

Responses to the Chat questions from the February 16, 2021 TMDL Application Form Webex - (updated April)

General Information and Resources:

The MPCA Web site has a page listing all the MS4 permittees who do not have a TMDL WLA to address in the Permit. It is here;

https://stormwater.pca.state.mn.us/index.php?title=2020_MS4_General_Permit_TMDL_Application

There are very few such permittees.

1. *Stormwater mapping tool:*

<https://mpca.maps.arcgis.com/apps/webappviewer/index.html?id=8d310e604baa43699b25395834d0c69a>

2. *Would it be appropriate to use the MPCA GIS web services or MnGeo MPCA data in our TMDL modeling? Is there guidance available to ensure we are using the appropriate datasets?*

MNGeo MS4 boundaries would be appropriate data to use: [Municipal Separate Storm Sewer System \(MS4\) boundaries in Minnesota - Resources - Minnesota Geospatial Commons \(mn.gov\)](#).

Available TMDL shapefiles are being uploaded to a sharebase site, where they will be available for 90 days: <https://app.sharebase.com/#/folder/37975/share/185-OU4QvSU24mc9PBCUGuysE-jhy1o>

3. *What is the year of the most current/final Impaired list and corresponding GIS dataset?*

[Minnesota's Impaired Waters List | Minnesota Pollution Control Agency \(state.mn.us\)](#)

[Impaired Waterbodies, Minnesota, 2018 - Resources - Minnesota Geospatial Commons \(mn.gov\)](#)

4. *Is there a list of BMP's associated per each type of TMDL? Like TSS, TP, Oxygen Demand.*

[File:BMPs-quantifiable reductions and cross reference.xlsx - Minnesota Stormwater Manual \(state.mn.us\)](#)

5. *My Percent reduction in the TMDL master list and the applicable WLA determination says "Not Available" for all of my WLA's. Does this mean i do not need to report on these WLA's or is there an error in the Spreadsheet?*

A percent reduction of 'Not Available' means that there was no overall load reduction specified in the TMDL. If a project is listed on the Applicable WLA determination tab, you must make a determination if you are meeting the WLA or not. The MPCA has determined loading rates for many WLAs that did not have an associated percent reduction. It can be found here: [MPCA calculated loading rates \(updated in April\)](#)

6. *What if you are implementing multiple BMPS of the same type(s) t/o and area. Is there a column to track the BMP ID?*

No, there is not. Feel free to submit a supplemental spreadsheet or information.

7. *What is the "TMDL study area" shown in the MS4 Mapping Tool? How does this relate to the land area each permittee should consider for this TMDL analysis?*

The TMDL Study Area is the drainage area for a TMDL project. Depending on the TMDL, that can be multiple basins (South Metro Mississippi TSS TMDL) to a subwatershed (Golden Lake TMDL). Depending on the scale of the TMDL, an MS4 can be entirely within the study area, and their entire regulated area contributes to the impairment and was part of the WLA, or it could only be partially within the study area, and they must determine what portion of their regulated area applies to that TMDL project.

8. *If city monitors at points where creeks enter/leave the city boundary, can that be used to demonstrate compliance (e.g. continuous flow/WQ sampling)? How long must they monitor for a dataset to demonstrate compliance with a WLA (e.g. 1-2 years)?*

Yes, see: [Recommendations and guidance for utilizing monitoring to meet TMDL permit requirements - Minnesota Stormwater Manual \(state.mn.us\)](#)

Found under Monitoring in the 'TMDL toolkit for MS4 permit compliance' on [Total Maximum Daily Loads \(TMDLs\) - Minnesota Stormwater Manual \(state.mn.us\)](#)

9. *Can you explain the WLA types and what they mean.*

There are two different WLA types- Categorical and Individual. An Individual WLA means that each permittee has their own WLA. A Categorical WLA lumps several permittees together. See: [Guidance for categorical TMDLs - Minnesota Stormwater Manual \(state.mn.us\)](#)

10. *Why are there different flow conditions?*

See: [Interpreting wasteload allocations based on flow/load duration curves - Minnesota Stormwater Manual \(state.mn.us\)](#)

Categorical wasteload allocations

11. *How is the applicant to determine their portion of the Categorical WLA - isn't the MPCA supposed to determine that?*

See the updated guidance at Categorical WLAs and the 2020 TMDL Application form on the following page: [Guidance for categorical TMDLs - Minnesota Stormwater Manual \(state.mn.us\)](#)

Delineating TMDL Drainage area

12. *If my city has no MS4 owned outfalls or storm water infrastructure in the drainage area that drains to the TMDL water, which is impaired for TP, do I have to submit modeling and the TMDL spreadsheet?*

If you have an applicable WLA listed on the Applicable WLAs determination tab, you need to make a determination. If you believe that your MS4 area within the TMDL drainage area is completely landlocked, and was given a WLA in error, contact the MPCA for next steps.

13. *How should an MS4 permittee determine the appropriate land area it should consider in addressing a TMDL WLA? A TMDL may include only a portion of a city. There are hardly any TMDLs that included*

only the area served by an MS4 conveyance system when setting the WLA for an MS4. Do we have to rely on a fuzzy map in a low-resolution pdf file? Is the MPCA making all the appropriate shape files available to the permittees?

GIS files are available here: <https://app.sharebase.com/#/folder/37975/share/185-OU4QvSU24mc9PBCUGuysE-jhy1o>

14. *Are we including all BMPs in the study area, or just in our MS4 boundary? Our entire watershed drains into the Mississippi River, but only one of our subwatersheds is MS4-regulated. So should we include BMPs in our entire watershed district or just our MS4-regulated area?*

It depends on the TMDL, but usually just the MS4 regulated area.

15. *If the land area for an MS4 in a TMDL is larger than the area served by the MS4 conveyance system, should the permittee be able to take credit for all the load reductions achieved within that larger land area? Shouldn't these land areas match?*

It depends on how the WLA for the TMDL was determined, whether BMPs outside the conveyance system can be counted or not.

16. *Are cities responsible for agricultural loads inside the MS4?*

The WLA is typically based on the calculated pollutant load from a specific area. Sometimes wasteload allocations (WLA) may include loads from agricultural areas or other land use areas that are not covered by the MS4 permit. The permittee's WLA therefore includes the load from these areas. The permittee is not required to reduce loads from areas not covered under their permit, but because their WLA may include loads from areas not covered under a permit, the WLA would have to be adjusted to those areas where permittees will implement actions to reduce pollutant loading. A permittee therefore has two choices in this situation. They can keep the WLA as it is and meet the required reduction from anywhere within the area used to calculate the WLA, or the permittee can request that MPCA adjust their WLA based on areas for which they are responsible.

Baseline

17. *Has the MPCA provided information to all the MS4 permittees about the baseline year for their TMDLs? How does the baseline year factor into modeling and estimating pollutant load reductions for the permittees?*

Baseline year for each TMDL project is shown in Column M of the 'TMDL Master List' tab. How the baseline year was factored into modeling and estimating pollutant load reductions depends on the TMDL.

18. *We are assuming that the baseline for a given TMDL is the year of the most recent data that was used in the study (e.g. TMDL study used data through 2011, so is 2011 the baseline and any project implemented after that year should be able to used to demonstrate reductions toward achieving the WLA/reductions). Please confirm. Using a later baseline date would be a disadvantage for cities that began implementing projects immediately after a TMDL was completed.*

That is INCORRECT. The baseline is usually the midpoint year of monitoring data used to develop the TMDL. Refer to Column M of the 'TMDL Master List' tab to see the baseline year for each TMDL project.

19. *What does it mean for calculating load reductions if the MPCA Recommended Baseline Year is listed as "Not Applicable" in the spreadsheet?*

See the South Metro Mississippi River TSS TMDL section below for guidance on that TMDL. There are no other TMDLs with applicable WLAs where that situation applies.

20. *It is important to understand the year the TMDL baseline was established but also important to know what BMPs were included in that baseline. If some of the BMPs were not included at the time it seems like they should be able to be included now.*

It depends on how the TMDL was developed. If you are confident that a BMP was not included, contact the MPCA to discuss.

21. *How do we find out what BMPs were included with the TMDL report?*

You would have to check the TMDL report to see if any BMPs were specifically mentioned.

Timing and complexity

22. *The MPCA provided 150 days for preparing and submitting the Permit and TMDL Application Forms. This first training for the complex TMDL estimations, modeling, and reporting is being held on the 92nd day of this 150-day period. Why is this training being offered only so late in the 150-day period? Does the MPCA expect that this timing will affect whether permittees will be able to complete and submit their TMDL Application Forms by April 15th?*

The MPCA wanted to provide ample time for applicants to become familiar with the application materials before holding a workshop. As was revealed in the poll, a fair amount of applicants have not yet accessed the materials. With approximately two months left, the agency is optimistic there is sufficient time. As always, the agency has people available to provide technical assistance on demand.

Additionally, all application materials and most of the guidance has been available since November 15th.

23. *This process calls for permittees to submit information about their future plans and commitments. Examples include planned BMPs to make progress toward meeting a TMDL WLA and a target date for meeting a TMDL WLA. Providing such commitments in a legally-enforceable permit submittal is a serious act for a city. Some cities will conclude that such submittals should only be done with the knowledge of and approval by their City Council. Getting Council review and approval takes a considerable amount of time. For these cities, it may be impossible to get Council approval and submit their TMDL Application Forms until long after April 15th (months). How should this situation be addressed?*

Making "progress", to the Maximum Extent Practicable, toward achieving a WLA is the standard in the MS4 permit. "Progress" comes in many forms (i.e., structural and non-structural BMPs) that are

acceptable for application purposes. Almost anything a municipality does toward restoring an impaired water is “progress”. This certainly includes the more tangible structural BMPs that have already been planned for and/or approved at the time of application, but can also include plans to seek funding, feasibility studies, city council approvals, etc. Plans to seek funding, develop implementation strategies, or gain approval from a governing body are acceptable compliance schedule items, so the MPCA encourages applicants to include such items in their schedule.

24. *Cities are rightfully concerned about being required to submit information listing planned (with all sorts of uncertainty) BMPs to make progress during this upcoming Permit cycle (next five years) in a submittal for a legally-enforceable MPCA permit. They feel the need to submit some text qualifying their submittal in light of this uncertainty. How should they submit this type of text for the record? In many cases, the cities' legal advisors will say that this is necessary for the cities' legal protection.*

Permittees should indicate potential hindrances to completing activities by either adding a statement in Q.174 of the PDF portion of the Permit Application, or adding another spreadsheet with notes for specific BMPs. An example note might be something like “Pending approval of funding by the City Council”, or “A planned Capitol Improvement Plan (CIP)”.

25. *Many larger BMPs are of sufficient size/cost that they'd need to be in the municipality's Capital Improvement Plan. The CIP may have been completed before this most recent permit was available and wouldn't be revisited for another year or two. While permittees could list BMPs already in the CIP, listing BMPs prior to at least the next CIP cycle may not be feasible. Would only listing the approved BMPs in the this be what the CIP thus far be what the MPCA is looking for?*

Certainly list activities in any existing CIP. As stated in the previous question, activities that might be undertaken in future CIPs could have a note attached explaining this is dependent on approval of a CIP. Also see response to question #23.

26. *Since TMDL Tracking is new for many MS4s, a determination of treatment at baseline year, current treatment, potential new BMPs to meet required WLA, and finally a compliance schedule will take a significant effort to put together a meaningful program (12 - 18 months - due to back and forth with Council/budgeting). Since we only have 2 months to complete after this final guidance, will the MPCA accept only planning this permit cycle and no reductions?*

Please refer to response in question #23.

BMP Accounting

27. *For MS4s filing this TMDL application for the first time, do we only include projects/practices proposed during the permit term, or do we also include any BMPs implemented between the baseline year and 2020? (or are these BMPs just submitted to MPCA during the first annual progress report regardless of whether they were included in the current application?)*

If you have determined you are meeting the WLA for a TMDL, you would list all practices since the baseline year (entered on BMPs for WLAs met tab).

If you have determined you are not meeting the WLA for a TMDL, you would list proposed projects and practices for the permit term, and you may also include recently installed BMPs that have not yet fully reached their peak removal efficiency, or that will be improved upon over the permit cycle in your compliance schedule. (Enter them as implemented in 2020). Ultimately, the appropriate time to identify already implemented BMPs for WLAs not being met is when you complete the TMDL annual report form.

28. *As we clean the water in the MS4 (part of the WLA), there may be interceding wetlands, between the MS4 and the TMDL water body, that then bleed out more nutrients (part of the LA.) Any advice on how to account for that if we want to consider non-MS4 management activities in those receiving waters as part of our greater water resources program?*

If internal load is contributing to watershed loads, the permittee is not obligated under the MS4 permit to address this as part of the WLA. A natural wetland is a receiving water afforded protection under the Clean Water Act via the MS4 permit. As such, the permittee must focus on reducing pollutant loads from the municipal outfall "to" the wetland.

29. *Is maintenance on a pre-existing BMP of scale to have impact on meeting TMDLs something to account for as an improvement? An example would be a pond that has substantial sedimentation as of the baseline year that is then cleaned of all sediment (including that existing during the baseline year).*

Yes, anything that reduces loading from the baseline condition is creditable. Many activities do not have numeric values for credit (e.g. education). Permittees may quantify these if they have supporting information or data, or they can claim them as Category 2 BMPs.

30. *What does it mean to be "lumping" BMPs and how do we determine when/if that is appropriate or relevant?*

Some BMPs are relatively small and may be numerous in a watershed. It may be easier to lump these BMPs together as a single BMP. For example, if there are 50 rain gardens and each reduces phosphorus by 1 pound, report 1 rain garden and assign a reduction of 50 pounds to it. Lumping assumes the BMPs are properly designed, constructed, and maintained, per the MN Stormwater Manual.

31. *We anticipate that source control/street sweeping will be approved as a BMP that can directly address TMDL reduction requirements during this permit term. How should we account for this future credit/reduction in our applications?*

The calculator for quantifying this has not yet been finalized. A draft calculator for phosphorus reduction is available here: [Street sweeping - Minnesota Stormwater Manual \(state.mn.us\)](#)

There is no calculator for Total Suspended Solids yet, but there is some limited guidance here: [TSS credits for street sweeping - Minnesota Stormwater Manual \(state.mn.us\)](#)

Note that street sweeping must be enhanced relative to any sweeping that was done during the baseline condition (e.g. increased sweeping frequency, targeted sweeping, etc.).

32. *Did Duane say that planning BMPs toward meeting the WLA are only an option for new MS4 permittees? What about for existing permittees?*

“Planning” for the development and implementation of BMPs is an option for both new and existing regulated MS4s.

33. *To Duane's comment about pond dredging being a Permit requirement - Almost all structural BMPs are required by the Permit but are still creditable as progress toward meeting a WLA. Whether something is required under the Permit is irrelevant toward determining creditability.*

Any activity is creditable if it reduces loads from the baseline condition.

34. *If a city was historically street sweeping one time per year and they expand their program to twice per year, can they take credit for the second round of street sweeping?*

Yes. That is what is meant by “supplemental street sweeping”.

35. *What tools are viewed as appropriate for reductions due to increased street sweeping?*

The draft calculator, the U of M sweeping calculator developed by Kalinosky and Baker, P8, and WINSLMM. Other models may be acceptable but should first be approved by the MPCA. This includes empirical values found in the literature.

36. *All cities have stormwater management requirements that apply to new/redevelopment projects and is one of the main tools a city can use to improve water quality, especially in fully developed city's that have limited opportunity to retrofit BMPs into landscape. Can cities take credit for private development that incorporate stormwater management meeting the WMO/city rules?*

If loads from these areas were part of the WLA, yes.

37. *Duane made a comment on private owned BMPs. A City can only take credit for a privately owned BMP if it wasn't required as part of NPDES/Construction stormwater permitting - correct?*

A regulated MS4 can take credit for any BMP if the BMP reduces the pollutants of concern prior to reaching the outfall of the regulated MS4.

38. *The estimated pollutant load reduction in the tool provided by the MPCA yields a percent load reduction. How can a permittee use this tool when the TMDL did not provide a percent load reduction and the permittee has only the WLA quantity as the basis for their estimates?*

Permittee could use the tool to determine if their total loading is equal to or less than the WLA value reported as a mass (e.g. pounds) or a loading rate (lb/ac/yr). Refer to this spreadsheet for [calculated loading rates \(updated April\)](#) if there is not an associated percent reduction.

39. *If a watershed organization has built and operates a BMP that reduces pollutant loads to a city's MS4 outfall, should the city take credit for that load reduction? Is the MPCA working to communicate this to the watershed organizations?*

The city can report the BMP if it was a cooperative effort, but if the WMO owns and operates the BMP, the city should indicate this when they report.

South Metro Mississippi River TSS TMDL

40. *What is the protocol for a permittee to use its non-deg report (from a number of years ago) as the basis of its submittal for the S. Metro Miss TMDL? The 2013 Permit required no increases to TSS and P, so all these permittees have seen no increase (and perhaps significant reductions) to their TSS and P loadings. Ths, their non-deg cals and report are still applicable.*

The nondegradation reports are generally acceptable, but a city should contact the MPCA if they intend on using the nondegradation report. The MPCA did not formally approve these reports and it would be beneficial for the permittee to “check-in” with the MPCA.

41. *For the South Metro Mississippi TSS TMDL, for those MS4s upstream of Lock and Dam 1 with no required reduction, do we need to include anything in our application materials for this impairment?*

If it is not listed on the Applicable WLAs determination tab, you do not have to include it.

42. *For the South Metro Mississippi TSS TMDL-- There is no baseline year listed in the master list. How can we determine our reductions if we don't know which years of BMPs to include? There is also not a percent reduction listed. I'm not sure how we're supposed to determine if we're meeting our pollutant reductions if we don't know what to use as a starting point.*

The South Metro Mississippi TSS TMDL uses a loading rate per acre of 154 pounds. If the municipality’s base loading rate based on land use exceeds 154 pounds/acre/year, they can use any currently installed and functioning BMPs to evaluate compliance with the WLA.

Miscellaneous

43. *We have always been told that the percent reductions are not enforceable components of TMDLs. Why are percent load reductions now the basis for determining progress or compliance with a TMDL WLA? Doesn't this make the percent load reductions enforceable?*

The percent reduction is not enforceable. The MPCA, as the permitting authority, has chosen to allow permittees to report in this manner because in many cases it is an easier way to track progress.

44. *What is the MPCA's guidance to permittees to estimate the target dates for meeting TMDL WLAs? Won't some of these dates be quite far in the future?*

Yes that is possible that target dates may be a ways out. Target dates are a function of the rate of implementation of BMPs and the corresponding reductions. For example- if a municipality is planning to install BMPs this permit cycle that are predicted to reduce pollutant loads by a third of the total required reductions, they can enter a target date of 2035 (3 permit cycles- 1/3 this cycle, 1/3 2nd cycle, last 1/3 in the third permit cycle).

45. *What flow are we supposed to follow for stream based TMDL's - mid range flow?*

Yes. [Interpreting wasteload allocations based on flow/load duration curves - Minnesota Stormwater Manual \(state.mn.us\)](http://state.mn.us)

46. How should a permittee with a flow-based TMDL address a situation when there is no listed WLA or a zero pollutant load reduction for the mid flow condition?

Contact the MPCA Stormwater Liaison Anna Bosch for specific guidance related to zero percent load reductions in the mid flow condition. Many of those cases have had target loads identified for a different flow in [this spreadsheet](#).

47. Will the TMDL Application Form be used for future annual reporting (for future years under the new permit coverage) and therefore allow MS4's to continue to revise and develop information within this form as new or updated information is available?

That is a possibility. More likely the current annual reporting form will be carried forward into this permit cycle.

48. What should a permittee do if they believe that a TMDL WLA is erroneous, for any of multiple possible reasons?

Contact [Anna Bosch](#) at the MPCA.