

David Ward info@loudounwatershedwatch.org Loudoun Watershed Watch 38659 Bolington Rd Lovettsville, VA 20180

April 28, 2017

Mr. Stuart Torbeck, Water Quality Data Liaison Virginia Dept. of Environmental Quality 629 East Main Street Richmond, VA 23219

Sent via E-mail: <a href="mailto:charles.torbeck@deq.virginia.gov">charles.torbeck@deq.virginia.gov</a>

# Subject: Citizen Nomination for Stream Monitoring

Dear Mr. Torbeck:

Loudoun Watershed Watch is 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 2018.

We are unclear as to what happened during the previous year nomination, response and monitoring plan for CY 2017. There were three stations for which new biomonitoring in CY17 was anticipated but not included in the CY17 monitoring plan.

Stream Name	Nominated	DEQ Response	DEQ Monitoring
	April 2016	August 2016	Plan 2017
South Fork Catoctin Creek	$\square$	Yes, new biomonitoring	Was not included
Middle Catoctin Creek	$\square$	Request previously met	N/A
Sugarland Run	$\square$	Request previously met	N/A
Russell Branch	$\square$	Yes, new biomonitoring	Was not included
Howsers Branch	$\square$	Yes, new biomonitoring	Was not included

Nomination Letter 2016:

 $http://www.loudounwatershedwatch.org/pdf/LoudounWatershedWatch_DEQ_Nominations_2016\_Letter\_and\_Maps\_v2.pdf$ 

#### Large-Format Nomination Map 2016:

http://www.loudounwatershedwatch.org/pdf/DEQ\_Site\_Nominations\_April\_2016\_Large\_Countywide.pdf

#### DEQ Response letter 2016:

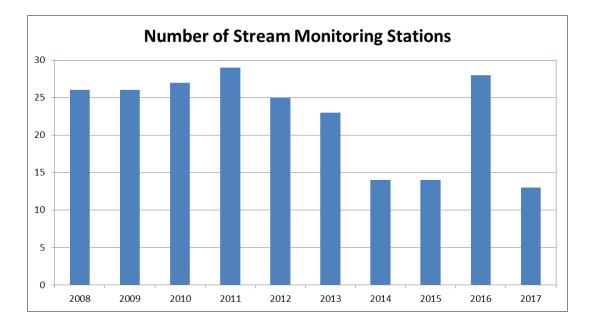
http://www.loudounwatershedwatch.org/pdf/2016\_VADEQ\_Response\_to\_Nominations.pdf

### Map of DEQ Monitoring Plan

http://www.loudounwatershedwatch.org/pdf .....

Created from http://www.deq.virginia.gov/Portals/0/DEQ/Water/WaterQualityMonitoring/VDEQ\_2017\_WQMonPlan.xlsx as described at http://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/WaterQualityMonitoring/AnnualWaterQualityMonitoringPlan.aspx

The planned stations for CY2017 contains only about a dozen stations. We hope that CY2018 will be increased and closer to two dozen stations when the county may be more "in focus" with the rotating watershed approach used by DEQ.



We are aware that only about 30 percent of the stream miles in Loudoun County have been assessed for aquatic life use through benthic monitoring of the macroinvertebrate community in the streams. We understand that VA DEQ began stream monitoring in Loudoun County in 1994. Over the years the number in sites has grown to about a dozen sites wherein 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. The site locations change around as DEQ seeks to maximize coverage and, in part, because of previous site nomination submitted by Loudoun Watershed Watch.

This year our maps include stream reach nominations to help guide the 2017 selection process. We are cognizant of resource limitations are have selected five locations seeking to monitor stream reaches across the county under a variety of conditions. We have leveraged several data sources including state, county and citizen stream monitoring.

This year we utilized the state EDAS Family and Genus MS Access files with data available through Fall 2016. The "ProbMon" DEQ data files were posted in March 2017. The Genus-level data began in 2012 and typically includes duplicate results which we have averaged. We chose to aggregate data for each station for each sampling period (spring and fall) into one score. We include the 20-10 to 2016 "average" SCI score in the attached maps. We have also used the comprehensive DEQ-approved Loudoun County Stream assessment, conducted in the spring of 2009 (<u>http://www.loudoun.gov/streamassessment</u>). This provides high-quality results using DEQ-approved protocol for 200 locations.

Additionally in recent years two active partners of Loudoun Watershed Watch, specifically Loudoun Wildlife Conservancy and Goose Creek Association have provided additional locations and multi-year benthic assessments (2008-2016). Based on the benthic assessments, as well as the habitat assessments, we have assembled a series of priority site nominations as attached.

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.

Attached are sites that we believe are priority locations for benthic monitoring in CY 2018. The nominated stream reaches include:

- 1. Pantherskin Creek
- 2. Dog Branch
- 3. Milltown Creek
- 4. Cabin Branch

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

Sincerely,

David Ward Loudoun Watershed Watch

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Telephone: Home: <u>540-822-5092</u>	Business:	Fax:
Geographic description of the water bo (1) Name of the water body or segment	·	g:
Pantherskin Creek		

(2) Description of the upstream and downstream boundaries of the water body proposed for monitoring. Attach a map (preferably a photocopy of a 7.5 minute quad USGS topographic map) which delineates the boundaries:

Pantherskin Creek flows eastward through Upperville leading to Goose Creek. With headwaters in Fauquier County, Pantherskin Creek flows through mostly rural farm land.

### (3) Reason for requesting that this water body be monitored:

The creek was monitored a dozen times by citizens between 1999 and 2002. E.Coli Impairment http://www.deq.virginia.gov/FS2014/FactSheets.aspx?id=VAN-A05R\_PAE02A06&style=1

# (4) Attach any water quality data that you have collected or compiled. Include the name of the organization/entity that generated the data.

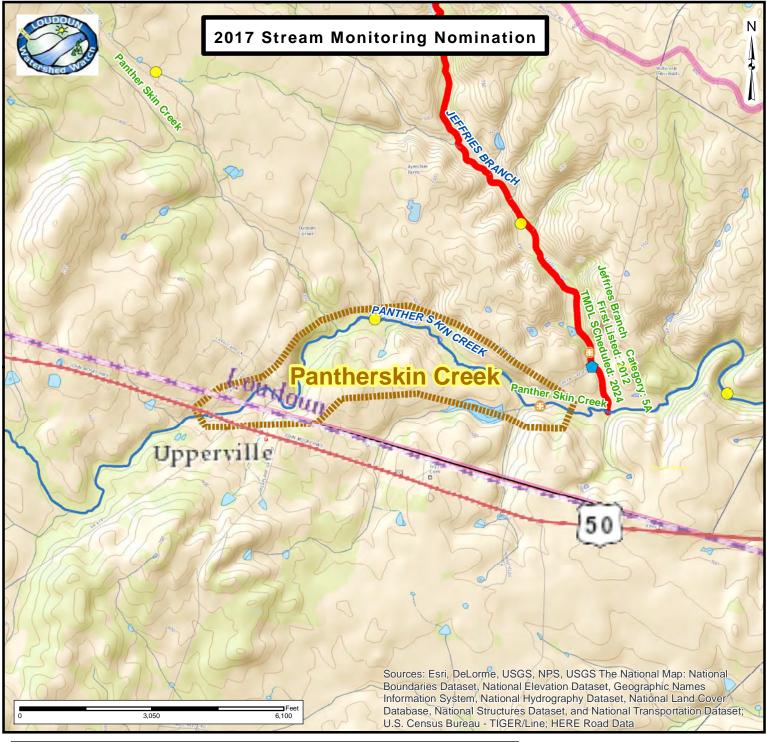
Data, reports, maps, presentations and animations are presented at www.loudounwatershedwatch.org and www.loudounwatershed.org

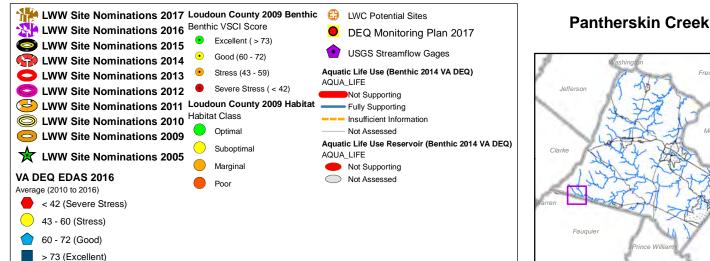


http://www.loudounwatershed.org/stream\_assessment/gis/photos/benthic\_habitat/UPGC-312-H-2009-2.jpg



http://www.loudounwatershed.org/stream\_assessment/gis/photos/benthic\_habitat/UPGC-319-H-2009-1.jpg





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Geographic description of the water bo (1) Name of the water body or segment	•	ng:
Dog Branch	• •	<u> </u>

(2) Description of the upstream and downstream boundaries of the water body proposed for monitoring. Attach a map (preferably a photocopy of a 7.5 minute quad USGS topographic map) which delineates the boundaries:

Dog Branch is a tributary to Beaverdam Creek which flows to Goose Creek. The area is rural farmland.

### (3) Reason for requesting that this water body be monitored:

There has not been citizen monitoring on Dog Branch. The 2009 stream assessment indicates benthic conditions may vary from "Excellent" to "Stress".

# (4) Attach any water quality data that you have collected or compiled. Include the name of the organization/entity that generated the data.

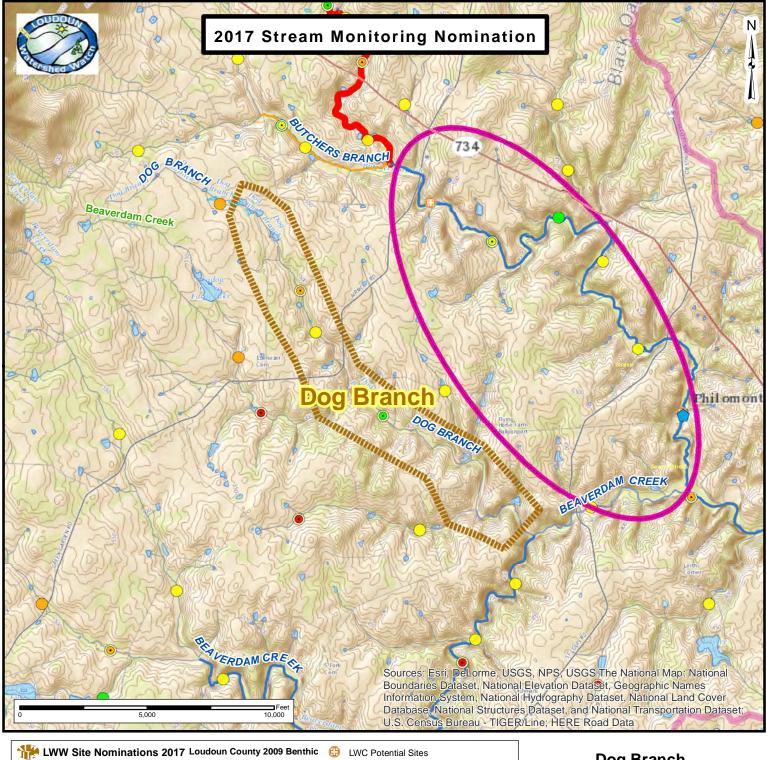
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http://www.loudounwatershed.org/stream\_assessment/gis/photos/benthic\_habitat/BEAV-220-R-2009-1.jpg

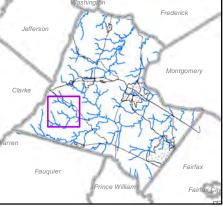


http://www.loudounwatershed.org/stream\_assessment/gis/photos/benthic\_habitat/BEAV-221-R-2009-1.jpg





# **Dog Branch**



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Telephone: Home: <u>540-822-5092</u>	Business:	Fax:		
Geographic description of the water body: (1) Name of the water body or segment proposed for monitoring:				
Milltown Creek				

(2) Description of the upstream and downstream boundaries of the water body proposed for monitoring. Attach a map (preferably a photocopy of a 7.5 minute quad USGS topographic map) which delineates the boundaries:

Milltown Creek flows eastward to Catoctin Creek, a State-designated Scenic River.

### (3) Reason for requesting that this water body be monitored:

Milltown Creek has been the focus of citizen monitoring since 2000. There have been rural housing development constructed in the area since then. The creek has had beaver colonies come and go. It is appropriate for DEQ to establish a baseline benthic assessment for the creek.

# (4) Attach any water quality data that you have collected or compiled. Include the name of the organization/entity that generated the data.

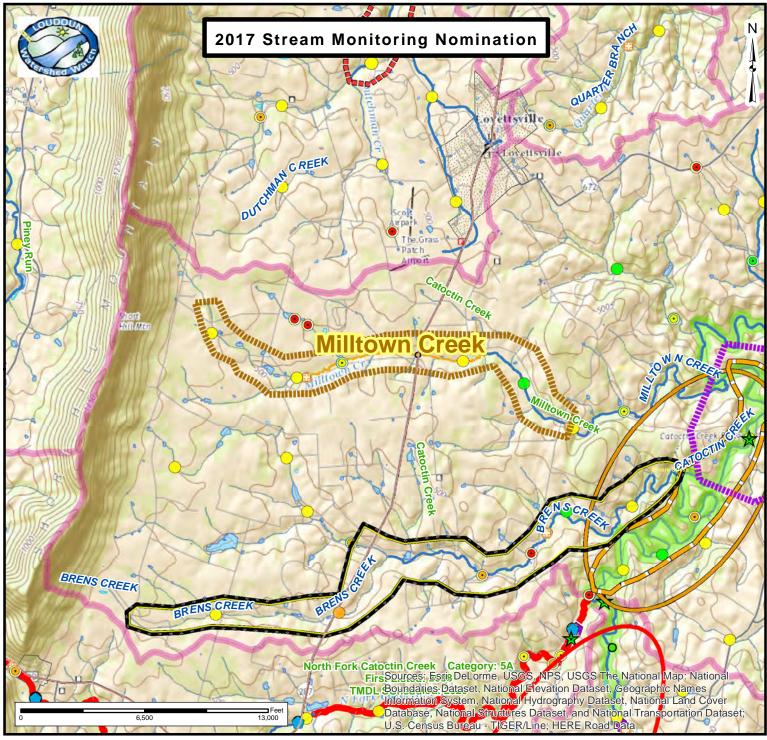
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http://www.loudounwatershed.org/stream\_assessment/gis/photos/benthic\_habitat/CATO-219-R-2009-2.jpg



http://www.loudounwatershed.org/stream\_assessment/gis/photos/benthic\_habitat/CATO-207-H-2009-2.jpg



#### WW Site Nominations 2017 Loudoun County 2009 Benthic Ð LWC Potential Sites Milltown Creek LWW Site Nominations 2016 Benthic VSCI Score DEQ Monitoring Plan 2017 Excellent ( > 73) LWW Site Nominations 2015 USGS Streamflow Gages Good (60 - 72) ulletLWW Site Nominations 2014 Stress (43 - 59) Aquatic Life Use (Benthic 2014 VA DEQ) Frederick LWW Site Nominations 2013 AQUA\_LIFE Severe Stress ( < 42) C LWW Site Nominations 2012 Jeffersor Not Supporting LWW Site Nominations 2011 Loudoun County 2009 Habitat Fully Supporting LWW Site Nominations 2010 Insufficient Information Optimal Not Assessed LWW Site Nominations 2009 Aquatic Life Use Reservoir (Benthic 2014 VA DEQ) Suboptimal AQUA LIFE K LWW Site Nominations 2005 Marginal Not Supporting VA DEQ EDAS 2016 O Not Assessed Poor Average (2010 to 2016) < 42 (Severe Stress) 43 - 60 (Stress) Fauquier 60 - 72 (Good) > 73 (Excellent)

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Telephone: Home: <u>540-822-5092</u>	Business:	Fax:		
Geographic description of the water body: (1) Name of the water body or segment proposed for monitoring:				
Cabin Branch	proposed for monitorin	1 <b>g</b>		

(2) Description of the upstream and downstream boundaries of the water body proposed for monitoring. Attach a map (preferably a photocopy of a 7.5 minute quad USGS topographic map) which delineates the boundaries:

Cabin Branch, in eastern Loudoun County, flows through suburban Sterling into Broad Run.

### (3) Reason for requesting that this water body be monitored:

There is a strong likelihood that Cabin Branch will have adversely impact aquatic life and flows into Broad Run where impacts are known. The reach requires DEQ monitoring for confirmation.

# (4) Attach any water quality data that you have collected or compiled. Include the name of the organization/entity that generated the data.

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http://www.loudounwatershed.org/stream\_assessment/gis/photos/benthic\_habitat/BROA-208-R-2009-1.jpg



http://www.loudounwatershed.org/stream\_assessment/gis/photos/benthic\_habitat/BROA-214-H-2009-1.jpg

