TMDL Advisory Group (TAG)

Roanoke River, Tinker Creek, and Wolf Creek Benthic TMDL Study

TMDL Advisory Group (TAG) 1st Meeting

Location: Virginia's Department of Environmental Quality (DEQ) Blue Ridge Regional Office; 901 Russell Dr. Salem, VA 24153

Date and Time: July 29, 2025 3:00 P.M.

TAG members and other participants in attendance

Aerin Portner (DEQ)
Jason Hill (DEQ)
Karen Kline (DEQ)
Keri Green (SMLA)*
Kenny Sledd (TOV)
Scott Shirley (WVWA)*
Lawrence Hoffman (CHA)*
Clifton Bell (B&C)*
Mark Richards (Resident)*
Mike McEvoy (WVWA)
Joe Rasnake (BMI)
Dave Gruber (BMI)*
Wende Boylan (BMI)
Josh Fridley (Roanoke County)
Kristina Sage (TLAC)*
Michelle Donohoe (Roanoke County)
McKenzie Brocker (City of Roanoke)*
Doug Blount (Roanoke County)*
Anita McMillan (TOV)
Larado Robinson (City of Salem)*
Marcus Aguilar (City of Roanoke)*
**TAG members present and participating indicated by Asterix*
All primary TAG members were present and participating from the beginning of the meeting. Marcus Aguilar, TAG Alternate Member, substituted for McKenzie Brocker at 4:45.

Meeting Summary

The first TAG meeting for the Roanoke River, Tinker Creek, and Wolf Creek Benthic TMDL Study began at 3:05 P.M. with 21 participants present. This included all ten of the primary TAG members, as well as three alternate members. A handout was made available to all attendees that provided a detailed meeting outline with background information, maps, and discussion questions that the TAG would deliberate on. The meeting began with a brief description of the project background. This description included the impairments and stream segments being addressed in this study as well as the timeline of events during this study that led to this initial TAG meeting. Following that background, participating DEQ employees and all the TAG members introduced themselves to the room.

Aerin Portner began the *meeting objectives* and *TAG expectations and rules* section of the meeting. She laid out many of the established guidelines for TAG meetings prior to beginning the voting on rules the TAG sets for themselves. She proposed 5-minute breaks between meeting topics to allow for non-TAG members to have the opportunity to share thoughts and concerns with TAG members, as well as for primary members and alternate members to discuss ideas to be brought forward. She also proposed that members express their comfort level with decisions using three, two, or one finger when tabulating consensus on topics and decisions. The full DEQ established TAG guidelines were given out at the previous meeting, posted to the DEQ website, and provided in the appendix of the handout for this meeting for reference.

Discussion and Voting Decisions on TAG Expectations & Rules

- Would we like meeting minutes to need approval by the group prior to posting?
  - *The group decided they did want the meeting minutes/summary to be reviewed and approved by the TAG prior to their posting. Aerin set the expectation that she would email the draft meeting summary to the group within two-to-three days following TAG meetings for members to review. Members will review the meeting summary and return suggested edits and acceptances of the meeting minutes within two-to-three days following their receipt of the summary. The expectation of two-to-three days refers to business days and is variable to account for weekends.*
- Do we wish to set time limitations for persons addressing the group?
  - *The group decided not to limit any persons addressing the TAG with the caveat to reconsider this provision should it become a concern in the future.*
- How do we want non-group members to be able to express their concerns during meetings?
  - *The group decided to accept the suggestion to allow for 5-minute meeting breaks to allow for non-TAG members to express their ideas and concerns during meetings.*
  - *The question was asked about whether there would be intervals for public comment during the TAG meeting process. Aerin explained that TAG meetings are not followed by public comment periods but that there would be a Final Public Meeting that would be followed by a public comment period.*
- Meeting breaks and expressions of comfort with decisions, do we like the current expectations, or do we have other suggestions?
  - *The group decided that a series of thumbs up, sideways, or down would be a better process. This is how the group will proceed expressing levels of comfort while making decisions.*
- Meeting intervals, how often would we like to meet as a group?
  - *Three-month meeting intervals were suggested for the group to meet with the option to cancel meetings if there is no new information to share. The group decided this worked for everyone and to proceed with that interval.*

- *This question also prompted two separate discussions. Aerin acknowledged that she will become unavailable for a period of time at some point between October and February while she is on family-medical leave. A member also asked whether they should let Aerin know if they are unable to attend a meeting and how many members need to be available/present for a meeting to have quorum and occur. Aerin shared that yes, members should let her know if they are unable to attend TAG meetings ahead of time and that half of the members (5 TAG representatives, not including DEQ) must be present for a meeting to occur. If a majority of the members cannot attend a meeting or if anything comes up that should cancel a meeting, ie. inclement weather, an inclement weather date, the following week, same time and place, would be used as an alternative meeting rather than cancelling the meeting all together.*

The opportunity for the first 5-minute break followed this discussion. The TAG members and meeting participants elected to continue the meeting without taking the full 5-minute break, so it continued.

The *project updates* section of the meeting began. Aerin discussed the additional algal sampling that DEQ will be conducting this coming sampling season. This sampling includes algae biomass sampling, which will be conducted at the same three stations it has previously been conducted, and algae speciation samples at four stations, with one replicate. While that is DEQ's current sampling plan, Aerin offered up to the group to indicate whether they supported or objected to the plan prior to it being conducted next month. TAG members indicated support for the plan. All data collected in the study area of this project will be used in the upcoming, updated benthic stressor analysis (BSA).

A discussion about the location of the stations ensued. The provided map displayed only the three repeatedly visited algae biomass sampling stations. A TAG member asked about the location of the fourth, upstream-most site where algae speciation samplings would be taken. Jason Hill clarified that this station is in Dixie Caverns, about river mile 224 (Station ID is 4AROA224.38). Jason also shared that the river mile 224 station was used as the reference site for the 2006 Roanoke Benthic TMDL that addressed sediment as the stressor for much of the mainstem Roanoke River, upstream of the impaired segment that is a subject of the current study. That site has even less urban influence than the river mile 212 site which is downstream of the City of Salem. It is more consistently reference quality.

To discuss additional third-party sampling that is simultaneously occurring in the study area, TAG members Clifton Bell and Dave Gruber addressed the group to describe sampling that Biological Monitoring Inc. is currently conducting in the Roanoke River. This additional sampling will be collecting benthic algae biomass, nutrients, habitat assessments, and benthic macroinvertebrate samples upstream and within the study area to capture any potential gradient of algae/habitat conditions corresponding to nutrient levels. Their sampling will use artificial substrates which differs from DEQ's use of natural substrates for benthic algae collection. They

are sampling in both the spring and summer and two of their sites correspond with DEQs 4AROA202.20 and 4AROA198.08 stations. Virginia Tech's entomology department completes their macroinvertebrate identification. The QAPP detailing their study methodology and goals was sent to DEQ for review and was approved following suggested edits being made.

TAG members requested that QAPP to be shared with the group and all parties involved agreed to that. Aerin will be sending out the QAPP to the TAG along with the draft Meeting Summary. Dave shared that there has been a serious influx in sand at their sites recently which has buried algae covered substrate. TAG member Scott Shirley shared that this influx of sediment has been reported to DEQ but there was not yet an update of any specific source that was found. Jason indicated that large rain events this year have caused many streams in the region to see large amounts of sediments displaced in channels. Aerin asked when this supplemental data would be available to DEQ to share with DEQ's contractor conducting the BSA. They indicated it would likely be processed by February-March 2026.

Jason followed up during the third-party sampling discussion that at the previous April 2025 public meeting, Marcus Aguilar had brought up potential Virginia Tech connections that could be interested in some manipulative field experiments that would eliminate effects of the Niagara Dam on benthic algae growth. This was a suggested study for supporting the BSA that DEQ received during previous public comment periods on this project. DEQ was unable to find interested third parties that could conduct this experiment and is unequipped to complete it themselves. Scott mentioned the Western Virginia Water Authority (WVWA) also potentially had a connection that could still be contacted who may be interested in pursuing this type of study. Jason indicated he would use the upcoming 5-minute break to print off a memo he had which described this optional study which he could provide for the meeting participants.

Finally, the TAG moved on to an update that the future drafting of the BSA would be completed by Dr. Robert Brent, the same contractor that completed the previous iteration of the BSA. A TAG member asked if Dr. Brent could include the TAG in the drafting process of the BSA more this time, especially during the CADDIS process of scoring stressor variables. This concluded with the group agreeing that a TAG meeting with the contractor where the group could review the BSA data prior to the final draft being presented would suffice and be appreciated. It was also clarified that following the presentation of the final draft of the Benthic Stressor Analysis, a public comment on the document would open. This was followed by the next 5-minute break opportunity, which was used by the group and meeting participants.

Following the 5-minute break, Jason passed around the copies of the previously mentioned memo to all meeting participants. The next section of the meeting began, covering a previous topic of interest, advance restoration plans (ARPs). Aerin utilized the provided handout to present the similarities and differences of ARPs to TMDLs and then laid out logistics within the three impaired watersheds to consider when deciding if an ARP is a viable option for this project going forward. There were specified discussion questions for this section of the meeting, however, an organic discussion broke out prior to getting to those questions which provided insight into the group's thoughts on some of these topics.

Clifton Bell identified that he has been a part of ARP projects in other states and mentioned that in those ARPs, there were limits established for NPDES holders within impaired watersheds where these plans were developed. This was something that Aerin had mentioned wasn't included in ARPs underway in Virginia currently and wasn't compatible with current regulation and management of ARPs in the State of Virginia. Clifton assured the group that ARPs and NPDES permit limits could be compatible and enforceable and offered to share examples from other states with the group.

Clifton stated his preference for the adaptable management strategy offered by ARPs, with some others in the group agreeing. He explained his view that in complex, multi-stressor settings, adaptive management can be more effective in the face of uncertain analysis. The Roanoke River flows through multiple municipalities and an urbanized landscape. Considering that variability in the watershed, effectiveness, as well as flexibility, are both important to the affected community. There is some concern that TMDLs often become expensive and don't always protect waters from all stressor pollutants and are less malleable to change overtime. It was stated that management strategies like local ordinances governing septic pump outs, getting residents off septic systems and on to public sewer, and dam removal were all actively being pursued within these watersheds currently. These "low-hanging fruit" management strategies had some echoed support from downstream stakeholders. Doug Blount pointed out that while removal of small dams on Tinker Creek may be gaining interest, the large hydroelectric dam, Niagara Dam, on the Roanoke River has seen recent investment from the power company and will be in continued operation for the foreseeable future. Doug made the point that discussing potential removal of this dam is likely an unproductive path of discussion without the operator involved and willing to do so.

Discussion and Voting Decisions on Advance Restoration Plan vs. TMDL

- What are the funding benefits to a TMDL vs. ARP being completed?
    - *The group acknowledged that TMDLs do present potential future weight in funding applications. It was also brought up that recent funding cuts in the public sector have caused multiple pots of money and grants to not be as readily available to apply for anyway. The group was not concerned about the future funding differences for practices reducing stressor pollutants through either an ARP or a TMDL.*
- After this discussion, do we still want to engage the idea of a plan in advance of a TMDL?
    - *The group asked for clarification as to whether this decision was necessary at this step of the process or if it could be decided upon later, following BSA and modelling developments. Aerin assured them it did not need to be made right now but needed to know if they'd like to keep ARP as an option. The group decided they would like to make that decision at a later date, after there has been greater data collection and analysis.*

This concluded the *Advance Restoration Plan vs. TMDL* section of the meeting and the next opportunity for a 5-minute break was available. The TAG members and meeting

participants agreed to skip this break for sake of meeting brevity as it was already almost 5:00 P.M..

At the previous meeting, DEQ was questioned about their continued nutrient monitoring up and downstream of the impaired Roanoke River stream segment in this study. Aerin followed up on that previous question detailing where the trend stations are on the Roanoke River within ten miles upstream and downstream of the impairment. The parameters that are collected at these sites, which include nutrient data, were also shared. The Roanoke River impairment ends where a riverine assessment unit meets the first lake assessment unit for Smith Mountain Lake (reservoir). This was highlighted to explain both the importance and challenges of planning for this stream segment due to its position directly upstream of a large reservoir. This section of the meeting was followed by an opportunity for a 5-minute break, however, all meeting participants agreed to continue.

Aerin continued the meeting and presented an estimated timeline of the project, noting that the estimate was dependent on multiple third parties besides DEQ. Since the meeting was coming to a close, there were three final questions to ask the group to ensure future meetings are managed in the best possible way to facilitate participation and discourse.

Checking-in on Meeting Management

- Did you like the format of the discussion guiding handout?
    - *The group agreed that they liked the guided handout for the meeting and appreciated it being available to the TAG members prior to the meeting.*
- Did you like the built in 5-minute breaks?
    - *The group's consensus was that they liked the 5-minute break structure.*
- Survey results indicated future meetings would be best attended on Wednesdays at 3PM. Is that accurate?
    - *The group indicated that yes, future meetings to be held on Wednesday's at 3:00 P.M. would likely work for the TAG members schedules.*

The first TAG meeting for the Roanoke River, Tinker Creek, and Wolf Creek Benthic TMDL Study concluded at 5:20 P.M..