TMDL - Storm Water Implementation Technical Team Meeting #3

Thursday, June 21, 2012, 9:30 – 3:30 @ DNR Fitchburg Office

Glacier Edge Room • 3911 Fish Hatchery Road, Fitchburg, WI

----- Agenda Topics -----

Topic 1: Any comments/concerns with May 10 meeting minutes?

Topic 2: Basin-level TMDL Modeling vs. Individual MS4-level modeling

Outcome: Team will review and discuss challenges of tracking individual parcels and/or every pound of a pollutant that discharges to an MS4. Team members will discuss specific MS4 issues, as recommended at the last meeting. Team will develop recommendations for DNR on the level of precision that MS4s should be modeling for.

Discussion Questions:

- What is the goal of establishing WLAs?
- What is the accuracy of the data used to establish a basin-level TMDL?
- How accurate is WinSLAMM, P8 or other models?
- How much effort is it to track each parcel?
- What parcel size should we be tracking? An acre, a 30 x 30 meter parcel or every square-foot.
- What level of precision do MS4s need to be accountable for?
- If a TMDL wasteload allocation is based on an MS4 urban area that is 10% or even 40% off from the actual urban area, can this be adjusted under the current approved TMDL?
- How would traditional DNR permit compliance view a numeric limit?

Topic 3: Roger's Phosphorus Presentation at May 10 Meeting

Outcome: Team will discuss issues from Roger's presentation or related P issues. Team will develop recommendations for DNR and/or municipalities.

Discussion Questions:

- What level of P control do we achieve with urban BMPs?
- Which urban sources should BMPs target? What time of year?
- How to give P reduction credit for leaf collection/management program?
- Do we have enough information or is more research needed? Funding?

Lunch Break – Either: (1) On our own: Q'doba, Cousins Subs, Pannara Café or Copps salad bar; or (2) order in pizza and soda for about $5 per person. (Decide at beginning of meeting)

Topic 4: Tracking System

Outcome: Team will identify advantages and disadvantages of different TMDL allocation tracking systems. Team will develop recommendations for DNR regarding preferred tracking system approach.

Discussion Questions:

- What tracking systems (grid or shape) are available?
- Who manages the system (DNR)? Is there any other entity?
- What is the minimum size grid/parcel that should be tracked?
- Would a highway ROW reasonably fit in a grid tracking system?
- How much time/effort to initially develop such a system?
- How much staff maintenance is there with such a system?
- What information would need to be tracked with each parcel? A draft list is attached.
- What is the process for reallocating WLAs & who has the authority to do so?

Topic 5: Discuss Modeling Input Files and Related Issues

Outcome: Discuss input file issues and develop recommendation regarding which approach to use for modeling MS4 areas relative to WLAs.+

Discussion Issues:

- 10-yr rainfall file in TMDL vs. Madison or Milwaukee 1- or 5-yr file
- Do extreme events need to be pulled from the 10-yr rainfall file similar to RR TMDL analysis
- NURP was used for RR TDML and MS4 modeling – same (other TMDLs?)
- What model versions are acceptable?
- WinSLAMM v. 9.3 for RR TMDL baseline loadings. Does using v.10 change baseline vs. v.9.4?
- P8 versus SLAMM adjustments.
- P8 loads are generally higher. Will adjustment factor be needed to be equivalent to TMDL/SLAMM mass?
- How to account for outside sources such as agricultural runoff in SLAMM
- Pumped runoff (Tiedeman and Paradise Pond are examples)

Topic 6: Next Meeting Topics for Thursday, July 26

Outcome: Team will suggest topics for next meeting.
Note: Attached is a list of brain storming issues we identified in our 1st meeting.

Next Meeting Date: Thursday, July 26 Location: TBD

DRAFT - TMDL Tracking System

Potentially a 30 x 30 meter grid parcel would be tracked with the following information:

1. Initial TMDL allocation type:
   a. Permitted Urban (MS4) Area
   b. Unpermitted Urban Area
   c. Agricultural Area
   d. Wastewater Point

   Note: Wastewater WLAs are point source allocations and not area-based allocations.

2. Updated (Current) TMDL allocation type (same breakdown given in #1)
3. Permittee name
4. Permittee FID or FIN
5. TMDL Reach
6. Waterbody Name
7. Waterbody Extent
8. WLA or LA for each pollutant of impairment

BRAINSTORMING LIST OF ISSUES (From 1st meeting on April 3, 2012)

Area issues:

- TMDL municipal boundary and NR 151.13 (MS4 modeled) area
- Areas of direct discharge to surface waters of the state in municipal boundary
- Other optional areas taken out of earlier MS4 modeling (stormwater permitted industries, 5+ acre areas to be developed)
- Internally drained areas
- Non-traditional permitted MS4 within municipal boundary (UW, WisDOT, County facilities)
- Annexed areas – shift from LA to WLA
- Agricultural within MS4 boundary
- New development areas since 2004 (accept designed % control, give automatic 80% or re-model)
- TMDL based on 2004 urban boundary?

Modeling input files and related issues:

- 10 year rainfall file in TMDL vs. Madison or Milwaukee 1- or 5-yr file
- Do extreme events need to be pulled from the 10-yr rainfall file similar to RR TMDL analysis
- NURP was used for RR TDML and MS4 modeling – same (other TMDLs?)
- What model versions are acceptable?
- WinSLAMM v. 9.3 for RR TMDL baseline loadings. Does using v.10 change baseline vs. v.9.4?
- P8 versus SLAMM adjustments.
- P8 load higher will adjustment factor be needed to be equivalent to TMDL/SLAMM mass?
- How to account for outside sources such as agricultural runoff in SLAMM
- Pumped runoff (Tiedeman and Paradise Pond are examples)
- Will different particle sizes be allowed or just NURP?
- Is P data in SLAMM representative of today given statewide P restriction on urban fertilizer?

Phosphorus management/treatment credit:

- Leaf collection – how to credit
- Alum treatment – within water of the state or prior?
- Engineered soil – compost leaches P; new mix will give what P removal credit?
- Infiltration
- Street sweeping
- Pet waste ordinances
- Stream Channel Erosion issue; SLAMM does not model such issue
- Wetland Treatment credit (natural wetland, restored wetland, wetland maintenance)

- Underground drainage – runoff from other basin/reach
- What is compliance? Modeled or can other by design conditions accepted. How to credit leaf collection.
- Does compost and wood recycling affect P runoff from construction sites?
- Monthly (seasonal) MS4 discharge variation with P – seasonal optimization to reduce P such as with polymers

Practices/Technology issues:

- Will higher than 40% redevelopment standard be needed (DNR or locally required)?

Long term implementation issues

- Is 20% development urban area standard obsolete with a greater reduction due to MS4 WLA?
- Land use change draining to MS4 what is effect?
- Who and how will WLA and LA changes be tracked?
- Who and how will land use area changes be tracked?
- What will inspection scheduled be and what is reported?

MS4 trading/tracking issues

- Trade ratios - MS4 with agricultural, MS4 – MS4
- Can non-permitted urban sell credits to MS4 (e.g. swale treatment credit or other)?
- Are surrogate pollutants a concern with trade between MS4 and ag?
- Trading guidance needs updating to allow trades above 20% TSS standard for MS4s.

Miscellaneous

- MS4 WLA expressed in permit as annual average mass in lbs/d (not concentration limit).
- Appendix I in Rock River TMDL table has concentration limit that does not match up with calculation concentration using Appendix V and its annual WLA and associated area. Use Appendix V annual average mass limit and area to calculate an equivalent concentration limit. Appendix I concentration limits area an average of monthly average limits and is only an approximate representation of the concentration reduction and might be quite a bit off the reduction needed to meet the annual WLA reduction.
- Have construction site allocations been accounted for? [10% WLA assigned to construction & industrial storm water GP and wastewater GPs; Fox River TMDL is different]
- How to credit other beneficial changes such as redevelopment of brown fields. Any bonus or incentive credits for such areas?
- Are any additional sources of P or TSS not accounted/allocated for such as stream bank erosion?
- Sand versus salt deicers – no chloride WLA and sand contributes to sediment/TSS.
- When are non-permitted MS4s a significant source such that they should be permitted?