

Loudoun Wildlife Conservancy aulland@loudounwildlife.org



Loudoun Watershed Watch info@loudounwatershedwatch.org

April 30, 2025

Meighan Wisswell VA Dept. of Environmental Quality P.O. Box 1105 Richmond, VA. 23218

Sent via E-mail: citizenwater@deq.virginia.gov

Subject: Citizen Nomination for Stream Monitoring

Dear Meighan,

Loudoun Wildlife Conservancy and Loudoun Watershed Watch are pleased to provide several nominations for additional stream monitoring locations to be considered for inclusion in DEQ's Water Quality Monitoring plan for calendar year 2026. This year we met virtually as a committee and selected 5 candidate sites. We used a comprehensive interactive map with stream monitoring data and stream impairments, past stream monitoring nominations, and past DEQ stream monitoring plans.

The map includes past stream monitoring results by:

- Citizen stream monitoring groups
- > VADEQ
- > Other organizations

The map is available to the public at https://tinyurl.com/mrx48xev

The scoring matrix includes five criteria for nominations as follows. On March 5, 2025, several committee members from Loudoun Wildlife Conservancy and Loudoun Watershed Watch met and determined scores and made the final nomination list.

Review and prioritize stream selection criteria - scale 0-3, low to high

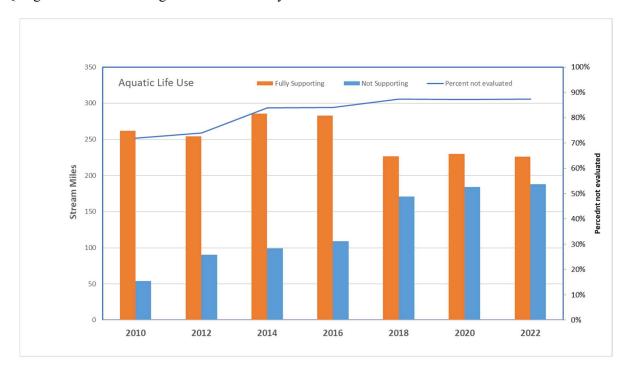
ID	Criteria to Consider for DEQ Nomination	Importance (group input) Scale: 0-3	Total	Final Weight (avg)
A	Easy access to the stream site for public events to engage, educate, and raise awareness (e.g., ample parking, public land)			
В	Proximity to LWC stream monitors (short drive, central location)			
С	Historic benthic VASOS Stream scores available			
D	Potential for habitat restoration (e.g., location conducive to plantings, riparian buffers) Restoration efforts in line with FEMA which prohibits some tree planting due to floodplain obstruction			
Е	Currently Impaired for Aquatic Life			
F	Risk of future impairment based on site knowledge (e.g., development plans)			
G	Meets DEQ Nomination Criteria:			

	Final Scores of Streams Nominated for DEQ Monitoring		
1	Beaverdam Run - SW site area – Final Weighted Score: 67		
2	Dry Mill Branch - Final Weighted Score: 64		
3	Balls Run - Final Weighted Score: 58.75		
4	UT Horsepen Upstream - Final Weighted Score: 58.25		
5	Dutchmans Creek - Final Weighted Score: 44.75		

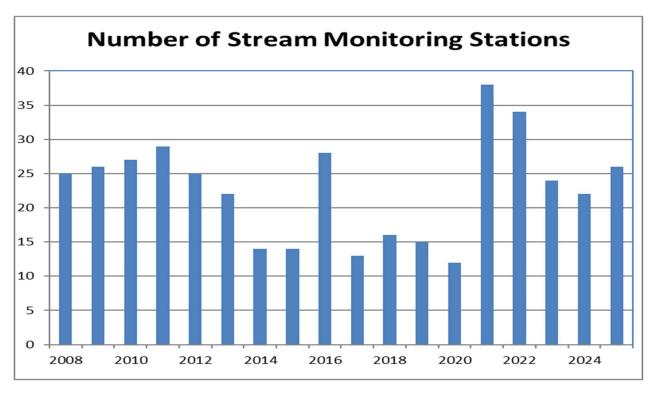
This year we are re-nominating 3 sites from our submission in 2022 and have added two more sites in north west corner of Loudoun County in the Piney Run watershed. The detailed rating scores are provided in the Appendix.

We understand that only a limited percentage of the stream miles in Loudoun County have been assessed for aquatic life use through benthic monitoring of the macroinvertebrate community in the streams. The percentage

changed from 30% to about 13% when DEQ changed to a higher density of streams. We understand that VA DEQ began stream monitoring in Loudoun County in 1994.



Over the years the number of sites in Loudoun and contributing subwatersheds has varied in which a site is typically monitored in both the spring and fall as VA DEQ requires that two benthic sampling be conducted to be included in the water quality assessment as shown in this chart.



Based on DEQ's water assessment, we also observe that the number of stream miles in Loudoun County region

continues to increase every 2 years.

In our review of available data, we have worked with DEQ's EDAS Family and Genus MS Access "PROBMON data and constructed six-year data windows of the average SCI scores (data provided per email request 3/19/2025). We have examined comprehensive DEQ-approved Loudoun County Stream assessment, conducted in the spring of 2009 (https://loudounwatershedwatch.org/Loudoun_County_Reports/2009_Stream_Assessment_Report_FINAL.PDF). The County data provides a one-time comprehensive coverage at 200 locations.

The goal of our site nominations is to suggest stream reaches that in our opinion are strategic to support identification of both "healthy" and potentially "impaired" (for aquatic life use) segments. Based on the 2009 Loudoun County stream assessment, 78% of the streams are statistically under stress or severe stress and would be designated as impaired, however, even with 200 monitoring events from the spring of 2009, this comprehensive survey does not provide sufficient coverage of all streams in Loudoun as the goal of the study was an overall assessment and was not designed to analyze each and every segment. Furthermore, the sampling was a one-time event, and VA DEQ requires at least two events during the sampling window of the assessment cycle.

Regarding bacteria monitoring, we are not nominating any additional sites as we recognize that there is a high probability (80-90 percent) that streams within Loudoun County if sufficiently monitored would probably fail to meet the recreational use criteria established by VA DEQ.

Loudoun Wildlife Conservancy uses the Virginia Save Our Streams (VA SOS) protocol for biological monitoring of stream health, so our data is accepted by DEQ as Level 2 data. Our stream monitoring program coordinator is both a VA SOS certified monitor and certified trainer.

Loudoun Wildlife currently monitors 28 stream sites around the county – over five times the number of sites we monitored in 2019. Loudoun Wildlife currently has 33 VA SOS certified monitors on our Stream Team.

Loudoun Wildlife became a partner organization of the Izaak Walton League of America's Salt Watch program in 2021. Since first collecting baseline data in the fall of 2021, we have collected over 1,700 chloride data points at 72 stream sites. This information is uploaded to the Clean Water Hub.

In August of 2023, Loudoun Wildlife partnered with the RiverTrends program of the Alliance for the Chesapeake Bay to begin conducting monthly chemical monitoring at six benthic sites along Tuscarora Creek and Town Branch in Leesburg. Our 13 volunteers, including 9 RiverTrends certified monitors, have collected nearly 4,000 data points on parameters including temperature, dissolved oxygen, pH, water clarity, nitrate, phosphate, conductivity, and other physical characteristics of the stream site. This information is uploaded to the Chesapeake Monitoring Cooperative.

We look forward to your response and continued efforts to evaluate stream health in Loudoun County.

Respectfully submitted,

Amy Ulland

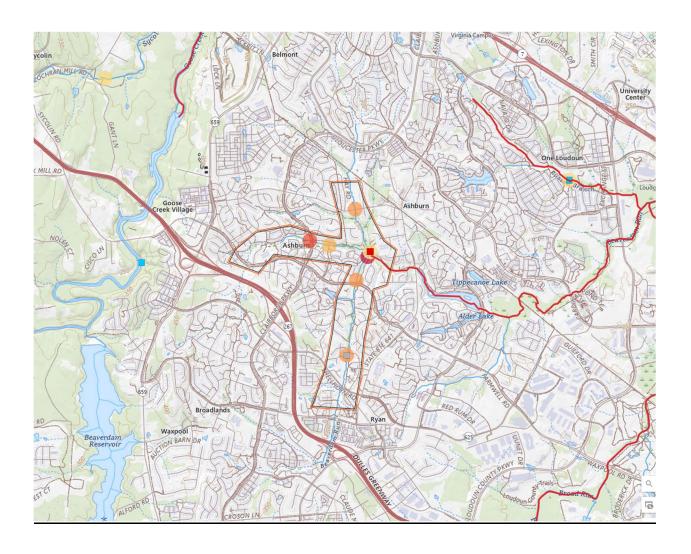
This letter and others are posted at https://loudounwatershedwatch.org/subitem6 3.html

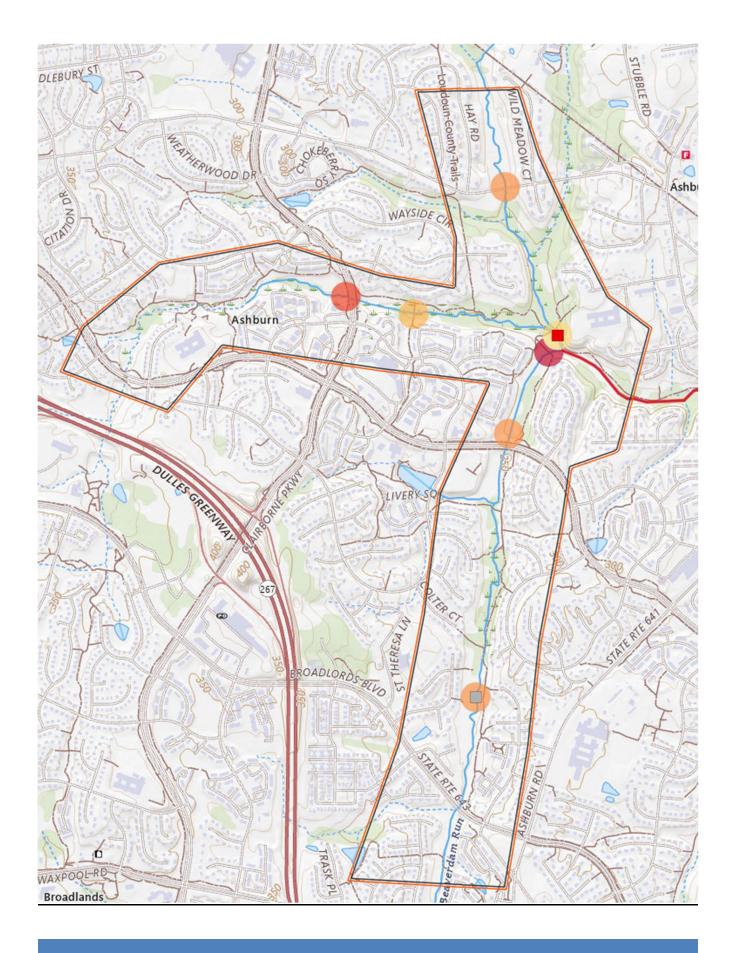
Site 1: Beaverdam Run - SW site area

REQUEST TO INCLUDE A WATER SEGMENT IN DEQ'S ANNUAL MONITORING PLAN

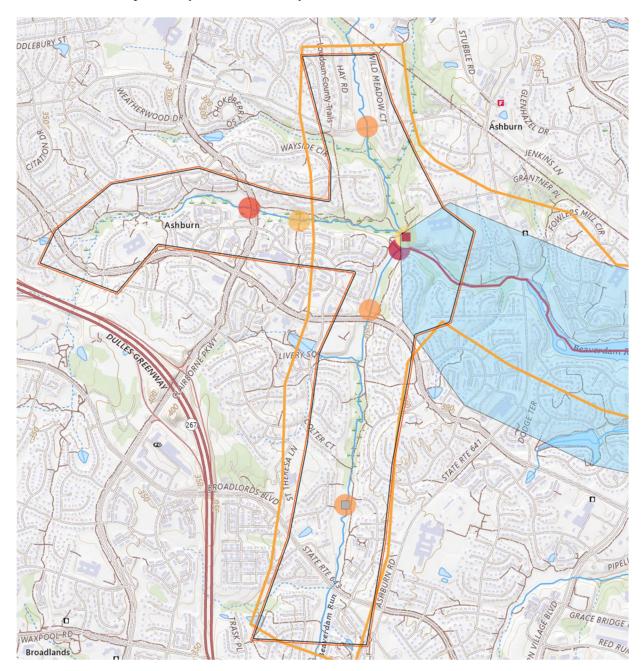
Name		Date	4/10/2025
: Amy Ulland		:	4/18/2025
Mailing Address: PO Box 1892			
City: Leesburg State:	VA	Zip:	20177
E-mail address: _aulland@loudounwildlife.org			
	Business		
Home telephone:	telephone: (571) 293-1696		
(1) Name of the water body or water bodies p	roposed for monitoring:		
Beaverdam Run - SW site area			

(2) Site maps





Some reaches were previously nominated. This year we extend the headwater reach from the west.

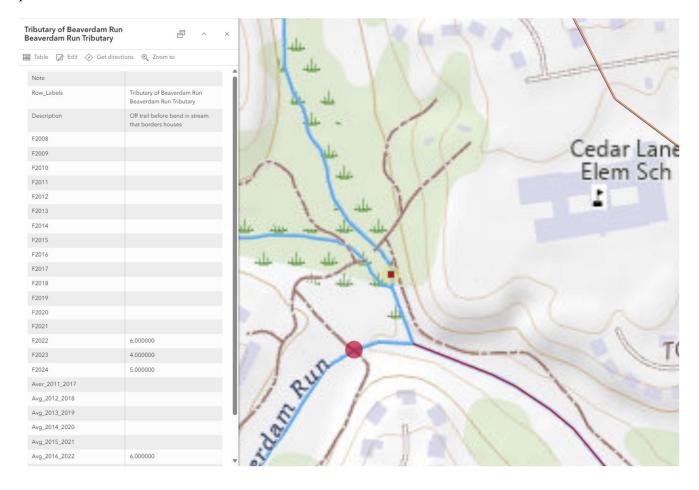


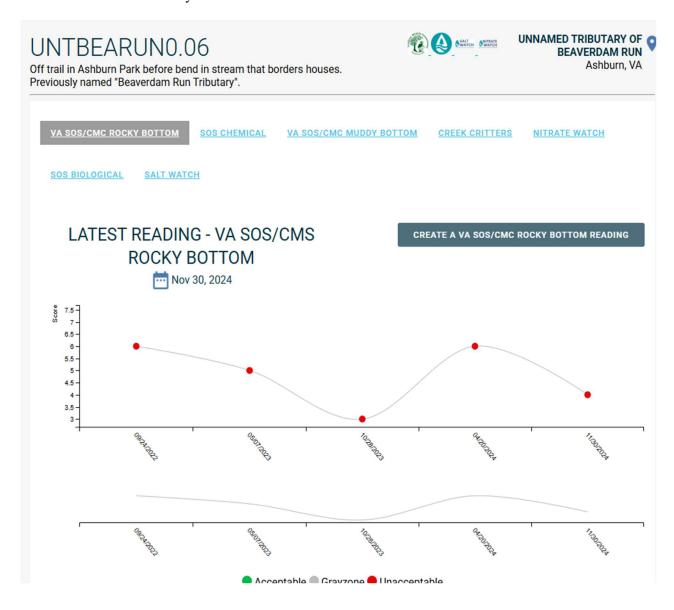
(3) Monitoring objective.

The site is in a residential neighborhood which was built over 25 years ago. The stormwater infrastructure reflects the regulations in effect at the time. The goal is to evaluate what conditions are in a neighborhood that has stabilized after a few decades of land use change.

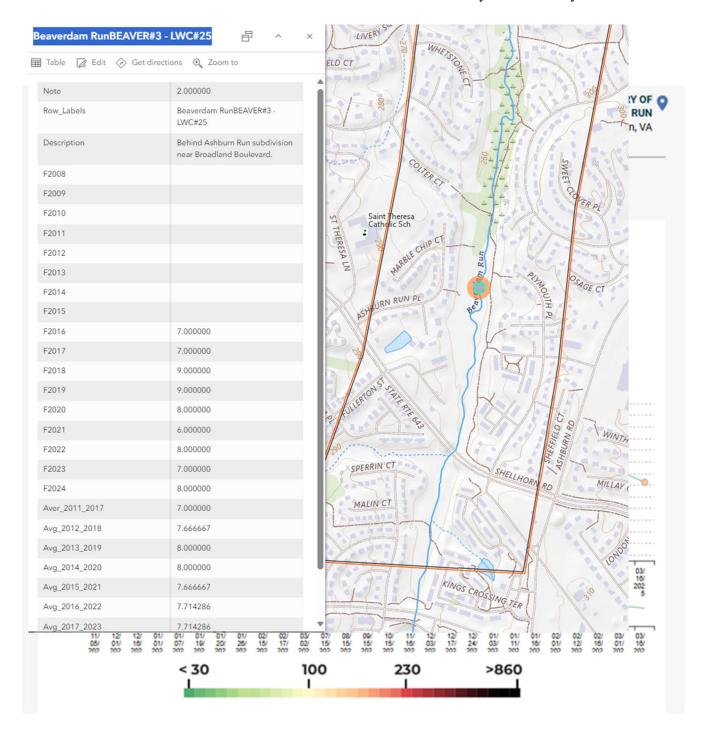
4) Water quality data are integrated into map application.

Citizen monitoring at *Tributary of Beaverdam Run Beaverdam Run Tributary* in 2022, 2023 and 2024 show poor VASOS scores.

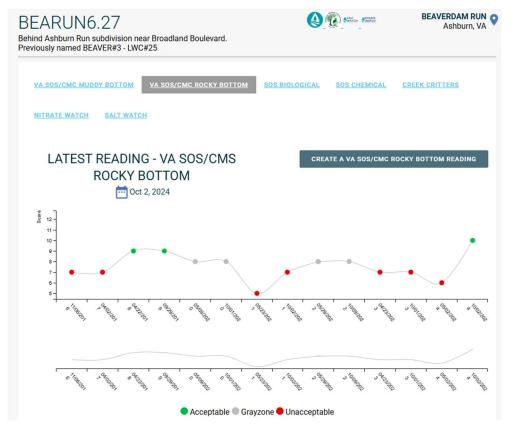




A second site Beaverdam Run BEAVER#3 - LWC#25 has been monitored by citizens for 9 years since 2016.

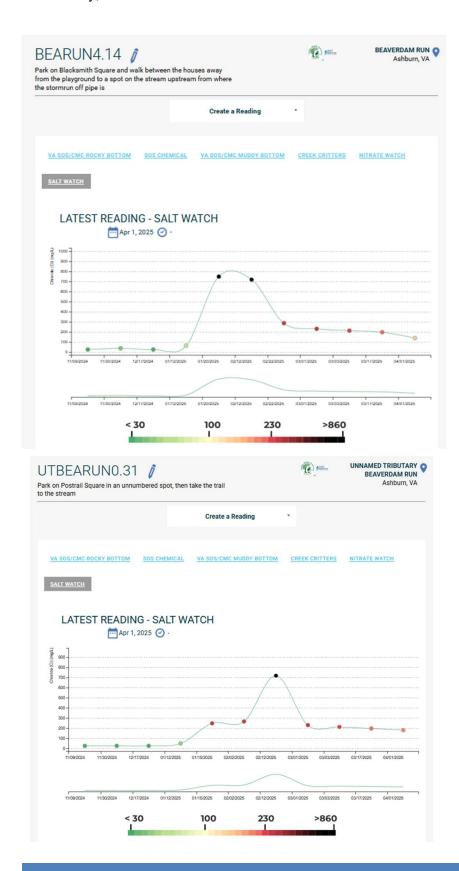


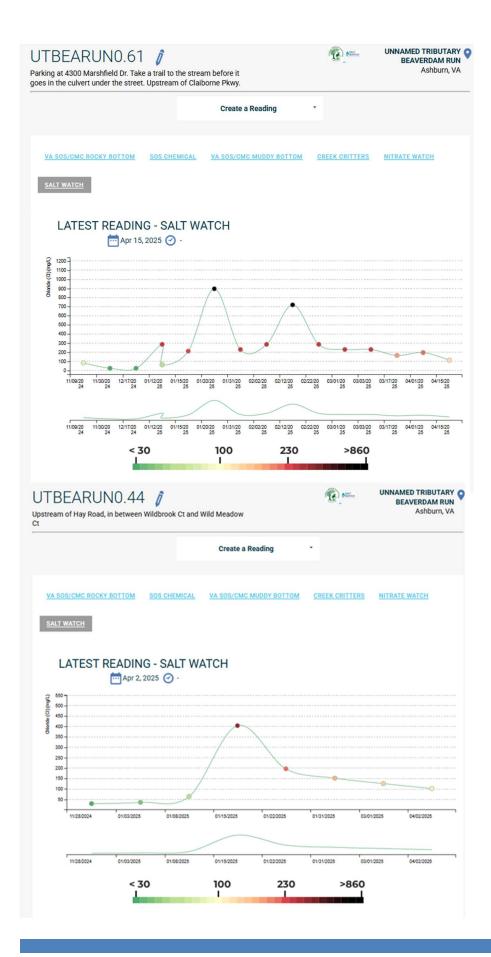
The VASOS scores are mixed and vacillate around "Indeterminate".





Additionally, there are four other sites where salt watch data were collected.





The salt data establish that nearly all reaches are "hit" with a large "dose" of elevated chloride concentrations from winter road salt which is washed down stormwater drainage to the streams.

Note that field photographs are typically available at each salt watch monitoring location.

 $\underline{https://api.cleanwaterhub.org/static/usercontent/images/bfb8453a1fdf40f7bcbfd1d5eb2a816a_thumbnail@2x.jp_eg$

 $\underline{https://api.cleanwaterhub.org/static/usercontent/images/dba61e36041e4ab69317b32a17a41e3a_thumbnail@2x.jpeg}$

 $\underline{https://api.cleanwaterhub.org/static/usercontent/images/c23db52f8c674b0d839cbc0abb8b1099_thumbnail@2x.jpg$

 $\underline{https://api.cleanwaterhub.org/static/usercontent/images/3fbbf6075082474fa2b40e85dd89762b_thumbnail@2x.jpeg$

 $\underline{https://api.cleanwaterhub.org/static/usercontent/images/9f8c1710e1ab41cbbae3c2cadff5daab_thumbnail@2x.jpg$

Downstream of the nomination DEQ has designated Aquatic Life and Recreational Use Impairments.

Impaired_2020_Rivers_Not_Supportin g_Aquatic_Life: Beaverdam Run



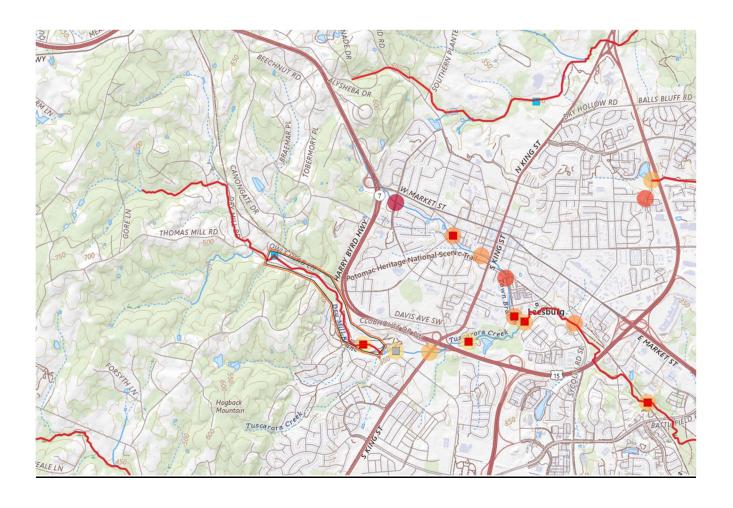
Table 🖟 Edit ጵ Get directio	ns ⊕ Zoom to
ID305B	VAN-A09R_BEM02B10
MILES	1.54
CYCLE	2020
WATER_NAME	Beaverdam Run
LOCATION	Segment begins at the confluence with of an unnamed tributary to Beaverdam Run, in Ashburn Park, and continues downstream until the confluence with an unnamed tributary to Beaverdam Run.
AU_COMMENT	Class III, Section 9. DEQ ambient water quality and biological monitoring station 1aBEM000.60 at Route 607. Historical Note: In 2006, segment was extended 3.18 rivermiles downstream to accommodate additional monitoring sites. Historical Note: In
IMP_CAUSE	Benthic Macroinvertebrates Bioassessments, Escherichia coli (E. coli)
SOURCE	Source Unknown
CATEGORY	5A
AQUA_LIFE	Not Supporting
FISH_CONSU	Fully Supporting
PWS	Not Applicable
RECREATION	Not Supporting
WILDLIFE	Fully Supporting

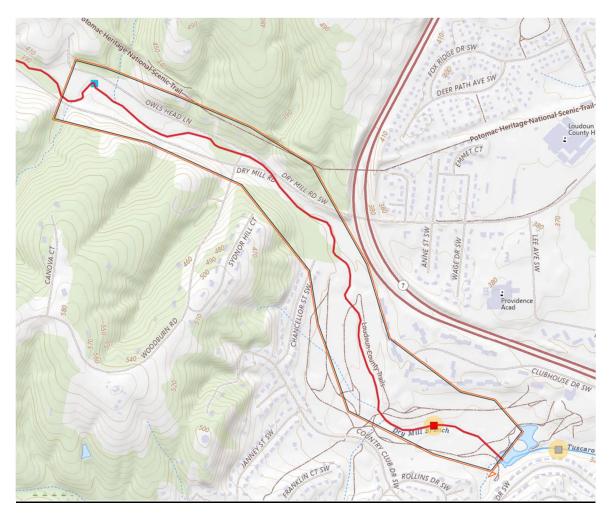
Site 2: Dry Mill Branch

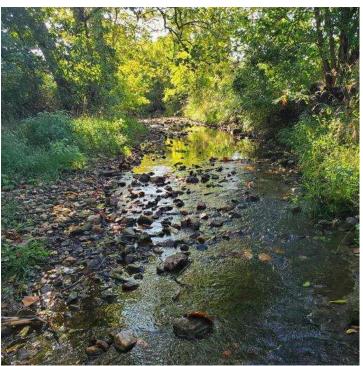
REQUEST TO INCLUDE A WATER SEGMENT IN DEQ'S ANNUAL MONITORING PLAN

Name				Date	
: Amy Ulland				:	4/18/2025
Mailing Address: PO Box 1892					
City: Leesburg	State:	VA		Zip:	20177
E-mail address: _aulland@loudounwildli	ife.org				
		Business			
Home telephone:		telephone:	(571) 293-1696		
(1) Name of the water body or water bo	odies pr	oposed for m	onitoring:		
Dry Mill Branch					

(2) Site maps





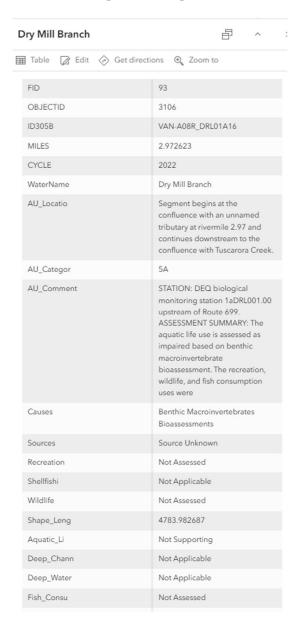


(3) Monitoring objective.

The site is just west of the residential development in the Town of Leesburg. The objective is to confirm that the downstream portion of this reach has experienced benthic impacts and that possibly the aquatic life use is more limited to the downstream portion of the reach. Possibly this reach needs further testing and can be delisted in the future.

(4) Water quality data are integrated into map application.

This reach is impacted for aquatic life.



This is based on DEQ monitoring at 1ADRL001.00. Currently this site is not within the 6-year data window for assessment. Furthermore, only one of the six events showed poor benthic conditions. These data are not consistent with citizen data.

VA_DEQ_EDAS_VSCI_March_2025 - Dry Mill Branch				
ObjectID	30			
Row_Labels	1ADRL001.00			
StreamName	Dry Mill Branch			
Location	Upstream of Rt. 699			
Туре	Citizen Request			
SurveyReas	Citizen's Request			
Lat	39.110556			
Long_	-77.592778			
Long_DD	-77.592778			
Spring_2013	64.770556			
Fall_2013	77.31163			
Spring_2014	62.687539			
Fall_2014	61.013683			

Spring_2016	25.317045	
Fall_2016	70.142904	

Upstream VASOS data indicate good stream health, however downstream, poor stream health.

Dry Mill Branch - Dry Mill Branch Dry Mill Branch-DRYMILBRA0.2 Note Note Row_Labels Dry Mill Branch - Dry Mill Branch Row_Labels Dry Mill Branch-DRYMILBRA0.2 Description Owl Head Lane Description 0.2 miles upstream from pond/beginning of Tuscarora F2008 Creek in Westpark property F2009 F2008 F2010 F2009 F2011 F2010 F2012 F2011 F2013 F2012 F2014 F2013 F2015 F2014 F2016 F2015 F2017 F2016 F2017 F2019 F2018 F2020 F2019 F2021 9.000000 F2020 F2022 10.500000 F2021 F2023 8.000000 F2022 F2024 9.000000 F2023 5.000000 Aver_2011_2017 F2024 6.500000 Avg_2012_2018 Aver_2011_2017 Avg_2013_2019 Avg_2012_2018 Avg_2014_2020 Avg_2013_2019

Avg_2014_2020

Avg_2015_2021

Avg_2016_2022

Avg 2017 2023

5.000000

9.000000

9.750000

9.166667

9.125000

Avg_2015_2021

Avg_2016_2022

Avg_2017_2023

Avg_2018_2024

The salt watch data downstream do not show high chlorides.

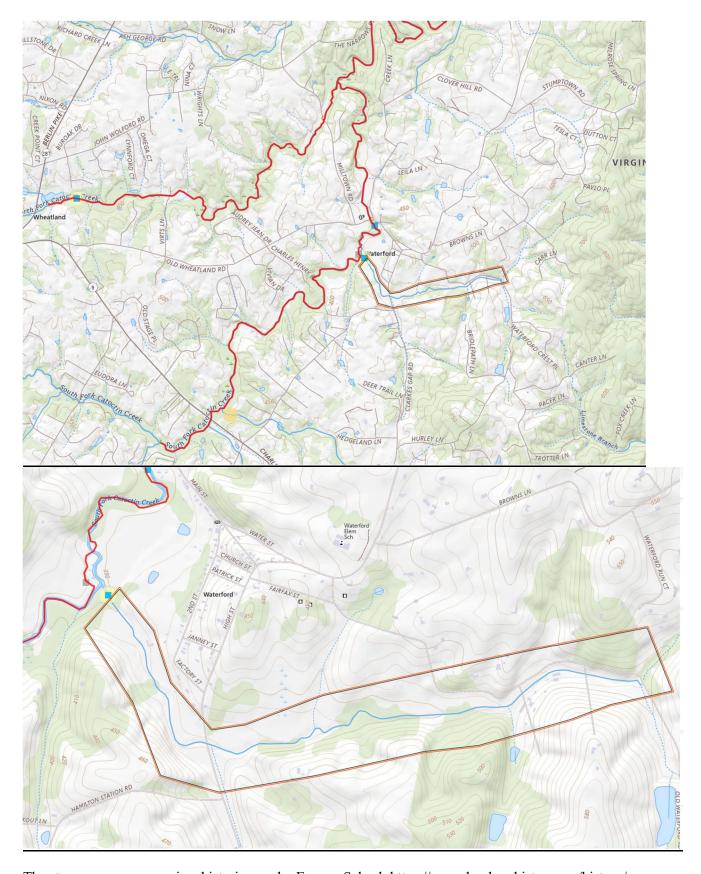


Site 3: Balls Run

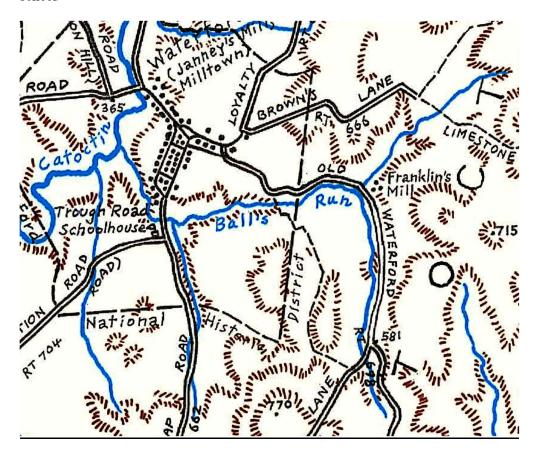
REQUEST TO INCLUDE A WATER SEGMENT IN DEQ'S ANNUAL MONITORING PLAN

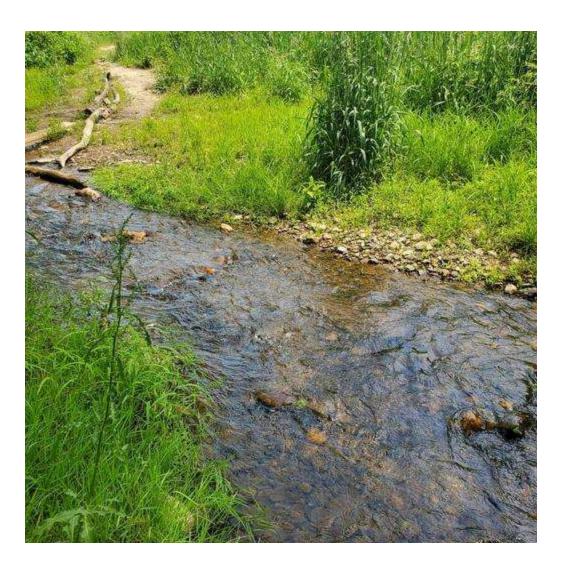
Name	Γ	Date	
: _Amy Ulland		:	4/18/2025
Mailing Address: PO Box 1892			
City: Leesburg State: VA		Zip:	20177
E-mail address: _aulland@loudounwildlife.org			
Business			
Home telephone: telephone:	(571) 293-1696		
(1) Name of the water body or water bodies proposed for n	nonitoring:		
Balls Run Tributary to South Fork Catoctin Creek.			

(2) Site maps



The stream name appears in a historic map by Eugene Scheel. https://www.loudounhistory.org/history/eugene-





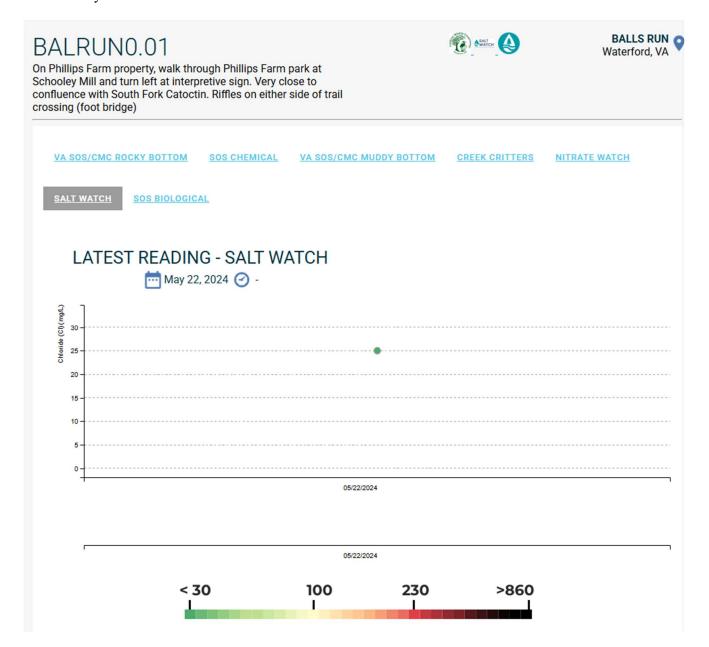
(3) Monitoring objective.

The site is just south of the Village of Waterford. The area is rural and presently cattle visit the downstream portion of the stream. The stream discharges to South Fork Catoctin Creek which has an impairment for aquatic life use. We wish DEQ to assess if Balls Run is contributing to this impairment.

(4) Water quality data are integrated into map application.

There are limited data on the tributary stream. Citizen data collected in 2024 suggest good stream health.



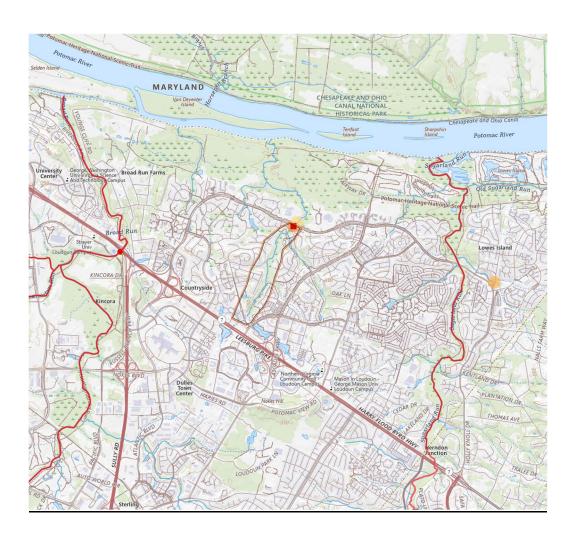


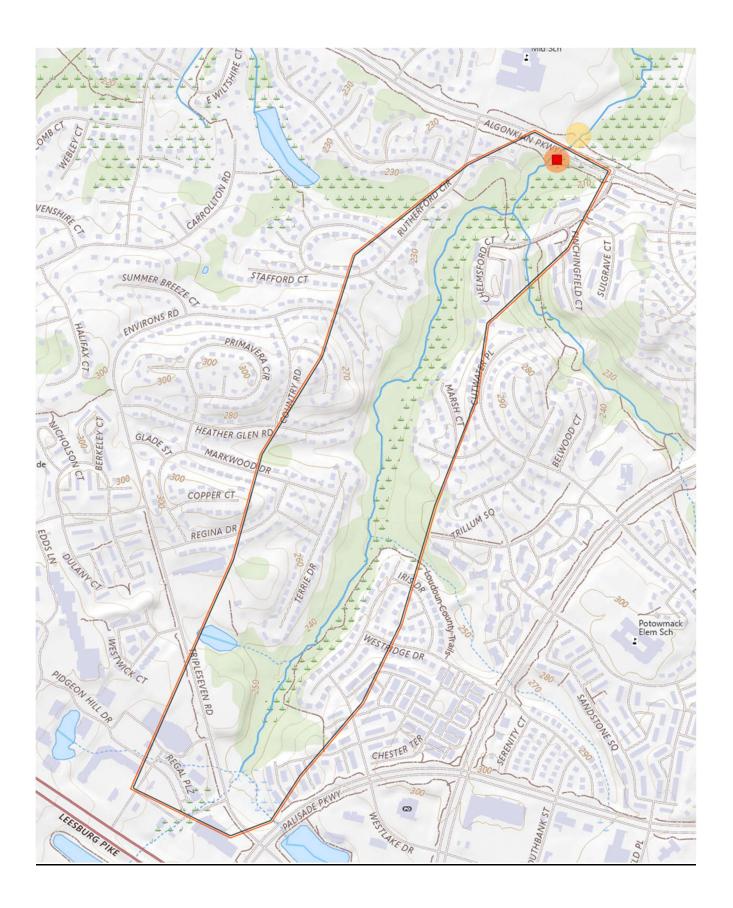
Site 4: UT Horsepen Upstream

REQUEST TO INCLUDE A WATER SEGMENT IN DEQ'S ANNUAL MONITORING PLAN

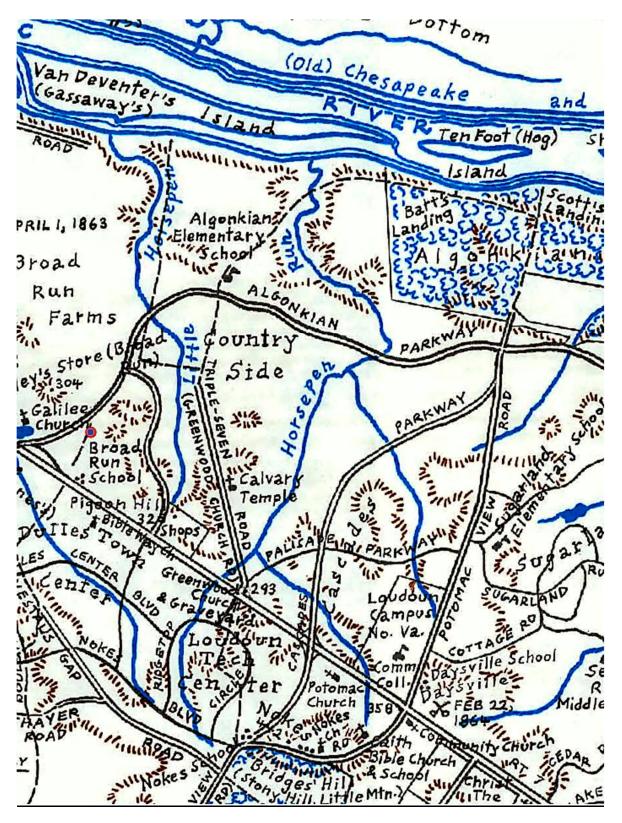
: Amy Ulland : Mailing Address: PO Box 1892 City: Leesburg State: VA Zip:	
City: Leesburg State: VA Zip:	4/18/2025
E-mail address:aulland@loudounwildlife.org	
Business telephone:	20177
Home telephone: telephone:(571) 293-1696 (1) Name of the water body or water bodies proposed for monitoring:	
(1) Name of the water body or water bodies proposed for monitoring:	
Unnamed Tributary - Horsepen Run - Upstream	

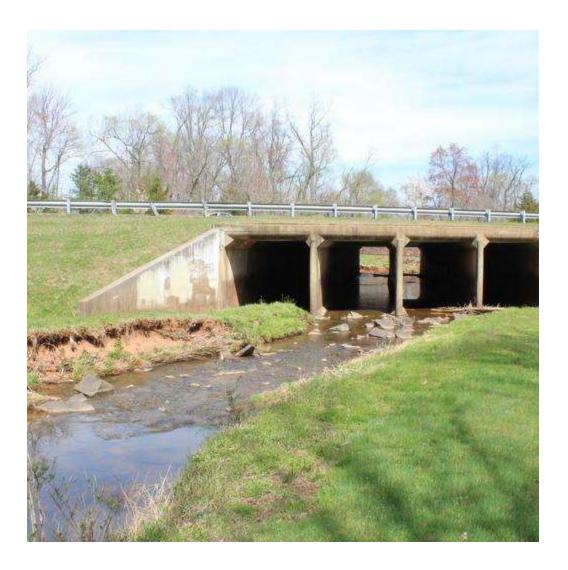
(2) Site maps





The stream name appears in a historic map by Eugene Scheel. https://www.loudounhistory.org/history/eugene-scheel/





(3) Monitoring objective.

The site is in a well-established residential neighborhood, constructed several decades ago. The area has relatively recent stormwater infrastructure which discharges directly to the stream.

(4) Water quality data are integrated into map application.

Citizen data in 2019 and 2021 showed poor stream health.

Horse Pen Run Sterling - LWC#100				
■ Table	tions 🔍 Zoom to			
Note				
Row_Labels	Horse Pen Run Sterling - LWC#100			
Description				
F2008				
F2009				
F2010				
F2011				
F2012				
F2013				
F2014				
F2015				
F2016				
F2017				
F2018				
F2019	5.000000			
F2020				
F2021	4.000000			
F2022				
F2023				
F2024				

Citizen data at approximately the same downstream location in 2024 showed possibly stream health improvement.

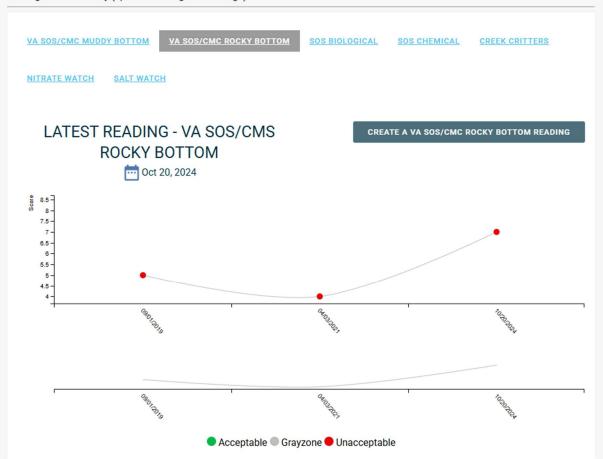


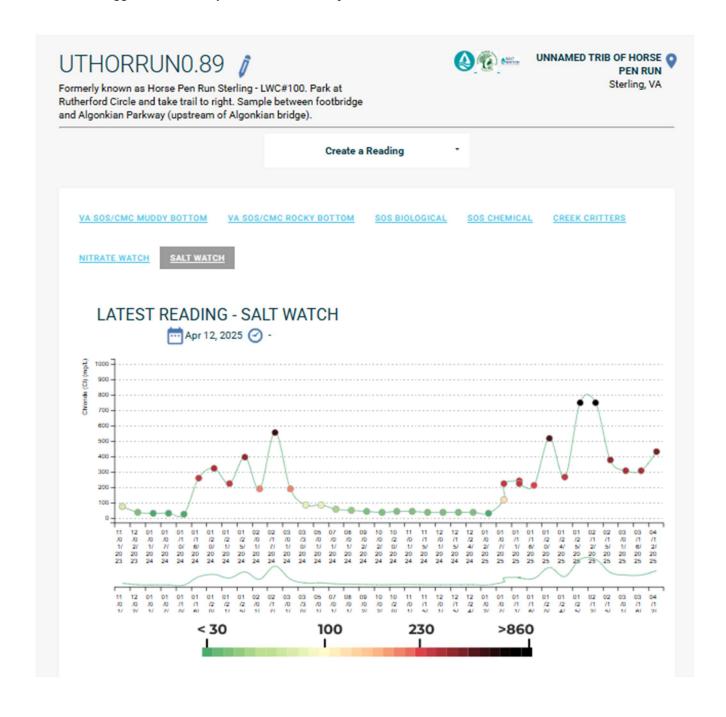
UTHORRUN0.89



UNNAMED TRIB OF HORSE PEN RUN
Sterling, VA

Formerly known as Horse Pen Run Sterling - LWC#100. Park at Rutherford Circle and take trail to right. Sample between footbridge and Algonkian Parkway (upstream of Algonkian bridge).



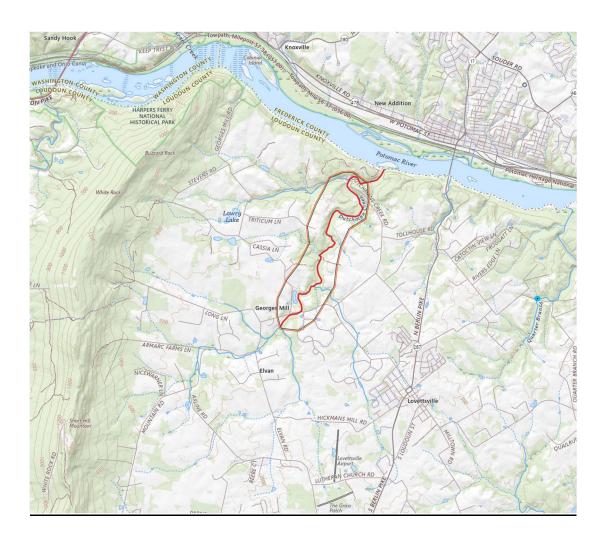


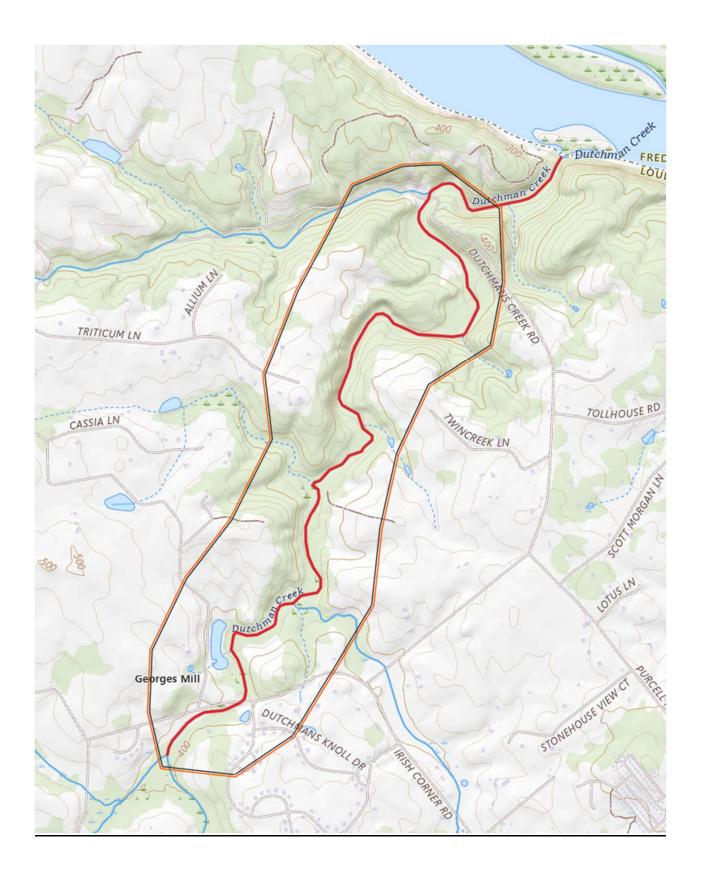
Site 5: Dutchmans Creek

REQUEST TO INCLUDE A WATER SEGMENT IN DEQ'S ANNUAL MONITORING PLAN

Name		Date	
: Amy Ulland		:	4/18/2025
Mailing Address: PO Box 1892			
City: Leesburg State:	VA	Zip:	20177
E-mail address: _aulland@loudounwildlife.org			
Home telephone:	Business telephone: (571) 293-1696	<u> </u>	
(1) Name of the water body or water bodies p	roposed for monitoring:		
Dutchmans Creek			

(2) Site maps





(3) Monitoring objective.

The site is in a rural area. We nominate this location to build a baseline of stream conditions and to confirm that aquatic life use impairment is still valid from data which is 10 years old.

(4) Water quality data are integrated into map application.

The 2009 data downstream indicated Stress and Optimal conditions.







Loudoun County 2009 Habitat: DUTC-301-R-2009

a

Loudoun County 2009 Habitat: DUTC-301-R-2009

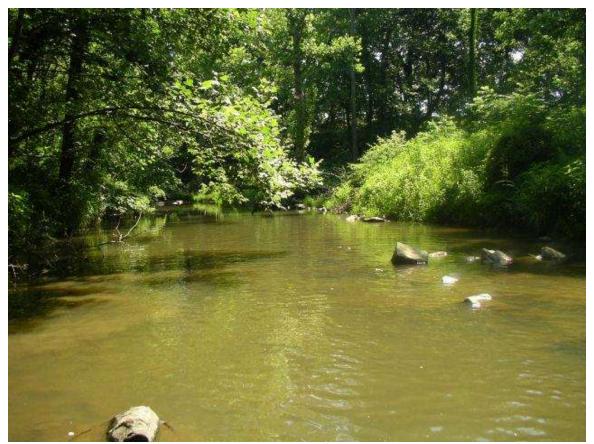


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AbleSample	Υ	Index_Num	1.00
AreaSampl	2.00	LU_Com	0
BankStab_L	9	LU_Crop	0
BankStab_R	9	LU_Forest	1
BankStab_T	18	LU_Golf	0
Beavers	0	LU_Landfil	0
BenthicMet	Single Habitat (Riffle)	LU_OldFiel	0
BenthicSit	Υ	LU_Orch	0
Calibrated	AB	LU_Pasture	0
ChanAlter	18	LU_Res	1
ChanFlowSt	16	LU_SurMine	0
Comments		LU_Wetland	0
Conduct	0.13	Muskrats	0
Corbicula	0	ndReviewer	AB
Crayfish	0	NoAbleSamp	
CurWeather	Cloudy	NOper_Snai	0
CWater_Fis	0	Oper_Snail	0
Date_	May 4, 2009	Other	
DEQ_Site_D		OtherNum	0
DEQ_Site_L		Periphyton	0
DEQ_SiteNa		ph	8.10
DO	11.60	ProblemNot	N
DuckGeese	0	PSU_Number	2.00
Embed	17	RBP_Rating	Optimal
Emerg_Macr	0	RecRain	Clear
EpiFSub_Av	15	RiffleQual	Good
FID_Habita	459	RipVegZo_1	10

The 2009 data upstream indicated Optimal conditions.

Table 🛭 Edit 📀 G	et directions 🔍 Zoom to	☐ Table ☐ Edit	et directions 🔍 Zoom to
AblaCamala	Y	HabSampSna	0.00
AbleSample		HabSampVeg	0.00
AreaSampl	0.00	HUC12	020700080202
BankStab_L	8	Index_Num	2.00
BankStab_R	8	LU_Com	0
BankStab_T	16	LU_Crop	0
Beavers	0	LU_Forest	1
BenthicMet		LU_Golf	0
BenthicSit	N	LU_Landfil	0
Calibrated	FRANKS/HAGE	LU_OldFiel	0
ChanAlter	19	LU_Orch	0
ChanFlowSt	16	LU_Pasture	0
Comments	LANDOWNER INFORMED US THAT SEWAGE TREATMENT	LU_Res	1
	PLANT OUTFALLS INTO	LU_SurMine	0
	DOBBINS CREEK- THE TRIB THAT JOINS THIS CREEK UPSTREAM	LU_Wetland	0
	OF THIS SAMPLING POINT.	Muskrats	0
Conduct	0.19	ndReviewer	TH
Corbicula	0	NoAbleSamp	
Crayfish	0	NOper_Snai	0
CurWeather	Clear	Oper_Snail	0
CWater_Fis	0	Other	
Date_	June 29, 2009	OtherNum	0
DEQ_Site_D		Periphyton	1
DEQ_Site_L		ph	7.41
DEQ_SiteNa		ProblemNot	N.
00	9.00	PSU_Number	2.00
DuckGeese	0	RBP_Rating	Optimal
Embed	16		
Emerg_Macr	1	RecRain RiffleQual	Clear





There are no citizen data on this reach, nor any salt data.

The reach is impaired for aquatic life based on data in 2015 and 2016.

Dutchman Creek	· · · · · · · · · · · · · · · · · · ·
■ Table 📝 Edit 🔗 Get direc	tions 🔍 Zoom to
FID	28
OBJECTID	685
ID305B	VAN-A01R_DUT01A06
MILES	2.254507
CYCLE	2022
WaterName	Dutchman Creek
AU_Locatio	Segment begins at the confluence with an unnamed tributary to Dutchman Creek (streamcode XCO) and continued downstream until the confluence with the Potomac River.
AU_Categor	5A
AU_Comment	STATION: DEQ biological monitoring station 1aDUT000.62 at Route 674. ASSESSMENT SUMMARY: The aquatic life use is assessed as impaired based on benthic macroinvertebrate bioassessment. The recreation, wildlife, and fish consumption us was not assess
Causes	Benthic Macroinvertebrates Bioassessments
Sources	Source Unknown
Recreation	Not Assessed
Shellfishi	Not Applicable
Wildlife	Not Assessed
Shape_Leng	3628.283534
Aquatic_Li	Not Supporting
Deep_Chann	Not Applicable
Deep_Water	Not Applicable
Fish_Consu	Not Assessed
Migratory_	Not Applicable
Open Water	Not Applicable

Downstream DEQ data.

VA_DEQ_EDAS_VSCI_March_2025 - Dutchman Creek

ObjectID	31
Row_Labels	1ADUT000.62
StreamName	Dutchman Creek
Location	Rt. 674
Туре	Biomon
SurveyReas	Citizen Request
Lat	39.306667
Long_	-77.651389
Long_DD	-77.651389

Spring_2015	57.943252	
Fall_2015	59.987279	
Spring_2016	50.97447	
Fall_2016	64.273613	

Upstream DEQ data.

VA_DEQ_EDAS_VSCI_March_2025 - Dutchman Creek

ObjectID	32
Row_Labels	1ADUT002.72
StreamName	Dutchman Creek
Location	Rt. 673 (Irish Corner Rd.)
Туре	Biomon
SurveyReas	Citizen Request and Citizen monitoring FU to 1ADUT-2-LWC, VAN-A01R_DUT02A06
Lat	39,286944
Long_	-77.660833
Long_DD	-77.660833

Spring_2015	56.759679
Fall_2015	<null></null>
Spring_2016	44.366231
Fall_2016	66.485494

Possibly this site could be delisted in the future. Appendix A: Detailed Rating Scores

Stream Evaluation Criteria	Weight	Score	Weighted	Score	Weighted	Score	Weighted		Weighted		Weighted	
			Score		Score		Score	Score	Score	Score	Score	
		Dutchmans Creek		Balls	Balls Run Dry Mil		l Branch	Beaverdar	Beaverdam Run - SW		UTHorsepen	
Is there potential for habitat restoration or												
conservation work at this site?	3	2	6	3	9	3	9	3	9	2	6	
Is the stream at risk for future impairment												
(e.g., rapid development, runoff sources)?	3	2	6	2	6	3	9	3	9	3	9	
Does the site meet DEQ's nomination												
requirements?	3	3	9	3	9	3	9	3	9	3	9	
Is the stream currently listed as impaired												
for aquatic life? Or healthy	2.75	3	8.25	3	8.25	3	8.25	3	8.25	1	2.75	
Is the stream easily accessible for												
volunteers and staff?	2.5	2	5	3	7.5	3	7.5	3	7.5	3	7.5	
Does the stream show signs of chloride												
(salt) pollution?	2.5	0	0	1	2.5	1	2.5	3	7.5	3	7.5	
Do we have existing or historic benthic data												
at this site?	2.25	2	4.5	2	4.5	3	6.75	3	6.75	2	4.5	
Does the site align with LWC program goals												
(e.g., filling regional gaps, education,												
monitoring known pollution sources,												
landowner partnerships, documenting												
healthy streams)?	2	2	4	3	6	3	6	3	6	3	6	
Could the site support community												
engagement, youth education, or public												
programming?	2	1	2	3	6	3	6	2	4	3	6	
Total of Weighted Scores:			44.75		58. <i>7</i> 5		64		67		58.25	
Total of weighted scores:			44./5		36.73		64		6/		38.23	

Appendix B: Map Legend

