



David Ward  
[info@loudounwatershedwatch.org](mailto:info@loudounwatershedwatch.org)  
Loudoun Watershed Watch  
38659 Bolington Rd  
Lovettsville, VA 20180

April 29, 2014

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

Sent via E-mail: [charles.torbeck@deq.virginia.gov](mailto:charles.torbeck@deq.virginia.gov)

**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 in calendar year (2015). We believe that this year submission of sites is especially important in that the total number of sites in Loudoun for CY 2014 is about half of the number during the preceding five years. While we understand the rotating watershed strategy used by DEQ, we would like to add particular emphasis to our nomination this year.

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 used 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 previous nominations to help guide the 2014 selection process. We are cognizant of resource limitations and 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 2012. The 2013 DEQ data is not yet available. We observed that there were several occasions in 2010 through 2012 where there were either duplicate samples or analysis of VSCI scores based on both family and genus level analysis. We chose to aggregate data for each station for each sampling period (spring and fall) into one score. We support this approach after noting the relatively variability between duplicates and between family versus genus level identification. For each aggregated results, we have posted DEQ results on the maps.

We have also used the comprehensive DEQ-approved Loudoun County Stream assessment, conducted in the spring of 2009 (<http://www.loudoun.gov/streamassessment>). 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 (2008-2012). Note that we separately posted the 2013 benthic data. 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.

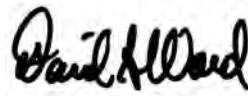
Regarding bacteria monitoring, we are not nominating any additional sites as we recognize that there is a high probability (80-90 percent) that streams within Loudoun County if sufficiently monitored would probably fail to meet the recreational use criteria established by VA DEQ.

Attached are sites that we believe are priority locations for benthic monitoring in CY 2015. The nominated stream reaches include:

1. North Fork Goose Creek
2. Big Spring
3. Dutchmans Creek
4. Cattail Branch
5. South Fork Sycolin Creek

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

Sincerely,

A handwritten signature in black ink, appearing to read "David Ward", with a stylized, cursive script.

David Ward  
Loudoun Watershed Watch

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

Name: David Ward, Loudoun Watershed Watch Date: April 29, 2014

Mailing Address: 38659 Bolington Rd  
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City: Lovettsville State: VA Zip: 20180

E-mail address: info@loudounwatershedwatch.org

Telephone: Home: 540-822-5092 Business: \_\_\_\_\_ Fax: \_\_\_\_\_

### Geographic description of the water body:

#### (1) Name of the water body or segment proposed for monitoring:

North Fork Goose Creek from Sleeter Lake and downstream for several miles past Tranquility Rd (RT 782) and down to Silcott Springs.

[http://www.deq.virginia.gov/FS2012/FactSheets.aspx?id=VAN-A06R\\_NOG03A02&style=1](http://www.deq.virginia.gov/FS2012/FactSheets.aspx?id=VAN-A06R_NOG03A02&style=1)

#### (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:

Upstream is Sleeter Lake which has experienced significant land use changes over the past decade. The Lake has new stormwater discharges with limited treatment from new residential development. The Round Hill wastewater treatment plant discharges into NF Goose Creek, just after Sleeter Lake. There is benthic 2010 listing for A06R-01-BEN which is downstream.

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

Loudoun Wildlife Conservancy and the North Fork Goose Creek Watershed Committee were actively monitoring site NFGOO4 - LWC7 between 1997 and 2005. Over this time period the aquatic life scores declined and then in Spring 2013 the scores showed poor benthic conditions. DEQ acknowledges the citizen MP in 2012. Since then attempts to monitor have not been successful due to limited aquatic insect count and excess brown algae.

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

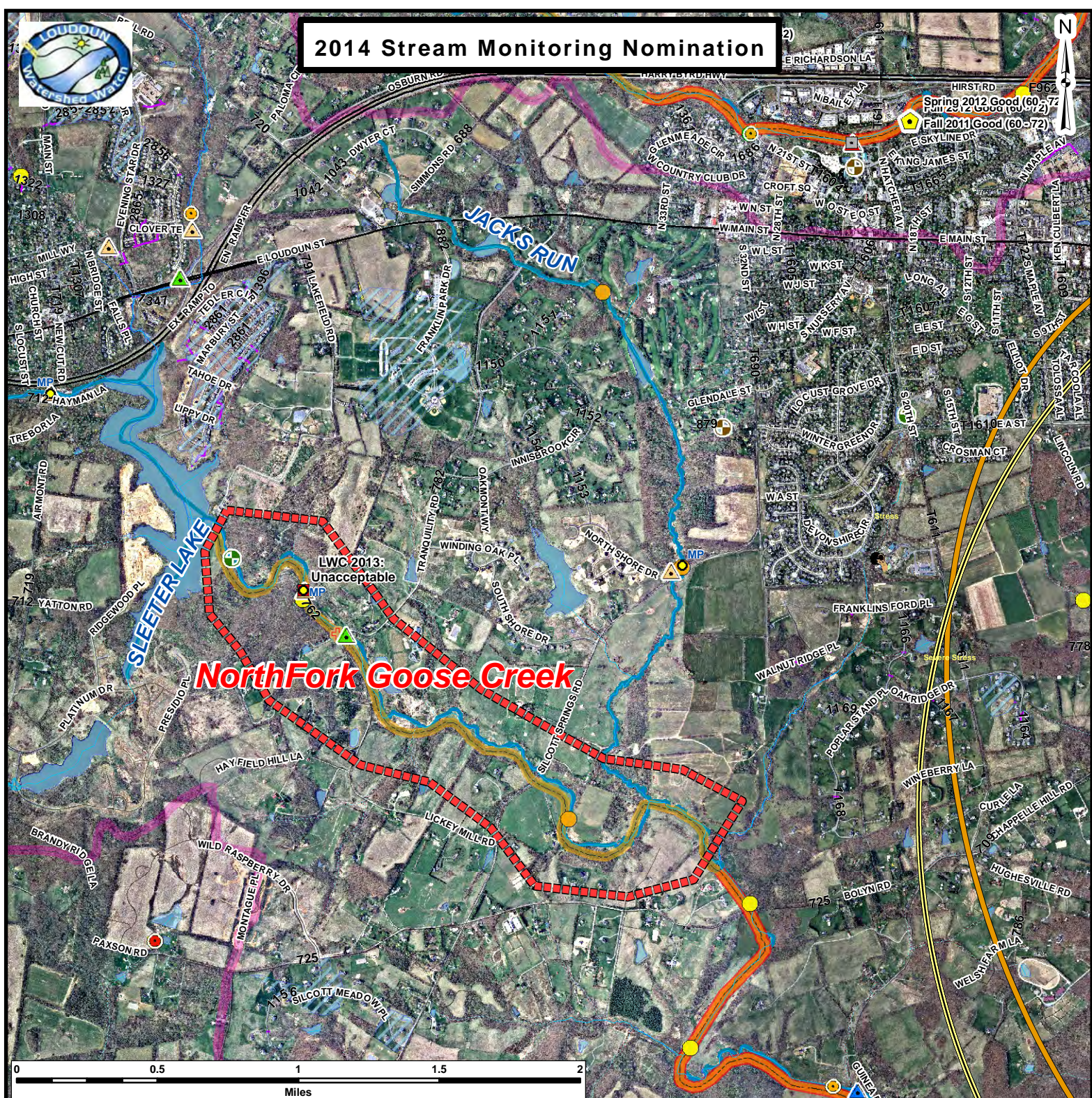
Data, reports, maps, presentations and animations are presented at [www.loudounwatershedwatch.org](http://www.loudounwatershedwatch.org) and [www.loudounwatershed.org](http://www.loudounwatershed.org)

Additional reports and interactive maps of 2009 comprehensive field surveys are presented at [www.loudounwatershedwatch.org/maps](http://www.loudounwatershedwatch.org/maps).

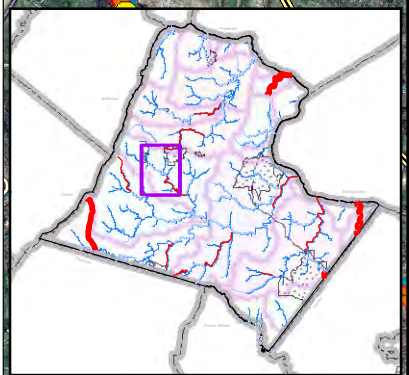
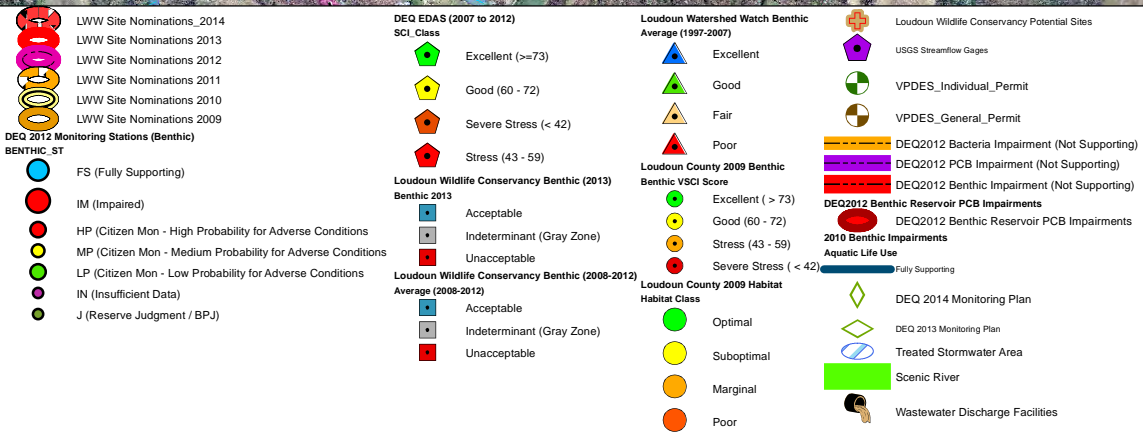




# 2014 Stream Monitoring Nomination



**North Fork Goose Creek**





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### Geographic description of the water body:

#### (1) Name of the water body or segment proposed for monitoring:

Big Spring which flows direct to the Potomac River.

#### (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:

Big Spring is within karst region north of Leesburg. Headwaters are in Dupont Equine facility, Ida Lee Park and Morven Park. The stream runs through a high school and received additional spring water near Rt 15.

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

This reach includes impacts and restoration activities at Tuscarora High School. When constructed about 5 years ago, there was significant stream restoration and LID design elements. Since then there has been numerous tree planting along the creek. In 2009 the countywide stream assessment showed two sites with severe stress based on SCI

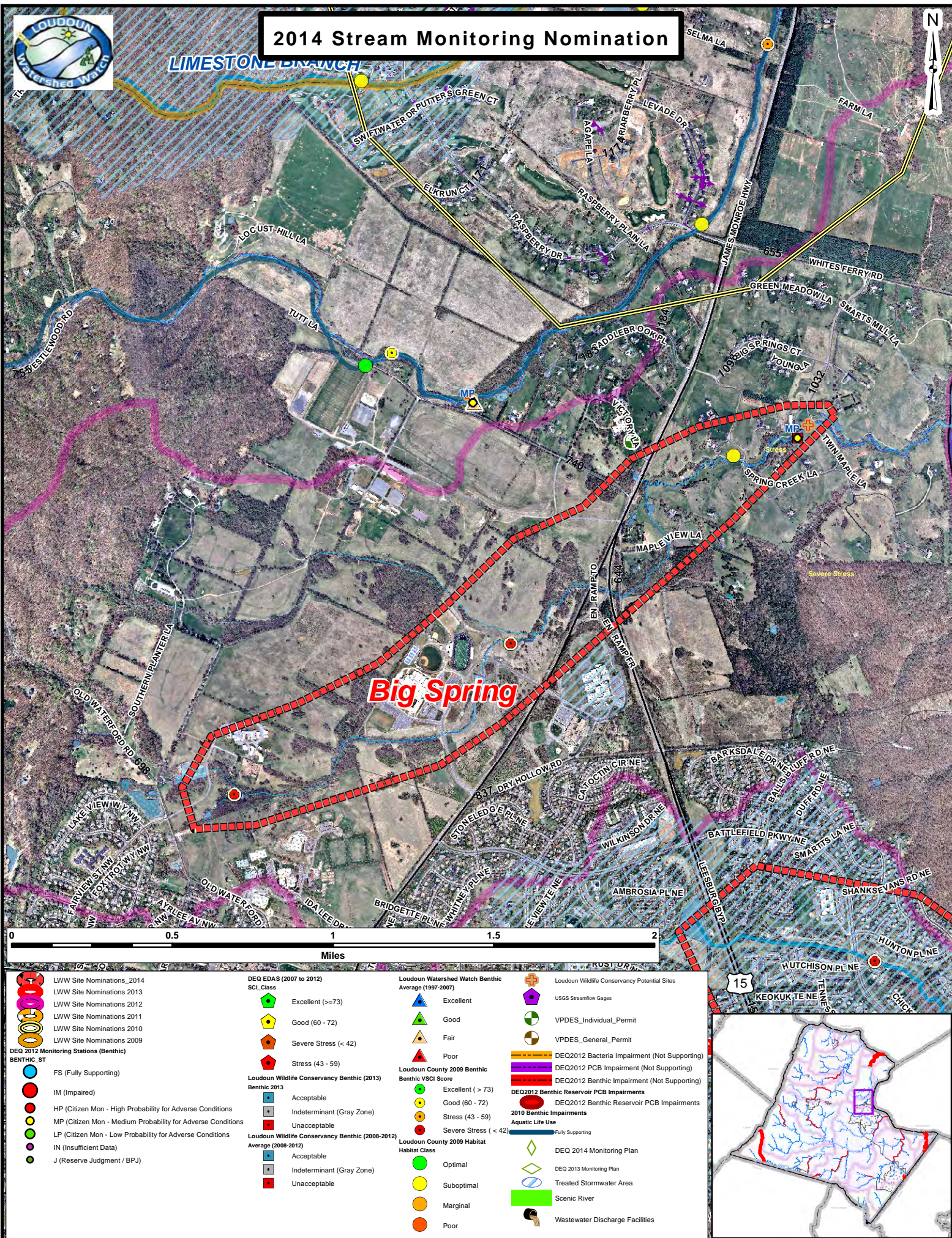
#### (4) Attach any water quality data that you have collected or compiled. Include the name of the organization/entity that generated the data.

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### Geographic description of the water body:

#### (1) Name of the water body or segment proposed for monitoring:

Dutchmans 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:

Dutchmans Creek flows north from Lovettsville where wastewater treatment is discharges to the Potomac River.

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

Historically all stream monitoring has shown conditions to generally be in good benthic condition. The land continues to undergoes changes from farm to large rural lots. Benthic monitoring is suggested in order to provide background or baseline conditions.

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

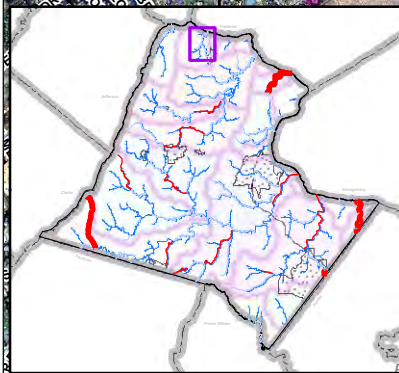
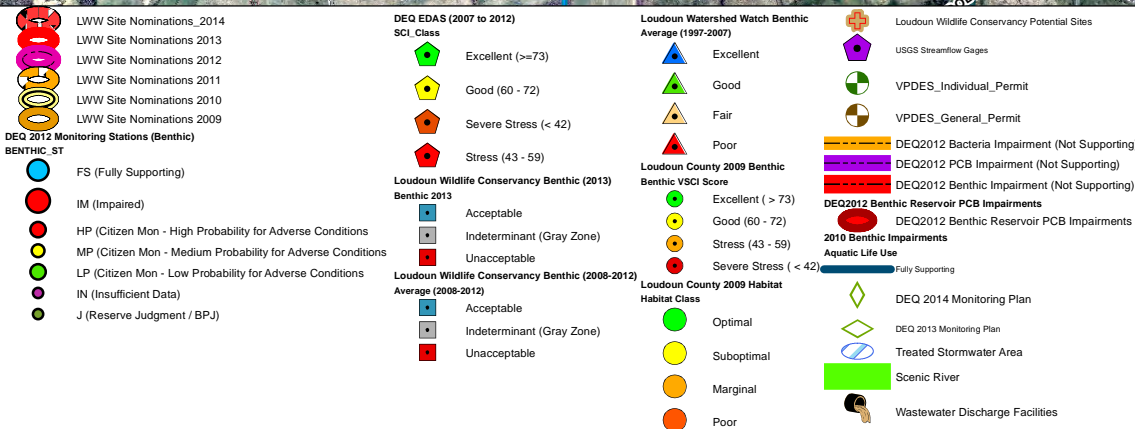
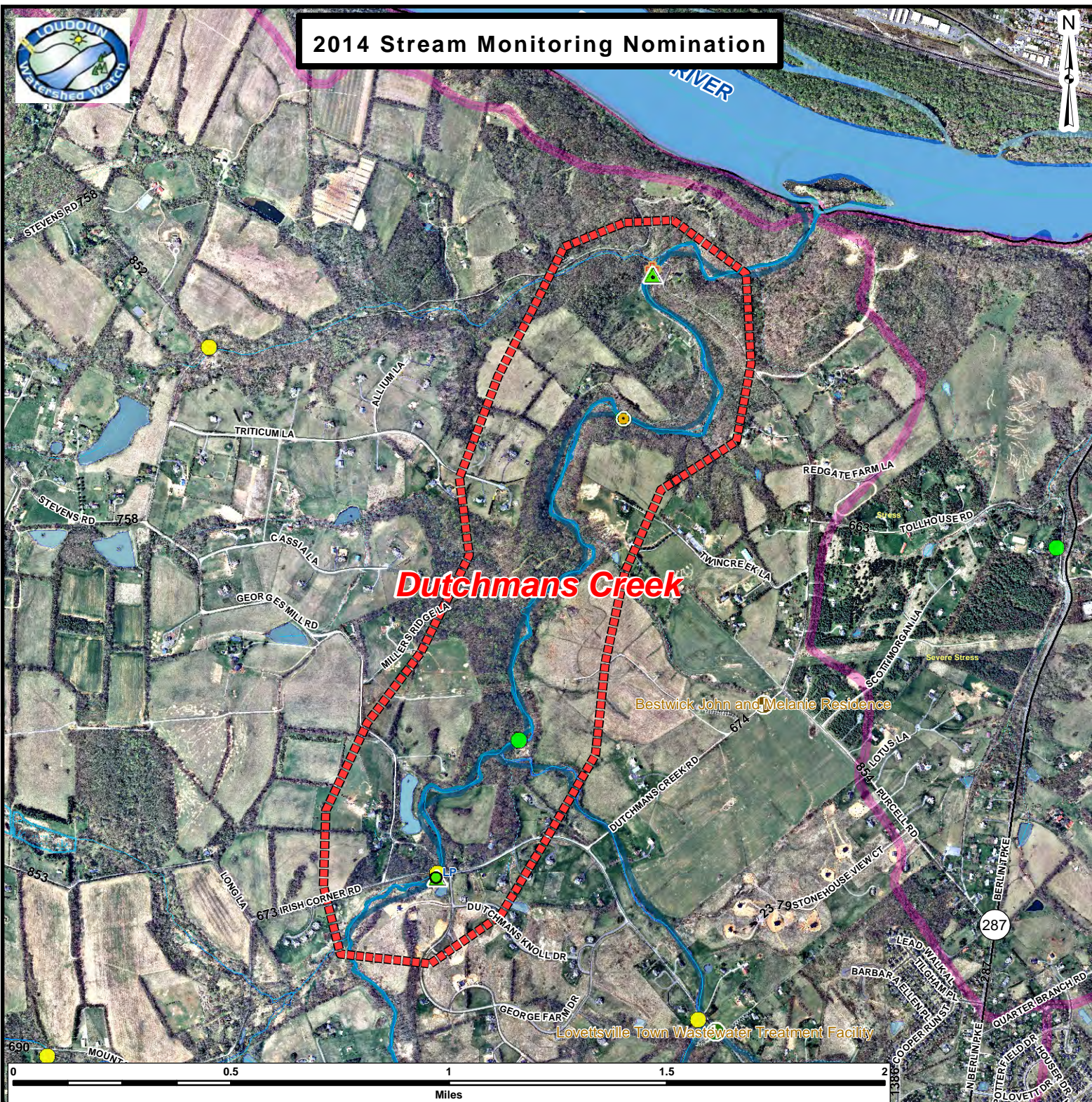
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### Geographic description of the water body:

#### (1) Name of the water body or segment proposed for monitoring:

Cattail Branch

#### (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:

Cattail Branch flow parallels the Potomac river flowing south east from Leesburg to Goose Creek.

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

While much of the creek is subject to stormwater controls, severe stress conditions were observed in 2009. Local residents outside of Leesburg indicate bank erosion increasing with increased imperviousness. Localized flooding occurs near monthly at one location in this reach.

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

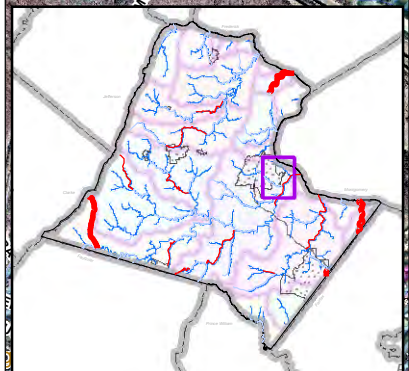
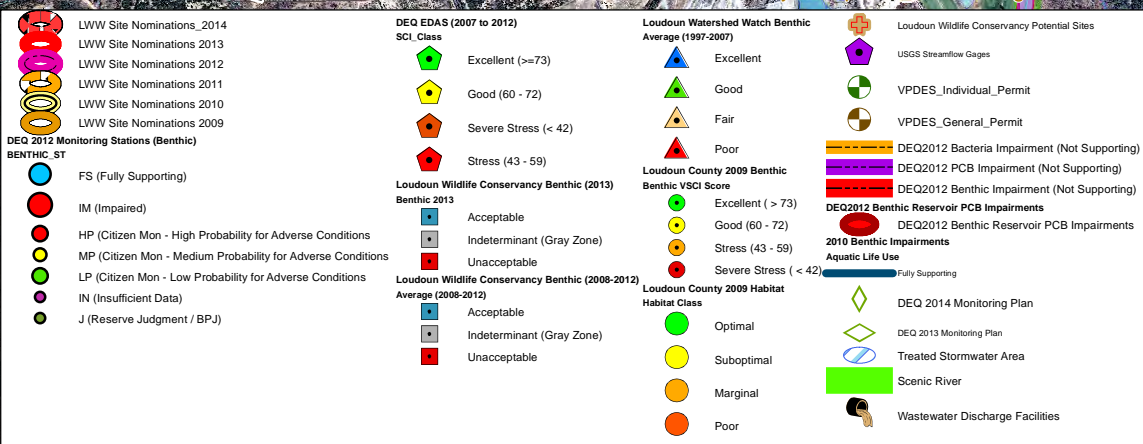
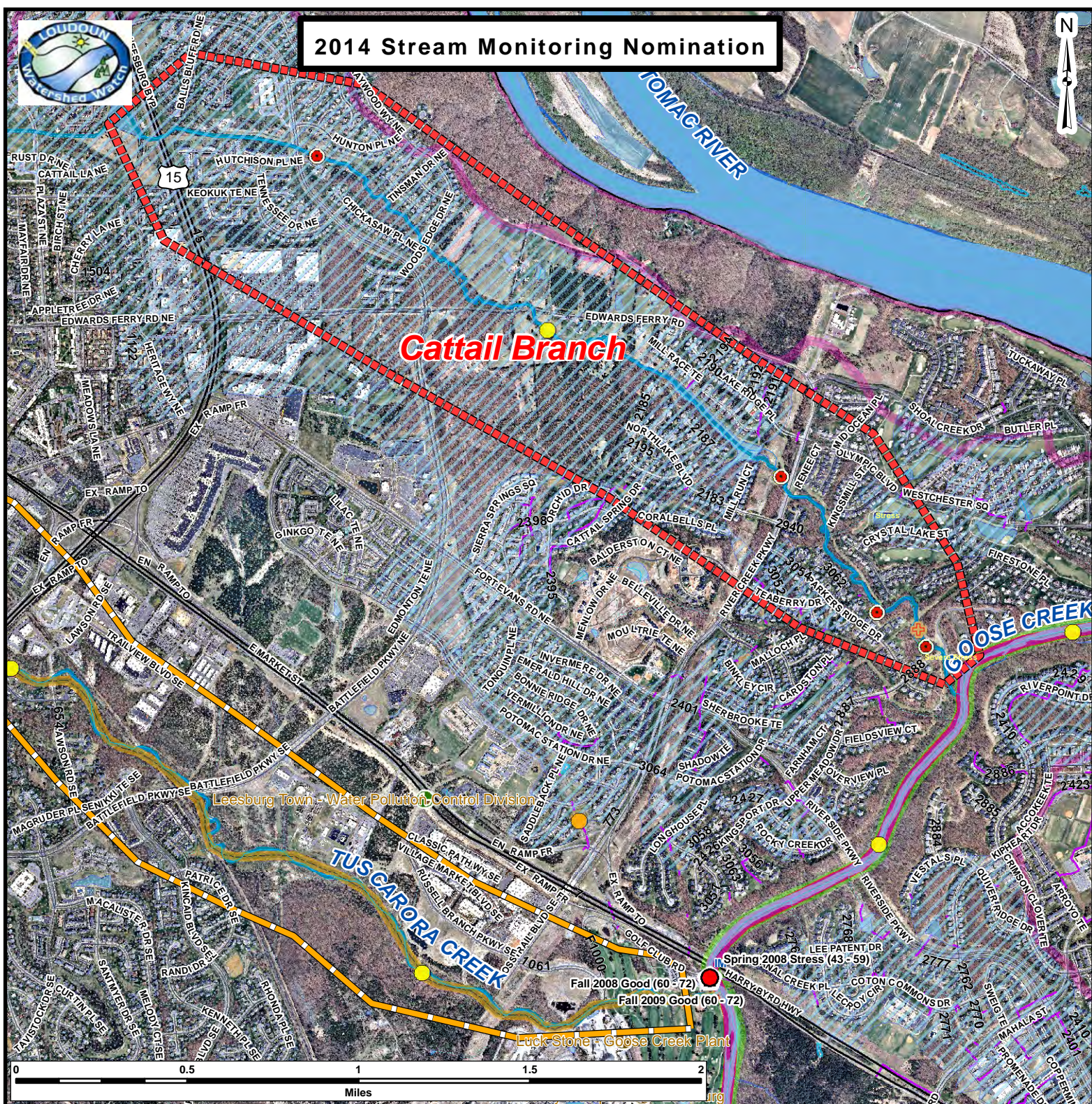
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### Geographic description of the water body:

#### (1) Name of the water body or segment proposed for monitoring:

South Fork Sycolin 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:

The South Fork Sycolin Creek flows eastward from relatively rural land use conditions.

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

Previous stream monitoring indicates varied benthic conditions. Baseline benthic conditions need to be established as development pressures move westward and farmland is converted to rural residential housing.

#### (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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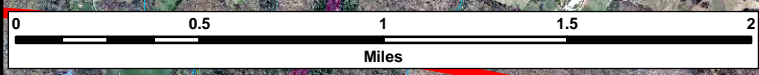
# 2014 Stream Monitoring Nomination



**South Fork Sycolin**

**SYCOLIN CREEK**

Krumwiede Jerold L Residence



LWW Site Nominations\_2014

LWW Site Nominations\_2013

LWW Site Nominations\_2012

LWW Site Nominations\_2011

LWW Site Nominations\_2010

LWW Site Nominations\_2009

DEQ 2012 Monitoring Stations (Benthic)

BENTHIC\_ST

FS (Fully Supporting)

IM (Impaired)

HP (Citizen Mon - High Probability for Adverse Conditions)

MP (Citizen Mon - Medium Probability for Adverse Conditions)

LP (Citizen Mon - Low Probability for Adverse Conditions)

IN (Insufficient Data)

J (Reserve Judgment / BPJ)

DEQ EDAS (2007 to 2012)

SCL Class

Excellent (>=73)

Good (60 - 72)

Severe Stress (< 42)

Stress (43 - 59)

Loudoun Wildlife Conservancy Benthic (2013)

Benthic 2013

Acceptable

Indeterminant (Gray Zone)

Unacceptable

Loudoun Wildlife Conservancy Benthic (2008-2012)

Average (2008-2012)

Acceptable

Indeterminant (Gray Zone)

Unacceptable

Loudoun Watershed Watch Benthic

Average (1997-2007)

Excellent

Good

Fair

Poor

Loudoun County 2009 Benthic

Benthic VSCI Score

Excellent (> 73)

Good (60 - 72)

Stress (43 - 59)

Severe Stress (< 42)

Loudoun County 2009 Habitat

Habitat Class

Optimal

Suboptimal

Marginal

Poor

Loudoun Wildlife Conservancy Potential Sites

USGS Streamflow Gages

VPDES\_Individual\_Permit

VPDES\_General\_Permit

DEQ2012 Bacteria Impairment (Not Supporting)

DEQ2012 PCB Impairment (Not Supporting)

DEQ2012 Benthic Impairment (Not Supporting)

DEQ2012 Benthic Reservoir PCB Impairments

DEQ2012 Benthic Reservoir PCB Impairments

2010 Benthic Impairments

Aquatic Life Use

Fully Supporting

DEQ 2014 Monitoring Plan

DEQ 2013 Monitoring Plan

Treated Stormwater Area

Scenic River

Wastewater Discharge Facilities

