The **Lower Fox TMDL Agriculture Implementation Committee** includes the following members **(last revision Jan 2019)**:

**Brown County Land & Water Conservation Department** - Mike Mushinski, Jon Bechle
**Calumet County Land & Water Conservation Department** - Tony Reali, Amanda Kleiber
**Outagamie County Land Conservation Department** - Greg Baneck, Jeremy Freund, and Sarah Kussow
**Winnebago County Land & Water Conservation Department** – Tom Davies
**Natural Resources Conservation Service (NRCS)** – Barry Bubolz
**Oneida Nation** – Mike Troge (formerly Mike Finney)
**Alliance for the Great Lakes (AGL)** – Molly Meyers
**Fox Wolf Watershed Alliance (FWWA)** – Jessica Schultz
**NEW Water** – Erin Houghton
**US Fish & Wildlife Service (USFWS)** – Betsy Galbraith (as needed for appropriate subjects)
**UW Sea Grant** – Julia Noordyk
**UW Extension**
- Brown County/Demo Farms – Whitney Presby
- Basin Leader – Chad Cook
- Outagamie County Agricultural Agent - Kevin Jarek
- Soil Health – Jamie Patton

**University of Wisconsin, Green Bay (UWGB)** – Bobbie Webster
**Wisconsin Department of Agriculture (DATCP)** – currently vacant, formerly Mark Jenks
**Wisconsin Department of Natural Resources (WDNR)** –
- Nonpoint Source - Erin Carivou, Eric Evensen
- Water Resources - Keith Marquardt
- AOC Coordinator – formerly Megan O'Shea

**Congressman Gallagher Office** - Pauline Meyer



The Lower Fox TMDL Agriculture Implementation Committee is a stakeholder group that addresses agricultural implementation (i.e. conservation activities, programs, and practices for and including animal production areas and cropland) for the Lower Fox River Basin Total Maximum Daily Load.

The Lower Fox TMDL Agriculture Implementation Committee was convened by the WDNR in April 2013 and continues to meet on a bimonthly basis.

The Lower Fox TMDL Agriculture Implementation Committee goals are to collaboratively: plan and strategize for successful agricultural implementation in the basin; secure additional resources for agricultural implementation; and bring and share resources necessary for agricultural implementation; information sharing (technology and program/policy); discuss and address any agricultural implementation related TMDL issues in the Lower Fox River basin.

The Lower Fox TMDL Agriculture Implementation Committee strategy is as follows (April 2013, last rev Jan 2019):
Lower Fox TMDL – Ag Implementation
**Implementation STRATEGY**

- Sub-watershed strategy: implementation to occur on a sub-watershed scale (either HUC 12 or TMDL sub-basin) and proceed on a sub-watershed by sub-watershed basis; this is based on current staff funding and resources. If additional staff becomes available more than one sub-watershed may be completed at same time. Schedule is based on staff and resources.
- When possible, implementation should start in the highest phosphorus loading sub-watersheds first and continue to other sub-watersheds in descending order. Based on the 2012 CADMUS Lower Fox TMDL Report, the 15 sub-basins identified in the TMDL Report were ranked based on total, unit, TP, TSS, agriculture land use etc. The highest total phosphorus agricultural loading per unit rate is in general as follows in descending order: 1) Plum, 2) Kankapot, 3) East River, 4) Lower Fox mainstem, 5) Bower, 6) Apple, 7) Garners, 8) Mud, 9) Neenah Slough, 10) Lower Green Bay, 11) Ashwaubenon, 12) Dutchman, 13) Baird, 14) Duck, 15) Trout. The Committee recognizes that total phosphorus and TSS rankings may not always coincide, and that total loads, and reductions may not align with unit rate loadings.
- When considering the order of sub-watershed implementation, the Committee may need to consider factors other than the load rankings. Factors including, but not limited to, location, headwater sub-watersheds, logistics, county resources available etc.
- Implementation should begin in upland/upstream areas; with landowner/sites located in headwater sites and proceed toward the main stem and downstream.
- The Committee recognizes the importance of the development of Nine Key Element Plans (9KE Plans). As such, 9KE Plans will be developed for each sub-watershed prior to implementation. Sub-watershed plans consistent with EPA's nine key elements provide a framework for improving water quality in a holistic manner within a geographic

watershed. The nine elements help assess the contributing causes and sources of nonpoint source pollution, involve key stakeholders and prioritize restoration and protection strategies to address water quality problems. 9KE Plans will serve as the basis for identifying projects and resources to be pursued within each sub-watershed. The 9KEP should prioritize/rank the projects based on loading and cost effectiveness in descending order The Committee recognizes that the 9KE Plans serve as an intra-sub-watershed implementation planning tool and also a means to obtain additional funding to implement conservation in each sub-watershed.

- The Committee agrees that the development of 9KE Plans should not outpace implementation. The Committee recognizes that implementation to achieve water quality will require time, and that 9KE Plans should be developed at a rate consistent with implementation. The Committee wishes to prevent 9KE Plan/s "sitting on a shelf".
- Implementation within each sub-watershed: implementation will begin with [or prioritize] sites/facilities that are enrolled in priority conservation programs such as Farmland Preservation Program, GLRI or NRCS funding.
- Implementation within each sub-watershed: where possible, implementation will start with or approach the highest loading sites/farms first. EVAAL (Erosion Vulnerability Assessment for Agricultural Lands) or similar models will be utilized to determine potential high loading sites. Farms or cropland that demonstrates higher phosphorus loadings will be priority sites.
- Implementation within each sub-watershed: the agricultural performance standards and agricultural prohibitions contained within WI Admin Code NR151 will serve as the foundation for implementation. Agricultural farms and cropland with high loading will be brought into compliance first then all remaining farms/cropland will be brought into compliance with NR151.
- Counties will implement NR151 agricultural performance standards and prohibitions and pursue both on a voluntary and nonvoluntary basis.
- The Committee recognizes that even if all land and landowners are in compliance with NR151, that regional and/or localized water quality criteria may not be achieved. The Committee recognizes the need to achieve greater reductions to meet TMDL targets. As such, while working with landowners on NR151, counties' will also include BMPs to address anticipated TMDL associated reductions at that time or a later date.
- Implementation to ensure that landowners/parcels are in compliance with NR151 agricultural performance standards and agricultural prohibitions is considered Phase 1 of implementation. Once the majority of NR151 implementation has been completed (Committee suggest that majority is 70%), then Phase 2, referred to as TMDL implementation, will commence. Phase 2 is most likely necessary in order to achieve additional reductions to meet water quality (ie. to go above and beyond NR151 levels).

- The computer model STEPL (Spreadsheet Tool for Estimating Pollutant Load) will be used as the primary method to quantify P and TSS reductions from installed BMPs on a watershed basis. STEPL is supported and may be required for federal monies by EPA.
- Funding to support staff and projects for agricultural implementation includes the use of existing and/or traditional funding sources (examples, TRM, GLRI grants); while continue to seek additional funds, grants, foundations etc. opportunities.
- The Lower Fox TMDL Ag Runoff Committee is proceeding/working under the premise that Committee should not rely on adaptive management (AM) projects nor water quality trading (WQT) to achieve implementation. Ag implementation needs to be completed with or without AM or WQT. With the sub-watershed approach, AM/WQT can be incorporated at any time.
- The Committee recognizes that permittees implementing adaptive management projects in the basin are responsible for procuring their own resources (including funds, staff, equipment etc.) to implement their adaptive management project. The AM project resources should be provided by the permittee and not be reliant on existing resources. To maximize implementation efforts, permittees/partners should add or bring additional resources to the basin implementation effort.
- The Committee will continue to seek additional and/or outside funds for implementation.
- The Committee will continue to dialogue and work with Lower Fox River dischargers (i.e. point sources) to accomplish agriculture nonpoint source implementation in the basin.
- The Committee recognizes the need for experienced field conservation staff to plan, design, and oversee construction, inspection of BMPs and conservation practices.
- The Committee recognizes the need for additional BMPs /technology (i.e. to address drain tile; excess manure).
- The Committee recognizes the need for research to evaluate the effectiveness of new BMPs and/or technology.
- The Committee recognizes different site conditions and landowner management throughout the basin, and as such the Committee will try to not be prescriptive regarding the use of BMPs.
- Committee recognizes the UWGB research work in the Plum Creek sub-watershed which resulted in hypothesis suggesting 10-15 days (snowmelt/spring) contribute 70-80% of TSS runoff to Fox River; as a result of the findings, the Committee advocates for the installation of BMPs/conservation practices that address the hypothesis [ex. BMPs that provide cover during time period - over winter and into spring, and result in alleviating soil loss should be considered (i.e. cover crops, tillage etc. may be best approach or give best results per dollar basis).]

- Committee recognizes that not all forms of phosphorus are equal on the landscape; dissolved forms of phosphorus may contribute more to eutrophication issues than other forms of phosphorus in the basin.
- Committee recognizes that agronomists and private crop consultants are critical to the success of implementation because of the relationships they have developed with landowners, farmers etc., and their knowledge of situation and BMPs. Incorporate agronomists and private crop consultants into implementation planning and implementation of Lower Fox TMDL.
- The Committee recognizes that, based on existing 9KE Plans developed in the Lower Fox, that cropland is the number one agricultural source of TP and TSS. As such, implementation to address cropland (i.e. cropland BMPs) is to be a priority.
- The Committee recognizes that **actual** TP reductions from the basin are necessary (ie. including eliminating phosphorus inputs from items such as feed, fertilizer, nutrients etc. from entering the basin) and that shifting the phosphorus from BMP to BMP (or source to source) is to be avoided.
- The strategy is subject to changes based on changes on the landscape, funding mechanisms, conservation programs, landowner acceptance etc. The Implementation Strategy should be reviewed and revised, if necessary, on a yearly basis.
- The Committee recognizes that the 2012 TMDL allocations are final, and that the basin is dynamic with respect to nutrient and sediment loadings, which may change 2012 TMDL baseline and reduction numbers.
- Ultimately, the Committee recognizes that the end goal is improved water quality in the entire Lower Fox basin, and specifically meeting water quality criteria throughout the Lower Fox basin.

Summary

The Lower Fox Ag Implementation Strategy is to:

- Prioritize TMDL sub-basins/HUC 12s based on heaviest agricultural unit loads.
- Prioritize within TMDL sub-basins/HUC12s – critical areas, based on heaviest agricultural unit loads.
- Prioritize ag sources = cropland.
- Prioritize BMPs based on: ag sources (ie. cropland), timing of TP and TSS delivery (i.e. BMPs that address cropland in late winter through spring); and cost effectiveness (i.e. most reduction for the dollar spent).