



David Ward
Loudoun Watershed Watch
38659 Bolington Rd
Lovettsville, VA 20180
April 24, 2012

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

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 (2013).

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 2012 selection process. We are cognizant of resource limitations and have selected three 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 Spring 2011. We observed that there were several occasions in 2010 and 2011 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 (2008-2011). 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.

In support of stream monitoring Loudoun Wildlife Conservancy has prepared a map of “pre-qualified” sites for citizens to monitor. Sites were windshield checked in order to ensure reasonable access, parking and general safety. The locations are generally at road crossings and we suggest that VA DEQ consider adopting these and are included in the attached maps.

<http://maps.google.com/maps/ms?ie=UTF8&hl=en&msa=0&msid=200374612332408901915.000480d4053b9bbc87516&z=10>

This past spring, Loudoun Wildlife Conservancy prepared a summary of recent monitoring data (2008-2010). We suggest VA DEQ review these data in conjunction with the maps in which a single or average value of citizen monitoring data are presented.

http://www.loudounwatershedwatch.org/pdf/LWC_Spring_Stream_Monitoring_March_2011.pdf These are displayed as “LWC Potential Sites” in the attached site nomination maps.

In the attached three maps we have included local benthic data and basemap features (impervious surfaces, forest, etc). A large format map is separately posted at

http://www.loudounwatershedwatch.org/pdf/DEQ_Site_Nominations_April_2012_Map06_Countywide2.pdf as this is 16 MB.

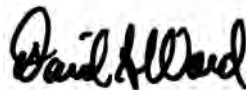
Regarding bacteria monitoring, we are not nominating any additional sites as we recognize that the odds are that 80-90 percent of all reaches within Loudoun County if sufficiently monitored would probably fail to meet the recreational use criteria established by VA DEQ.

Attached are sites that we believe are priority locations for benthic monitoring in 2013. List from the top-most priority these segments include:

1. Tuscarora Creek
2. Butchers Branch
3. Beaverdam Run and/or Russell Branch

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

Sincerely,



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 25, 2011

Mailing Address: 38659 Bolington Road
Street

City: Lovettsville State: VA Zip: 20180

E-mail address: info@loudounwatershedwatch.org

Telephone: Home: 540-822-5092 Business: 703-737-8670

Geographic description of the water body:

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

Tuscarora Creek, headwater reach, west of Leesburg along Dry Mill Road

(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:

See attached map.

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

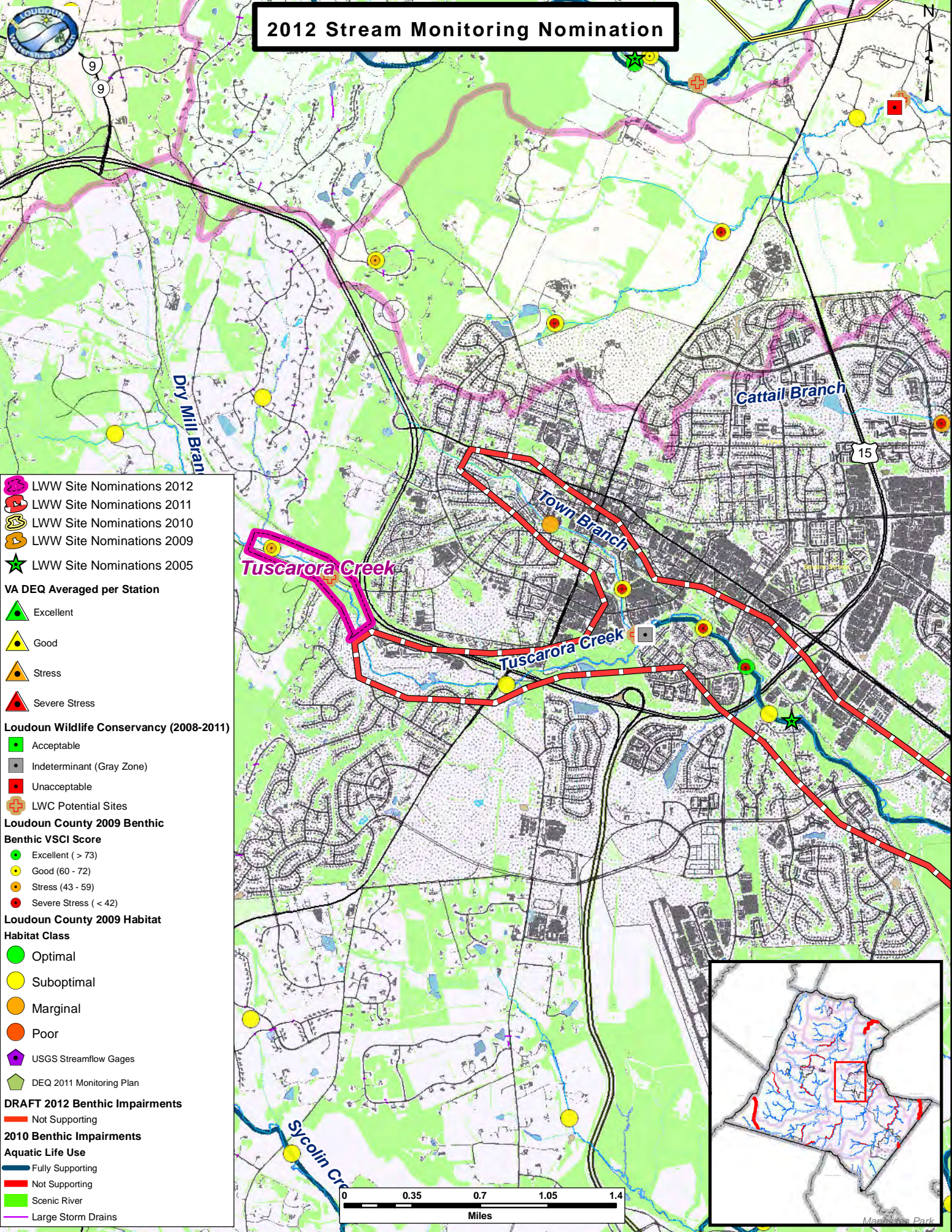
In 2011 several lower reaches of Tuscarora Creek were nominated. This year we have focused on the headwaters of the creek along Dry Mill Road. There has been significant housing development in this area with more anticipated. The 2009 Loudoun County stream assessment indicates stress and severe stress upstream and downstream of 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.

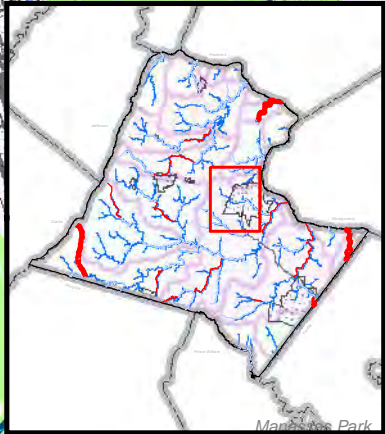
Data, reports, maps, presentations and animations are presented at www.loudounwatershedwatch.org and www.loudounwatershed.org

Additional reports and interactive maps of 2009 comprehensive field surveys are presented at www.loudoun.gov/streamassessment.

2012 Stream Monitoring Nomination



- LWW Site Nominations 2012
- LWW Site Nominations 2011
- LWW Site Nominations 2010
- LWW Site Nominations 2009
- LWW Site Nominations 2005
- VA DEQ Averaged per Station**
- Excellent
- Good
- Stress
- Severe Stress
- Loudoun Wildlife Conservancy (2008-2011)**
- Acceptable
- Indeterminant (Gray Zone)
- Unacceptable
- LWC Potential Sites
- 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
- USGS Streamflow Gages
- DEQ 2011 Monitoring Plan
- DRAFT 2012 Benthic Impairments**
- Not Supporting
- 2010 Benthic Impairments**
- Aquatic Life Use**
- Fully Supporting
- Not Supporting
- Scenic River
- Large Storm Drains



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Butchers Branch

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See attached map.

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Butcher's Branch is downstream of a recently listed benthic impairment. We believe this reach is important as development pressures increase south of Round Hill and Purcellville. This may be a reach which is still under good benthic conditions and would like to see the establishment of a baseline.

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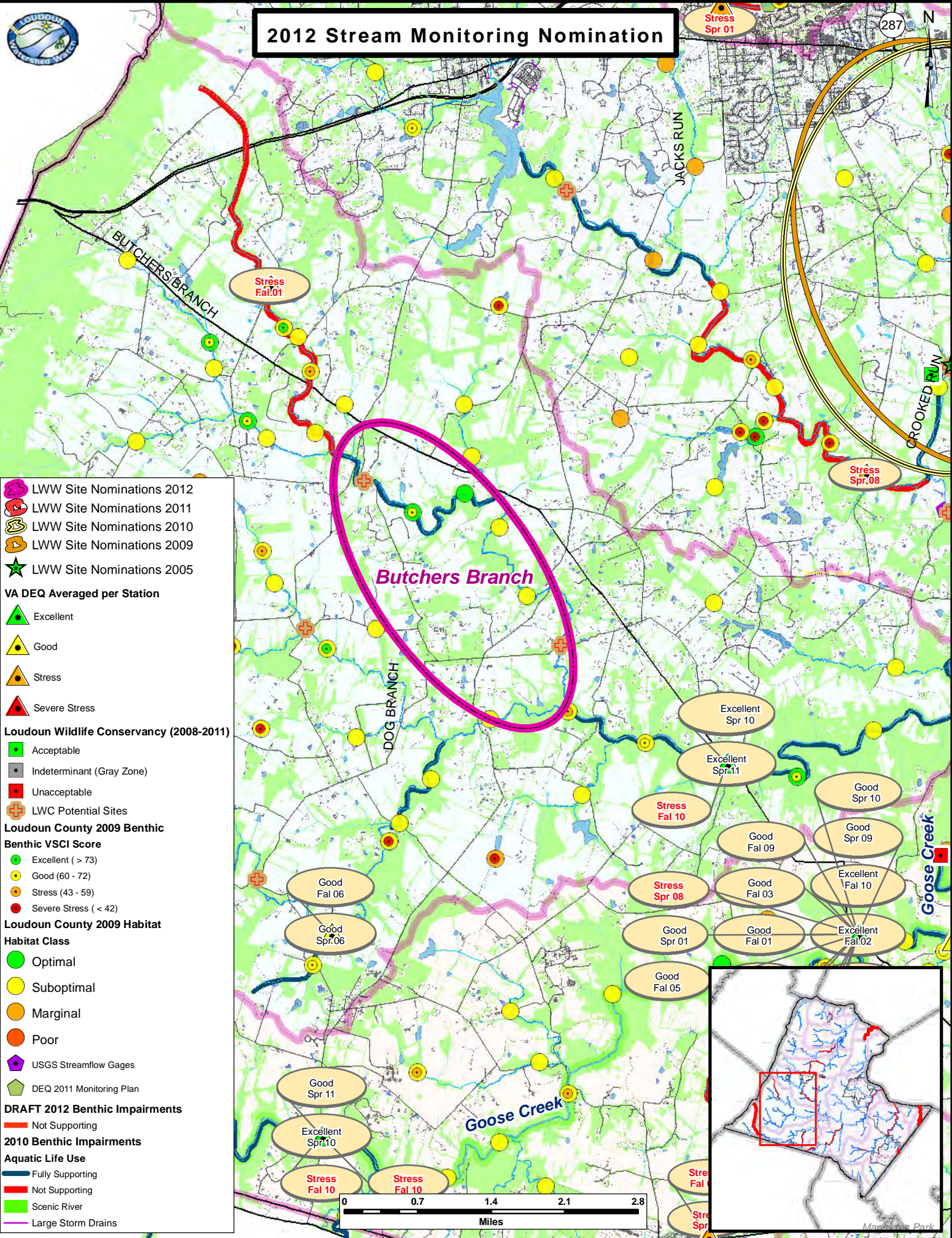
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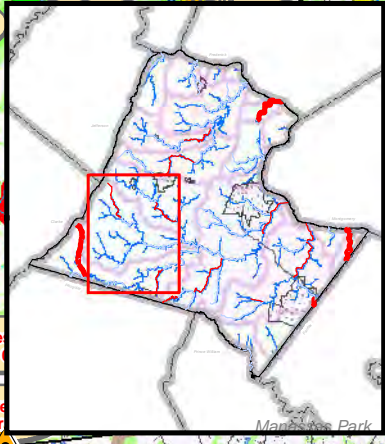
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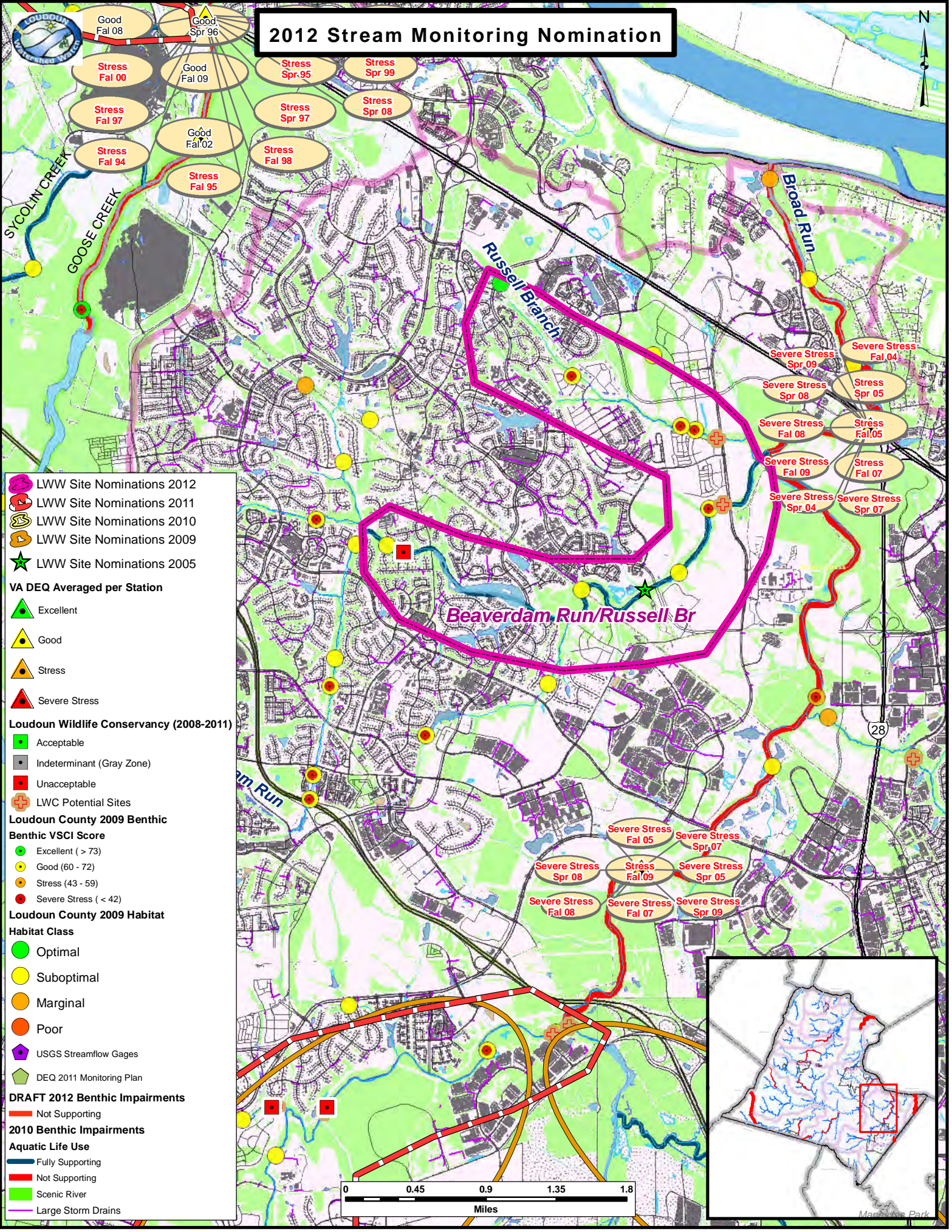
Based on the citizen and 2009 County stream monitoring along with the very significant housing and commercial developments, we believe there are likely to be benthic impairments in both Beaverdam Run and Russell Branch. While this area is under recently constructed stormwater management, we anticipate that there may be significant negative impact on the benthic community in these streams.

(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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