

House Agriculture, Chesapeake and Natural Resources Committee &
Senate Agriculture, Conservation and Natural Resources Committee
Joint Meeting

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Water Quality Improvement Fund:
How It Works for Wastewater Projects

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WQIF: The Key to Virginia's Progress

*This Cooperative Program toward Meeting this Shared Responsibility
Has Made All the Difference*

It shall be the policy of the Commonwealth, and it is the purpose of this chapter, 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.... The General Assembly further determines and finds that the restoration, protection and improvement of the quality of state waters is a *shared responsibility* among state and local governments and individuals and to that end this chapter establishes *cooperative programs* related to nutrient reduction and other point and nonpoint sources of pollution.

-- Va. Code § 10.1-2118

WQIA of 1997 Bill Patrons:

HB 2330: Del. Tayloe Murphy

SB 1131: Sen. Madison Marye

SB 1100: Sen. Tommy Norment

WQIF Program Policy Milestones

- 1997 – WQIA enacted to encourage pre-TMDL voluntary upgrades and WWTPs step up
- 2005 – GA requires DEQ to enter grant agreements; WWTPs agree to pre-2010 TMDL limits
- 2005 – GA recognizes reuse technology with equivalent nutrient reductions as eligible
- 2005 – GA changes fixed 50% grant to sliding scale (35-75%) based on local sewer rates & MHI
- 2007 – GA authorizes first bonds for WQIF projects and requests DEQ require “cost control measures” (value engineering, life cycle analysis)
- 2019 – GA adds annual WQIF Needs Assessment by DEQ in cooperation with WWTPs
- 2019 – GA adds flow transfer conveyance infrastructure for nutrient reduction as eligible
- 2021 – GA enacts ENR Certainty Program with stakeholder support to establish agreed program of upgrades and reductions to 2032

WQIF Nutrient Control Investments by Era

- 1998 – 2005: WQIF beginning; pre-TMDL; most projects in the Potomac-Shenandoah
- 2005 – 2011: WWTPs start implementing Bay TMDL limits early, along with WQIF policy upgrades, increased WQIF funding, and VPDES permit-based nutrient trading
- 2012 – 2017: More WWTP upgrades come online leading up to Phase 3 WIP development controversy (2017-2020) that created uncertainty and stalled progress
- 2021 - Present: GA enacts Enhanced Nutrient Removal Certainty Program (HB 2129 – Lopez) with broad stakeholder support, resolving Phase 3 WIP controversy, and facilitating more upgrades
- Ex: Spotsylvania FMC Plant closure and consolidation (2026)
 - Ex: HRSD SWIFT nutrient reductions (ongoing)
 - Ex: South Central Wastewater Auth. upgrade (ongoing) – TODAY'S TOUR
 - And others

Steps in the Wastewater WQIF Process

1. Regulatory Framework

- TMDL and DEQ permits set facility-specific Nitrogen and Phosphorus caps and related limits
- Locality must reduce nutrients below the limits and continue to meet them
- As wastewater flow (~population) or strength (water conservation) increases, Locality must take action to keep nutrients below the TMDL caps and permit limits

2. Project Stages

- Pre-Construction: Planning, Engineering Design, Financing
- Construction: Typically ranges from 2 to 5 years depending on size and complexity

3. WQIF Application Elements

- Preliminary Engineering Report (minimum)
- Cost Controls: Value Engineering Analysis, Life Cycle Cost Analysis, Public Procurement
- Financial Information: Sewer Rate & Affordability Metrics (to determine grant percentage)
- Schedule

Steps in the Process (cont.)

4. Nutrient Eligible Cost Determination

- Unit process review by Engineer and DEQ to identify nutrient components
- Some processes are ineligible or only partially eligible (dual purpose units)
- Locality pays 100% of these non-nutrient costs included in the project
- Excerpt from Grant Agreement:

The following budget reflects the “as-bid” costs associated with eligible project components.

Project Component	Total Cost	Percent Eligible (%)	Eligible Project Cost
Headworks (excluding Fine Screens and Installation)	\$4,220,000	0%	\$0
Biological Treatment - ENR	\$20,656,000	69%	\$14,252,640
Construct new Post Anoxic Tank	\$5,350,000	100%	\$5,350,000
ENR Process Control Instrumentation	\$900,000	100%	\$900,000
Additional 5th B A C			

Steps in the Process (cont.)

5. Grant Percentage of Nutrient Eligible Costs

- Sliding scale grant % based on sewer rates and median household income
- The higher the sewer rates and the lower the MHI, the higher the grant %
- Four tiers: 35%, 45%, 60%, 75% (unless extreme hardship – rare)
- Locality pays a share of the eligible costs (e.g., 55% by Locality with 45% grant)

Total Project Cost =	\$107,574,349	61.07%	\$65,698,004
		Grant Percentage	45%
Proration Based on "Reasonable and Necessary" flow			100%
		Grant Amount	\$29,564,102

EXAMPLE (SEE TABLE)

- For this \$107 M project, nutrient eligible costs were determined to be \$65 M.
- The WQIF will pay 45% of that \$65 M, or \$29 M (approximately 27% of the total)
- The Locality will pay the difference of \$78 M (approximately 73%)

Steps in the Process (cont.)

6. Execution of Grant Agreement

- Drafting and review of agreement, public notice period (never any comments), final agreement executed

7. Construction Phase (~ 2 - 5 Years)

- Locality manages construction project and pays contractor's invoices
- Locality submits monthly reimbursements with documentation
- DEQ makes monthly reimbursements upon proper documentation

Cost Category	Total Project Budget	Eligible Project Cost	45% WQIF Grant Share	Total Expenditures This Period	Previous Grant Disbursements	Grant Disbursement This Period	Grant Balance
Construction	\$ 94,983,000	61.07%	45%				
		\$58,008,192	\$26,103,686				\$26,103,686
Construction Contingency (5%)	\$ 4,749,150	61.07%	45%				
		\$2,900,410	\$1,305,185				\$1,305,185
Engineering Services	\$4,207,213	61.07%	45%				
		\$2,569,437	\$1,156,247				\$1,156,247
Construction Phase Services/Inspection	\$3,634,986	61.07%	45%				
		\$2,219,965	\$998,984				\$998,984
TOTALS:	\$107,574,349	\$65,698,004	\$29,564,102				\$29,564,102

Steps in the Process (cont.)

8. Operations Phase (20 Years)

- DEQ issues Certificate to Operate
- Locality must operate and maintain the installed technology for 20-year contract period
- Locality routinely measures nutrients in discharge
- Locality reports nutrient concentration to DEQ
- Exceedance of the annual Nitrogen or Phosphorus limit typically triggers a monetary assessment
- Except in event of extraordinary conditions (~ force majeure) or were other factors warrant relief in DEQ's discretion

MONTH	PARAMETER	CONCENTRATION (monthly average)	UNITS
January	Total Nitrogen		mg/l
	Total Phosphorus		mg/l
February	Total Nitrogen		mg/l
	Total Phosphorus		mg/l
March	Total Nitrogen		mg/l
	Total Phosphorus		mg/l
April	Total Nitrogen		mg/l
	Total Phosphorus		mg/l
May	Total Nitrogen		mg/l
	Total Phosphorus		mg/l
June	Total Nitrogen		mg/l
	Total Phosphorus		mg/l
July	Total Nitrogen		mg/l
	Total Phosphorus		mg/l
August	Total Nitrogen		mg/l
	Total Phosphorus		mg/l
September	Total Nitrogen		mg/l
	Total Phosphorus		mg/l
October	Total Nitrogen		mg/l
	Total Phosphorus		mg/l
November	Total Nitrogen		mg/l
	Total Phosphorus		mg/l
December	Total Nitrogen		mg/l
	Total Phosphorus		mg/l
Annual Average	Total Nitrogen		mg/l
	Total Phosphorus		mg/l

Key Grant Agreement Provisions

- Project Description of the Technology to be Installed
- Performance Standards Associated with that Technology (mg/L)
- Grant Eligible Costs, Grant Percentage, and Grant Amount
- Reimbursement Procedure
- Subject to Appropriations Clause
- Project Schedule
- Agreement to Complete Project
- Agreement to Operate Project for 20 Years
- Monitoring and Reporting Obligations
- Monetary Assessment Calculation Based on Severity of Non-Performance
- Extraordinary Conditions Relief Framework

Budgeting Multi-Year Projects:

*The Fund Is Almost Always Underfunded & That's OK for Multi-Year Projects.
The Annual Cash Flow Has Always Worked Out & We Make More Progress, Faster.*

§ 10.1-2121. Cooperative point source pollution program. ... the **Department shall** assist local governments and individuals in the control of point source pollution, including nutrient reductions, through technical and **financial assistance made available through grants** provided from the Fund. – 1997

§ 10.1-2131. Point source pollution funding; conditions for approval. B. ... The **Director shall enter into grant agreements with all facilities** designated as significant dischargers or eligible nonsignificant dischargers that apply for grants...” – 2005

§ 10.1-1186.01. Reimbursements to localities for upgrades to treatment works. B. The **General Assembly shall fund grants** to finance the reasonable costs of design and installation of nutrient removal technology at the publicly owned treatment works designated as significant dischargers contained in subsection F or as eligible nonsignificant dischargers as defined in § [10.1-2117](#). – 2007

“Many of the point source projects will take several years to complete, some as long as four to five years. Therefore, the grant monies needed to fund these multi-year projects will be spread out over several years. **To implement the strategy and ensure that monies allocated to the WQIF are put to use as soon as possible**, DEQ and the point source owners have taken the approach of signing agreements for multi-year grants that in total exceed the amount of grant funds currently in the WQIF.” - DEQ’s Annual Report on the WQIF (Jan. 2000)

WQIF Investment Summary

*Point Source Portion of WQIF **

\$1.82 Billion (as of January 2026)**

\$0.33 Billion (added June 2026 to FY 27)***

\$2.15 Billion Since Inception

* Excludes Local Match toward Point Source Projects

** Preliminary WQIF Workgroup Report (Jan. 2026)

*** HB 30 (June 29, 2026) – **RECORD LEVEL OF SUPPORT (THANK YOU)**

DEQ's Preliminary 2026 Needs Assessment Results show \$691 M need through 2031, with a large portion of that in FY27-FY28 tied to ENRCP projects (data under review)

WQIF Appropriation Chart

Water Quality Improvement Fund (WQIF) History		
FY	GF Appropriation	NGF Appropriation
1998	\$15,000,000	\$0
1999	\$53,850,000	\$0
2000	\$44,521,000	\$962,812
2001	\$21,300,000	\$3,700,000
2002	\$0	\$0
2003	\$0	\$2,179,000
2004	\$0	\$0
2005	\$22,670,000	\$0
2006	\$153,962,000	\$0
2007	\$218,213,700	\$0
2008	\$20,000,000	\$0
2009	\$1,589,000	\$270,000,000
2010	\$15,200,000	\$4,800,000
2011	\$36,443,000	\$8,509,725
2012	\$0	\$8,866,566
2013	\$109,548,442	\$11,171,408
2014	\$0	\$109,234,870
2015	\$31,480,000	\$8,164,128
2016	\$10,696,471	\$16,801,020
2017	\$61,708,800	\$68,090,241
2018	\$0	\$16,593,056
2019	\$30,999,830	\$7,608,536
2020	\$76,341,230	\$59,839,953
2021	\$48,899,228	\$15,148,931
2022	\$122,433,531	\$161,530,297
2023	\$315,596,531	\$6,583,831
2024	\$517,071,399	\$77,021,715
2025	\$184,346,559	\$269,504,629
2026	\$0	\$200,000,000
TOTAL	\$2,111,870,721	\$1,326,310,719

TOTAL ALL:	\$3,438,181,440
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Total Interest earned in WQIF and all subfunds	\$119,471,094
TOTAL All W/Interest	\$3,557,652,534