

Lower Chickahominy TMDL TAC Meeting Minutes
Hosted by DEQ (Margaret Smigo) and VIMS (Mac Sisson)
Meeting Date and Time: 10/7/2015 10:00am
Location: Charles City Social Center – Ruthville, VA

The meeting began at approximately 10:15 am .

TAC Members in Attendance: Jian Shen, Mac Sisson, Kelley West, Margaret Smigo, Ashley Hall, Joe Swanenburg, Rosanne Reddin, Richard Swanenburg, Christian Tambane (newly added to TAC), Ron Stowell, Ron Harrel, John Allison, Jamie Brunkow, Matt Venable, Suzanne Dyba, Janice Petty, Donald Rice, Judy Gurley (not officially a TAC member), Bonnie Phillips

TAC Members not in attendance: Steven Miller, Matt Rowe, Fran Geissler, Brian Noyes, Carol Lien, Amy Pemberton, Jay Baskette, Chris Holt, Stewart Bowles, Randy Taylor, Thomas Miller, J.B. Benson, Robert Weagley, Sr.

Meeting Purpose:

The TAC discussed the non point source assessment numbers and identified watershed point sources with VPDES bacteria limits (slated for WLA), discussed the data gaps identified (primarily Beaverdam Creek where last bacteria samples dated 2010), and discussed the data that would/would not be included in the TMDL model.

Meeting Highlights:

Morris Creek TMDL was developed in 2008, and the results of that TMDL will be used as inputs for the new Lower Chickahominy bacteria TMDL. TAC members suggested that DEQ/VIMS either include the source assessment numbers for Morris Creek as-is from the old TMDL or use updated values. Clarification is necessary to inform others in the future with regard to what numbers were used (either old or updated).

Discussion of Human Sources

Septic

Of the three counties on the issue of the method for obtaining accurate septic home numbers in order to determine a septic failure rate, James City had the most spatial data with regard to homes which are on septic service. It was stated that in New Kent County there are a lot of buildings and not every building has its own septic system (potentially inflating the number). There are about 7600 total structures in the whole county, and there are only 1500 water customers – therefore a count of homes receiving water service by houses would not alone be representative either. New Kent County representatives stated they could provide DEQ a more accurate number of homes in the watershed as opposed to extracting(?) from homes county-wide, and overlay that with water-service customers to help refine the estimate. The group discussed that a small area in the northwest portion of the watershed is serviced by the Parham Landing WWTF, providing service in the area of Colonial

Downs/Kentland. Questions with regard to whether the septic number covered homes and businesses were raised, as businesses could also have septic systems. VIMS is utilizing 911 maps/addresses to evaluate buildings, which should include 'business'. In Charles City, there are no spatial data available to help refine the homes/buildings to begin evaluating an estimate. There were data provided by VDH on homes with septic permits (in address form county-wide), but geocoding must be done for these addresses in order to place them in the watershed (in process at the time of the meeting). To DEQ's knowledge, there is no public sewer service within the watershed in Charles City. The TAC advised that septic contractors may be a good place to start with failures /straight pipes since if there were a problem they would be contacted.

Straight Pipes/Privies

The TAC discussed prevalence of straight pipes and privies, as currently there are no estimates for these in the watershed. The impact of just one or two straight pipes in a watershed (within the model) can be high in terms of the reductions they may drive. In other TMDLs, to derive a straight pipe number used a reporting question of "other" (means of waste disposal) from the 1990 census. If we know anecdotally that they exist or that the potential is high, we would have a rationale by which to include them. There are several older homes in the watershed which could influence the estimate. DEQ and VIMS will revisit methods by which to derive a reasonable number of privies/straight pipes.

Boating

The group discussed the difficulty in determining a "boating" source number. For example, VIMs used marina slips as a starting point and 10% of that as those contributing to the bacteria source. Questions as to whether or not these boats have MSDs/holding tanks were raised. The TAC questioned if docks within the watershed were a factor, however, the estimate currently only looks at marina slips. To this point, JRA has a tally of private docks in the area which they can share. There was not a consensus on whether that would provide a more accurate number. It was also suggested that an estimate could be derived from boat registrations with DGIF (which are county-wide numbers).

Point Sources/SSOs

A question was raised whether there had been a difference in the SSO's from Hideaway STP since they entered their consent order. To DEQ's knowledge while there may be SSOs to other watersheds, they don't appear to be prevalent in the Lower Chickahominy (at least not for the bacteria limit, which is parameter under review). A TAC member asked if it is possible to evaluate DNA testing for the E.coli source. DEQ explained that in past years, BST (biological source tracking) data with ARA (antibiotic resistance analysis) were used but proved controversial due to the % error possible in identifying the source. DNA testing could have the same issues, is expensive, and, like BST/ARA, may raise more questions than it answers.

Biosolids

In the last 4-5 years silviculture has increased in New Kent County; however, to DEQ's knowledge, only biosolids application permits for Charles City County.

Concerns regarding tidal bacteria concentrations from James River

A TAC member indicated concerns they expressed during the public comment with the group regarding the sanitation efforts of treatment facilities that discharge to the James River. Huntington Beach in Newport News, for example, reports problems regularly. The TAC member's suspicion was that overflows from these plants could tidally affect the Lower Chickahominy bacteria concentrations. In response, DEQ and VIMS voiced that there is more dilution from the James River affecting the Lower Chickahominy than bacteria concentration; given the lower % violation rates we see near the confluence. This is corroborated further by the fact that the James River near the confluence with the Lower Chickahominy is not impaired for bacteria. As a result, the group should evaluate the direct watershed sources to these subwatersheds which could be contributing bacteria. The model takes into effect the tidal influence *and* the upstream influence. VIMS pointed out that, in this watershed area, we don't have the same stormwater problems as in the more dense urban areas.

Wildlife numbers

The relative loadings for wildlife is based on an average density determined by habitat by wildlife type. DGIF is helping to evaluate these numbers.

Livestock numbers

In New Kent and Charles City Counties, farmers practice rotational grazing, which is part of the nutrient management plan so there should be no manure applications. They know of only 5 milk cows in New Kent County.

Modeling discussion and other topics

- The model schematic does not include the downstream condition. The James River bacteria concentrations are used for tidal modeling.
- The TAC stated a roads reference for the subwatershed boundary map would be helpful for orientation.
- One TAC member questioned the impacts of water withdrawal and pumping of water to Little Creek Reservoir. It was stated that it is rather unusual for water to spill over the dam. The discussion regarding impacts from Little Creek Reservoir was that there is so little water flowing, that it serves as a nutrient/bacteria sink.
- A TAC member asked where funding for the TMDL was derived. Funding for TMDLs is issued by the federal government (EPA) to the state in order to be compliant with the Clean Water Act.
- DEQ/VIMS will develop WLAs for point sources with bacteria limits and those required to have one (MS4s). It was noted that in some cases, some counties wouldn't want a WLA by subwatersheds, they would prefer them grouped by counties. VIMS indicated that the allocation is based on the model (which has not yet been run). James City County provided their

updated urbanized layer which will be used to develop their WLA. VDOT/EEE may choose to provide its own service area for roads that would be aggregated with the James City County service area.

- TAC members voiced an interest in reviewing the results of seasonality, WLAs, and final source assessment numbers prior to modeling.
- VIMS plans to begin preliminary modeling by mid-November. The source assessment numbers should be finalized by the end of October.

The meeting adjourned at approximately 12:30 pm.