MEMORANDUM

Storm Water Program
c/o Suzan Limberg WT/3
Wisconsin DNR
PO Box 7921
Madison, WI 53707-7921

FROM: Maureen A. McBroom, Ruekert & Mielke, Inc.

DATE: March 29, 2019

SUBJECT: Mid-Moraine Water Quality Collective Comments on Proposed MS4 General Permit No. WI-S050075-3

Dear Ms. Limberg:

The Mid-Moraine Water Quality Collective (MMWQC) is a group of 12 communities and 2 counties in Ozaukee and Washington Counties that have come together to find solutions to meet the goals of the Milwaukee River Basin TMDL. The MMWQC has been developing plans to implement the TMDL together for the past 4 years. The three defining goals of the MMWQC are:

- Improve water quality
- Stewardship of taxpayer and rate payer dollars
- Create collaboration opportunities and provide a unified voice in the watershed

Eight of the nine communities currently covered by MS4 Permit No. WI-S050075-2 or WI-S0500015-1, which will be covered by the proposed MS4 General Permit No. WI- S050075-3, are members of the MMWQC. The following comments and questions regarding the proposed MS4 Permit conditions relating to the implementation of the Milwaukee River Basin TMDL, as found in Appendix B of the proposed MS4 General Permit No. WI -S050057-3 are respectfully submitted by the MMWQC communities.

1. Section B.4: Compliance Timelines

Section B.4.1: The March 31, 2020 deadline for evaluating and notifying the Department of Natural Resources (DNR) of whether a permittee will or will not achieve full TMDL compliance within this 5-year permit term as listed in Section B.2.2 is not feasible. The previous MS4 General Permits allowed 48 months from the approval date of the TMDL (March 2018) for permittees to complete their assessments to determine compliance with the TMDL wasteload allocations. Following that timeline and approach as

communicated to the permittees through the previous MS4 Permit, the MMWQC communities are currently at varying stages of completing this assessment and planning requirement; all communities participating in the MMWQC are expected to complete the modeling assessment to determine the current level of TSS and phosphorus control and a comparison to the TMDL wasteload allocations in the applicable reachsheds by March 2022 (48 months after the approval of the Milwaukee River Basin TMDL), as previously planned for. **March 31, 2022 would be an appropriate and feasible deadline for permittees to notify DNR of whether full compliance with the TMDL will be met within this permit term or not.**

Section B.4.2: The proposed deadlines for the mapping, modeling and planning components of the TMDL in the proposed MS4 Permit do not follow the planning approach that was communicated to the permittees by DNR in the previous MS4 Permits. **The previous schedule should be carried forth into this next MS4 Permit:**

- An updated map showing the corrected TMDL reachsheds within 24 months of the approval of the TMDL (March 2020);
- An assessment of the current level of TSS and phosphorus control following the DNR's TMDL-MS4 guidance document #3800-2014-04 within 48 months of the approval of the TMDL (March 2022);
- An implementation plan to meet the goals of the TMDL within 48 months of the approval of the TMDL (March 2022)

This will allow the permittees previously planned for and budgeted approach to TMDL planning and implementation to continue through this next MS4 Permit.

2. Section B.4.3: Limited List of TMDL Compliance Options to Implement During the Term of this Permit:

Section B.4.3 of the proposed MS4 Permit provides permittees a choice of listed items to implement during this 5-year permit term. This is contrary to the DNR's "TMDL guidance for MS4 Permits: Planning, Implementation, and Modeling Guidance" #3800-2014-04, which states:

"DNR may elect to place specific benchmarks in an MS4 Permit. However, it is expected that MS4 permittees will have the primary role in establishing their own benchmarks for each 5-year permit term."

The implementation plans developed by the permittees are meant to be site-specific, customized plans that integrate the needs and resources of the communities with the TMDL reduction goals. A prescriptive list of requirements does not provide the communities enough flexibility to evaluate the TSS & phosphorus controls that are available and develop a strategic plan to make the best use of the

limited resources and funding that is available. The list contains options that are not feasible for some communities, or in portions of some communities, due to the prevalence of grass swale systems. Over half the communities currently covered under the MS4 GPs in the Milwaukee River Basin have a significant portion or primarily consist of grass swale systems.

- An Improved Leaf Management Program, including street sweeping after leaves are collected, is currently not practical in a way that will improve water quality in grass swale systems.
- A street sweeping optimization analysis or implementation is not an option in areas where grass swale systems are prevalent.

New or revised ordinances, inspections of existing storm sewer systems and outfalls, and installation of new storm water practices are the remaining options that are available to communities with grass swale systems. These options are limited and may not make as much of an impact as other possible recommendations that may be listed in the permittees' TMDL plans.

For communities with curb & gutter systems, the revision or implementation of new leaf collection programs have significant costs associated with it. Due to the need for additional staff, street sweeping and leaf collection equipment and operational expenses, converting a leaf collection program from a community disposal site for citizens to drop off bagged leaves to a curb-side leaf collection program with street sweeping to follow could range nearly $500k - $600k in capital costs, plus annual staff and operational costs. Some communities contract services for street sweeping, with other communities having staff and operational costs between $40,000 and $80,000 annually. Improved street sweeping programs with more frequent sweeping could incur costs ranging between $50,000 and $200,000, based on known estimates of staffing, operations and equipment.

For this reason, and due to the limited resources and funding available to implement the TMDL, we recommend allowing the communities to **choose 3 options from the TMDL Compliance Plans** rather than this limited list. In addition, if prescriptive measures will be used, **a compliance date should be established, no sooner than 2023**, after the communities complete the TMDL planning documents.

3. **Section B.4.2.c (2): Suggestion to reduce planning for 20% TSS and 10% phosphorus reductions in next 5-year permit term to 3% TSS and 2% phosphorus:**

As the TMDL Report is a site-specific assessment with site-specific reduction goals, the plans to achieve these reductions need to be site-specific, flexible and creative. A prescriptive reduction of the remaining amount of TSS and phosphorus to be controlled to meet the TMDL goals will require very different measures to be implemented from one community to another. This will also mean different amounts of spending, staff time and resources to accomplish these goals from one community to another.

Each TMDL Implementation Plan to meet a permittee's MS4 Permit goals will be different. However, using a sampling of different communities and different storm systems, the following examples of different load reductions and estimated costs to achieve those reductions can be considered.

	Reach-shed	Annual TSS Loading with No Controls (lbs)	Actual % TSS Reduction	Required % TSS Reduction	Difference Between Actual and Required Reduction (lbs)	20% of Difference (lbs)	Total for this permit (lbs)
Municipality A	1	300,000	61%	75%	42,000	8,400	10,800
	2	40,000	46%	76%	12,000	2,400	
Municipality B	3	83,000	27%	77%	41,500	8,300	8,300
	4	500	71%	81%	50	10	
Municipality C	5	60,000	46%	74%	16,800	3,400	14,700
	6	75,000	15%	77%	46,500	9,300	
	7	13,000	0%	79%	10,300	2,000	

	Reach-shed	Annual TP Loading with No Controls (lbs)	Actual % TP Reduction	Required % TP Reduction	Difference Between Actual and Required Reduction (lbs)	20% of Difference (lbs)	Total for this permit (lbs)
Municipality A	1	800	50%	78%	224	22	29
	2	150	36%	83%	70	7	
Municipality B	3	300	60%	72%	36	4	4
	4	3	10%	78%	2	0.2	
Municipality C	5	250	46%	87%	103	10	28
	6	300	15%	72%	171	17	
	7	20	0%	53%	11	1	

For these 3 example municipalities with varying annual pollutant loading, 20% of the TSS difference between their actual reduction and required reduction could result in a range from 15,000 lbs. to 8,000 lbs. For Total Phosphorus (TP), 10% of the difference between their actual reduction and required reduction could result in a range from 29 lbs. to 4 lbs.

Achieving the 20% TSS reduction and 10% TP reduction would require a significantly different level of effort between communities. The annual pollutant loading is calculated based on existing land use and acreage, which are not factors that the community can control for their existing conditions.

The cost to construct and implement projects to meet these representative gaps in pollutant control (as compared to the TMDL goals) will be quite expensive. A representative storm water detention pond sized to capture 3500 lbs. TSS and 8 lbs. phosphorus is estimated to cost approximately $500,000 to construct, according to an example planning document. To meet the TSS and phosphorus control requirements for Municipality A (above), approximately 3-4 of these similarly sized storm water facilities

would be required, at a cost of approximately $1,500,000 - $2,000,000 within a 5-year period. This large expenditure is not feasible for communities over such a short amount of time, and will drive the development of more creative, cost-effective solutions to TMDL implementation. Long-term planning in smaller increments will be more achievable. Based on current technologies and the current legal limitations to starting new storm water utilities, **a reduced planning goal of 3% TSS and 2% phosphorus over a 5-year period is recommended for future planning and implementation purposes.**

4. **Section B.3: Adaptive Management:**

The approval of the Milwaukee River Basin TMDL commenced requirements for mapping, assessment of existing pollutant control levels and planning under the previous MS4 General Permits WI-S050075-2 & WI-S050181-1. Those requirements allowed up to 48 months after the approval of the TMDL to develop and submit a TMDL Implementation Plan to the DNR. Considering this timeframe communicated to communities in the previous MS4 Permit, most communities are still in the process of assessing the current controls and developing alternatives to implement the TMDL in a cost-conscious, effective manner. Any potential Adaptive Management Programs in the Milwaukee River Basin are most likely still under consideration and would not be "approved" at this point in time.

Section B.3 could be modified to reflect the development and future implementation of adaptive management programs to meet the goals of the TMDL. **If a permittee opts to participate in an Adaptive Management Program**, which would most likely go beyond the 5-year term of a MS4 Permit, the permittee **should not be required to implement 3 of the items** listed in Section B.4.3. Permittees using the adaptive management option should be allowed flexibility to fund this program appropriately for greatest success.

5. **Pollutant Trading:**

As listed above, the previous MS4 General Permits required an assessment of the existing storm water controls and planning to be submitted to the DNR 48 months after the approval of the TMDL. Most communities in the Milwaukee River Basin are in the beginning stages of this assessment and planning process. Pollutant trading is one approach that the majority of communities in the MMWQC are considering to implement the goals of the TMDL. A multi-community Pollutant Trading Program may be developed once all communities have completed the assessment and planning process. This option would require the development of a detailed trading structure, including but not limited to a financial contribution schedule, mechanisms to track trades, project inspection and reporting systems, and written agreements among all parties. A regional trading approach would be designed to meet the DNR's Pollutant Trading Handbook, which is scheduled to be revised to include more detailed MS4 Permit information, per DNR staff (*Fox-Wolf Watershed Alliance Conference, March 2019*).

Permittees choosing the pollutant trading option should be provided maximum flexibility to work with private property owners and develop on-the-ground environmental improvement projects that will improve water quality. Permittees should be allowed to submit the intention of developing a Pollutant Trading Program to the DNR with the planning documents due 48 months after approval of the TMDL (March 2022), with the requirement that a pollutant trading structure following the DNR guidance documents will be submitted 12 months after that (March 2023). Implementation of a Pollutant Trading Program should commence 6 months after submittal of the program, contingent upon DNR review and acceptance of the submitted Trading Program structure.

This pollutant trading option could be listed as a separate compliance item in Appendix B, similar to the adaptive management option. Permittees utilizing a pollutant trading approach should be **exempt from the requirements of B.4.3,** to allow for the greatest flexibility and efficiency in the expenditure of funds to control TSS and phosphorus in the watershed.

The ever-increasing needs of municipal Storm Water Programs and now TMDL implementation requirements require increased expenditures from municipal budgets. The restrictions on municipalities to increase resources to dedicate toward storm water and TMDL implementation efforts make it critical to develop a well-thought-out approach to spending the limited funds that currently exist for the Storm Water Programs. It would be helpful for communities to understand what the DNR Storm Water Program's long-term approach to TMDL implementation will be, to better plan for municipal actions and spending into the future. Any information on additional funding resources that can be shared by the DNR would be very helpful; in addition, please consider expanding the options to be funded through the Urban Nonpoint Source and Storm Water Grant Program to include additional construction projects and operational costs to implement these important water quality improvement efforts.

Thank you for considering the comments and suggestions submitted by the Mid-Moraine Water Quality Collective. Please contact me if you would like to follow up on any of the items listed above.

Sincerely,

Maureen McBroom, on behalf of the mid-Moraine Water Quality Collective

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