



## Lake Accotink and the Chesapeake Bay

### How Environmental Recovery Plans Affect the Future of the Lake

Excerpts from an enlightening conversation between Will Isenberg of Virginia Department of Environmental Quality and Mike Field of [Save Lake Accotink](#)

Apr 12, 2018

1. As I understand it, the Chesapeake Bay TMDL model currently does not include reductions from impoundments like Lake Accotink. However, once Version 6 of the model is adopted (within the next year I'm told), there will be reductions associated with certain impoundments, including Lake Accotink. It seems like the trapping efficiency that Version 6 will apply to Lake Accotink is similar to our local TMDL and I believe around 57% (as opposed to our 47%). What that means for credit in terms of load reductions, I am not sure. My experience there tells me that it will likely be a case by case thing since it's a new assumption, but that's me speculating. Regardless, it does mean that the new landscape for TMDL assumptions will be more similar to the local TMDL for Accotink Creek.
2. In terms of removing Lake Accotink and its impact on load reduction credits, this is a hard question to answer since that new version (Version 6) of the Bay model will come with some new assumptions and ultimately some new targets. So, while that may be the case right now, exactly how the next version of the Bay model will impact permits, and in this case the effect of the lake, is hard to tell at this point. I apologize I don't have a more clear answer there, but from bouncing this question around to my colleagues that was the conclusion I garnered.

**Will Isenberg**  
**Office of Watershed Programs & Office of Ecology**  
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Apr 9, 2018

I recently attended a meeting with members from the Fairfax County Park Authority as well as DPWES. We discussed both the local TMDL for Accotink as well as the [Fairfax County Chesapeake Bay TMDL Action Plan](#). An interesting point was made regarding the Fairfax County Chesapeake Bay TMDL and I wanted to get your interpretation on the matter. Both of these statements are in regard to removal of the lake and dam and reversion to a single stream channel through the area.

1. It was stated that the sediment retained by Lake Accotink isn't currently taken into consideration (credited?) within the Chesapeake Bay Action Plan. Therefore, removing the lake and allowing the sediment to 'pass through' wouldn't count against Fairfax County or affect the Chesapeake Bay TMDL.

Question: Is this correct in that since the lake isn't credited as a stormwater pond, the sediment it captures isn't credited and therefore the sediment can be passed through with no repercussions to the Chesapeake Bay TMDL?

2. It was stated that Fairfax County currently has a low enough sediment load into the Bay (or enough credits) that any additional sediment passed through by removal of the lake wouldn't cause the county to be out of tolerance.

Question: In looking at the Chesapeake Bay Action Plan, it appears that the county currently has a ~3M lb./year suspended solids credit they can apply to the next TMDL cycle. Am I reading this correctly in the report? Would removing the lake count against this credit in any way? (Back of the envelope calculations seem to suggest the lake captures ~6M lbs. of sediment per year).

Mike Field

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Feb 22, 2018

1. The turbidity was really just an available parameter that helped us calibrate loads in the model. So, the focus was still sediment. And no, the MS4s will not be explicitly required to control their flow. In the Implementation chapter we make note that practices that also address the two non-pollutant stressors (i.e., the stressors of the biological community that cannot have TMDLs developed) of hydromodification [flow] and habitat modification [precipitated by flow alteration] should be prioritized. These practices of course would manage flow, but by doing so also affect sediment loads. The truth is that most of the sediment comes from in-stream erosion and not overland flow, but the energy within the stream network that provides that erosion comes from surface flow that infiltration/detention practices would help mitigate. Thus, we suggest MS4s and other entities should prioritize those practices.

2. It's our understanding per good practice and the Chesapeake Bay TMDL requirements that implementation of best management practices have been/are occurring in the Accotink Creek watershed. Regardless, the way that all TMDLs work is that once they are approved by our State Water Control Board and EPA, they are then incorporated into permits when those permits are reissued. Permits generally are reissued on a 5 year basis, but those schedules aren't necessarily all lined up. I know this summer many of the smaller MS4s will have their permits reissued, and the following summer many of the industrial stormwater sources will have theirs reissued. And in terms of requirements once the permit is reissued, I believe it varies, but I know the MS4s up for reissuance this summer will have 30 months to start implementing new TMDL wasteloads (like Accotink's once/if it is approved by our State Water Control Board and EPA).

3. I believe the previous answer gets at how long it will take for the TMDL to begin to be implemented, but it's again worth mentioning that many of these entities have plans that have or will start before that deadline. That's just the bare minimum requirement. Now with regards to TMDL approval, on April 12 it is our intent to bring this TMDL to our State Water Control Board. The public comment period for that regulation amendment ended yesterday actually and no comments were received. Following the Board decision, if approved, we will immediately submit it to EPA for approval and they have 30 days to make a decision. Because we go to the Board first, we ask EPA to review it and let us know of any issues that they see. At this point, they have reviewed it a few times and have no further comments, so I can imagine that approval will go smoothly. Thus, we're looking at EPA TMDL approval to be at latest, May 14..

February 22, 2018

A couple of follow up questions regarding the updated [Accotink Creek TMDL](#):

1. I see that in 3.3.3, Flow has been correlated with turbidity. The turbidity is largely composed of sediment from eroded streambanks rather than material that's being carried in from impervious surfaces. Will the MS4 holders be required to control their flow into the streams? If so, isn't this the same regulatory mechanism that was proposed by the EPA in 2012 and defeated? How will the DEQ require that MS4 holders properly manage their flow as to not cause flashy conditions?
2. Is this updated TMDL retroactive in that current MS4 holders will be required to bring their systems into compliance or is there a grandfathering in with existing MS4 permit holders?
3. What is the general timeframe for this updated TMDL to become 'official' and for modifications to begin taking place within the watershed?

Mike Field

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Feb 21, 2018

Thanks for reaching out. As that quote you included indicates, without the lake there needs to be some sort of equivalent management practice. In other words, the 47% reduction will need to be maintained through other best management practices that trap sediment.

For now, since the plans are up in the air for exactly what will come next and when that change will happen, we can't modify the TMDL to accommodate the new scenario. Therefore, depending on the nature of the change we'll have to evaluate the impact and see if the TMDL justifies a revision.

Also, it's important to note, that while the TMDL may fall out of the 'existing condition' once approved and changes happen in the watershed, there will still be mechanisms in place to require TMDL implementation (i.e., cleaning up the watershed). So, whatever the outcome of the lake may be, at least soon TMDL implementation will begin.

**Will Isenberg**  
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February 21, 2018

A question/comment regarding the new [Accotink Creek TMDL](#) draft report mainly pertaining to section 3.4.7. The trapping efficiency of Lake Accotink is estimated to be 47%. Later in the report it states:

"While the TMDL does not prescribe that the Lake will be maintained exactly as has been done in the past, it does assume that there will be an average sediment removal of 47% provided by dredging, or an equivalent management practice."

You're probably aware that the Fairfax County Park Authority is currently updating its Lake Accotink Master Plan and has a serious funding issue. Currently, the Park does not have the funds to support another dredge and it looks as though they are contemplating turning the area back to a stream channel. A 'restored' stream channel will not come close to trapping 47% of sediment that flows through it. In a recent meeting, Supervisor Cook stated that "If we do nothing, the lake on its own will disappear by the year 2025."

The DEQ TMDL and some of its baseline assumptions seem to be counter to what the Park Authority is considering. If the TMDL is approved, does this "require" that the area within Lake Accotink continue to trap 47% of sediment? Will a new TMDL be required if the Park Authority follows through and removes the lake?

Mike Field  
[Save Lake Accotink](#)

## Friends of Accotink Creek

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