirements promoted for water quality benefits would have some beneficial impacts on water management and flooding
- Depending on location, some land conservation actions will have benefit

Virginia Conservation Assistance Program (VCAP) Administered by the Virginia Association of Soil and Water Conservation Districts

- Small scale residential and commercial water quality best management practices. Some of which may address flooding issues.



DEQ Funding Sources with Potential Resilience Co-benefits



Stormwater Local Assistance Fund

- Created in 2013 to provide matching grants (50%) to local governments for planning, design, and implementation of stormwater BMPs that address cost efficiency and commitments related to reducing water quality pollutant loads
- 2021 legislation – changes will be incorporated into FY22 SLAF guidelines
 - Allows for grants > 50% for above average and high fiscal stress localities
 - Adds eligibility for projects resulting in total nitrogen reductions as well as total phosphorus reductions
- State capitalized grant program
- Applications solicited annually
- Projects evaluated based on:
 - Pollutant reduction
 - Cost effectiveness
 - Impaired water bodies
 - Fiscal stress
 - Readiness to proceed
 - Phase II (small) MS4



Stormwater Local Assistance Fund

- Eligible projects
 - New stormwater BMPs
 - Stormwater BMP retrofits
 - Stream restoration
 - Low impact development
 - Buffer restoration
 - Pond retrofits
 - Wetlands restoration
 - Nonpoint source nutrient credit purchase
- Resilience co-benefits
 - Volume reduction
 - Floodplain access during storm events
 - Increased floodplain volume
 - Decreased shoreline hardening
 - Increased storage volume



Virginia Clean Water Revolving Loan Fund

Administered in Partnership with VRA

- Created in 1987 to provide a perpetual source of funding to local governments and other eligible applicants for clean water projects
- Federally capitalized loan program
- Fund components – each with governing program guidelines
 - Wastewater infrastructure
 - Stormwater infrastructure
 - Agricultural BMPs
 - Living Shorelines
 - Land Conservation
 - Brownfields Remediation
- Applications solicited annually except for Ag BMPs – rolling basis, evaluated monthly
- Projects evaluated based on project type, water quality benefit, fiscal stress, readiness to proceed



Virginia Clean Water Revolving Loan Fund

- Eligible projects
 - Wastewater treatment & collection
 - Stormwater BMPs (SLAF plus gray infrastructure)
 - Ag BMPs (Stream fencing, riparian buffers, sediment retention, streambank stabilization, constructed wetlands, livestock and structural practices)
 - Living shorelines
 - Local funding program
 - VMRC certified project
 - Land conservation
 - Brownfields remediation
- Resilience co-benefits
 - Wastewater
 - POTW flooding protection
 - Water reuse & conservation
 - POTW and collection system operation during flooding
 - Pump station upgrades to handle storm events
 - Stormwater, Ag BMPs, and Living shorelines (same as SLAF)
 - Land conservation
 - Development prevention in critical areas



Virginia Clean Water Revolving Loan Fund

- Interest rates determined based on project type and affordability
 - Ceiling interest rate (subsidized market rate based on project and loan term)
 - Hardship rate (historically 0%) and opportunity for principal forgiveness
- Factors in interest rate calculation
 - Residential sewer rate
 - Percent of customers that are residents
 - Number of residential connections
 - Expenses related to O&M, existing debt service, amount of new loan debt
 - Median Household Income (MHI)
- Factors in principal forgiveness calculation
 - MHI, unemployment rate, population trends



Water Quality Improvement Fund – Point Source Projects

- Created in 1997 to provide matching 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
- State capitalized grant program
- Applications accepted year-round
- Eligible projects
 - Nutrient removal technology at eligible POTWs in Chesapeake Bay watershed
 - Wastewater conveyance infrastructure to/from eligible POTWs in CB watershed
- Resilience co-benefits
 - Conveyance system operation during flooding
 - Pump station upgrades to handle storm events
- Grant percentage determined based on MHI, reasonable sewer cost to annual sewer charge ratio (35% to 75%)
- Grant percentage above 75% possible based on ratio plus comparative revenue capacity, revenue efforts, and fiscal stress



Other DEQ Funding Programs

- Chesapeake Bay Grant Programs
 - Chesapeake Bay Implementation Grant
 - Chesapeake Bay Regulatory and Accountability Program Grant
- Nonpoint Source Program – Section 319
- WQIF – Non-ag Nonpoint Source Projects
- Hurricane Florence funding



Section 319

- DEQ is the lead agency for a network of NPS programs across the Commonwealth
 - Five-year management plan, last updated in 2019
 - Work with DCR, DMME, DOF, VDH, others to address various elements of NPS pollution
- EPA provides approximately \$3.2 million per year, half for program (eg, staff) and half for projects (on-the-ground implementation)
 - Install BMPs in watersheds with a completed TMDL Implementation Plan
 - Complementary to other implementation activity (DCR, USDA, others)
- Grants to local entities, who provide 30% match
 - Cost-share on BMPs
 - Reimbursement
- Competitive RFA, projects primarily evaluated based on:
 - Project methods/objectives
 - Project need
 - Org. capacity
 - Budget/timeline



Section 319

- Eligible projects
 - Residential septic
 - Agriculture
 - Urban/stormwater BMPs
 - Pet waste
 - Mining
 - Must be in an approved plan watershed
 - Must implement BMPs in the plan
 - No permit-related activity
- Resilience co-benefits
 - Volume reduction/infiltration
 - Increased storage volume
 - Alternative septic systems
 - Sewer connections



WQIF – Non-ag Nonpoint Source Projects

- Most WQIF funding goes to point source projects (DEQ) or agriculture (DCR)
 - Irregular non-ag NPS funding, most recently in 2016
 - Primarily to supplement other NPS implementation activity in septic, urban/stormwater, mining, etc.
 - In the Chesapeake Bay, a focus on nutrients and sediment
 - In Southern Rivers, a focus on overall water quality improvement
- Grants to local entities, who provide 50% match
 - Cost-share on BMPs
 - Reimbursement
- Projects primarily evaluated based on:
 - Pollutant reduction
 - Cost effectiveness
 - Technical expertise/experience



WQIF – Non-ag Nonpoint Source Projects

- Eligible projects
 - Urban/stormwater BMPs
 - Residential septic
 - Mining
 - Riparian buffers
 - Urban nutrient management
- Resilience co-benefits
 - Volume reduction/infiltration
 - Increased storage volume
 - Alternative septic systems
 - Sewer connections



Low Income Considerations

Table RB-1: Septic Tank Pump-out, rates based upon average total practice cost of \$350.

% of Median Family Income	No Fiscal Stress* Rate	No Fiscal Stress* CS Cap	Fiscal Stress** Rate	Fiscal Stress** CS Cap
> 120% or no income verification	50%	\$175	50%	\$175
100-120%	55%	\$193	65%	\$228
81-100%	60%	\$210	70%	\$245
61-80%	65%	\$228	75%	\$263
40-60%	75%	\$263	85%	\$298
<40%	80%	\$280	90%	\$315

*** Located in locality with No Fiscal Stress (average, below average, or no FS)**

**** Located in Locality with Fiscal Stress (high or above average FS)**

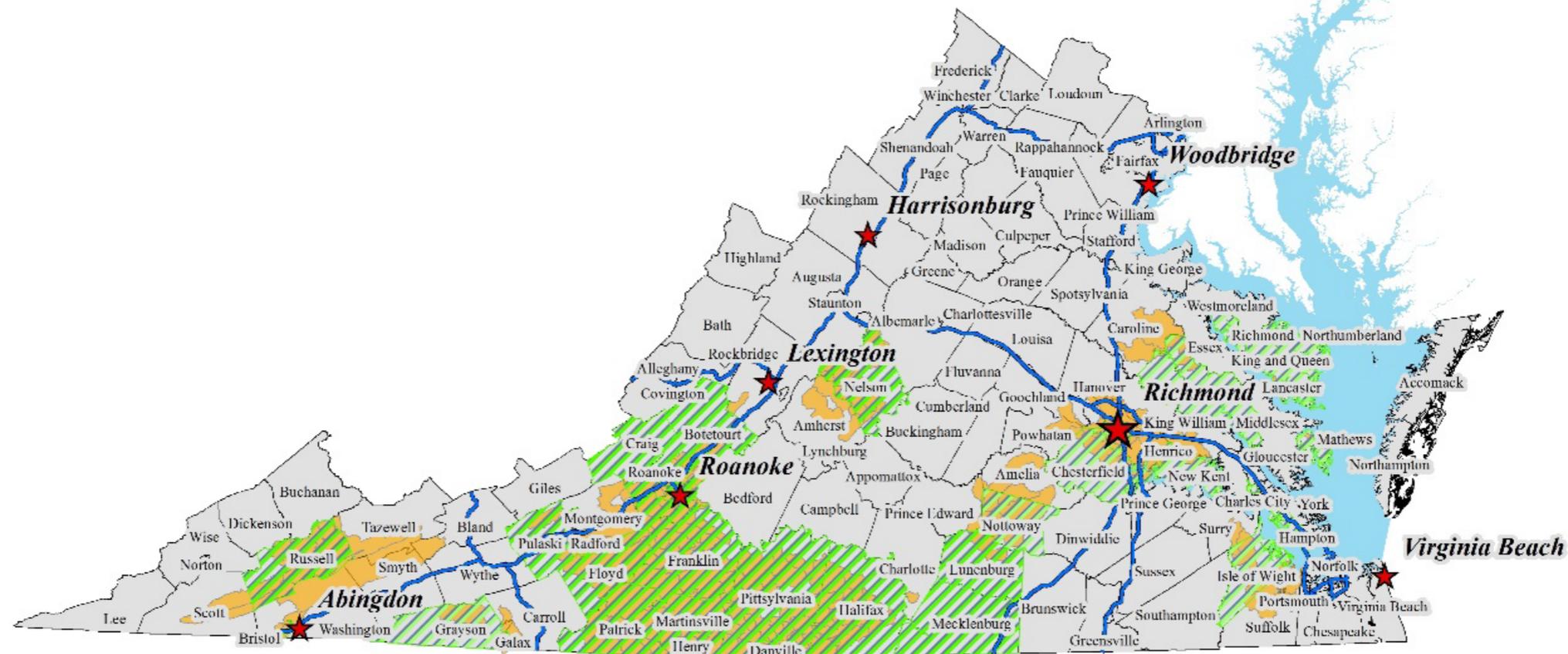


Hurricane Florence Funding

- Special appropriations from EPA (one-time)
- Enhance collaboration of water quality planning and hazard mitigation planning
 - Approved TMDL Implementation Plans
 - FEMA-declared localities
- Grants to local entities, who provide 25% match
 - RFA opened March 18
- Projects primarily evaluated based on:
 - Project methods
 - Cost effectiveness
 - Org. capacity
 - Partnerships



Hurricane Florence Funding



-  Federal Designated Relief County
-  Implementation Watersheds in Relief Designated County
-  County Boundary



Data Sources: VA DEQ, 2020, FEMA, 2020, DCR, 2020.



Other Miscellaneous Resiliency Funding Sources



Virginia Waterway Maintenance Fund

Managed by the Virginia Port Authority (VPA)

- In May 2018, the Virginia General Assembly established the Virginia Waterway Maintenance Fund for the purpose of supporting shallow-draft dredging projects throughout the Commonwealth
- Virginia Port Authority has established program guidelines related to eligibility and awards
- Funds are use for: (i) feasibility and cost evaluations, pre-project engineering studies, and project permitting and contracting costs for a waterway project conducted by a political subdivision of the Commonwealth; (ii) the state portion of a nonfederal sponsor funding requirement for a federal project, which may include the beneficial use of dredged materials that are not covered by federal funding; (iii) the Commonwealths' maintenance of shallow-draft navigable waterway channel maintenance dredging and the construction and management of areas for the placement of dredged material; and (iv) the beneficial use, for environmental restoration and the mitigation of coastal erosion or flooding, of dredged materials from waterway projects conducted by a political subdivision of the Commonwealth.



Virginia Waterway Maintenance Fund

Managed by the Virginia Port Authority (VPA)

- For a project to be eligible for funds, VPA, in its sole discretion, must determine that the proposed project is economically feasible based on preplanning study or current level of business, will not directly competitively disadvantage existing publicly-owned port facilities, and will further the interests of the Commonwealth. Development and presentation of the information needed to determine project eligibility will be the responsibility of the applicant
- Requests for funding shall be made by March 1st . Applicants may be required to make oral presentation of the requests to the VPA. Funds will be allocated by VPA at its May Board of Commissioners meeting and available for successful applicants by July 1st of that year
- Special consideration will be given to any project application that supports waterway enhancement in rural coastal Virginia as defined by §15.2-7600. Localities as defined by §15.2-7600 will provide evidence of working waterfront businesses or commercial fishing or seafood business and the need for dredging project
- Recent changes to the Code include reference by VPA for the potential beneficial use of dredged materials for the purpose of mitigation of coastal erosion, flooding, or other purposes for the common good



C-PACE Funding

- Code of Virginia allows for funding of resiliency projects through Commercial Property Assessed Clean Energy (C-PACE) financing
- Property owners can finance resiliency improvements through C-PACE lenders at fixed rates for up to 30 years
- C-PACE financings are secured with a lien on the improved property that transfers with ownership and can be assessed as part of the real estate tax payments on the property
- Localities generally establish a C-PACE program by ordinance / resolution; a program administrator is generally procured if the locality does not intend to administer the program itself



Potential Recommendations for New Resiliency Funding or Improvements to Existing Funding Options



Potential Recommendations for New Resiliency Funding or Improvements to Existing Funding Options

- **Multi-state collaboration to create a trust fund for resiliency projects of regional importance to Virginia, Maryland, North Carolina, and Washington DC**
- **Resiliency Revolving Loan Fund**
 - Leverage Commonwealth and federal sources for resiliency projects
 - Perpetual fund that makes new loans as prior loans are repaid
 - Could be modeled after other successful RLF programs in Virginia (i.e. Clean Water and Drinking Water RLFs, Virginia Airports Revolving Fund, etc.)
 - *Federal STORM Act allows Water and Wastewater SRFs to provide financial administration of resiliency / hazard mitigations revolving funds*
- **Encourage private investment in resiliency projects with a PACE-styled option to finance improvements as part of a landowners real estate tax bill**
- **Utilize public private partnerships to encourage private sector participation and risk in needed resiliency improvements**



Potential Recommendations for New Resiliency Funding or Improvements to Existing Funding Options

- **Expand use of tax incentives for private sector resiliency improvements that will improve properties and potentially lower insurance costs for property owners**
- **Expand use of Environmental Impact Bonds / Resiliency Bonds / Catastrophe Bonds in Virginia, possibly in conjunction with public private partnerships**
- **Explore direct federal appropriations for resiliency improvements in Hampton Roads area due to military installations**
- **Explore tax increment financings for resiliency projects**
- **Explore partnership with the Virginia Tobacco Region Revitalization Commission for resiliency funding in tobacco region footprint**
- **Include resilience in evaluative criteria for funding programs**

