



Final Public Meeting for the Development of a Water Quality Clean Up Plan

North Fork Rivanna River Watershed

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TMDL Nonpoint Source Coordinator

Virginia Department of Environmental Quality

May 5, 2025

Why are we here today?

- To discuss the watershed cleanup plan that addresses the bacteria and benthic impairments within the North Fork Rivanna Watershed
- For tonight's meeting
 - Overview of VA's Water Quality Process
 - Present draft Clean Up Plan
 - Next Steps/ Q&A



Acknowledgements

- Albemarle County, Greene County, and Orange County
- Culpeper Soil and Water Conservation District
- Thomas Jefferson Soil and Water Conservation District
- Greene County Planning Commission
- Rivanna Conservation Alliance
- Rivanna Solid Waste Authority
- Thomas Jefferson Planning District Commission
- Twin Lakes Homeowners Association
- USDA Natural Resources Conservation Service
- Virginia Cooperative Extension
- ... & so many more!



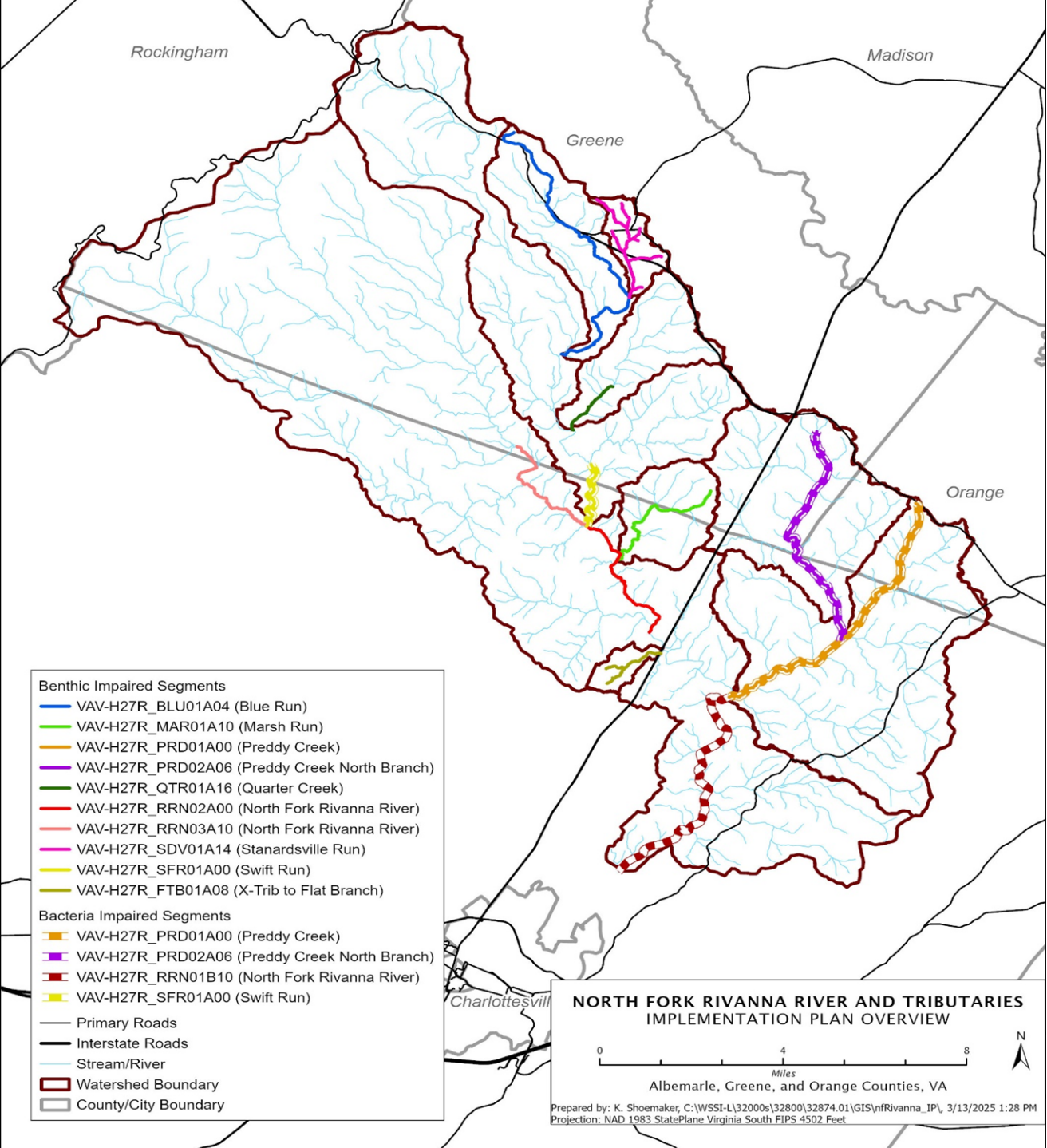
Virginia's Water Quality Process

- Water Quality Monitoring & Assessment:
 - Collect and analyze data
- Reporting
 - Identify impaired waters, 303(d) list under CWA
- Cleanup Studies
 - Plans for restoring impaired waters (TMDL)
- Cleanup Implementation Plans
 - Plans for actions needed to restore water quality (NPS pollution)
 - **We are HERE!**
- Implementing Control Measures
 - Permits (TMDLs), best management practices, cleanup actions
 - 319 Grant funding available for IP NPS BMPs



Impaired Stream Segments

Impaired Streams	Pollutant(s)
Blue Run	Sediment Phosphorus
Marsh Run	Sediment
Preddy Creek	Sediment Bacteria
Preddy Creek North Branch	Sediment Bacteria
Quarter Creek	Sediment
North Fork Rivanna River	Sediment Bacteria
Stanardsville Run	Sediment Phosphorus
Swift Run	Sediment Bacteria
X-Trib to Flat Branch	Sediment



Reviewing the TMDLs

2008 Bacteria TMDL

**Bacteria TMDL Development for the
Rivanna River Mainstem, North Fork
Rivanna River, Preddy Creek and
Tributaries, Meadow Creek, Mechums
River, and Beaver Creek Watersheds**

Submitted by
Virginia Department of Environmental Quality

Prepared by



THE Louis Berger Group, INC.
2445 M Street, NW Washington,
DC 20037

Final Report
March 2008

2018 Benthic TMDL

**Benthic TMDL Development for the North Fork
Rivanna River Watershed and Tributaries
Located in Albemarle, Greene, and Orange Counties**



Prepared by:
James Madison University
and
EEE Consulting, Inc.

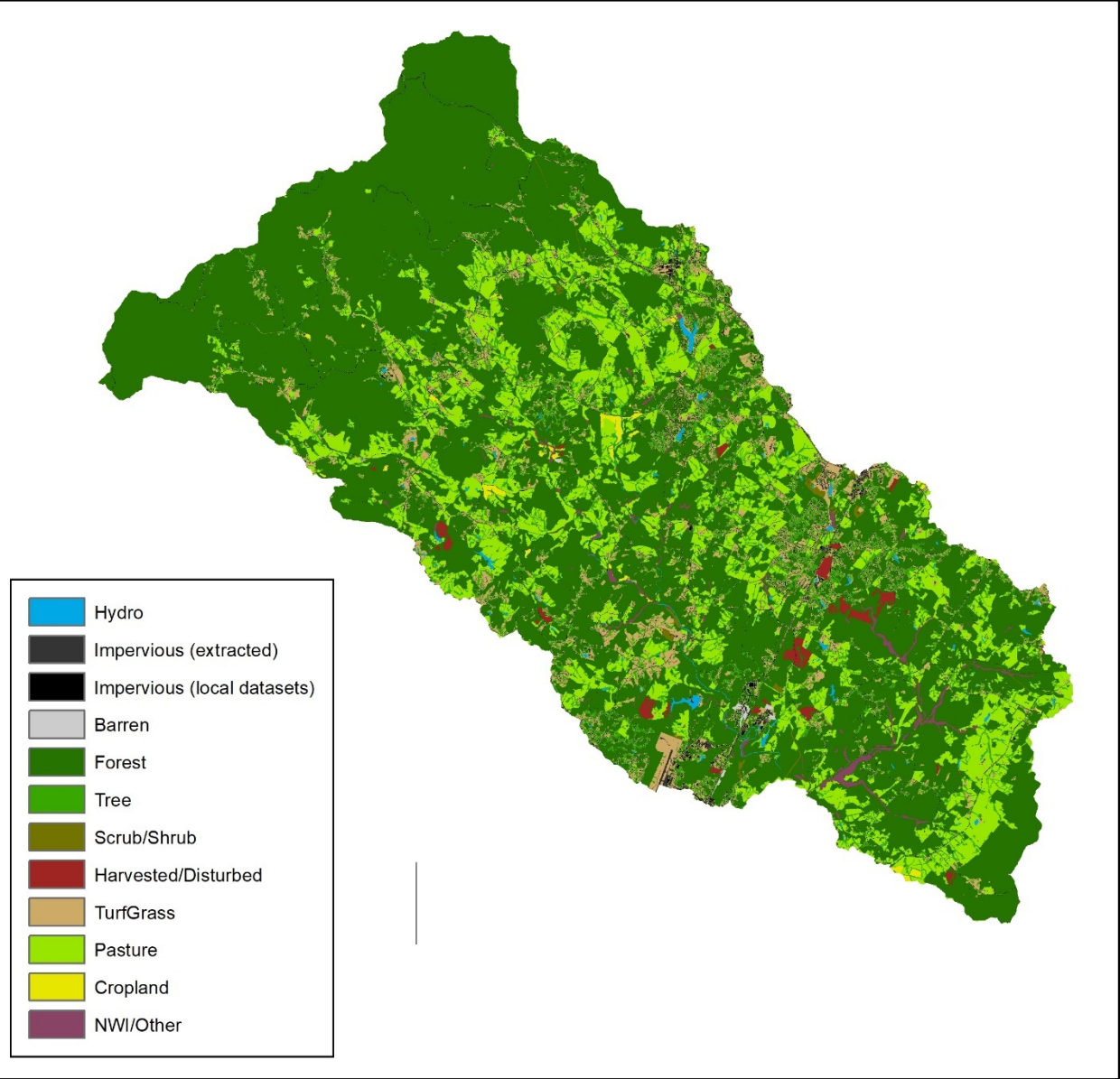
Prepared for:
Virginia Department of Environmental Quality

April 2019

3e EEE Consulting, Inc.
Environmental, Engineering and Educational Solutions



Review of the TMDL Studies: Land Use



Land Cover Category	North Fork Rivanna River Watershed	
	Acres	%
Cropland	336	0.3%
Hay	7,403	6.5%
Pasture	11,760	10.4%
Forest	70,440	62.2%
Trees	11,016	9.7%
Shrub	581	0.5%
Harvested/Disturbed	677	0.6%
Water	550	0.5%
Wetland	880	0.8%
Barren	71	0.1%
Turfgrass	6,354	5.6%
Developed, pervious	464	0.4%
Developed, impervious	2,694	2.4%
Total	113,224	100%

Review of TMDL: Benthic Impairment

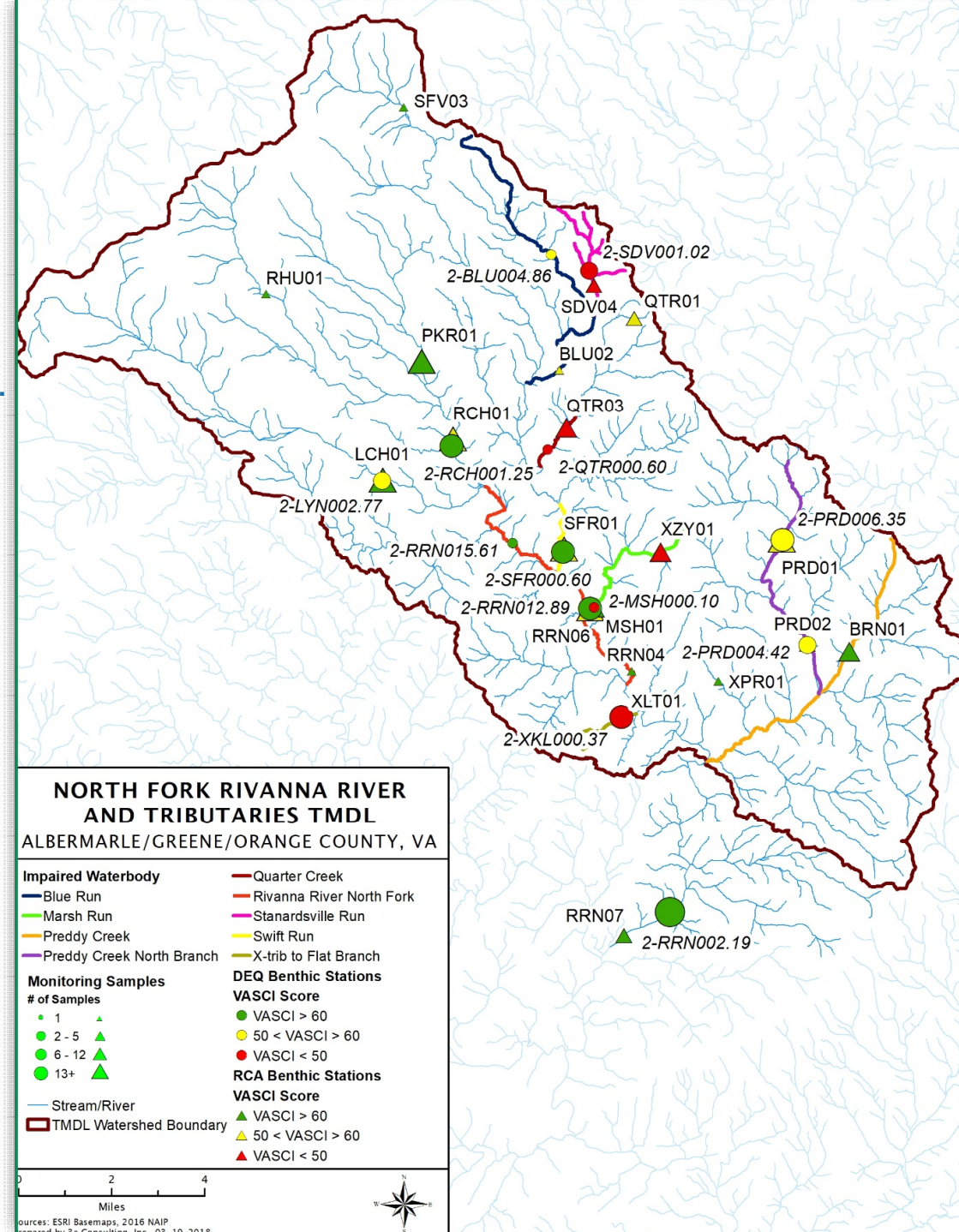
Nine (9) streams within the North Fork Rivanna River watershed currently do not support the aquatic life designated use based on biological monitoring of the benthic macroinvertebrate community.

Benthic Macroinvertebrates:

- live on stream bottoms, are seen with the naked eye, and have no backbone
- show the long-term effect of pollution/ecosystem impacts

Benthic health is measured on a scale from 0 to 100, with scores greater than 60 being acceptable.

- A stressor analysis figures out the reason for the benthic impairment, whether it be sediment, phosphorus, nitrogen, dissolved oxygen, etc...



Review of TMDL: Benthic Impairment

The TMDL found that the main cause of the impairments was because of too much sediment. In two tributaries, Blue Run and Stanardsville Run, the cause was because of too much sediment and phosphorus.

Sources of Pollutants:

- Point Sources
 - MS4's
 - Industrial Stormwater Permits
 - Potable Water Treatment Plant Permit
 - Permitted Sources
- Nonpoint Sources
 - Surface Runoff
 - Streambank Erosion
 - Groundwater
 - Residential Septic Systems

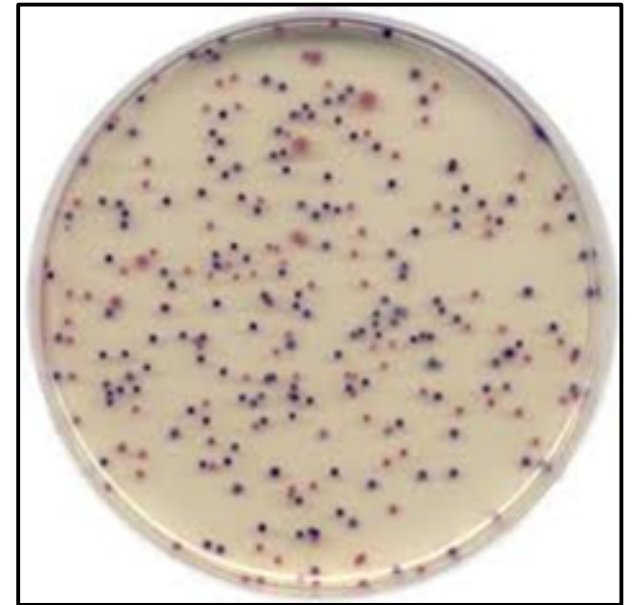


Review of TMDL: Bacteria Impairment

Preddy Creek, North Fork Rivanna River, and Swift Run were all listed as impaired on Virginia's 303(d) Total Maximum Daily Load Priority List and Reports because of violations of the state's water quality standard for E. Coli and for fecal coliform bacterial.

Fecal bacteria levels are used to assess the **Recreational Use** water quality standard.

Fecal bacteria organisms originate in the feces of warm-blooded animals. Fecal bacteria, parasites, and viruses can cause both acute (diarrhea and infections) and chronic (ulcers and arthritis) effects in humans.



Review of the TMDL: Sediment Reductions

Percent Reduction in Sediment Loads Needed

Stream	Crop, Pasture, Hay, and Harvested Forest	Forest, Trees, Shrubs, and Wetland	Developed Pervious and Impervious Areas and Turfgrass	Streambank Erosion	Permitted Urban Areas (MS4)	Other Permitted Sources
Blue Run	71.5	0	45.0	71.5	n/a	0
Marsh Run	70.0	0	37.5	70.0	n/a	0
Preddy Creek	13.2	0	5.0	13.2	n/a	0
Preddy Creek North Branch	57.3	0	40.4	57.3	n/a	0
Quarter Creek	70.7	0	50.0	70.7	n/a	0
Stanardsville Run	76.8	0	60.0	76.8	n/a	0
Swift Run	18.7	0	5.0	18.7	n/a	0
X-Trib to Flat Branch	50.1	0	50.1	50.1	50.1	0

Review of the TMDL: Phosphorus Reductions

Percent Reduction in Phosphorus Loads Needed						
Stream	Crop, Pasture, Hay, and Harvested Forest	Forest, Trees, Shrubs, and Wetland	Developed Pervious and Impervious Areas and Turfgrass	Streambank Erosion	Permitted Urban Areas (MS4)	Other Permitted Sources
Blue Run	50.0	0	42.5	50.0	n/a	0
Stanardsville Run	67.8	0	67.8	67.8	n/a	0

Review of the TMDL: Bacteria Reductions

North Fork Rivanna River Segment

Scenario	Failed Septics & Pipes	Livestock (Direct)	NPS (Agricultural)	NPS (Urban)	Wildlife (Direct)
1	100%	100%	50%	58%	0%
2	100%	50%	50%	50%	0%
3	100%	75%	75%	75%	0%

Preddy Creek and Tributaries

Scenario	Failed Septics & Pipes	Livestock (Direct)	NPS (Agricultural)	NPS (Urban)	Wildlife (Direct)
1	100%	100%	50%	48%	0%
2	100%	50%	50%	50%	0%
3	100%	75%	75%	75%	0%

What is a Clean Up Plan... aka Implementation Plan (IP)?

- **What:** Actions to improve water quality (BMPs); Outreach Strategies
- **Where:** Watershed Area
- **When:** Timeline for implementation actions
- **Why:** Measureable Goals
- **Who:** Partners, Funding Sources
- **How much:** Costs

Tells us “How” to improve water quality
for nonpoint sources



Agricultural BMPs

Livestock Exclusion Reductions Needed: Staged Implementation

Sub-watershed	Fencing needed	SL-6N or WP-2N (10 – 25 ft buffer):		SL-6W, WP-2W or CRSL-6 (35 – 50 ft buffer):	
	feet	feet	systems	feet	systems
Stage 1 (Years 1 - 5)					
Blue Run	2938.5	150	0.1	2790	1.86
Marsh Run	1043.5	52.5	0.035	990	0.66
Preddy Creek	8197.5	412.5	0.275	7800	5.2
Preddy Creek North Branch	2016.5	97.5	0.065	1920	1.28
Quarter Creek	1302	67.5	0.045	1245	0.83
North Fork Rivanna	11637	937.5	0.625	10710	7.14
Swift Run	4749	240	0.16	4515	3.01
Stanardsville Run	760	45	0.03	720	0.48
Total Stage 1	32,644	2,002.5	1.335	30,690	20.46
Stage 2 (Years 6 - 10)					
Blue Run	2938.5	150	0.1	2790	1.86
Marsh Run	1043.5	52.5	0.035	990	0.66
Preddy Creek	8197.5	412.5	0.275	7800	5.2
Preddy Creek North Branch	2016.5	97.5	0.065	1920	1.28
Quarter Creek	1302	67.5	0.045	1245	0.83
North Fork Rivanna	11637	937.5	0.625	10710	7.14
Swift Run	4749	240	0.16	4515	3.01
Stanardsville Run	-	-	-	-	-
Total	31,884	1,957.5	1.305	29,970	19.98

Sub-watershed	Fencing needed	SL-6N or WP-2N (10 – 25 ft buffer):		SL-6W, WP-2W or CRSL-6 (35 – 50 ft buffer):	
	feet	feet	systems	feet	systems
Stage 3 (Years 11 – 15)					
Blue Run	-	-	-	-	-
Marsh Run	-	-	-	-	-
Preddy Creek	-	-	-	-	-
Preddy Creek North Branch	-	-	-	-	-
Quarter Creek	-	-	-	-	-
North Fork Rivanna	7132	-	-	7140	4.76
Swift Run	-	-	-	-	-
Stanardsville Run	-	-	-	-	-
Total Stage 1	7,132	0	0	7,140	4.76
Stage 4 (Years 16 – 20)					
Blue Run	-	-	-	-	-
Marsh Run	-	-	-	-	-
Preddy Creek	-	-	-	-	-
Preddy Creek North Branch	-	-	-	-	-
Quarter Creek	-	-	-	-	-
North Fork Rivanna	7132	-	-	7140	4.76
Swift Run	-	-	-	-	-
Stanardsville Run	-	-	-	-	-
Total	7,132	0	0	7,140	4.76

Livestock Exclusion Reductions Needed: Overall

Sub-watershed	Fencing needed	SL-6N or WP-2N (10 – 25 ft buffer): 10%		SL-6W (35 – 50 ft buffer): 90%	
		*Stream exclusion with Narrow Width Buffer Stream Protection Fencing with Narrow Width Buffer		*Stream exclusion with Wide Width Buffer (SL-6W) Stream Protection Fencing with Wide Width Buffer (WP-2W)	
	feet	feet	systems	feet	systems
Blue Run	5,877	300	0.2	5580	3.72
Marsh Run	2,087	105	0.07	1980	1.32
Preddy Creek	16,395	825	0.55	15600	10.4
Preddy Creek North Branch	4,033	195	0.13	3840	2.56
Quarter Creek	2,604	135	0.09	2490	1.66
North Fork Rivanna	37,538	1875	1.25	35700	14.28
Swift Run	9,498	480	0.32	9030	6.02
Stanardsville Run	760	45	0.03	720	0.48
TOTAL	78,792	3,960	2.64	74,940	40.44

Livestock exclusion needed to achieve reduction of sediment load from livestock direct deposition.

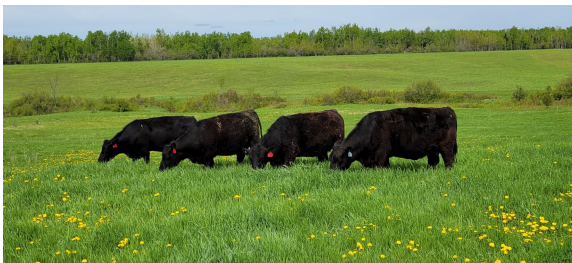
Assumes one exclusion system averages 1,500 linear feet of stream fencing.

Land Based Agricultural BMPs: Pasture

Land based agricultural BMPs needed to achieve sediment, phosphorus, and bacteria reduction goals

BMP	Blue Run	Marsh Run	Preddy Creek	Preddy Creek North Branch	Quarter Creek	NF Rivanna	Swift Run	Stanardsville Run	X-Trib
	Acres (unless otherwise noted)								
Pasture									
Afforestation of erodible pasture (FR-1)	31	25	575	295	35	512	325	22	0.4
Woodland buffer filter area (FR-3)	7.36	2.16	13.84	3.34	3.5	66	13.3	1.06	-
Permanent vegetative cover on critical areas (SL-11)	200	67	414	106	80	800	390	43	0.65
Improved pasture management (SL-10)	400	450	2700	450	260	6970	1500	110	1.7
Extensions of Watering System (SL-7)	28	35	10	5	12	45	12	23	0.7
Sediment Retention, Erosion, or Water Control Structures (WP-1)	375	400	1730	350	250	5300	1100	130	-
Animal waste control facilities (WP-4)	1 (System)	1 (System)	1 (System)	1 (System)	1 (System)	4 (System)	1 (System)	1 (System)	1 (System)
Roof Runoff Management (WQ-12)	1 (System)	1 (System)	1 (System)	1 (System)	1 (System)	3 (System)	1 (System)	1 (System)	1 (System)

* Total BMPs for all stages. To see comprehensive tables broken out by stages, please refer to the Draft Report



Pasture Management

18



Riparian Buffer



Extension of watering system

Land Based Agricultural BMPs: Cropland

Land based agricultural BMPs needed to achieve sediment, phosphorus, and bacteria reduction goals

BMP	Blue Run	Marsh Run	Preddy Creek	Preddy Creek North Branch	Quarter Creek	NF Rivanna	Swift Run	Stanardsville Run	X-Trib
	Acres (unless otherwise noted)								
Cropland									
Long Term Vegetative Cover on Cropland (SL-1)	5	-	18	4	-	25	15	0.3	-
Cover Crop (SL-8B/8H)	7	-	25	4	-	100	71	0.1	-
Sediment Retention, Erosion, or Water Control Structures (WP-1)	5	-	33	3.5	-	100	65	-	-
Afforestation of erodible cropland (FR-1)	-	-	5.2	-	-	15	-	-	-

* Total BMPs for all stages. To see comprehensive tables broken out by stages, please refer to the Draft Report



Cover Crops



Sediment Basin

Land Based Agricultural BMPs: Land Conversion

Land based agricultural BMPs needed to achieve sediment, phosphorus, and bacteria reduction goals

BMP	Blue Run	Marsh Run	Preddy Creek	Preddy Creek North Branch	Quarter Creek	NF Rivanna	Swift Run	Stanardsville Run	X-Trib
	Acres (unless otherwise noted)								
Land Conversion									
Afforestation of erodible cropland (FR-1)	-	-	17.8	154	3.5	-	1.94	-	-
Farm Road or Heavy Animal Travel Lane Stabilization (SL-11B)	-	-	0.01	0.31	-	-	-	-	0.01

* Total BMPs for all stages. To see comprehensive tables broken out by stages, please refer to the Draft Report



Afforestation of erodible pasture



Stabilization/protection of intensively used area by livestock

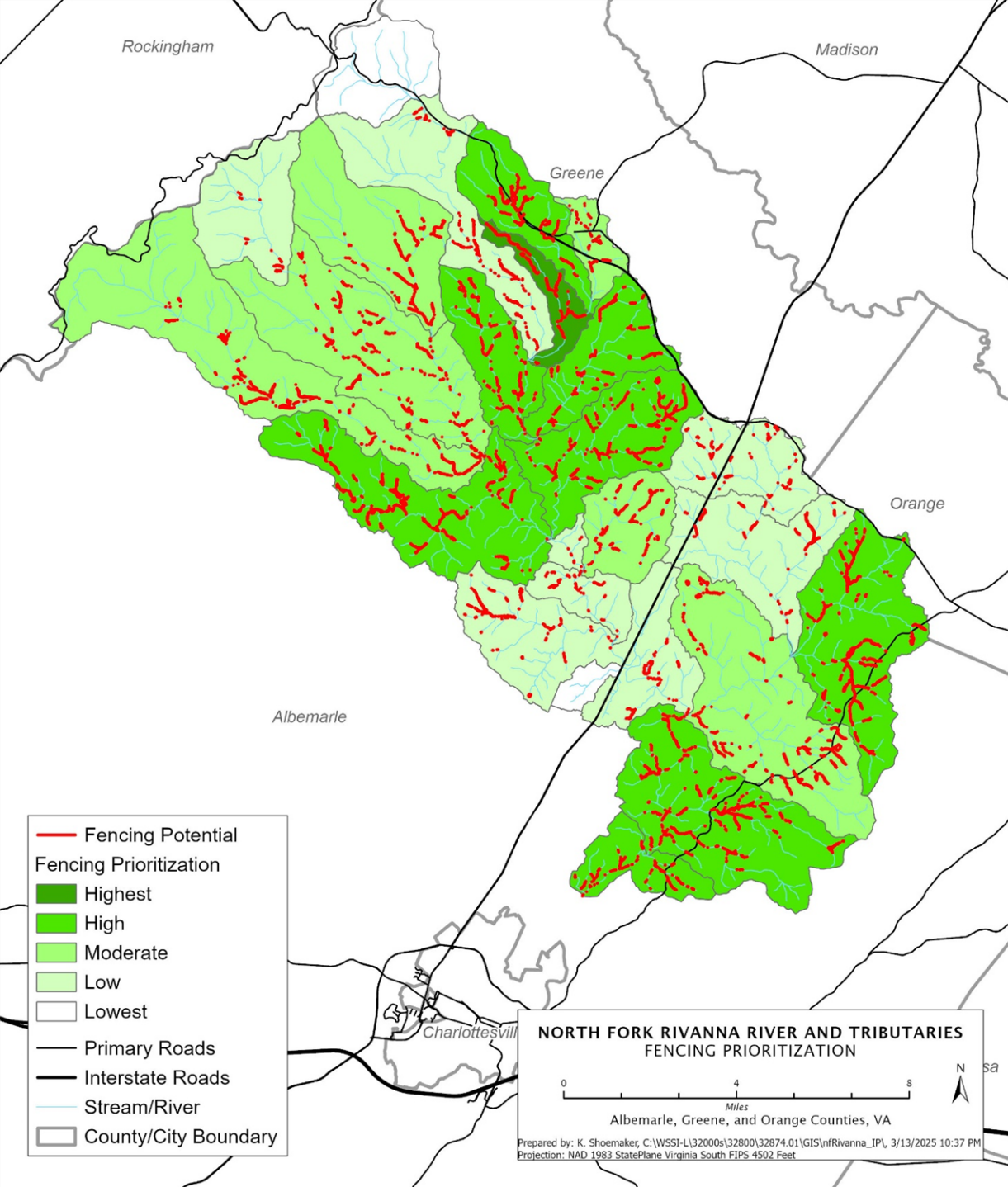


Figure 8 2. Streambank fencing prioritization by subwatershed for the North Fork Rivanna River and Tributaries.

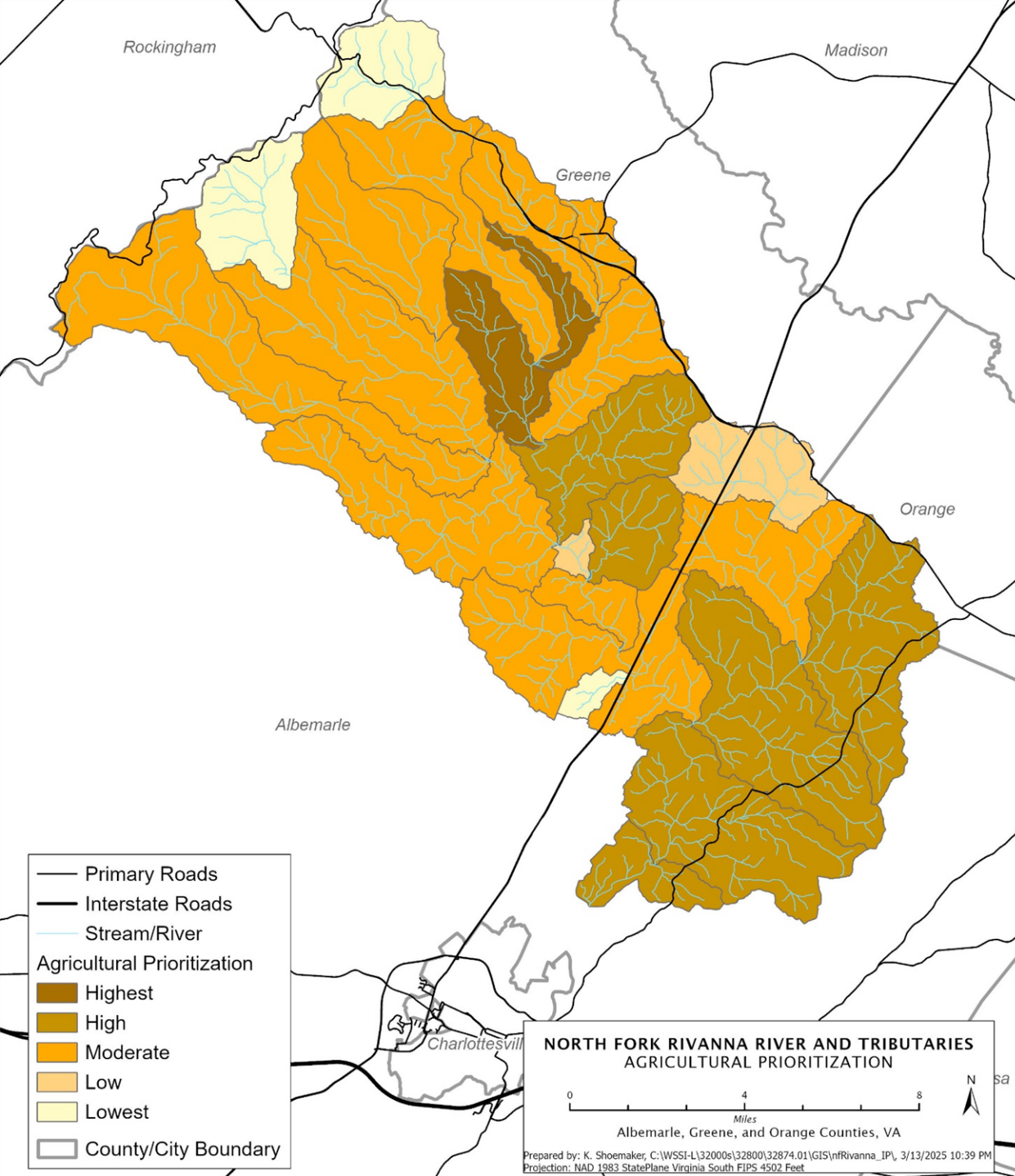
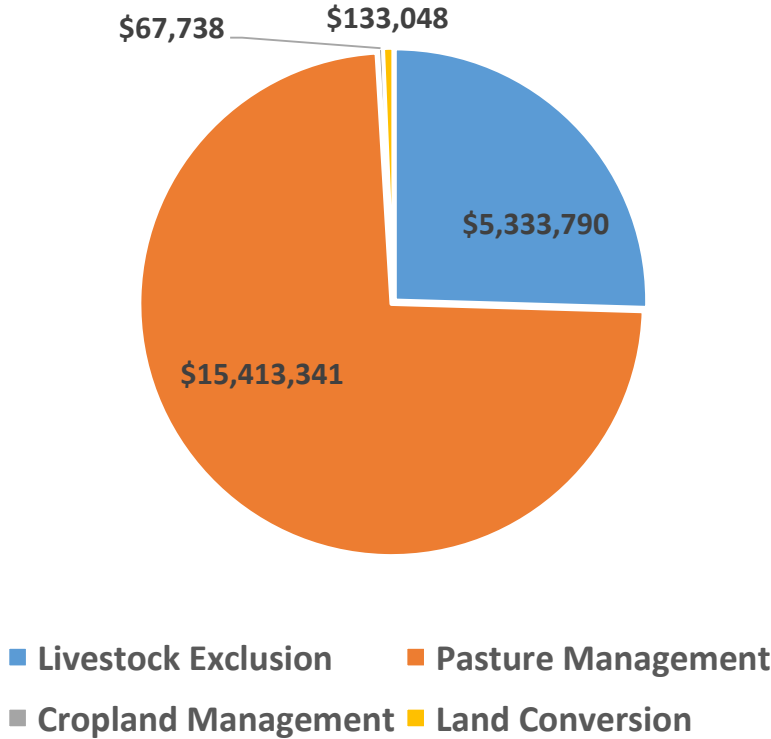


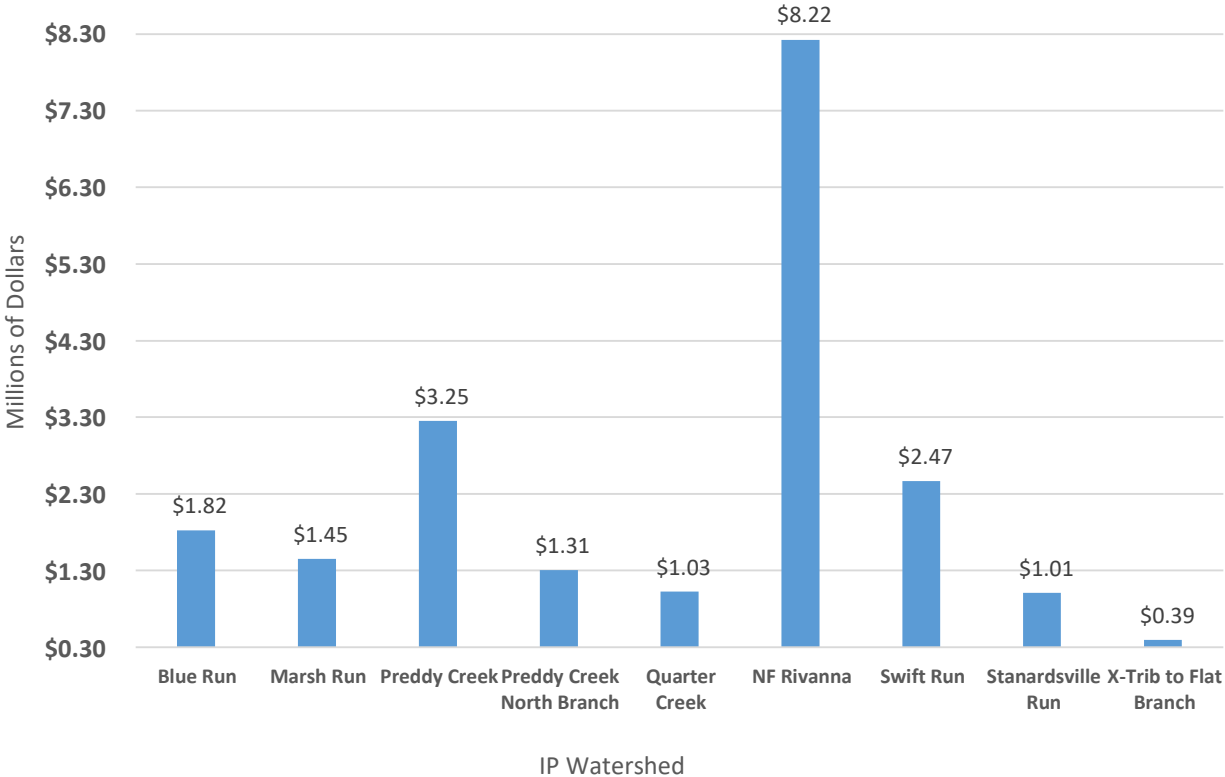
Figure 8-3. Agricultural land-based practices prioritization by subwatershed for the North Fork Rivanna River and Tributaries.

Cost of Agricultural BMP Installation

**Agricultural BMPs:
Total Cost \$20.9 Million**



**Agricultural BMP Costs
By IP Watershed**



Residential Septic BMPs

Residential Septic BMPs by Stages

Residential Septic BMPs needed to achieve sediment, phosphorus, and bacteria reduction goals

BMP	Blue Run	Marsh Run	Preddy Creek	Preddy Creek North Branch	Quarter Creek	NF Rivanna	Swift Run	Stanardsville Run	X-Trib
Stage 1									
Septic Tank Pumpout (RB-1)	64	70	109	275	140	363	109	19	5
Connection to Public Sewer (RB-2)	33	-		105	5	60		11	
Septic Tank Repair (RB-3)	4	4	6	15	5	20	6	1	1
Septic System Replacement (RB-4)	4	3	6	15	5	20	5	1	
Installation of Alternative Waste Treatment System (RB-5)	1	1	1	3	1	1	1	1	1
Stage 2									
Septic Tank Pumpout (RB-1)	64	70	109	275	140	364	109	18	4
Connection to Public Sewer (RB-2)	32	-		105	0	61		11	
Septic Tank Repair (RB-3)	3	4	6	15	5	20	6	1	0
Septic System Replacement (RB-4)	3	4	6	15	4	20	6	1	
Installation of Alternative Waste Treatment System (RB-5)	0	0	0	0	1	1	0	0	0

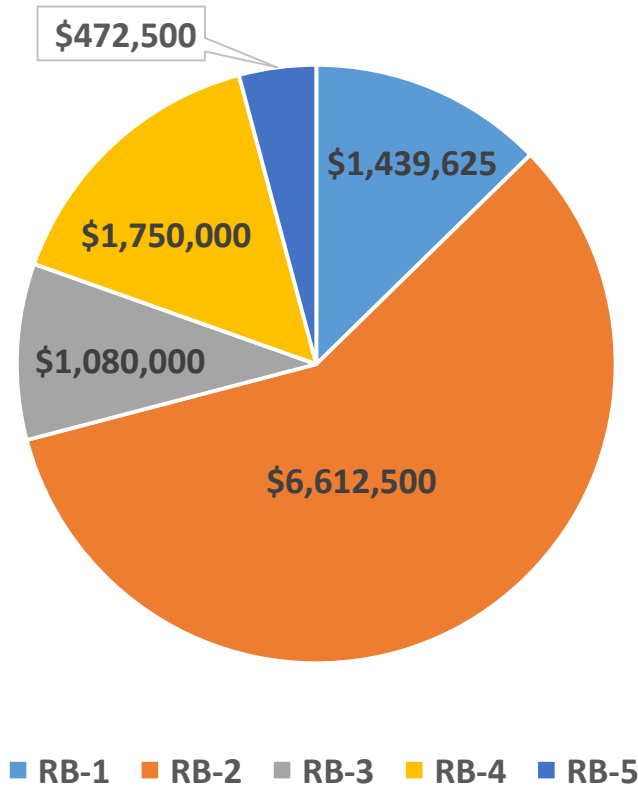
Residential Septic BMPs by Stages

Residential Septic BMPs needed to achieve sediment, phosphorus, and bacteria reduction goals

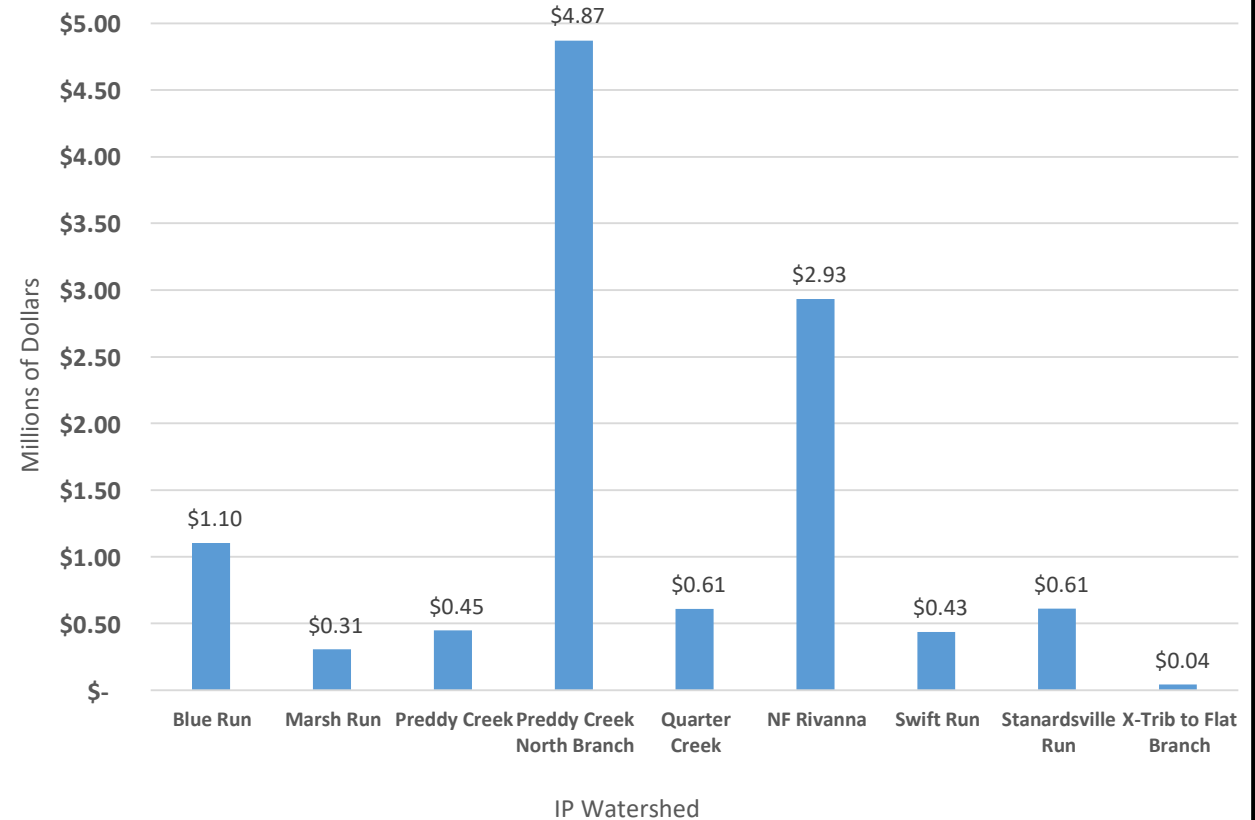
BMP	Blue Run	Marsh Run	Preddy Creek	Preddy Creek North Branch	Quarter Creek	NF Rivanna	Swift Run	Stanardsville Run	X-Trib
Stage 3									
Septic Tank Pumpout (RB-1)	42	47	72	184	94	242	72	12	1
Connection to Public Sewer (RB-2)	0	-		45	0	0		8	
Septic Tank Repair (RB-3)	1	1	1	2	3	1	1	1	0
Septic System Replacement (RB-4)	1	1	1	2	3	1	1	1	
Installation of Alternative Waste Treatment System (RB-5)	0	0	0	0	0	1	0	0	0
Stage 4									
Septic Tank Pumpout (RB-1)	42	47	72	184	94	242	72	12	1
Connection to Public Sewer (RB-2)	0	-		45	0	0		8	
Septic Tank Repair (RB-3)	1	1	1	2	3	1	1	1	0
Septic System Replacement (RB-4)	1	1	1	2	3	1	1	1	
Installation of Alternative Waste Treatment System (RB-5)	0	0	0	0	0	1	0	0	0

Cost of Residential Septic BMP Installation

Residential Septic BMPs:
Total Cost \$11.4 Million



Residential Septic BMP Costs by IP Watershed



Urban BMPs

Residential Stormwater BMPs

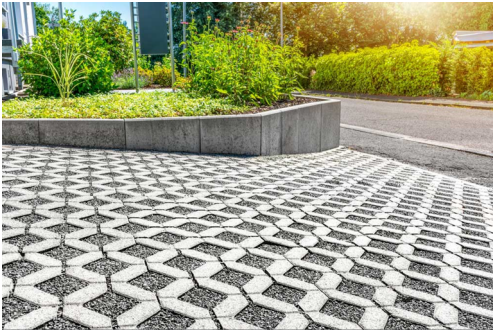
* Total BMPs for all stages. To see comprehensive tables broken out by stages, please refer to the Draft Report

Residential Stormwater BMPs needed to achieve sediment, phosphorus, and bacteria reduction goals

BMP	Blue Run	Marsh Run	Preddy Creek	Preddy Creek North Branch	Quarter Creek	NF Rivanna	Swift Run	Stanardsville Run	X-Trib
	Acres (unless otherwise noted)								
Stormwater BMPs									
Bioretention/Raingarden (BR-4, RG)	70	24	200	300	90	180	136	72	31
Permeable Pavement (PP)	0.2	0.4	0.6	0.4	0.4		0.4	0.4	0.2
Impervious Surface Removal (ISR)	0.3	0.2	0.5	0.4	0.2	0.6	0.4	0.4	0.3
Grass Channels (VOC-1)	13	5.5	10	11	20.4		1.7	20	12
Bioswale (BR-6, BR-7)			10	10		20			
Conservation Landscaping (CL-1)	88	145	650	750	200	800	350	145	63
Rainwater Harvesting (RWH)	14.1	3	2	21	36		1.5	18	4.4
Pet Waste Management Plan (PW-0)			1 (Program)			1 (Program)			
Pet Waste Disposal Station (PW-1)	5 (System)	6 (System)	8 (System)	12 (System)	6 (System)	22 (System)	11 (System)	3 (System)	3 (System)



Bio Retention
(Rain Garden)



Permeable
Pavement

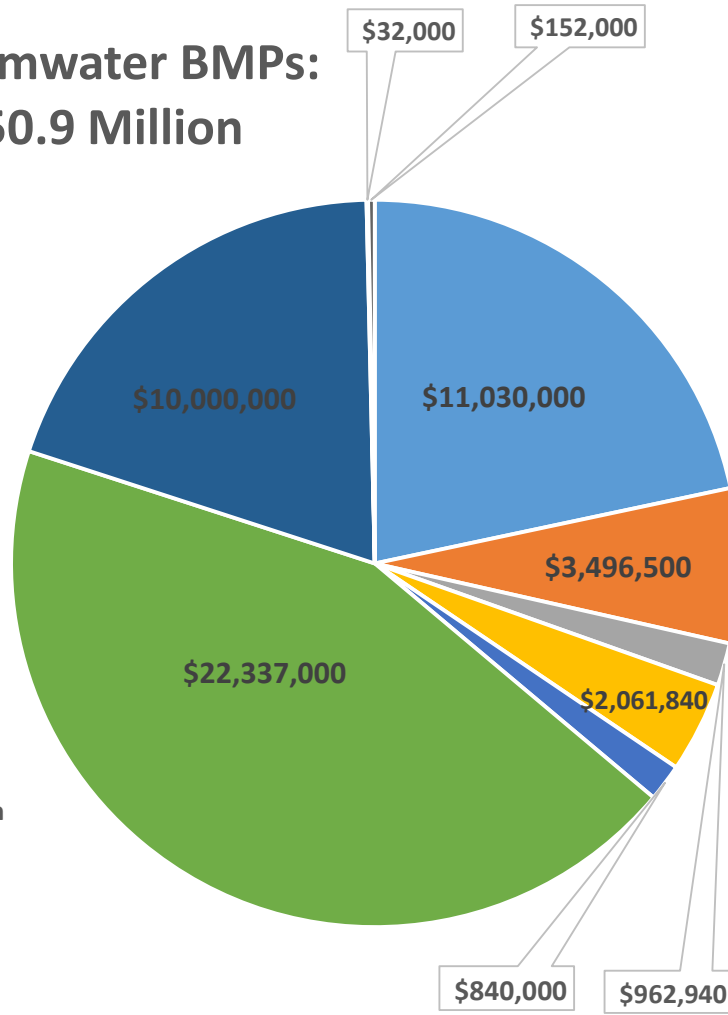


Conservation
Landscaping

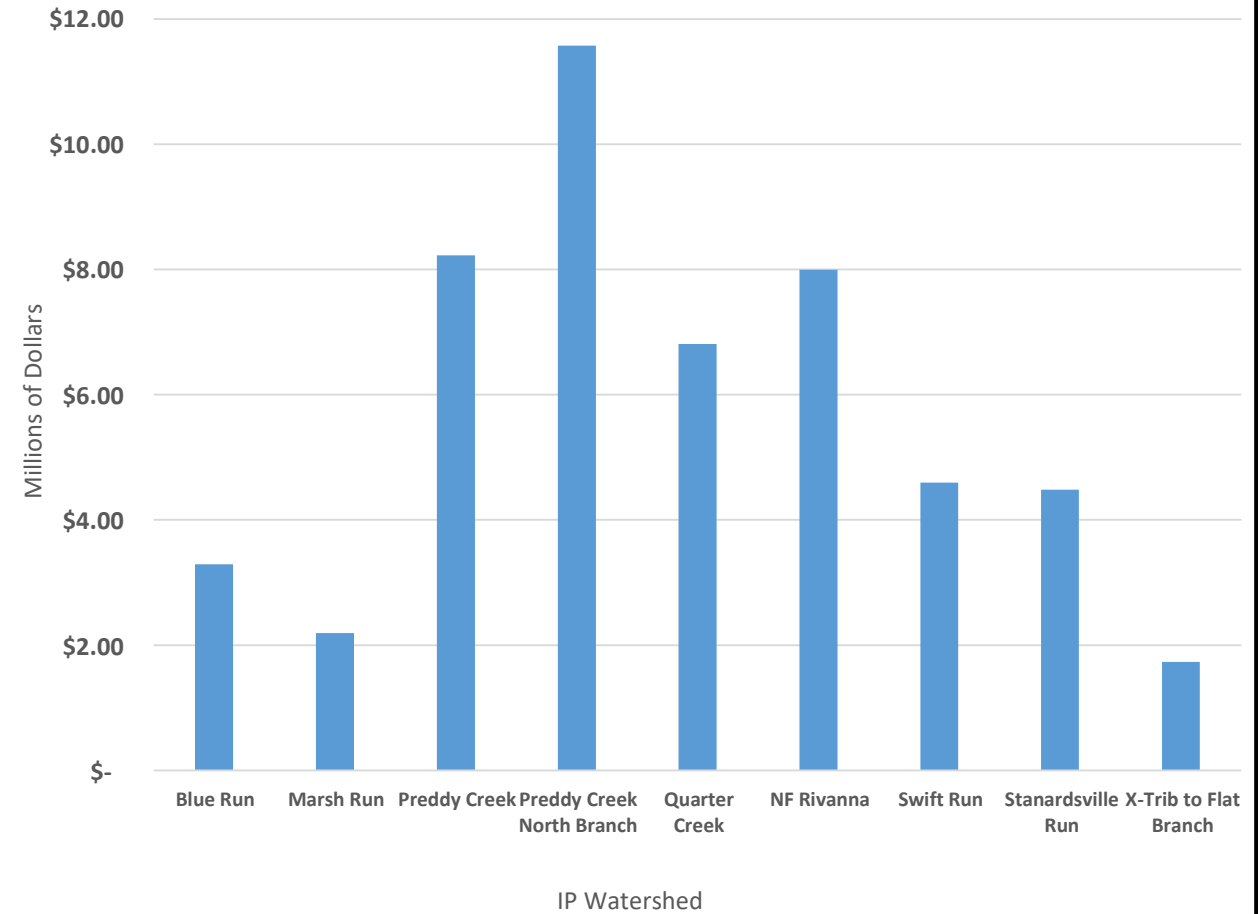
Cost of Residential Stormwater BMP Installation

Residential Stormwater BMPs: Total Cost \$50.9 Million

- Bioretention/Raingarden
- Permeable Pavement
- Impervious Surface Removal
- Grass Channels
- Bioswale
- Conservation Landscaping
- Rainwater Harvesting
- Pet Waste Management Plan
- Pet Waste Disposal Station



Residential Stormwater BMP Costs by IP Watershed



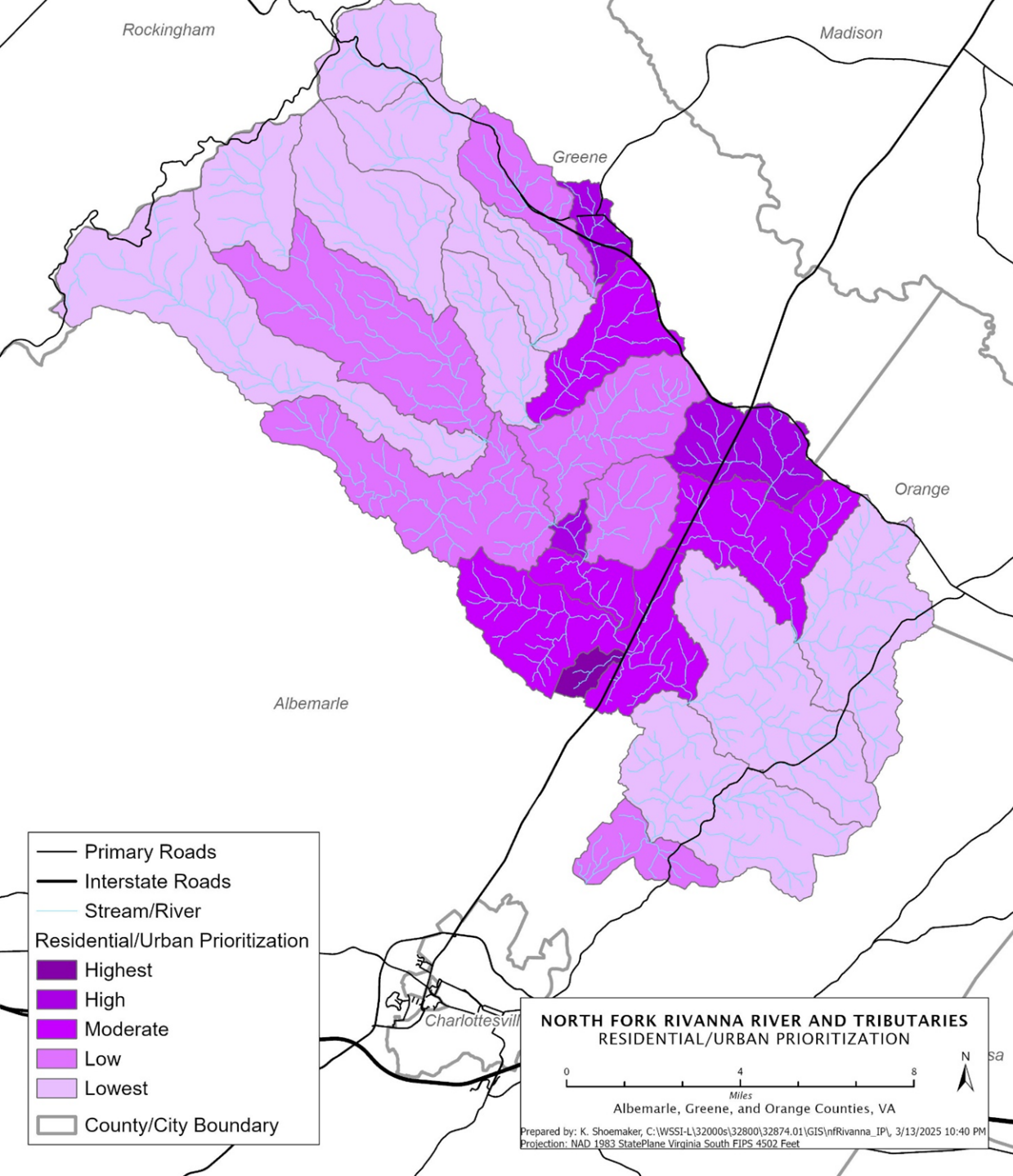


Figure 8 4. Residential/urban prioritization by subwatershed for the North Fork Rivanna River and Tributaries.

Streambank Stabilization BMPs

Streambank Stabilization BMPs

Streambank Stabilization BMPs needed to achieve sediment, phosphorus, and bacteria reduction goals

BMP	Blue Run	Marsh Run	Preddy Creek	Preddy Creek North Branch	Quarter Creek	NF Rivanna	Swift Run	Stanardsville Run	X-Trib
	Linear Feet								
Streambank Stabilization									
Stream Restoration	224	21	424	391	85	-	701	15	6
Streambank Stabilization (WP-2A)	522	49	990	914	200	-	1637	34	15

* Total BMPs for all stages. To see comprehensive tables broken out by stages, please refer to the Draft Report



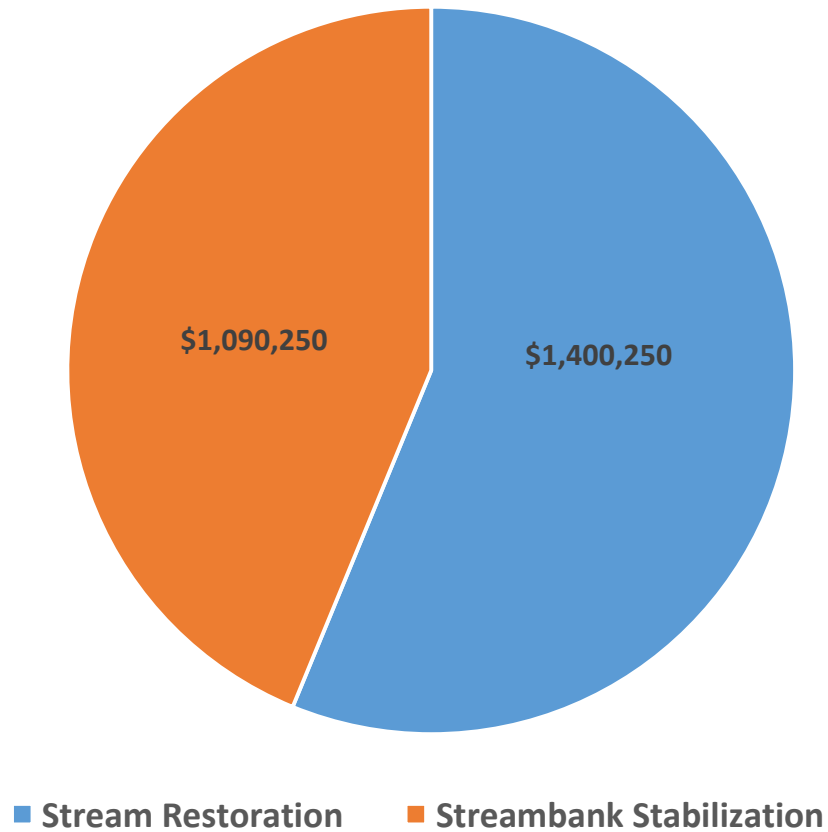
Streambank Stabilization



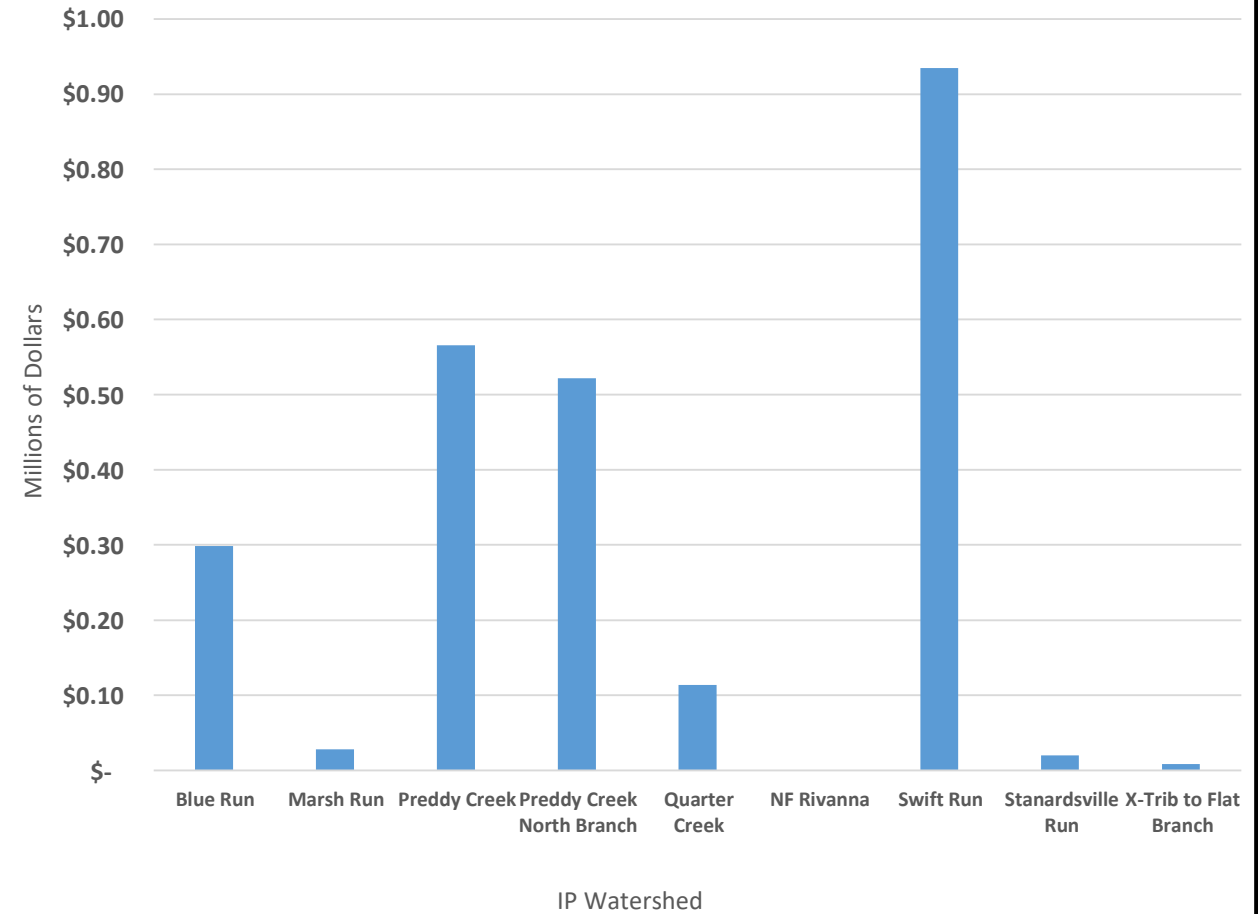
Stream
Restoration

Cost of Streambank Stabilization BMP Installation

Streambank Stabilization BMPs:
Total Cost \$2.49 Million



Streambank Stabilization BMP Costs by IP Watershed



Overall BMPs

Overall Summary- All Watersheds

BMP Application	Agricultural BMPs	Residential Septic BMPs	Urban BMPs	Streambank Stabilization BMPs	Total Cost
Blue Run	\$ 1,823,247.20	\$ 1,103,500.00	\$ 3,292,590.00	\$ 298,500.00	\$ 6,517,837.20
Marsh Run	\$ 1,451,763.00	\$ 306,750.00	\$ 2,191,385.00	\$ 28,000.00	\$ 3,977,898.00
Preddy Creek	\$ 3,252,231.10	\$ 447,250.00	\$ 8,228,700.00	\$ 565,500.00	\$ 12,493,681.10
Preddy Creek North Branch	\$ 1,305,794.10	\$ 4,868,750.00	\$ 11,576,570.00	\$ 521,750.00	\$ 18,272,864.10
Quarter Creek	\$ 1,025,215.00	\$ 608,500.00	\$ 6,806,820.00	\$ 113,750.00	\$ 8,554,285.00
NF Rivanna	\$ 8,222,290.00	\$ 2,932,625.00	\$ 7,998,080.00	\$ -	\$ 19,152,995.00
Swift Run	\$ 2,466,199.00	\$ 434,750.00	\$ 4,595,775.00	\$ 935,000.00	\$ 8,431,724.00
Stanardsville Run	\$ 1,007,883.20	\$ 609,375.00	\$ 4,486,920.00	\$ 19,750.00	\$ 6,123,928.20
X-Trib to Flat Branch	\$ 393,293.80	\$ 43,125.00	\$ 1,735,440.00	\$ 8,250.00	\$ 2,180,108.80

***Note: 319(h) funding is one of many sources of funding that may help cover the total costs**

Timeline

BMP Application	Cost by Stage				Total
	Stage 1 (Years 1-5)	Stage 2 (Years 6-10)	Stage 3 (Years 11-15)	Stage 4 (16-20)	
Agricultural	\$10,574,291	\$5,673,640	\$3,595,243	\$3,595,243	\$23,438,417
Residential	\$20,181,660	\$14,306,165	\$13,873,540	\$13,905,540	\$62,266,905
Total Estimated Cost	\$30,755,951	\$19,979,805	\$17,468,783	\$17,500,783	\$85,705,322

Table 7-10. Staged BMP implementation costs for the watersheds. Total cost of Technical Assistance is approximately \$7,200,000.

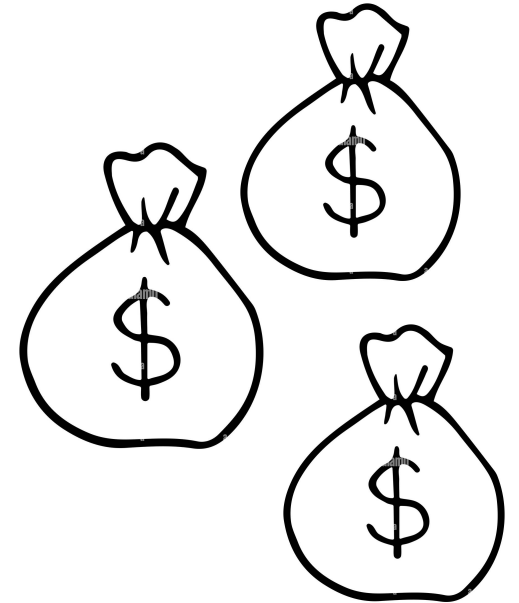
Education and Outreach

- Contact landowners to raise awareness of cost-share options for agricultural BMPs
- Farm tours and field days
- Social media/newspaper
- Yard signs/mailers/door hangers
- Word of mouth!



How are we going to pay for it?

- USEPA 319(h) Nonpoint Source Funds (available through DEQ)
- Virginia Agricultural Cost-Share (VACS) Program & Tax Credit
- Virginia Conservation Assistance Program (VCAP)
- National Fish and Wildlife Foundation (NFWF)
- USDA Programs – CRP/CREP/EQIP
- State Water Quality Improvement Fund (WQIF)
- Clean Water State Revolving Funds (CWSRF)
- Southeast Rural Community Assistance Project (SERCAP)
- Virginia Trees for Clean Water Program
- Community Development Block Grant (CDBG) Program
- USDA Natural Resource Conservation Service and Forest Service Joint Chiefs' Landscape Restoration Partnership
- ... and others



Next Steps

	Tentative Date
First Public Meeting	September 20 th , 2023
Community Engagement Meetings	
# 1	December 13 th , 2023
# 2	September 24 th , 2024
Final Public Meeting	May 5 th , 2025 (Public comment period 30 days after Final Public Meeting) May 5th, 2025 – June 4th, 2025
EPA Approval	Winter 2025/Spring 2026 Eligible to apply for DEQ 319 funding in 2026, funds will be disbursed to accepted applicants in 2027

Where to find the Draft Document ?

- Go to our Implementation Plans Under Development webpage
- Select North Fork Rivanna River
- Click on the Draft Implementation Plan link to download the PDF.
- Review!

North Fork Rivanna River

Benthic and Bacteria Implementation Plan in Albemarle and Greene Counties

- First Public Meeting (September 20, 2023)
 - [Meeting Presentation](#)
 - [Watershed Map](#)
 - [Meeting Minutes](#)
- Community Engagement Meeting (December 13, 2023)
 - [Townhall posting](#)
 - [Agenda](#)
 - [Meeting Presentation](#)
 - [Meeting Minutes](#)
- Community Engagement Meeting (September 24, 2024)
 - [Townhall Posting](#)
 - [Agenda](#)
 - [Meeting Presentation](#)
 - [Meeting Minutes](#)
- **Final Public Meeting (May 5, 2025)**
 - [Townhall Posting](#)
 - **[Draft Implementation Plan](#)**

Contact PRO/VRO NPS Coordinator for more information.

Implementation Plans Under Development

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As part of the watershed restoration process, Implementation Plans (IPs) are developed to address nonpoint source pollution. Typically, these plans follow the development of a cleanup study (also known as a Total Maximum Daily Load or TMDL), but not always. Below, you can find information on IPs and cleanup plans that are currently under development. Participation by watershed stakeholders in the development of these plans is vital.

Contacts for each Implementation Plan under development are listed with each project.

Yeocomico River	+
Moores and Mill Creeks	+
Jackson River	+
North Fork Rivanna River	+
Hat and Black Creeks	+
Mine Run, Mountain Run and Lower Rapidan River	+

Resources

[Data and GIS Portal](#)

Contacts

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<https://www.deq.virginia.gov/our-programs/water/water-quality/implementation/implementation-plans-under-development>



Submit comments by June 4th, 2025 to:
(Include name, organization (if any), mailing address and telephone number)

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Questions?