TRI-COUNTY LAKES
ADMINISTRATIVE COMMISSION

SML Sedimentation Task Force
Monday, April 28, 2025, 3:00 p.m.
Minutes

Members Present:

Barb Ferrell (remote)	Chris Kebler
Keri Green	Chekka Lash
Randy Hodges	Rick Lester
Dave Johnson	Rob Sanders

Members Absent:

David Byrd	Jennifer Serafin
Daphne Jamison	Robert Weld
Liz McKercher	Keith Wrenn
Bob Pohlad	

Staff Present:

Kristina Sage	Lorie Smith

Guests Present:

Gus Monroig	Don Shearer
Joel Reger	

Randy Hodges called the meeting to order at 3PM. All in attendance introduced themselves.

Dave Johnson made a motion to approve March meeting minutes. Lorie Smith seconded the motion. The task force unanimously approved the minutes.

A review of Action Items status from the March meeting ensued.

- Chris Kebler reported he continues to refine prioritization criteria spreadsheet.

- The Prioritization team submitted an RFI (Request for Information) to Anchor QEA mid-March with the request to have preliminary feedback by the 3/24 Task Force Meeting. Barb Ferrell followed up and recently learned that Mindy Strevig has transitioned to her own business and will be transferring the RFI response to Walter Dinacola and Mark Reemts. A meeting has been requested with them. Barb Ferrell and Chris Kebler will follow up.

- Keri Green advised that rather than investigate conducting suspended sediment analysis during high-flow events prior to investigating potential vendors we need to identify where such a survey should take place as it will be costly.

- Kristina Sage reported the Wake Education Task Force will soon update wake maps to reflect sedimentation in the center of the “bowl” in Gills Creek. The bowl will be marked as a caution zone in the next printing the Navigation Committee conducted an on-water survey of the bowl area on Gills Creek, and the committee will meet tomorrow to determine whether to place a shoal marker in that area.

- Keri noted that it has become clear that we need more current data to understand the locations where the greatest amount of silt is being deposited. The Princeton Hydro report includes modeling information from the watershed assessment, but not siltation rates. The report determined that about 75% of the sediment coming into the watershed is from stream erosion. Also, Virginia Tech is continuing to model watersheds for the entire lake. The final product may be available by the end of June.

Lorie Smith recommended we refine the questions to make sure that the work of this group is laser focused on the things that we can get answers to so that it will properly formulate a plan.

Keri Greene noted that the task force needs back data for areas of concern. AEP sedimentation monitoring only shows that siltation is happening at the boat ramps and at the tributaries feeding into the lake.

The committee discussed the Princeton Hydro study that was commissioned by the Smith Mountain Lake Association (SMLA) as Keri explained maps 1 and 3 and their potential value to the task force. She confirmed that the data provides a model and does not provide data of the rate of siltation.

Discussion ensued regarding the primary sources of data and mapping. Kristina Sage confirmed she needs to reconnect with Eric Schmidt, Franklin County GIS, regarding refinements to mapping.

Lorie Smith expressed the need for a work plan to be articulated including

- objectives - including getting your data sources to support that area so that you have the right questions
- benchmarks
- evidence based criteria - to work from and make recommendations
- data driven conclusions
    - What is it?
    - Where did it come from

Dave Johnson mentioned that in 1996 an agricultural model was developed illustrating agricultural source pollution. The model determined 3.6 million tons of sedimentation per year being deposited into the lake. That did not include Roanoke or Salem as urban sources. In 2007 a bathyscopic study was conducted, and it compared the original contours with these newly measured contours, and sedimentation was measured at 4.4 million tons per year.

Keri Green stated that for the Blackwater watershed the results of the model indicate that the total watershed is estimated to yield approximately 73,587,681 kg of sediment during an average year or approximately 430 kg per acre.

Chekka Lash noted models are fairly accurate, and that the task force can base decision making on those models. She also pointed out that we cannot determine where sediment is ending up on the lake, and that factor should be a major priority to determine how and where we pursue remediation and prevention. Chekka advocates the need to start measuring siltation rates in the lake, not from the watershed.

Keri Green referenced the 2007 study conducted throughout the entire lake with sidearm sonar, which provided data to illustrate develop the existing contours. The historical contours were used to measure the specific height of siltation all around the lake.

Keri Green explained that a year and a half ago the Smith Mountain Lake Association hired a professional lake management engineering firm to do an assessment of the Blackwater watershed, which was triggered by the harmful algal blooms in 2023. SMLA wanted to understand more about land use types around the lake, nutrient loads, hydrology, sediment, load bacteria, and load contributions. One product Princeton created were the maps we reviewed at this meeting. The report rolls out information about the contribution of each sub watershed to phosphorus, nitrogen, sediment, and

bacteria. The report indicated that annual sedimentation is 430 kg per acre from the Blackwater River watershed. Keri suggested comparing 1996 data to this current modeling information.

Discussion included information that may be understood through change analysis would be valuable to understand how much of the watersheds in 1996 were forested versus today, as land uses have changed. Randy Hodges suggested comparing current and past land uses. Additionally, development has significantly increased, and farming practices have changed to include more use of cover crops. Stream bank erosion has also changed as advances were made investing in the Blackwater watershed engaging farmers in soil conservation. As Daphne mentioned in an earlier meeting, there are many different types of soil: some are more stable, others are highly erodible.

Lorie Smith reminded the task force that there needs to be a solid argument developed from data gathering and data analysis. The argument should include benchmarks and next steps. This approach will support making a solid case. Only then can needs for investment be determined whether they are grant submissions around the state, or an ask through the 4 counties involved with TLAC. The key will be to provide a data-based study to support “the ask”.

Barb Ferrell noted that through prioritization the task force determined the 3 major tributaries that contribute to sediment are the Roanoke, the Blackwater, and Gills Creek, a part of the Blackwater River. The 2 parts of the lake that are experiencing the worst sediment and affecting the most people, which are a couple of the different priorities that we've chosen are the Blackwater and Gills Creek.

As mentioned above in the Action Items, Chris Kebler wrote and submitted a request for information to Anchor QEA, a potential vendor for remediation and prevention. We are awaiting a response, and this will guide some of the next steps.

To be more data driven in our determination of the most affected areas we will need to map data points of those parties affected. That information will guide where to measure siltation depths and potential measure rates of sedimentation.

Barb Ferrell reminded the group that in addition to putting a plan together to control the sediment that is entering the lake, and to then dredge the material that's already there, the task force will also need to determine a plan to maintain areas that experience high levels of sedimentation to avoid a pattern of dredging with regularity.

Lorie Smith noted that a potential project may be for the Soil and Water conservation district to work on a watershed management plan to conserve soil and protect water quality. Such a project would need supporting information to demonstrate the potential benefit of the investment.

Lorie again suggested the need for a document that demonstrates what we've learned to date incrementally by category and then to look at where the gaps are for data, as well as the conclusions the group has already reached. We need a compiled report. We need a categorical work plan that demonstrates what we need to complete the task within each area, and whether there are information and data gaps. There should be demonstration of sequential development of information.

The meeting ended at 4:35. There was no formal motion to adjourn the meeting.

The next meeting will be Monday, May 19th, 3PM at the Tri-County Lakes Administrative Commission office.