MEMORANDUM OF UNDERSTANDING BETWEEN GREEN BAY
METROPOLITAN SEWERAGE DISTRICT AND THE WISCONSIN DEPARTMENT
OF NATURAL RESOURCES

CONFIRMATION OF UNDERSTANDING REGARDING
ADAPTIVE MANAGEMENT PROGRAM

This Memorandum of Understanding ("MOU") is effective this 15th day of
January, 2018 between the Green Bay Metropolitan Sewerage District
("GBMSD") and the Wisconsin Department of Natural Resources ("WDNR")
collectively referred to as the "Parties".

1. **Purpose.** The purpose of this MOU is to clarify the Parties' understanding about the
process for implementing an adaptive management project in the Lower Fox River
drainage basin pursuant to Wis. Adm. Code § NR 217.18 and Wis. Stat. §
283.13(7) to aid GBMSD in developing a final adaptive management plan
for review and approval by the WDNR. The overall goal of the adaptive
management plan is to provide a reduction of phosphorus and TSS in the
Lower Fox drainage basin that is sufficient to attain compliance with
applicable water quality standards and criteria at GBMSD's Quincy Street
treatment plant outfall ("GBMSD Outfall"). The Lower Fox drainage basin
("Lower Fox") is defined by the USGS 8 digit hydrologic unit code
("HUC") sub-basin 04030704 measured from the Lake Winnebago Outlet to
the mouth of the Fox River at Green Bay.

2. **Settlement Agreement.** The parties have executed a settlement agreement in
August, 2015, a copy of which is incorporated by reference herein as Exhibit "A"
(the "Settlement Agreement"). The Settlement Agreement contains certain provisions regarding adaptive management, including that GBMSD shall be allowed four permit terms beginning with GBMSD's next reissued Permit to comply with final water quality based effluent limits for phosphorus and Total Suspended Solids ("TSS"), provided the requirements in paragraphs 2 and 3 of the Settlement Agreement are met.

3. **Adaptive Management Plan.**

   a. GBMSD may submit an adaptive management plan to WDNR, or may choose to comply with requirements for phosphorous and TSS through alternative compliance options. If adaptive management is chosen as GBMSD's compliance option, the plan will be submitted to WDNR no later than December 31, 2018, in accordance with the compliance schedule contained in GBMSD's current WPDES permit.

   b. The current total maximum daily loads ("TMDL") for the Lower Fox are contained in the "Total Maximum Daily Load and Watershed Management Plan for Total Phosphorus and Total Suspended Solids in the Lower Fox River Basin and Lower Green Bay, 2012" (the "TMDL Report"). The TMDL Report outlines EPA approved waste load allocations needed to meet water quality criteria for phosphorous and TSS.

   c. GBMSD's current WPDES permit is set to expire June 30, 2019. If GBMSD selects the adaptive management option for reduction of phosphorous and/or TSS, and if the plan is approved by WDNR, the adaptive management plan shall commence upon the incorporation of the plan in the
next WPDES permit reissuance.

4. **Identifying Watersheds for the Adaptive Management Option**
   
a. GBMSD may select an adaptive management action area ("Action Area") that is located within the Lower Fox upstream from GBMSD's Outfall for implementation of an adaptive management plan, subject to the following criteria:
   
i. The Action Area for adaptive management should be of sufficient size to achieve the minimum phosphorus offset and support attainment of the phosphorus water quality criteria in Wis. Admin. Code § NR 102.06, at the GBMSD Outfall.
   
ii. The minimum phosphorus offset shall be calculated as the difference between GBMSD's annual mass discharge and the TMDL waste load allocation for GBMSD in the TMDL Report.
   
iii. The annual mass discharge shall be determined at the time GBMSD's first WPDES permit which includes an adaptive management plan is issued and may be reviewed and adjusted at each subsequent permit reissuance. The annual mass discharge of phosphorus shall be calculated based on the highest annual load that is likely to occur within the permit term.
   
iv. If a partner is added to the adaptive management plan by GBMSD, such as another point source or an MS4, the minimum offset requirements of that partner would be additive to GBMSD's minimum offset for determining the size of the Action Areas. So, for example, if
GBMSD needs 5,000 pounds of phosphorous reduction and another point source added as a partner needs 1,000 pounds of phosphorous reduction, the total minimum offset requirements for phosphorous reductions in the Action Area from agricultural and unregulated urban non-point sources would be 6,000 pounds.

v. Because the best management practices used in adaptive management generally address both phosphorus and TSS, it is anticipated that the minimum phosphorus offset should be sufficient to also address needed TSS reductions.

5. **Interim Progress: Determining Reasonable Progress.**

a. For purposes of determining whether reasonable progress is being made when adaptive management is the selected compliance option during the four permit terms, the following concepts shall apply:

i. GBMSD must document reasonable progress in annual reports and at the end of each permit term to qualify to continue adaptive management as a selected option for the next permit term.

ii. Reasonable progress need not be linear throughout the four permit terms available for compliance for a selected adaptive management plan. In particular, it is possible that more reductions of phosphorous and TSS will occur in the later permit terms than in the earlier permit terms.

b. Factors which the Parties will use to establish reasonable progress may include the following:
i. Monitoring results demonstrating reductions in phosphorus concentration over baseline water quality within the Action Area.

ii. Modeled reductions of phosphorous and TSS from best management practices ("BMPs") implemented within the Action Area. For the purposes of demonstrating interim progress, reductions from BMPs can be modeled for phosphorus and TSS in the Action Area and compared to the reductions for phosphorus and TSS listed in the TMDL for the applicable corresponding subbasin. Reductions can be expressed in units of pounds/year for phosphorus and tons/year for TSS. Modeled reductions will be determined using the best available modeling tools approved by WDNR, and in accordance with applicable WDNR rules.

iii. Contacts with landowners to discuss BMPs and implementation of BMPs based on metrics proposed in the Adaptive Management Plan and approved by WDNR.

iv. Biological monitoring demonstrating improvements to biological metrics within or downstream of the Action Area, as approved by WDNR.

c. Assuming GBMSD meets the reasonable progress requirements and the requirements of paragraph 3 of the Settlement Agreement, GBMSD will be entitled to four consecutive permit terms, unless a law change allows additional permit terms, to comply with the final water quality related effluent limitations contained in its permit.

a. In the event GBMSD selects adaptive management as its compliance option, GBMSD will be subject to interim effluent limits for phosphorous discharges at its facility.

b. The interim limits applicable to GBMSD for phosphorous during implementation of the adaptive management plan shall be determined in accordance with section NR 217.18(3)(e), Wis. Adm. Code, where applicable, and shall be:

i. 0.6 mg per liter expressed as a six month average for the first adaptive management permit term.

ii. 0.5 mg per liter expressed as a six month average for each of the FOLLOWING three consecutive five year terms of GBMSD’s WPDES permit.

iii. The permits will also include a narrative standard requiring GBMSD to optimize the treatment system to control phosphorus and continue to operate under optimized conditions.

7. Determining and Maintaining Compliance with Applicable Water Quality Standards and Criteria

a. Effluent limits for GBMSD shall be reevaluated if compliance with the applicable water quality standards and criteria has been attained at GBMSD’s Outfall. Compliance can be demonstrated in two ways:

i. Through water quality monitoring at GBMSD’s Outfall. Monitoring should be conducted in accordance with current EPA approved water condition assessment guidance (see

ii. Through an analysis, approved by WDNR and using a minimum of five years of current or most recent data, of the effluent data and watershed loads. The analysis can compare the concentration of phosphorus and TSS in the Lower Fox River at GBMSD’s Outfall, subtracting out the influence of Lake Winnebago and subtracting out the influence of Green Bay ("seiche events"), with the TMDL allowable load for the mouth of the Fox River.

b. If compliance with applicable water quality standards and criteria at GBMSD’s Outfall is demonstrated, no further reductions are required to satisfy the TMDL waste load allocations so long as the BMPs installed under the adaptive management option are maintained at a level to maintain compliance with applicable water quality standards. BMPs with WDNR, Natural Resource Conservation Service (NRCS), or Department of Agriculture Trade and Consumer Protection (DATCP) technical standards shall be maintained according to the requirements in the corresponding technical standards.

8. **Potential for Conversion to Water Quality Trading Credits**

a. If GBMSD chooses to terminate the adaptive management option or if compliance with the applicable water quality standards and criteria is not attained at GBMSD’s Outfall through the adaptive management option, GBMSD shall be entitled to utilize the phosphorous and TSS reductions achieved through use of the adaptive management option in a water quality trading option, so long as those reductions meet the requirements of the trading program established under Wis. Stat. § 283.84, are approved by WDNR, and
are incorporated in a modified or reissued permit. See paragraph 4 of the Settlement Agreement.

b. Pollutant reductions obtained by the BMPs installed under the adaptive management option may be converted into water quality trading credits following the applicable water quality trading statutes and rules, recognizing that WDNR may require documentation or agreements prior to installation of the BMPs. See e.g., Wis. Stat. §§ 283.84(1)(b) and (1m)(a).

c. If a BMP practice implemented under the adaptive management option later becomes mandated by local state or federal law, the phosphorous and TSS reductions associated with that BMP will continue to be counted toward meeting the adaptive management option and can still qualify for conversion to water quality trading credits, so long as the BMP is properly maintained. BMPs with WDNR, NRCS, or DATCP technical standards shall be maintained according to the requirements contained in the corresponding technical standards.

d. Pollutant reductions associated with BMPs installed using Targeted Runoff Management (TRM) Grant funds or other sources of state funding may not be converted into water quality trading credits.

e. Pollutant reductions may be converted to water quality trading credits using the appropriate trade ratios. Pollutant reductions cannot be double counted and used by more than one entity. Water quality trading credits may be comprised of both interim and long term credits.

9. Express Reservation of Rights of the Parties.
a. Each Party expressly reserves the right to challenge the adequacy of performance and/or decisions of the other Party under the terms of this MOU.

b. In particular, GBMSD expressly reserves the right to challenge any decisions of the WDNR covered by the MOU and the entry into this MOU shall not be construed to be a waiver of any legal rights that GBMSD may possess to challenge WDNR decisions including, but not limited to the following:
   i. WDNR decisions on whether GBMSD has achieved reasonable progress in implementing the adaptive management plan in the Action Area.
   ii. The need for the water quality based effluent limit based upon future water quality monitoring results for phosphorous and TSS in the Lower Fox.
   iii. The amount of phosphorous or TSS reductions associated with BMPs.
   iv. Whether water quality standards for phosphorous and/or TSS have been met at GBMSD's Outfall.

10. **Modification of this MOU.**

   a. This MOU applies in the event an adaptive management plan is selected by GBMSD for an Action Area and is implemented. This MOU may be modified by mutual agreement of the Parties.

   b. This MOU is subject to all applicable state and federal laws and regulations and shall be construed in accordance with those laws.
GREEN BAY METROPOLITAN SEWERAGE DISTRICT

By: Thomas Sigmund, Executive Director

Date: 1/15/2018

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

By: Daniel L. Meyer, WDNR Secretary

Date: 1-11-18