Update for New Impaired Water Listings: "Total Maximum Daily Loads for Total Phosphorus, Total Suspended Solids, and Fecal Coliform Milwaukee River Basin, Wisconsin"

Submittal to U.S. Environmental Protection Agency

01/19/2022

Including Dodge, Fond du Lac, Sheboygan, Ozaukee, Washington, Waukesha, and Milwaukee Counties, Wisconsin

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APPENDIX H. TMDL Status for Impaired Waters on the 2018, 2020, and 2022 Listing Cycles

Appended to the 2018 EPA Approved "Total Maximum Daily Loads for Total Phosphorus, Total Suspended Soils, and Fecal Coliform, Milwaukee River Basin, Wisconsin" on November 2021

Appendix H is an update to Table 1 (pages 1-29 through 1-30) contained in the "Total Maximum Daily Loads for Total Phosphorus, Total Suspended Soils, and Fecal Coliform, Milwaukee River Basin, Wisconsin" (Milwaukee River Basin TMDL) that was approved by the U.S. Environmental Protection Agency (EPA) in March 2018. Table 1 of the Milwaukee River Basin TMDL report provides a list of river and stream segments that were assessed as impaired for total phosphorus, total suspended solids, and fecal coliform and are addressed by the loading capacity and allocations contained in the Milwaukee River Basin TMDL. A full copy of the Milwaukee River Basin TMDL and appendices can be found at: https://dnr.wisconsin.gov/topic/TMDLs/Milwaukee/index.html

Since approval of the Milwaukee River Basin TMDL, additional waterbodies have been assessesd. The 2018, 2020, and 2022 Wisconsin Imapired Waters List includes additional listings within the watersheds covered by the Milwaukee River Basin TMDL. Table H-1, provides a summary of the listing status of the waters from the 2018, 2020, and 2022 listing cycles as well as two waters from the 2016 listing cycle that were inadvertly not included in the Milwaukee River Basin TMDL and a clarification on a water from the 2014 listing cycle. Even though the Milwaukee River Basin TMDL was approved in 2018, the devlopment process of the Milwaukee River Basin TMDL was too far along to cover waters from the 2018 listing cycle.

Details on Wisconsin's assement and listing process as well as definitions for the listing catagories can be found at: https://dnr.wisconsin.gov/topic/SurfaceWater/WisCALM.html

Table H-1. Waterbodies and Listing Status

Waterbody Name	WATERS ID (AU ID)	WBIC	EPA ID	Year Listed	Listing Status [(1)]	TMDL Status	Proposed Listing Category [(2)]
Cedarburg Creek	10057	22900	WI10000251	2020	TMDL Approved	Covered	Category 4A
Crestwood Creek	3988802	19450	WI10028340	2020	TMDL Approved	Covered	Category 4A
Evergreen Creek	10058	23000	WI10000252	2022	Addition	Covered	Category 4A
Fish Creek	3924909	44700	WI10027788	2014	303(d) Listed	Not Covered	Category 5A
Grantosa Creek	3991760	5035175	WI10028600	2016	TMDL Approved	Covered	Category 4A
Kaul Creek	5481866	5032520	WI10031366	2020	303(d) Listed	Not Covered	Category 5A

Waterbody Name	WATERS ID (AU ID)	WBIC	EPA ID	Year Listed	Listing Status [1]	TMDL Status	Proposed Listing Category [2]
Little Menomonee	10038	17600	WI10008014	2022	Addition	Covered	Category 4A
Little Menomonee River	8106460	17600	WI10044280	2022	Proposed for List	Covered	Category 4A
Local Water	3988966	20200	WI10028346	2020	303(d) Listed	Not Covered	Category 5P
Milwaukee River	481605	15000	WI10008804	2020	TMDL Approved	Covered	Category 4A
Mole Creek	3993907	5031399	WI10028711	2022	Proposed for List	Covered	Category 4A
N. Br. Cedar Creek	10055	22500	WI10008042	2022	Proposed for List	Covered	Category 4A
Noyes Creek	3988299	17700	WI10028301	2022	Proposed for List	Covered	Category 4A
Silver Creek	10076	29900	WI10000265	2022	Proposed for List	Covered	Category 4A
Stony Creek	10074	28700	WI10000263	2020	TMDL Approved	Covered	Category 4A
Un Creek (T13n R 19e Nw Ne 06)	10128	43500	WI10000303	2018	TMDL Approved	Covered	Category 4A
Un. Creek (Brown Deer Creek)(T08n R22e Sw Nw 07)	10007	19700	WI10000219	2020	303(d) Listed	Not Covered	Category 5A
Un. Creek (T14n R18e Nw Ne 27)	11261	44200	WI10001140	2016	TMDL Approved	Covered	Category 4A
Unnamed Trib. to Unnamed Creek	5513721	5030146	WI10033005	2018	TMDL Approved	Covered	Category 4A

Waterbody Name	WATERS ID (AU ID)	WBIC	EPA ID	Year Listed	Listing Status [1]	TMDL Status	Proposed Listing Category [2]
Wilson Park Creek	9975	15200	WI10000203	2018	TMDL Approved	Covered	Category 4A

(1) Listing Status: "TMDL Approved" indicates that the impaired water, listed either prior to or during the 2020 listing cycle is covered by the EPA approved TMDL. "Addition" means the waterbody was already listed as impaired, but an additional pollutant or impairment has been identified for the waterbody. "Proposed for List" indicates that the waterbody is proposed for the 2022 listing cycle and is covered by the EPA approved TMDL. "303(d) Listed" indicates that the waterbody is not covered by the EPA approved TMDL.

(2) Proposed Listing Category indicates waterbodies listed either prior to or during the 2020 listing cycle that will be moved from category 5 to category 4A due to their change in status of being covered by the EPA approved TMDL. Waterbodies proposed for the 2022 listing cycle that are covered by the EPA approved TMDL are listed as category 4A. Waterbodies determined not to be covered by the EPA approved TMDL remain under category 5.

The waterbodies listed in Table H-2 are covered by the loading capacity and allocations contained within the Milwaukee River Basin TMDL meaning that attainment of the applicable allocations will allow attainment of water quality criteria. This determination was made for each listed segment by comparing the river or stream criteria for the listed segment against the subbasin target for the subbasin(s) that contains the listed segment. Table H-2 provides a summary of the water quality criteria and the subbasin targets for each waterbody and listed segment.

The subbasin target is the water quality criteria used in setting the TMDL loading capacity and allocations for that subbasin. A newly listed river or stream segment is deemed covered by the existing TMDL when the subbasin target is equal to or lower than the waterbody criteria. The E. Coli listing for the Little Menomonee is also adequately addressed. The Milwaukee River Basin TMDL discusses the linkage between fecal coliform and E- Coli in Sections 1.1.3 (page 1-14) and 3.2.3 (page 3-4) with allocations and allowable loads described in Section 5.3.2 (page 5.4). The use of flow duration curves and the translator ensure that, while the TMDL allocations are expressed only in terms of fecal coliform, that allocations also adequately address E-coli and other entric impairments as well.

Table H-3 lists the waterbodies that are not adequately covered by the loading capacity and allocations contained in the Milwaukee River Basin TMDL. This is because the river or stream criteria for the listed segment is lower than the subbasin target for the subbasin(s) that contains the listed segment meaning that the allocations and loading capacity are not set to meet the water quality criteria for these waterbodies. However, except for Fish Creek, implementation of the existing TMDL allocations is anticipated to result in improvements in water quality. As such, an adaptive approach maybe warranted

in which once a certain level of implementation is attained, an assessment is conducted to see if the existing TMDL allocations will be adequate or if additional reductions are needed.

Fish Creek is a direct drainage to Lake Michigan. The Milwaukee River Basin TMDL did not calculate loading capacities or allocations for the direct drainage areas to Lake Michigan. As such, allocations and reductions still need to be calculated; however, applying the same percent reductions from subbasin M-30 to the direct drainage area for Fish Creek could serve as an interim implementation target until actual allocations and reductions are calculated.

During TMDL development process, subbasins were delineated to account for the location of point sources, significant changes in flow, changes in land use, and other significant factors that could impact the loading capacity for that subbasin. Additional information can be found in the EPA approved TMDL at https://dnr.wisconsin.gov/topic/TMDLs/Milwaukee/index.html and on the Watershed Restoration Viewer at https://dnr.wisconsin.gov/topic/SurfaceWater/RestorationViewer/index.html

Public Comment Period:

A public comment period was held from November 29, 2021 to January 7, 2022. No comments were received.

Table H-2. Additional Waterbodies and impairment listings addressed by the 2018 TMDL report.

Waterbody Name	WATERS ID (AU ID)	WBIC	EPA ID	County	Start Mile	End Mile	Pollutant Source	Impairment(s)	Pollutant	TMDL Subbasin(s)	Waterbody Criteria (ug/L)	Subbasin Target (ug/L)
Cedarburg Creek	10057	22900	WI10000251	Ozaukee, Washington	0	4.5	NPS	Impairment Unknown	TP	MI-22	75	75
Crestwood Creek	3988802	19450	WI10028340	Milwaukee	0	1.35	PS/NPS	Impairment Unknown	TP	MI-31	75	75
Evergreen Creek	10058	23000	WI10000252	Washington	0	5.21	NPS	Impairment Unknown	TP	MI-22, MI-23	75	75
Grantosa Creek	3991760	5035175	WI10028600	Milwaukee	0	1.02	NPS	High Phosphorus Levels	TP	MN-10	75	75
Little Menomonee	10038	17600	WI10008014	Milwaukee, Ozaukee	0	9	PS/NPS	Recreational Restrictions - Pathogens	E. coli	MN-9	126	Varies by Flow
Little Menomonee River	8106460	17600	WI10044280	Ozaukee	9	9.94	NPS	High Phosphorus Levels	TP	MN-9	75	75
Milwaukee River	481605	15000	WI10008804	Fond Du Lac, Washington	68.5	103.34	PS/NPS	Impairment Unknown	TP	MI-1, MI-2, MI-6	75	75
Mole Creek	3993907	5031399	WI10028711	Ozaukee	0	4.95	NPS	Degraded Biological Community	TP	MI16, MI17	75	75
N. Br. Cedar Creek	10055	22500	WI10008042	Ozaukee, Washington	0	8.1	NPS	Impairment Unknown	TP	MI-24	75	75
Noyes Creek	3988299	17700	WI10028301	Milwaukee	0	3.54	PS/NPS	Impairment Unknown	TP	MN-9, MN31	75	75

Waterbody Name	WATERS ID (AU ID)	WBIC	EPA ID	County	Start Mile	End Mile	Pollutant Source	Impairment(s)	Pollutant	TMDL Subbasin(s)	Waterbody Criteria (ug/L)	Subbasin Target (ug/L)
Silver Creek	10076	29900	WI10000265	Ozaukee, Sheboygan	0	10.5	PS/NPS	Degraded Biological Community	TP	MI-14	75	75
Stony Creek	10074	28700	WI10000263	Fond Du Lac, Sheboygan, Washington	3.1	13.6	NPS	High Phosphorus Levels	TP	MiI-13	75	75
Un Creek (T13n R 19e Nw Ne 06)	10128	43500	WI10000303	Fond Du Lac	0	10.9	NPS	Impairment Unknown	TP	MI-01	75	75
Un. Creek (T14n R18e Nw Ne 27)	11261	44200	WI10001140	Fond Du Lac	0	5.7	NPS	High Phosphorus Levels	TP	MI-01	75	75
Unnamed Trib. to Unnamed Creek	5513721	5030146	WI10033005	Washington	0	1.83	PS/NPS	Impairment Unknown	TP	MI-03	75	75
Wilson Park Creek	9975	15200	WI10000203	Milwaukee	0	3.5	PS/NPS	Impairment Unknown	TP	KK-4	75	75

Waterbody Name	WATERS ID (AU ID)	WBIC	EPA ID	County	Start Mile	End Mile	Pollutant Source	Impairment(s)	Pollutant	TMDL Subbasin(s)	Waterbody Criteria (ug/L)	Subbasin Target (ug/L)
Cedarburg Creek	10057	22900	WI10000251	Ozaukee, Washington	0	4.5	NPS	Impairment Unknown	TP	MI-22	75	75

Crestwood Creek	3988802	19450	WI10028340	Milwaukee	0	1.35	PS/NPS	Impairment Unknown	TP	MI-31	75	75
Evergreen Creek	10058	23000	WI10000252	Washington	0	5.21	NPS	Impairment Unknown	TP	MI-22, MI-23	75	75
Fish Creek	3924909	44700	WI10027788	Milwaukee, Ozaukee	0	3.38	NPS	Degraded Biological Community	TP	LMDD	75	Direct Drainage to Lake Michigan
Grantosa Creek	3991760	5035175	WI10028600	Milwaukee	0	1.02	NPS	High Phosphorus Levels	TP	MN-10	75	75
Kaul Creek	5481866	5032520	WI10031366	Ozaukee	0	0.99	NPS	High Phosphorus Levels	TP	MI-25	75	100
Little Menomonee	10038	17600	WI10008014	Milwaukee, Ozaukee	0	9	PS/NPS	Recreational Restrictions - Pathogens	E. coli	MN-9	126	Varies by Flow
Little Menomonee River	8106460	17600	WI10044280	Ozaukee	9	9.94	NPS	High Phosphorus Levels	TP	MN-9	75	75
Local Water	3988966	20200	WI10028346	Ozaukee	0	1.36	NPS	Impairment Unknown	TP	MI-27	75	100
Milwaukee River	481605	15000	WI10008804	Fond Du Lac, Washington	68.5	103.34	PS/NPS	Impairment Unknown	TP	MI-1, MI-2, MI-6	75	75
Mole Creek	3993907	5031399	WI10028711	Ozaukee	0	4.95	NPS	Degraded Biological Community	TP	MI16, MI17	75	75
N. Br. Cedar Creek	10055	22500	WI10008042	Ozaukee, Washington	0	8.1	NPS	Impairment Unknown	TP	MI-24	75	75
Noyes Creek	3988299	17700	WI10028301	Milwaukee	0	3.54	PS/NPS	Impairment Unknown	TP	MN-9, MN31	75	75

Silver Creek	10076	29900	WI10000265	Ozaukee, Sheboygan	0	10.5	PS/NPS	Degraded Biological Community	TP	MI-14	75	75
Stony Creek	10074	28700	WI10000263	Fond Du Lac, Sheboygan, Washington	3.1	13.6	NPS	High Phosphorus Levels	TP	MiI-13	75	75
Un Creek (T13n R 19e Nw Ne 06)	10128	43500	WI10000303	Fond Du Lac	0	10.9	NPS	Impairment Unknown	TP	MI-01	75	75
Un. Creek (Brown Deer Creek)(T08n R22e Sw Nw 07)	10007	19700	WI10000219	Milwaukee	0	2.3	NPS	Impairment Unknown	TP	MI-27	75	100
Un. Creek (T14n R18e Nw Ne 27)	11261	44200	WI10001140	Fond Du Lac	0	5.7	NPS	High Phosphorus Levels	TP	MI-01	75	75
Unnamed Trib. to Unnamed Creek	5513721	5030146	WI10033005	Washington	0	1.83	PS/NPS	Impairment Unknown	TP	MI-03	75	75
Wilson Park Creek	9975	15200	WI10000203	Milwaukee	0	3.5	PS/NPS	Impairment Unknown	TP	KK-4	75	75

Table H-3. Waterbodies and impairment listings NOT addressed by the 2018 TMDL report.

Waterbody Name	WATERS ID (AU ID)	WBIC	EPA ID	County	Start Mile	End Mile	Pollutant Source	Impairment(s)	Pollutant	TMDL Subbasin(s)	Waterbody Criteria (ug/L)	Subbasin Target (ug/L)
Fish Creek	3924909	44700	WI10027788	Milwaukee, Ozaukee	0	3.38	NPS	Degraded Biological Community	TP	LMDD	75	Direct Drainage to Lake Michigan
Kaul Creek	5481866	5032520	WI10031366	Ozaukee	0	0.99	NPS	High Phosphorus Levels	TP	MI-25	75	100
Local Water	3988966	20200	WI10028346	Ozaukee	0	1.36	NPS	Impairment Unknown	TP	MI-27	75	100
Un. Creek (Brown Deer Creek)(T08n R22e Sw Nw 07)	10007	19700	WI10000219	Milwaukee	0	2.3	NPS	Impairment Unknown	TP	MI-27	75	100