April 4, 2006
MEMORANDUM

TO: James Beckley, DEQ (Water Quality Data Liaison)

FROM: Bryant Thomas, DEQ, NRO

SUBJECT: Response to Loudoun Watershed Watch letter dated 12/19/2005.

COPIES: Jeff Talbott, NRO Water Quality Monitoring Coordinator;
Greg Brown, NRO Regional Biologist

This memo is a response to the submissions from *Loudoun Watershed Watch* (LWW) dated December 19, 2005 and January 30, 2006, requesting water quality monitoring to be conducted by Virginia DEQ.

The December 19, 2005 submittal from LWW contains several issues and/or questions related to agency policy regarding water quality monitoring, specifically with regard to the purpose of monitoring in watersheds with approved Total Maximum Daily Load (TMDL) studies. Mr. Schwalm raises reasonable and challenging questions with respect to agency policy and strategy regarding post-TMDL monitoring. I support his suggestion for a "Loudoun County Stream Monitoring Strategy Workshop" as recommended on Page 3 of the December 19, 2005 submittal. I recommend that this workshop, or something similar, be expanded to a broader audience for directing and establishing agency policy in this regard. This memo does not attempt to address all the issues, questions, or other remarks concerning agency policy that are raised in the submittals from LWW. Rather, this memo is intended to reply specifically to the requests for additional DEQ monitoring.

I have completed the review forms that were provided for evaluating the citizen request for monitoring. Please note that not all "check boxes" have been completed as we are not always aware of the local stream uses and/or the form is applied to multiple streams in a waterbody. Please let me know if you need additional information for any of the streams.

The responses to requested monitoring in this memo are organized by the waterbody. It should be noted that a question concerning TMDL load reductions was raised in several sections of the LWW submittal. The question posed is whether or not TMDL load reductions are to be applied in the entire upstream drainage from a listed segment, to include unsampled waters, or simply limited to the impaired segment as delineated in the 303(d) list. Load reductions in approved TMDL's are applied to the listed segment but are to be implemented throughout the entire watershed.

Additionally, as a point of clarification, there is no biological impairment currently listed for Sugarland Run. This stream is currently listed with a bacteria impairment.

Regional Office Review of Citizen Nominations for DEQ's Water Monitoring Plan

1. Stream Segments Nominated Piney Run and Dutchman Creek (VAN-A01R)
2. Can the request be honored? ☒ yes (partially) ☐ no
3. Describe how the request will be honored or the reasons why the request cannot be honored. Stream chemistry/bacteria sampling is requested for Dutchman's Creek, a tributary to the Potomac River. Additionally, Piney Run is discussed but is not identified as a priority stream for conducting monitoring. DEQ will plan to monitor Dutchman's Creek as requested at rivermile 0.62, Route 674. The current trend station located on a downstream segment of Piney Run will continue to be monitored as part of the DEQ trend monitoring network. An additional station upstream of the pond on Piney Run will be considered during the next watershed cycle for A01R, which will begin in January 2007.

   Dutchman Creek will be assessed as Category 3D for the 2006 assessment cycle. Citizen monitoring stations 1ADUT-2-LWC and 1ADUT-1-LWC both find a low probability of adverse conditions for biota.

4. Is there a compromise or other alternative to the request (i.e. is the stream planned for monitoring in another year of the monitoring rotation; is a college/university doing monitoring)? Yes. As noted above, upstream monitoring on Piney Run will be considered during the next watershed cycle in A01R.

5. Please answer the following questions when evaluating the nominations (*Note: answers apply to Dutchman Creek*).

Is the stream segment in an area of high recreational use?	☐yes	☐no
Can the stream be incorporated into the current or upcoming watershed rotation or into any other monitoring modules?	☒yes	☐no
Is the stream segment listed as a "Water of Concern"?	☐yes	☒no
Is the stream segment in an area of another environmental concern, i.e. impaired or designated as an exceptional water or scenic river?	☐yes	☒no
Are there other specific local factors to justify approval or denial of request?	☐yes	☐no
Is the stream segment a priority according to the monitoring strategy considering any of the monitoring modules (e.g. biological, trend, probabilistic, watershed rotation, etc.)?	☐yes	☒no
Has the stream been monitored by DEQ in the past?	☒yes	☐no
Are there available funding and staff resources for honoring this request?	☒yes	☐no

Regional Office Review of Citizen Nominations for DEQ's Water Monitoring Plan

1. Stream Segment Nominated Catoctin Creek Watershed (VAN-A02R)
2. Can the request be honored? ☒ yes (partially) ☐ no
3. Describe how the request will be honored or the reasons why the request cannot be honored. Biological and chemical/bacterial monitoring are requested on different segments of the mainstem Catoctin Creek, North Fork Catoctin Creek, South Fork Catoctin Creek and several other tributaries. As requested, DEQ will perform biological monitoring near the mouths of the North Fork Catoctin Creek and South Fork Catoctin Creek in 2006. DEQ considered establishing a water chemistry station on the mainstem Catoctin Creek at Route 673, as requested. However, this location is not acceptable considering access and safety. Therefore, we will not be able to honor the request to monitor on the mainstem Catoctin Creek as there are no other bridge crossings in this area.

   DEQ will not conduct biological monitoring on Milltown Creek or the Unnamed tributary at Cottage Grove Lane in 2006 due to limited staff resources. Milltown Creek will be listed with a bacteria impairment in the 2006 assessment cycle. The listed segment begins at the confluence with an unnamed tributary to Milltown Creek, approximately 0.34 rivermile upstream from Route 681 near Milltown, and continues downstream until the confluence with Catoctin Creek. Citizen biological monitoring at station 1AMIH-1-LWC in this segment finds a low probability of adverse conditions for biota for the 2006 assessment cycle. Citizen biological monitoring upstream on Milltown Creek at station 1AMIH-2-LWC finds a medium probability of adverse conditions; this upstream segment is considered a water of concern. Additionally, the unnamed tributary to Catoctin Creek (streamcode XJT) will be listed with a bacteria impairment in the 2006 assessment cycle. The listed segment begins at the confluence with an unnamed tributary, approximately 1.2 miles upstream from the Route 693 crossing, and continues downstream until the confluence with Catoctin Creek, at rivermile 9.81. Citizen biological monitoring on this segment finds a low probability of adverse conditions for biota for the 2006 assessment cycle.

3. Is there a compromise or other alternative to the request (i.e. is the stream planned for monitoring in another year of the monitoring rotation; is a college/university doing monitoring)? DEQ will consider the requested biological monitoring in future monitoring plans and as resources allow. However, it would not be considered a high priority waterbody for follow-up monitoring at this time.

4. Please answer the following questions when evaluating the nominations.

Is the stream segment in an area of high recreational use?	☐yes	☐no
Can the stream be incorporated into the current or upcoming watershed rotation or into any other monitoring modules?	☐yes	☐no
Is the stream segment listed as a "Water of Concern"?	☐yes	☐no
Is the stream segment in an area of another environmental concern, i.e. impaired or designated as an exceptional water or scenic river?	☐yes	☐no
Are there other specific local factors to justify approval or denial of request?	☐yes	☐no
Is the stream segment a priority according to the monitoring strategy considering any of the monitoring modules (e.g. biological, trend, probabilistic, watershed rotation, etc.)?	☐yes	☐no
Has the stream been monitored by DEQ in the past?	☐yes	☐no
Are there available funding and staff resources for honoring this request?	☐yes	☐no

Regional Office Review of Citizen Nominations for DEQ's Water Monitoring Plan

1. Stream Segment Nominated Limestone Branch Watershed (VAN-A03R)
2. Can the request be honored? ☒ yes (partially) ☐ no
3. Describe how the request will be honored or the reasons why the request cannot be honored. Biological and chemical/bacterial monitoring is requested on different streams in the Limestone Branch watershed. DEQ maintains a trend monitoring station in this watershed that serves a different purpose from the nature of the monitoring requests. DEQ will establish a chemical/bacteria monitoring station on the unnamed tributary to Limestone Branch (the Southern tributary, streamcode XGJ) at Selma Lane, as requested. We will also establish a chemical/bacterial monitoring station on the mainstem of Limestone Branch at Selma Lane above the confluence with the unnamed tributary (the Southern tributary). DEQ will not conduct biological monitoring on Limestone Branch or the unnamed tributary to Limestone Branch in 2006 due to limited staff resources. It should be noted that Limestone Branch does not currently have a biological impairment. A bacteria TMDL has been completed for this watershed.

   The unnamed tributary to Limestone Branch, streamcode XGJ, will be assessed as Category 3D for the 2006 assessment cycle. Citizen monitoring station 1AXGJ-16-LWC finds a low probability of adverse conditions for biota.

4. Is there a compromise or other alternative to the request (i.e. is the stream planned for monitoring in another year of the monitoring rotation; is a college/university doing monitoring)?

5. Please answer the following questions when evaluating the nominations *(Note: answers apply to Limestone Branch).*

Is the stream segment in an area of high recreational use?	☐yes	☐no
Can the stream be incorporated into the current or upcoming watershed rotation or into any other monitoring modules?	☒yes	☐no
Is the stream segment listed as a "Water of Concern"?	☐yes	☒no
Is the stream segment in an area of another environmental concern, i.e. impaired or designated as an exceptional water or scenic river?	☒yes	☐no
Are there other specific local factors to justify approval or denial of request?	☐yes	☐no
Is the stream segment a priority according to the monitoring strategy considering any of the monitoring modules (e.g. biological, trend, probabilistic, watershed rotation, etc.)?	☒yes	☐no
Has the stream been monitored by DEQ in the past?	☒yes	☐no
Are there available funding and staff resources for honoring this request?	☒yes	☐no

Regional Office Review of Citizen Nominations for DEQ's Water Monitoring Plan

1. Stream Segment Nominated Panther Skin Creek (VAN-A05R)
2. Can the request be honored? ☐ yes ☒ no
3. Describe how the request will be honored or the reasons why the request cannot be honored. Water chemistry/bacteria monitoring is requested on Panther Skin Creek, a tributary to Goose Creek. This stream was monitored as a watershed station between 2003 and 2005. For the 2006 asssessment cycle, sufficient exceedances of the instantaneous e.coli bacteria criterion (4 of 8 samples - 50.0%) were recorded at DEQ's ambient water quality monitoring station (1APAE004.21) at the Route 719 bridge to assess this stream segment as not supporting of the recreation use goal. As monitoring was conducted through June, 2005 on this stream, DEQ does not plan to add this station to the monitoring rotation this cycle. Future monitoring downstream on Panther Skin Creek will be evaluated. However, the only bridge crossing on the downstream segment at Rt. 623 was not acceptable in 2003 considering safety and access.

   Additionally, please note that citizen monitoring station 1APAE-12-LWC on Panther Skin Creek downstream from the DEQ monitoring station finds a low probability of adverse conditions for biota. Therefore, the downstream segment of Panther Skin Creek is assessed as Category 3C for the 2006 assessment cycle.

4. Is there a compromise or other alternative to the request (i.e. is the stream planned for monitoring in another year of the monitoring rotation; is a college/university doing monitoring)? Panther Skin Creek will be evaluated in future watershed rotation monitoring.

5. Please answer the following questions when evaluating the nominations

Is the stream segment in an area of high recreational use?	☐yes	☐no
Can the stream be incorporated into the current or upcoming watershed rotation or into any other monitoring modules?	☒yes	☐no
Is the stream segment listed as a "Water of Concern"?	☐yes	☒no
Is the stream segment in an area of another environmental concern, i.e. impaired or designated as an exceptional water or scenic river?	☒yes	☐no
Are there other specific local factors to justify approval or denial of request?	☒yes	☐no
Is the stream segment a priority according to the monitoring strategy considering any of the monitoring modules (e.g. biological, watershed rotation, etc.)?	☒yes	☐no
Has the stream been monitored by DEQ in the past?	☒yes	☐no
Are there available funding and staff resources for honoring this request?	☐yes	☒no

Regional Office Review of Citizen Nominations for DEQ's Water Monitoring Plan

1. Stream Segment Nominated North Fork Goose Creek and Crooked Run (VAN-A06R)
2. Can the request be honored? ☐ yes ☐ no (to be determined)
6. Describe how the request will be honored or the reasons why the request cannot be honored. Water chemistry/bacteria monitoring is requested on the lower North Fork Goose Creek near the mouth of the river. DEQ currently has three monitoring stations in this waterbody. A trend station is located on the North Fork Goose Creek at rivermile 5.69 (Rt. 722) and two watershed stations are in the waterbody: one on the North Fork Goose Creek at rivermile 11.60 (Rt. 782) and one on Crooked Run at rivermile 1.18 (Rt. 727). DEQ considered establishing a water chemistry station on the North Fork Goose Creek at Route 729. However, this location is not acceptable considering access and safety. We are currently evaluating the bridge crossing over the North Fork Goose Creek near the mouth of the river at Route 733. We will establish this as an ambient station if it is appropriate considering access and safety. Note that DEQ established a probabilistic monitoring station in 2004 at rivermile 0.91 on the North Fork Goose Creek.

   Citizen monitoring stations 1ANOG-5-NFGCW and 1ANOG-5-SOS are located on the lower North Fork Goose Creek for the 2006 assessment cycle. Citizen monitoring finds a high probability of adverse conditions for biota, noted by an observed effect. Consequently, this stream segment is considered a water of concern and is a high priority for follow-up monitoring. The probabilistic monitoring station located just downstream from this segment resulted in benthic SCI scores of 68 and 63 in the Spring and Fall 2004 biological surveys, respectively. Consequently, this stream segment is considered minimally impacted. Follow-up biological monitoring will not be prioritized based on the 2004 biological survey data.

   Biological monitoring is requested for Crooked Run. Crooked Run will be assessed as Category 3D for the 2006 assessment cycle. Citizen monitoring stations 1ACRF-3-NFGCW, 1ACRF-3-SOS, and 1ACRF-6-LWC find a low probability of adverse conditions for biota. This stream segment therefore is not considered a water of concern and follow-up DEQ biological monitoring is not prioritized based on the assessment results. Due to limited staff resources, DEQ will not be able to conduct biological monitoring on Crooked Run.

7. Is there a compromise or other alternative to the request (i.e. is the stream planned for monitoring in another year of the monitoring rotation; is a college/university doing monitoring)? Biological monitoring for Crooked Run will be considered in future monitoring plan decisions.

8. Please answer the following questions when evaluating the nominations (*Note: answers apply to North Fork Goose Creek*).

Is the stream segment in an area of high recreational use?	☐yes	☐no
Can the stream be incorporated into the current or upcoming watershed rotation or into any other monitoring modules?	☒yes	☐no
Is the stream segment listed as a "Water of Concern"?	☒yes	☐no
Is the stream segment in an area of another environmental concern, i.e. impaired or designated as an exceptional water or scenic river?	☒yes	☐no
Are there other specific local factors to justify approval or denial of request?	☒yes	☐no
Is the stream segment a priority according to the monitoring strategy considering any of the monitoring modules (e.g. biological, watershed rotation, etc.)?	☒yes	☐no
Has the stream been monitored by DEQ in the past?	☒yes	☐no
Are there available funding and staff resources for honoring this request?	☐yes	☐no

Regional Office Review of Citizen Nominations for DEQ's Water Monitoring Plan

1. Stream Segment Nominated Lower Goose Creek/Tuscarora Creek (VAN-A08R)
2. Can the request be honored? ☐ yes ☒ no
3. Describe how the request will be honored or the reasons why the request cannot be honored. Tuscarora Creek is a tributary to lower Goose Creek. Biological monitoring is requested at or near the mouth of Tuscarora Creek. A benthic TMDL has been completed for Goose Creek in this segment. DEQ has performed biological monitoring on Goose Creek at rivermile 2.38 near Rt. 7 and upstream from the golf course at rivermile 3.18. The upstream location was surveyed in Fall 2002.

   Biological monitoring has not been performed by DEQ on Tuscarora Creek. Tuscarora Creek will be assessed as Category 5A for the 2006 assessment cycle due to a bacteria impairment from DEQ data collected at station 1ATUS000.37. Citizen monitoring station 1ATUS-2-LWC finds a medium probability of adverse conditions for biota. This stream segment is therefore considered a water of concern. Due to limited staff resources, DEQ will not be able to conduct biological monitoring on Tuscarora Creek in 2006.

4. Is there a compromise or other alternative to the request (i.e. is the stream planned for monitoring in another year of the monitoring rotation; is a college/university doing monitoring)? DEQ will look to perform biological monitoring on Tuscarora Creek as follow-up monitoring to the benthic TMDL. At this point, the biological monitoring has not been scheduled, but we understand the need to follow-up with the citizen monitoring on this stream.

5. Please answer the following questions when evaluating the nominations *(Note: answers apply to Tuscarora Creek).*

Is the stream segment in an area of high recreational use?	☐yes	☐no
Can the stream be incorporated into the current or upcoming watershed rotation or into any other monitoring modules?	☒yes	☐no
Is the stream segment listed as a "Water of Concern"?	☒yes	☐no
Is the stream segment in an area of another environmental concern, i.e. impaired or designated as an exceptional water or scenic river?	☒yes	☐no
Are there other specific local factors to justify approval or denial of request?	☐yes	☐no
Is the stream segment a priority according to the monitoring strategy considering any of the monitoring modules (e.g. biological, trend, probabilistic, watershed rotation, etc.)?	☒yes	☐no
Has the stream been monitored by DEQ in the past?	☒yes	☐no
Are there available funding and staff resources for honoring this request?	☐yes	☒no

Regional Office Review of Citizen Nominations for DEQ's Water Monitoring Plan

1. Stream Segment Nominated Broad Run/Beaverdam Run (VAN-A09R)
2. Can the request be honored? ☐ yes ☐ no
3. Describe how the request will be honored or the reasons why the request cannot be honored. Beaverdam Run Run is a tributary to Broad Run. It is currently being sampled by DEQ as an ambient watershed station. However, the station has only been sampled once in July 2005 and currently cannot be sampled due to construction activities. There are no other suitable ambient sample locations on this stream. For the 2006 assessment cycle, citizen monitoring at stations 1ABEM-13A-LWC and 1ABEM-13C-LWC find a medium probability of adverse conditions for biota. As a result, this stream segment is considered a water of concern.

   Broad Run was sampled intensively by DEQ in 2005. Station 1ABRB002.15 at Route 7 was sampled in spring and fall of both 2004 and 2005. Stations 1ABRB006.97 and 1ABRB015.43 were both sampled in the Spring and Fall of 2005. Due to the 2004 sampling at station 1ABRB002.15, this stream segment will be assessed with a benthic impairment for the 2006 assessment cycle. Due to the stream surveys in 2005, DEQ does not plan to conduct biological monitoring for Broad Run again for at least another calendar year due to limited staff resources.

4. Is there a compromise or other alternative to the request (i.e. is the stream planned for monitoring in another year of the monitoring rotation; is a college/university doing monitoring)? DEQ will look to perform biological monitoring on tributaries to Broad Run to support future TMDL development. Beaverdam Run will be scheduled in this monitoring activity. At this point, the biological monitoring has not been scheduled, but we understand the need to follow-up with the citizen monitoring on this stream.

5. Please answer the following questions when evaluating the nominations *(Note: answers apply to Broad Run).*

Is the stream segment in an area of high recreational use?	☐yes	☐no
Can the stream be incorporated into the current or upcoming watershed rotation or into any other monitoring modules?	☒yes	☐no
Is the stream segment listed as a "Water of Concern"?	☐yes	☒no
Is the stream segment in an area of another environmental concern, i.e. impaired or designated as an exceptional water or scenic river?	☒yes	☐no
Are there other specific local factors to justify approval or denial of request?	☐yes	☐no
Is the stream segment a priority according to the monitoring strategy considering any of the monitoring modules (e.g. biological, trend, probabilistic, watershed rotation, etc.)?	☒yes	☐no
Has the stream been monitored by DEQ in the past?	☒yes	☐no
Are there available funding and staff resources for honoring this request?	☐yes	☒no