

The logo features a stylized map of the Capitol Region Watershed District in shades of green and blue, with the text 'Capitol Region Watershed District' overlaid in a large, bold, blue serif font.

# Capitol Region Watershed District

1410 Energy Park Dr., Suite 4 St. Paul, MN 55108  
Phone: (651) 644-8888 Fax: (651) 644-8894 [www.capitolregionwd.org](http://www.capitolregionwd.org)

May 16, 2012

Robert Finley  
Minnesota Pollution Control Agency  
12 Civic Center Plaza, Suite 2165  
Mankato, MN 56001

Re: Comments on Draft South Metro Mississippi River Total Suspended Solids Total Maximum Daily Load (TMDL) Report

Dear Mr. Finley:

Capitol Region Watershed District (CRWD) appreciates the opportunity to provide comments on the draft South Metro Mississippi River Total Suspended Solids Total Maximum Daily Load (TMDL) Report. CRWD has considerable, vested interest in the findings and future implications of this report as CRWD is within the South Metro Mississippi River reach. Further, CRWD is a nontraditional operator of a small MS4 and through our MS4 permit this TMDL will include numeric load reduction requirements for CRWD. CRWD's intention through its comments is to ensure that the health and sustainability of water resources in CRWD, including the Mississippi River, are protected and improved.

CRWD offers the following comments:

1. CRWD supports the goals and expected outcomes of the South Metro Mississippi River Total Suspended Solids Total Maximum Daily Load (TMDL) Report. Numeric load reduction requirements are an important step forward as an objective way to bring the Mississippi River into compliance with water quality standards. The specific load reduction requirements will help entities within the Mississippi River Watershed clearly see areas that are meeting the loading requirements and areas that are not. This will ultimately help focus resources in the areas of greatest concern.
2. CRWD supports the load reduction allocations that are completed among the major watersheds draining to the South Metro Mississippi River. The largest reductions are needed from the Minnesota River watersheds however all watersheds need to do their part to reduce loading. The proposed 25% reduction of total suspended solids loading for MS4 areas is appropriate.

3. Page 66, Sec. 7.1, #3—This section of the report indicates, “The MPCA will implement aggregate allocations at the basin scale through agency programs for MS4s...” This statement appears to be in conflict with other sections of the report (paragraph 2, Sec. 7.2.3) and statements made by agency staff at public meetings that indicate each MS4 will have a numeric wasteload allocation included in their MS4 permit. This should be clarified in the draft TMDL report.
4. Page 70, last paragraph—This section of the report states, “Applying these cost estimates to the required TSS reduction load for regulated MS4s results in an aggregate cost estimate of \$850 million for the MS4s affected by this TMDL” Further detail on how the estimate was calculated and what assumptions were used is needed. Specifically:
  - a. The cost estimate assumes no BMPs have been implemented since the 2002 baseline year that would have made progress towards the reduction goals. Estimates of progress towards to loading reduction goals in the last 10 years should be completed to refine the estimate of future costs of meeting the TMDL loading goals.
  - b. Does the estimate include construction costs only or are design, and long-term maintenance costs included? If so, what are the life-cycle cost assumptions used?
  - c. What is the period of time for implementation of the TMDL and does the \$850 million cost estimate fall under that time period?
  - d. Were the costs calculated on a \$/lb of TSS removal? Please provide a description of the calculation. CRWD has completed extensive monitoring, and documentation of full life-cycle costs to remove TSS for BMPs constructed in CRWD and the costs range from \$1.74/lb to \$7.23/lb. The report—*BMP Performance and Cost-Benefit Analysis: Arlington Pascal Project 2007-2010* can be found on CRWD’s website—[www.capitolregionwd.org](http://www.capitolregionwd.org).
5. Page 76, Sec. 7.2.3, paragraph 3—This section of the report states, “...permittees may choose to demonstrate that pollutant loads from their MS4 meet the target load of 169 lbs/acre/year from the built up areas and 112.5 lbs/acre/year from the newly developed areas and open-space developed areas.” This section needs increased specificity regarding how compliance with loading targets will be documented. Specifically, CRWD suggests:
  - a. Provide definitions of: *built up areas*, *newly developed areas*, *open-space developed areas*.
  - b. When using monitoring data to show compliance with the loading rate targets, define how many years of monitoring is required.
  - c. When using monitoring data to show compliance with the loading rate targets, define how anomalously wet and dry years will be handled.
  - d. When using modeling to show compliance with the loading rate targets, define the modeling methods to be used including input parameters and data.

CRWD requests that MPCA address these comments on the Draft South Metro Mississippi River Total Suspended Solids Total Maximum Daily Load (TMDL) Report to the greatest extent

Robert Finley  
May 16, 2012  
Page 3 of 3

possible. CRWD looks forward to final adoption and implementation of the TMDL to improve water quality in the Mississippi River. If you have any questions, please contact CRWD.

Sincerely,

A handwritten signature in black ink that reads "Mark Doneux". The signature is written in a cursive, flowing style.

Mark Doneux  
Administrator

cc: Anna Kerr, MPCA  
Ray Bohn, Minnesota Association of Watershed Districts  
Kevin Bigalke, Nine Mile Watershed District, President of Assoc. of WD Administrators  
Pat Byrne, CRWD Citizen's Advisory Committee

# Minnesota Department of Natural Resources

Division of Ecological and Water Resources

1200 Warner Road

Saint Paul, MN 55106-6793



May 29, 2012

Transmitted Via Electronic Mail

Robert Finley  
Minnesota Pollution Control Agency  
12 Civic Center Plaza, Suite 2165  
Mankato, MN 56001  
***robert.finley@state.mn.us***

**RE:** South Metro Mississippi TMDL Turbidity Impairment Draft, MPCA Public Comment Period

Dear Mr. Finley:

The Minnesota Department of Natural Resources (MnDNR) has reviewed the Draft South Metro Mississippi TMDL Turbidity Impairment which includes the Upper Mississippi River, Minnesota River, Cannon River and the St. Croix River basins. The DNR's comments and recommendations for this TMDL study are discussed below.

The MnDNR has and continues to participate in the Lake Pepin TMDL and the subsequent separation into the Minnesota River Turbidity TMDL and South Metro Mississippi TMDL Turbidity Impairment projects. MnDNR is supportive of the site specific standard developed for the South Mississippi TMDL based on sound science incorporated into its development. Specifically, utilizing submersed aquatic vegetation as a primary guide in the 32 ppm TSS standard not only meets MPCA's water quality goal of supporting aquatic life, but links directly into the MnDNR's natural resource management goals by providing habitat for fish and wildlife, and for the health of the aquatic plant community in the Mississippi River once the standard has been met.

In addition to the site specific standard, we also agree with and support the load allocations and sediment source findings in this TMDL. MnPCA incorporated scientists across diverse fields of study and associations with multiple entities. The science produced has been the backbone to many subsequent Watershed Restoration and Protection studies and provides a solid starting point as natural resource professional's work on implementing projects that will help bring the river back into compliance and better understand systemic and localized causes of excess sediment.

The MnDNR will continue to be involved with the South Metro Mississippi TMDL Turbidity Impairment as it phases into Implementation development and planning. The Department will play a larger role in project implementation that meets multiple goals of improving water quality and providing quality habitat for Minnesota's natural resources. Thank you for the opportunity to provide comments.

[mndnr.gov](http://mndnr.gov)

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DNR Information: 651-296-6157

1-888-646-6367

651-296-5484

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Regards,

A handwritten signature in black ink, appearing to read 'N. Proulx', with a stylized flourish at the end.

Nick Proulx  
Region 3 Clean Water Specialist

cc: Robert Burdis  
Megan Moore  
Scot Johnson  
Walter Popp  
Tim Schlagenhaft  
Terri Yearwood



## Minnesota Department of Transportation

395 John Ireland Blvd.  
Saint Paul, MN 55101

May 29, 2012

Mr. Robert Finley  
Regional Manager, Watersheds  
Minnesota Pollution Control Agency  
12 Civic Center Plaza, Suite 2165  
Mankato, MN 56001

RE: South Metro Mississippi River Total Suspended Solids Total Maximum Daily Load Report  
Comments by the Minnesota Department of Transportation

Dear Mr. Finley:

The Minnesota Department of Transportation (MnDOT) appreciates the opportunity to provide comments on this Total Maximum Daily Load (TMDL) Report. In general, MnDOT supports efforts to protect Minnesota's water resources. MnDOT activities and facilities are subject to the Construction Storm Water (CSW) and Municipal Separate Storm Sewer Systems (MS4) National Pollutant Discharge Elimination System (NPDES) permits. As such, we work diligently to preserve and protect water quality in a responsible and cost effective manner. We are therefore encouraged to see that the Minnesota Pollution Control Agency (MPCA), in describing the implementation approach (7.1), emphasizes targeting of funding for the most cost effective Total Suspended Solids (TSS) reduction sites. We would encourage MPCA to adopt this approach more fully as part of the overall TMDL strategy. As drafted, this does not appear to be the case. Rather we see a document which proposes to burden regulated entities with a substantial task (25% reduction of their TSS loading), at tremendous cost (estimated at \$850 million), to achieve little reduction (nearly all loading comes from nonpoint sources-p 65) in the overall loading to the river. We recommend that MPCA reconsider its approach and evaluate whether such large expenditures for such little improvement is warranted. We offer the following comments.

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### **Best Management Practices (BMP) Baseline**

In development of this TMDL, previous drafts and communications (response to comments letter dated April 26, 2010, MPCA to MnDOT) suggested that MPCA's approach was to apply the 25% reduction in MS4 loading with a baseline of no BMPs. This approach would be consistent with other TMDLs, such as the Lower Minnesota River Dissolved Oxygen (DO) TMDL. At some point, and for reasons not clear, MPCA changed the baseline to 2002, thus penalizing MS4s who implemented stormwater BMPs prior to that time. We do not believe that this change in baseline is warranted and suggest that any baseline be based on no BMPs.

### **Unimpaired Reach Watersheds**

Large areas of the watershed within the TMDL study area discharge to waters, or reaches of waters, which have not been determined to be impaired based on TSS or turbidity (e.g. Mississippi River above Lock and Dam 1). The TMDL even reports that TSS levels decrease as the Minnesota and Mississippi Rivers traverse the Metroshed (e.g. Mississippi River 24 mg/l at Anoka, 20 mg/l Lock and Dam 1). It is unclear why these areas would be included in the TMDL and be subject to a WLA. Other TMDL projects are excluding discharges to unimpaired reaches from the WLA requirements (e.g. Upper Mississippi River Bacteria TMDL). Why has that approach not been used in this TMDL?

### **Accounting for Upstream TMDLs**

The Minnesota River appears to account for a large portion of loading to the South Metro Mississippi River. The proposed loading reductions of upstream watershed TMDLs, such as the Minnesota River and others, do not appear to be accounted for in this TMDL. It is unclear why they are not. We suggest that any upstream TMDL reduction be accounted for in this TMDL.

### **Yearly Average WLAs, Flow Regime WLAs**

The WLAs appear to be expressed, in part, as average annual loadings. We generally agree with this rather than a daily or instantaneous standard. It seems somewhat inconsistent that compliance with the seasonal standard (32 mg/l long term summer mean) would be evaluated based on a yearly average, or on flow regimes outside of the summer period. It would be expected that a large proportion of the loading occurs during high flows in the spring which is outside of the

summer season. How were these summer long term averages translated into yearly average WLAs or flow based WLAs outside of the summer season, and is it appropriate to do so?

#### **New MS4 areas and allocation transfers**

As additional MS4 areas become regulated, there needs to be a mechanism to provide them with WLAs. The document (p 50) indicates when this occurs "MPCA will transfer waste load allocation to them..." This approach appears to transfer WLA from one MS4 to a newly regulated MS4, which may be the case in some instances. However, there are other situations where load allocation (LA) will need to be transferred to waste load allocation as when a non-regulated MS4 area becomes regulated. The LA/WLA transfers should be more detailed and fully explained as it is outlined in MPCA's guidance document "Guidance on What Discharges should be included in the TMDL Waste Load Allocation for Stormwater (MPCA, 2011).

#### **Use of Flow Duration Curves for Large River Systems**

For large rivers such as the Mississippi, individual storm events may have little relation to stream flow. The flow duration curve approach, however, seems to tie storm events to stream flow, and hence the WLAs. This TMDL suggests that different kinds of BMPs are needed to address the different flow regimes. This is quite impractical as most water quality BMPs are designed based on 2 year storm events rather than stream flow regime. MPCA needs to recognize this. Typical BMPs are not intended or designed to treat flood flows. It would be impractical and cost prohibitive to do so. Use of the flow duration approach should be reconsidered for large river systems.

#### **Site Specific Standard**

MnDOT provided comments on the proposed site specific standard (Comment letter dated April 26, 2010, MnDOT to MPCA). The site specific standard (SSS) document stated that it is likely the SSS would be retained during the triennial rule review. It is unclear to us at this time whether that has occurred and if the standard is now part of the water quality rules. Please clarify this.

#### **Costs**

The TMDL estimates an 850 million dollar cost to MS4s based on information from the Weiss study. The Weiss study however, did not include land costs, or costs for BMPs used in ultra-urban areas or other proprietary type devices. In the highly developed areas, land costs can be extremely high. Additionally, because of limited space costly ultra-urban BMPs may need to be



utilized. These typically have much higher operation and maintenance costs, and often are located in areas with challenging access. Therefore the cost of compliance could be substantially higher than is currently estimated. We would encourage MPCA to explore more cost effective load reduction options, including the concept of banking.

### **Timeframe for Implementation**

Previous TMDLs developed by MPCA have stated a timeframe for meeting the TMDL goals (e.g. Lower Minnesota River DO TMDL – 30 years). Principal 4 of the Work Plan Outline (p 81) appears to set a goal for the 25 % reduction by 2020. This appears to be an extremely aggressive schedule, especially for MS4's to meet. In addition, when MS4s are forced to retrofit, rather than incorporate BMPs into capital improvement projects, the costs likely rise substantially.

### **TMDL Consistency**

While we understand that each TMDL is tailored to each specific situation, we are finding great discrepancies between and among the many TMDLs and implementation plans. We have noted some of those in our comments (e.g. baselines, unimpaired reaches, etc.). This TMDL apparently did not even follow MPCA's own TMDL guidance on allocation transfers. We would encourage MPCA to further evaluate how to provide more consistency within the TMDL process.

### **Conclusion**

The report shows that NPDES regulated entities contribute a very small proportion of the sediment loading to the river. Yet they will be tasked with implementing expensive strategies to achieve high levels of treatment in their systems, which will yield little if any improvement in the overall sediment loading to the Mississippi River. This does not seem to be a rational approach to meeting the goal. Rather, it raises the question of whether the goal is realistically achievable. If it is, then MPCA should rethink its approach and find truly cost effective strategies which have a chance to work. If not, the question becomes – is it really worth the cost?

Please feel free to contact our office should you have any questions regarding our comments.

Sincerely,

A handwritten signature in cursive script, reading "John M. Sampson". The signature is written in black ink and extends across the width of the page.

John Sampson, P.E.  
Acting Chief Environmental Officer  
Office of Environmental Stewardship

Enclosures

cc: Lisa Thorvig, Director, MPCA Municipal Division  
Jon Chiglo, MnDOT Engineering Services  
Scott Peterson, MnDOT Government Affairs  
Mike Barnes, MnDOT Operations  
Beth Neuendorf, MnDOT Metro Water Resources  
Bob Nibbe, MnDOT District 3

# *Lower Minnesota River Watershed District*



Len Kremer, Secretary  
Hennepin County  
Yvonne Shirk  
Dakota County  
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April 27, 2012

Mr. Robert Finley  
Southeast Regional Manager  
Minnesota Pollution Control Agency  
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Mankato, MN 56001

Dear Mr. Finley:

The Lower Minnesota River Watershed District appreciates the opportunity to comment on the South Metro Mississippi Total Suspended Solids Total Maximum Daily Load (TMDL). Because of our location and responsibilities, the District approaches this subject very seriously. The letter is organized in four parts: an introduction describing the District's location and responsibilities; impacts on District water and other natural resources from high flows and sediment loads from upstream; comments and recommendations on the TMDL report; and a request for a contested case hearing on two issues of material fact.

The District was established by petition from Hennepin, Ramsey, Dakota, Scott and Carver Counties in 1960 under the Minnesota Watersheds Act of 1955. The District encompasses an area of 80 square miles within a watershed extending from Fort Snelling at the mouth of the Minnesota River upstream to the town of Carver. The District includes five counties, 14 cities and two townships, all of which are designated as Municipal Separate Storm Sewer System (MS4) communities. It includes the Minnesota Valley National Wildlife Refuge – a floodplain ecosystem of lakes, wetlands and forest and a migratory flyway uniquely situated in the Twin Cities Metropolitan Area. The Mississippi National River and Recreation Area, besides including 72 miles of the Mississippi River, also extends up the Minnesota River to the Interstate 494 Bridge. Pike Island, at the confluence of the Minnesota and Mississippi Rivers, is an important spiritual site for the Mendota Mdwakanton Dakota community. Fort Snelling State Park, the historical site of our state's beginnings, also occupies the area near the confluence. County and city parks extend into the floodplain further upstream. All in all, there are 20,000 acres of parks and public open space in the District which are focused on the river, providing unique opportunities for rich encounters with nature for the 2.9 million residents of the Twin Cities Metropolitan Area.

## *Lower Minnesota River Watershed District*

From its inception, the District has played a lead role in managing the storage and disposal of dredge materials associated with maintenance of a navigation channel in the lower Minnesota River by the U.S. Army Corps of Engineers. More recently, the District's role has expanded to include closer coordination with local governments within its boundaries on issues concerning water quality and protection of unique natural resources including six calcareous fens and six fishable trout streams. Joint resolutions with all local governments were completed in 2001. The District reviews local water management plans to facilitate inter-governmental coordination, collects and interprets data on water quality, biology and stream structure, develops and implements a Watershed District Management Plan, and initiates projects such as identification and stabilization of priority gullies.

Execution of the District's tasks and responsibilities is made difficult by the overwhelming influence of the Minnesota River as it discharges across the District's boundary near Carver. The river's flow and sediment load, in particular, have grown immensely since the early years of the District's history. Both have roughly doubled in magnitude since the 1940s, as indicated in the TMDL. The Minnesota Pollution Control Agency (MPCA) classified the lower Minnesota as impaired by turbidity, a condition highly correlated with suspended solids, in 1998. There are no significant actions that the District can take to address this problem unless serious measures are undertaken to reduce sediment loads and river flows from upstream that enter the district.

The Minnesota River within the District boundaries acts as a significant sediment sink. This has been verified by water quality monitoring data cited in a number of reports. Monitoring data for TSS loads at Jordan and Ft. Snelling on the MCES web site indicates the lower Minnesota River served as a sediment sink in two-thirds of the years from 1980 to 2010. Pages 28 and 30 the TMDL state that the long-term average TSS concentration declines from 141 mg/L at Jordan, just upstream of the District, to 112 mg/L at Fort Snelling, a 21 percent reduction. A 2004 study by the Metropolitan Council Environmental Services (MCES) found that an annual average of 425,000 metric tons of TSS are deposited in streams and floodplains within the Twin Cities Metropolitan Area, most of which originates upstream in the Minnesota River. A modeling study based on 2004-2006 monitoring data, conducted by the U.S. Army Corps of Engineers and sponsored by the MCES, confirmed the lower 40 miles of the Minnesota River to be a sediment and phosphorus sink.

In addition to the formal analyses just cited, recent high-water events have dumped several feet of sediment on the surface of floodplain forests in the Minnesota Valley National Wildlife Refuge. According to Refuge Manager Charles Blair, this will have a negative impact by destroying acres of mature silver maple, red maple, cottonwood, basswood and other species. Mr. Blair also notes that wetlands in the Refuge have been covered with one to two feet of river sediment, burying the native seed bank and introducing invasive species such as cocklebur from agricultural sediments. Reed canary grass is invading wetlands from the edges, crowding out bull rush and cattails. All of these impacts pose an imminent threat to the contiguity of floodplain forests, the survival of wetlands, and the utility of this ecosystem to migratory birds and other wildlife. Moreover -- Minnesota River mud closes trails, despoils recreational areas, and renders a unique urban ecosystem either inaccessible or undesirable for many of its users for much of the outdoor recreation season.

## *Lower Minnesota River Watershed District*

These items identified are not normal functions of a floodplain, because it is not normal to have 10 times the historical load of total suspended solids (TSS) being carried along by the Minnesota River until it dumps about one third in the lower Minnesota floodplain and the remainder in Spring Lake and Lake Pepin. This is all documented in the TMDL. In addition, sediment deposition in the floodplain is reducing the conveyance capacity of the river which over time will increase flood levels and flood damage. These are significant impairments that need to be counted, along with the problem of turbidity, when calculating the damages incurred by Minnesota River sediment. Also, this is causing accelerated bluff collapse in Eden Prairie, endangering valuable homes. The average annual cost of dredging the navigation channel of the lower river and properly disposing of the sediment is about \$200,000, a small fraction of the total cost of extremely elevated levels of flow, erosion and siltation from the Minnesota River.

For several decades, the MPCA and sister state agencies have been ineffectual in their efforts to reduce sediment loads in the Minnesota River. The MPCA has clearly identified and quantified the problem numerous times – in basin plans from 1975 and 2001, the four-volume report of the Minnesota River Assessment Project in 1994, the Minnesota River Basin Information Document of 1997, plus numerous smaller studies and monitoring projects. In 1992, Governor Arne Carlson charged the MPCA with leading a multi-agency effort to make the Minnesota River “fishable and swimmable” in 10 years. In the 20 years that have since passed, no discernible progress has been made, according to the MPCA’s most recent biological assessment (*Revisiting the Minnesota River Assessment Project*, 2011). A likely reason for this failure is given in the concluding paragraph of the report: “...it should be noted that at this time BMP implementation is a voluntary process. Rates of BMP adoption are often low and not necessarily selected or placed in areas that will maximize the potential to achieve a desirable water quality result.” By contrast, phosphorus discharges from regulated wastewater treatment facilities in the Minnesota River basin have declined sharply over a similar period – 32 percent by 2001, and 50 percent by 2011 – meeting the WLA for the Lower Minnesota River Dissolved Oxygen TMDL several years ahead of schedule. This is the latest and perhaps clearest illustration of the successes possible under regulatory oversight, and the need for some degree of regulation to achieve real, sustainable progress in nonpoint source pollution reduction.

### Comments on the TMDL

The District commends the MPCA for the transparency with which the TMDL study was conducted. We were represented at many, if not most, of the Stakeholder Advisory Committee meetings, and noted that all sectors had an opportunity to comment all the way through the study. Questions and comments were taken seriously, and MPCA staff treated everyone with consideration and respect. This must have been a challenging task at times, as certain representatives of agriculture, in particular, persisted in raising the same points repeatedly after most of the group was satisfied with the response the MPCA had provided. It became apparent that many from the agricultural sector were on a mission of denial and delay.

## *Lower Minnesota River Watershed District*

The District strongly supports the science conducted under the supervision of the MPCA for the TMDL study. Especially from the standpoint of suspended sediment, the river model developed by Limno-Tech Inc. appears to handle sediment transport, deposition and resuspension over the 64-mile impaired reach with a high level of accuracy. The MPCA's careful development of a site-specific standard for TSS, as well as provision of an explicit margin of safety, gives us a high degree of confidence that TSS loading capacity has been accurately determined.

The sediment source studies sponsored by the MPCA provide convincing evidence of several key facts: a 10-fold increase in TSS load from pre-settlement times to present; a shift from field to non-field sediment in the post-World War II period; and altered hydrology as the main driver of increased non-field erosion from river banks, bluffs and ravines. We agree with the TMDL's assertion that artificial drainage and land cover changes after World War II are chiefly responsible for increased non-field loads. With the exception of the agricultural community there appears to be little if no support for the hypothesis advanced by some that increased precipitation is mainly responsible for increased sediment loads in recent decades.

However, there are important details in the TMDL with which the District is not in agreement. They are related to two major concerns: first, and most important, the waste load allocation (WLA) for MS4s lacks a sound basis in the TMDL modeling scenarios, is unfair, unreasonable and exposes MS4 permittees to unwarranted risks – besides contributing next to nothing to achieving water quality standards for the Mississippi River; second, that the load allocation (LA) fails to take full advantage of information generated by TMDL studies that should be used to provide more accurate LAs for natural background, field sources of sediment, and non-field sources of sediment. There also should be consideration given to what materials (i.e. salt, sand and/or gravel) are used on roads for snow and ice.

In addition to these points of fact, the District is very concerned that the TMDL will lead to no appreciable reductions in nonpoint source sediment, a continuation of the past 20-year record. We include several specific recommendations to increase the likelihood of progress in sediment load reductions, and request that the MPCA revise the TMDL to incorporate assurances that these recommendations will be carried out.

First, with regard to the aggregate WLA for MS4s, the requirement of a 25 percent reduction in TSS load at an estimated cost of \$850 million (TMDL, page 70) accomplishes almost nothing and is therefore ludicrous, unfair and an irresponsible waste of resources. Moreover, there appears to be considerable uncertainty regarding the estimate of urban runoff upon which the stormwater WLA is based. The District notes a wide discrepancy between sediment runoff coefficients used in the modeling report and the TMDL document. The Limno-Tech modeling report (page 62) cites research by Steve Kloiber, Metropolitan Council, which used detailed water quality monitoring and modeling to estimate TSS export from a 480,000-acre Twin Cities Metropolitan Area of 50 pounds per acre. A March 9, 2007 technical memorandum from Limno-Tech to the MPCA provides a similar estimate of 66 pounds per acre. These estimates, drawn from a local study published in a professional journal, *Water, Air and Soil Pollution* in 2006, is about one-fifth the average annual MS4 runoff coefficient of 225 pounds per acre used in the TMDL report (page 56). The latter value was based on nationwide estimates published by the

## *Lower Minnesota River Watershed District*

U.S. Army Corps of Engineers. Had the local measurements cited in the Kloiber study been used in the TMDL, the total contribution of TSS from MS4s would have been less than one percent of the total load, vs. the 5.8 percent estimate cited in the TMDL (page 57).

Whichever estimate of MS4 runoff is used, the requirement of a 25 percent TSS load reduction seems arbitrary and capricious. Furthermore, given the current discussions regarding new reporting requirements from the Environmental Protection Agency, a 25 percent reduction requirement puts MS4s at considerable risk. According to the MPCA, EPA is now requiring that permitted MS4s incorporate quantified estimates of their portion of an aggregate WLA into their permit, provide a list of Best Management Practices which they believe will achieve the WLA, an end date by which the ultimate load reductions will be achieved, and interim measures of BMP progress, all of which will be subject to annual reviews by the MPCA. These provisions, which are being incorporated into a revised general permit for MS4s, would make the required 25 percent load reduction a highly irresponsible demand on municipalities. This is especially true given the gross scale of this TMDL, the wide range of possible TSS runoff coefficients cited in the previous paragraph and most especially in light of the strong possibility that nonpoint source loads will not be reduced at all, and may indeed increase in the near future.

The District recommends that one of the following policies be adopted by the MPCA and written into the TMDL document, in order to achieve some degree of balance:

1. The MPCA should use its regulatory discretion and coordinate its point and nonpoint source programs for the TMDL as follows. Established a firm date by which a 25 percent reduction in nonpoint source TSS loads must be achieved: for example, 10 years from the date of EPA approval of the TMDL. Establish a similar but later date by which MS4s will be required to initiate plans to achieve a 25 percent TSS load reduction: for example, 15 years following TMDL approval. This will require the agency to develop and document progress toward significant nonpoint source reductions, in order that its promised inter-agency evaluation of nonpoint source program effectiveness (TMDL, pages 70 and 83) will be informed by reliable data. This will also provide an occasion for evaluating the TMDL and the implementation approach as a whole in the context of adaptive management.
2. Eliminate the 25 percent TSS load reduction requirement for MS4s, replacing it with individual WLAs for each MS4 based on current estimated TSS runoff plus a 20 percent growth margin. In other words, treat MS4s the same as permitted wastewater treatment facilities, another class of insignificant dischargers of TSS.

Next, regarding the nonpoint source aspects of the TMDL, the District recommends establishing three components of LA for the Minnesota River basin and the Crow River watershed, based on MPCA-funded research on sediment sources by the St. Croix Watershed Research Station. These components are field sediment, non-field sediment and natural background sediment. For the Minnesota River, research based on radionuclide tracers indicates that at the present time, 35 percent of the total sediment load measured at Jordan originates from field sources, and the remaining 65 percent originates from non-field sources – erosion from river banks, bluffs or ravines. Sediment apportionment estimates vary from watershed to watershed within the Minnesota basin, but are

## *Lower Minnesota River Watershed District*

sufficiently stable at the whole-basin scale to warrant their use in disaggregating the LA at this level of aggregation. The same kind of research indicates that in the Crow River watershed, 40 percent of the TSS load originates from fields, with 60 percent derived from stream banks, bluffs and ravines. We consider these data sufficiently robust to recommend their use in creating three LA categories for these watersheds.

The District agrees with the MPCA that 10 percent of the TSS load to the Mississippi River should be classified as natural background, a sub-category of the LA. We recommend that natural background be calculated as 10 percent of the total TSS load. This quantity should then be subtracted from the non-field part of the LA, based on the fact that in pre-settlement times all TSS originated from near-stream sources: ravines, bluffs and banks. Farm fields and cities did not exist. The District believes that these adjustments to the TMDL will improve its accuracy and help to clarify the role of natural background. These adjustments to the TMDL would make it clear that no part of field erosion can be considered to be natural background, but a significant portion of non-field erosion – more than 10 percent – can be defined as natural background. These adjustments would clarify which sediment sources are purely anthropogenic, hence subject to change, and which sources are not purely human-induced. Such knowledge will be of considerable use in developing implementation plans with specific targets and milestones for field and non-field erosion sources.

The TMDL document (page 83-84) lists several state statutes and rules which authorize state agencies and local government to exert regulatory control over nonpoint source pollution, including TSS. The District is disappointed that most of these provisions are being observed in the breach. We can only conclude that the state is not fully performing its duties under the law. This is likely an important reason why next to no progress has been made in nonpoint source pollution control in the Minnesota River basin, in particular.

As an example, the MPCA is authorized to classify excess stream flow as a pollutant under Minn. Stat. 115.01, Subd. 13, which provides a definition of pollution. The MPCA is required to implement anti-degradation rules (Minn. R. 7050.0185). The agency has cited both of these provisions in discussions with MS4 communities on the possibility of classifying excess flow as a pollutant. As a way of starting to implement such a policy where it would do the most good, we suggest that the MPCA begin by using stream flow as a surrogate for pollutants, especially TSS, in TMDL implementation plans. The University of Minnesota, under contract with the MPCA, has used regression analysis to determine the relationship between stream flow and sediment load in the Seven Mile Creek watershed. Sufficient data exist to conduct similar analyses for the main stem of the Minnesota River and certain points on streams within tributary watersheds. The magnitude of flow consistent with maximum allowable loads then could be determined as a basis for using flow as a surrogate for TSS load. This would help the MPCA and stakeholders to make a transition towards a more flow-based management protocol for TMDLs.

The District urges the MPCA to apply the above-mentioned authorities to nonpoint source pollution in other ways in the TMDL. In particular, erosion from ravines is frequently increased by channelized flow from agricultural fields that is augmented by artificial drainage. In some areas of high sediment



## *Lower Minnesota River Watershed District*

delivery, tile lines discharge to the head of ravines, creating plunge pools that accelerate growth of ravines through head-cutting, in addition to scouring of the lower ravines far beyond what would occur under natural conditions. Field surveillance has found a majority of ravines in agricultural watersheds of the Minnesota River basin fit this description. The portion of the TSS load that is induced by such processes properly belongs in the WLA, as an additional point source category. MPCA can exercise its authorities through Minn. R. 7050.0210, Subp. 2, to require ravine erosion to be reduced according to Best Available Technology. As a complementary measure, Clean Water Legacy funds should be targeted to stabilize the highest-contributing ravines.

Finally, other state agencies and local governmental units are authorized to require vegetated 50-foot buffers along streams defined by the Department of Natural Resources as protected waters, as per Minn. Stat. 103F.201 and Minn. R. 6120.3300 sub. 7. The District expects the DNR and counties to demand compliance with state shoreland protection rules – in agricultural and urban areas. Further, the District encourages all drainage authorities, be they counties or watershed districts, to systematically implement redetermination of benefits under Minn. Stat. 103E.021 coincident with implementing improvements to drainage ditches to improve water quality – elimination of side inlets, re-sloping and re-vegetation of ditch banks, etc. The statute cited here requires the establishment of a permanent vegetated buffer 16.5 feet in width at the conclusion of such a process. Freeborn County recently completed a county-wide redetermination process which extended over two decades. We can think of no reason why all other drainage authorities should not be required to do the same.

The TMDL (page 81) calls for a Phase One goal of 25 percent reduction in TSS loads to the South Metro Mississippi River by 2020. The District suggests that the regulatory approaches outlined above, if systematically implemented, could go a long way toward accomplishing this interim target. Most of these authorities are listed in Section 7.5 of the TMDL as examples of “reasonable assurance” that nonpoint source allocations in the TMDL will be achieved. It is therefore reasonable for the District and other stakeholders to recommend the application of these existing authorities as part of the Phase One Plan to achieve a 25 percent reduction.

The District expects state government to begin exercising due diligence through systematic implementation of the TMDL, including the state statutes and rules listed in the TMDL. This needs to begin as soon as possible. As author of the TMDL, the MPCA is the most logical agency to take a leadership role in this initiative. A written commitment to do so, included in the TMDL document, can help to ensure that this process gets off the ground with enough momentum to overcome likely opposition from pollution sources which so far have been largely unregulated – agriculture, to be specific. At this time, agriculture is the only sector that treats pollution, rather than pollution control, as the cost of doing business – a cost incurred on those downstream. Unless significant changes occur in the agriculture sector, we will see no improvement in TSS load reductions and the TMDL will simply mark another failure in the decades-long attempt to restore the Minnesota and Mississippi Rivers through TSS load reductions.

Section 7 of the TMDL lays out a thorough framework and process for implementing the TMDL. It adapts procedures being developed for the Chesapeake Bay TMDL to our local circumstances; lists strategies and actions appropriate to various hydrologic scales; presents a logical outline for an

## *Lower Minnesota River Watershed District*

implementation work plan; and properly cites the Clean Water Legacy Act as enjoining state agencies to use existing regulatory authorities for point and nonpoint sources where applicable. The District supports the approach outlined in Section 7, but remains unconvinced that it can be implemented under current governmental arrangements. Therefore we urge the MPCA to insert into the TMDL its intention to pursue with other state agencies and local governments the development of a coordinating structure to ensure that implementation plans, strategies and actions are carried out; that the status of BMP adoption and water quality is regularly measured, interpreted, and published; that the results are transmitted to an interagency body with authority to direct state agencies to adapt their plans and activities in response to information gathered and knowledge gained.

### Request for a contested case hearing

The District requests a contested case hearing on the following items to address issues of material fact with which we are in dispute:

1. We find that the load allocations (LA) as set forth in Tables 6, 7 and 8 of the TMDL are inaccurate, misleading and subject to misinterpretation.
  - a. Inaccurate: The LA at all flow intervals is estimated as a residual: total monitored TSS load minus estimated point source loads. Over-estimation of TSS loads from the 217 regulated MS4 communities in the TMDL, discussed in (2) below, results in an inflated value for the WLA and an underestimation of LA.
  - b. Misleading. Natural background is correctly estimated as 10 percent of the total TSS load across flow regimes. It is defined as part of the LA, and is so depicted in the TMDL. However, by depicting natural background as part of LA, it implies that natural background is being apportioned evenly between two of the main components of LA discussed on page 5 of this letter and on page 7 of the TMDL: field and non-field sources. In the Minnesota River Basin, which contributes three-fourths of the TSS load to the South Metro Mississippi River, 35 percent of the TSS load derives from field erosion and 65 percent from non-field sediment sources – stream banks, bluffs and ravines. Since fields and cities did not exist before 1830, the period when natural background was measured, it is a mistake to assume that one-tenth of field load consists of natural background. Natural background TSS should be applied entirely to non-field sources. Unless the LA is subdivided to include field and non-field sources in the Minnesota River basin, the anthropogenic component of TSS will be overestimated for field erosion and underestimated for non-field erosion.

Since the MPCA has at its disposal information that could be used to make the LA more precise, thereby avoiding the above problems, the District requests that a contested case hearing be held on this issue if the MPCA does not agree to make our recommended adjustments in its response to this comment letter. We intend to bring Dr. Daniel Engstrom, director, St. Croix Research Station, Science Museum of Minnesota, and Dr. Carrie Jennings, Minnesota Geological Survey, as witnesses to the hearing.

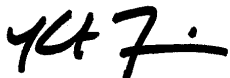
## *Lower Minnesota River Watershed District*

2. We find that the Waste Load Allocation (WLA) for MS4 communities is not supported by the July 2009 report to MPCA by Limno-Tech, Inc., "Upper Mississippi-Lake Pepin Water Quality Model: Development, Calibration and Application," and that the requirement of a 25 percent TSS load reduction from a 2002 baseline is arbitrary and ineffectual. To repeat information from page four of this letter, the Limno-Tech report, drawing on information from a published study by the Metropolitan Council Environmental Services, estimates average annual TSS runoff in the Twin Cities Metropolitan Area to be approximately 50-66 pounds per acre. The MPCA ignored this information from the Limno-Tech memorandum and report, and instead used nation-wide data from a compendium by the U.S. Army Corps of Engineers to derive an estimate of 225 pounds per acre TSS export from urban areas. The Limno-Tech report was intended to provide informational input for the TMDL. The MPCA did not explain in the TMDL its decision to reject its major contractor's urban runoff estimates, or why the national data it chose to use was more suitable than the localized estimates provided in the Limno-Tech report. The consequences of this decision by the MPCA are non-trivial to the TMDL and of great consequence to regulated MS4 communities. In essence, this decision has increased the proportion of the total TSS load that is comprised of MS4 runoff from less than one percent to almost six percent – a change from insignificant to minor significance.

We request that a contested case hearing be conducted to determine which of these estimates is the most accurate and appropriate for the TMDL, and whether MS4 loads are sufficiently important to warrant a 25 percent reduction from 2002 levels. As witnesses we intend to bring Steve Kloiber, Minnesota DNR, formerly of the Metropolitan Council and lead author of the article on runoff from different kinds of landscapes in the Twin Cities Metropolitan Area; and Dr. Joe De Pinto, lead scientist and manager on the TMDL modeling project.

The Lower Minnesota River Watershed District is submitting these comments and requests in order to increase the likelihood that the South Metro Mississippi River TSS TMDL will be a catalyst for significant reductions in TSS loads and consequent improvements in water quality of the Minnesota and Mississippi Rivers. High-quality science has been conducted to develop this TMDL, and the implementation discussion is well developed. The District has much at stake in the success of this TMDL, and looks forward to working cooperatively with the MPCA and other state and federal agencies to ensure that scarce resources are directed toward the most cost-effective sediment-reduction solutions.

On behalf of managers of the Lower Minnesota Watershed District



Kent Francis, President



## United States Department of the Interior

NATIONAL PARK SERVICE  
Mississippi National River and Recreation Area  
111 E. Kellogg Blvd., Ste. 105  
St. Paul, Minnesota 55101-1256



IN REPLY REFER TO:

May 29, 2012

Mr. Robert Finley  
Regional Manager, Watersheds  
Minnesota Pollution Control Agency  
12 Civic Center Drive, Suite 2165  
Mankato, MN 56001

Dear Mr. Finley:

The 54,000-acre Mississippi National River and Recreation Area was established by Congress in order to protect, preserve, and enhance the significant values of the waters and land of a 72-mile stretch of the Mississippi River in the Twin Cities metropolitan area. A true partnership park, the National Park Service owns very little land within our park, and therefore works with local and state governments (among others) to protect these resources. The findings and, most importantly, the outcomes, of the South Metro Mississippi River Total Suspended Solids (TSS) Total Maximum Daily Load (TMDL) are fundamental to our protection of the Mississippi's resources, and we consider the Minnesota Pollution Control Agency (MPCA) to be a fundamental partner in our efforts to achieve a clean Mississippi River. We strongly support the MPCA in moving forward with this TMDL, and believe that, because we all are responsible for clean water, we are all responsible for helping to achieve it.

We recognize that the Minnesota River, dominated by agricultural land uses, is a significant driver of our park's water quality. The Mississippi River's confluence with the Minnesota River is located about halfway through our park limits. In an attempt to address the water quality we receive from "upstream," our park increasingly is working with partners and farmers to expand the voluntary adoption of "water-friendly" farming practices through programs like our Minnesota FarmWise program. We encourage the MPCA to lead the state to substantial water quality improvements in the Mississippi River by targeting upstream agricultural "best management practices" to the locations, practices, and scales necessary in order to achieve the pollution reduction goals outlined in this TMDL. The agency's participation in Minnesota's Agriculture Water Quality Certification Program could be a powerful way to tie agricultural practices and preferential cost-share mechanisms to the pollution reductions that will be required to meet the TMDL's goals.

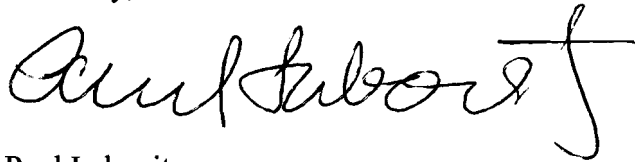
Most Minnesotans want to make sure the Clean Water, Land, and Legacy Constitutional amendment funds are allocated to projects that will have measurable results. In an atmosphere of universally stretched budgets, it makes good sense for the MPCA to target those funds effectively to help meet this TMDL's goals. Likewise, in order to see effective outcomes in such

a complex environmental system, adaptive management is critical. Adaptive management requires resource managers to continually evaluate results and adjust actions based on measurable results. We know enough to get started on cleaning up the sources of TSS in the Mississippi River, and effectively stewarding amendment funds would suggest we need to regularly assess our progress in achieving pollution reductions. We encourage the MPCA to set "benchmarks" for this pollution reduction, and to regularly assess how well those benchmarks are being met.

Thank you for your work on behalf of the resources on which we all rely for our great quality of life. The National Park Service supports moving forward with a strong South Metro Mississippi River TSS TMDL. We hope you will consider us to be a partner in achieving the clean Mississippi River we all desire and need.

If you would like to discuss our comments further, do not hesitate to contact me at 651-293-8454 or [paul\\_labovitz@nps.gov](mailto:paul_labovitz@nps.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Paul Labovitz". The signature is written in a cursive style with a long horizontal stroke at the end.

Paul Labovitz  
Superintendent



District Office: Edina Business Center • 7710 Computer Avenue • Suite 135 • Edina, MN 55435  
Ph 952-835-2078 Fax 952-835-2079 Web Site: [www.ninemilecreek.org](http://www.ninemilecreek.org)

May 29, 2012

Mr. Robert Finley  
Minnesota Pollution Control Agency  
12 Civic Center Plaza, Suite 2165  
Mankato, MN 56001

Re: Comments on Draft South Metro Mississippi River Total Suspended Solids Total Maximum Daily Load (TMDL) Report

Dear Mr. Finley:

The Nine Mile Creek Watershed District (NMCWD) appreciates the opportunity to review and provide comments on the draft South Metro Mississippi River Total Suspended Solids (TSS) TMDL Report. The NMCWD encompasses 50 square miles and portions of six (6) Municipal Separate Storm Sewer System (MS4) communities that drain to the Minnesota River within the South Metro Mississippi River watershed. The South Metro Mississippi TSS TMDL has the potential for significant impacts on the Nine Mile Creek Watershed and its six MS4 Communities. The NMCWD commends the Minnesota Pollution Control Agency's efforts to reduce sediment loads in the Minnesota River and Mississippi River, but we have concerns about the methodology that was used to determine the required sediment load reductions.

The NMCWD offers the following comments for your consideration:

#### ISSUES WITH THE POLLUTANT LOADING ANALYSIS

1. Throughout the TMDL Report, the MPCA has made the assumption that all urban watersheds are the same regarding their total suspended solids (TSS) load contribution. This is not a reasonable assumption. Whenever possible, TSS loading estimates should be based on, or calibrated to actual monitoring data for individual tributary watersheds.
2. On Page 35, the report states, "Settling out of larger particles in the receiving stream likely accounts for the slightly higher estimate of urban runoff generated by models, compared to mouth-of-stream monitoring data." Based on what geomorphology tells us about urban streams, it does not seem "likely" that these systems are net sinks for sediment. This statement is an unsubstantiated hypothesis and should be stricken from the report. .

#### Board of Managers

*LuAnn Tolliver - Minnetonka*

*Cornne Lynch - Eden Prairie*

*Jodi Peterson - Bloomington*

*Steve Kloiber - Edina*

*Geoffrey Nash - Edina*

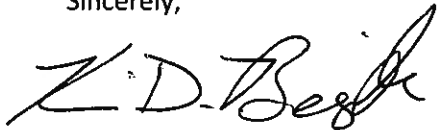
3. The TMDL Report estimates sediment loads for urban lands using land cover data and TSS loading export coefficients. This approach assumes that loading is primarily driven by land use differences and that loading occurs as a spatially distributed rate. Both of these assumptions are suspect. These assumptions conflict with local research on TSS loading conducted by the St. Croix Watershed Research Station (SWRS), and cited in the TMDL Report, that suggests that much of the TSS loading is heavily influenced by near-channel processes and not evenly distributed across the watershed. Furthermore, if event mean concentration data used in the model are not representative of the channel and gully stability of the modeled catchment, it would seem to invite in significant error in the loading estimate. The TMDL should use a model that is more spatially explicit for estimating TSS loads from tributary watersheds.
4. No error analysis is provided for the estimated urban watershed TSS loads. The approach used to estimate pollutant loads relies on an aggregate of event mean concentrations (EMC) for various land use types. The literature for EMCs show a wide range of values for any given land use. Therefore, we can conclude that there may be considerable uncertainty regarding the loading result provided here. An error estimate for the TSS loading should be included in the report regardless of the calculation method used.
5. There is wide discrepancy between TSS export coefficients used in the modeling report and the TMDL document. The Limno-Tech modeling report (page 62 of the report) cites research by the Metropolitan Council which used detailed water quality monitoring and modeling to estimate TSS exporting from a 372 square mile Twin Cities Metropolitan Area of 66 pounds per acre. These estimates, drawn from a local study published in a professional journal, *Water, Air and Soil Pollution* in 2006, is about one-fifth the average annual MS4 runoff export of the 225 pounds per acre used as the existing load in the TMDL report (page 56). The later value was based on nationwide estimates published by the U.S. Army Corps of Engineers (Corps, 2004). If the local measurements cited in the Metropolitan Council study had been used in the TMDL Report, the total contribution of TSS from MS4s would have been less than one percent of the total load, vs. the 5.8 percent estimate cited in the TMDL Report. An explanation should be given as to why the loading rates are different for the modeling report and the TMDL report. Wherever possible, local monitoring data should take precedence over data aggregated from non-local sources.
6. It is unclear why the Corps (2004) reference was chosen to estimate the existing MS4 loadings when local monitoring data exists to assess the actual TSS contributions to the Metro Mississippi. Further, the Corps reference data does not include TSS loading rates, but only has TSS event mean concentrations. It is unclear how the MPCA arrived at an average existing loading rate of 225 lbs/ac/yr. The details of this calculation should be provided, along with a rationale for choosing to use the data from the Corps (2004) reference instead of using local monitoring data.

## ISSUES WITH THE METHOD USED FOR THE WASTE LOAD ALLOCATION

7. The TMDL Report states that all MS4s are expected to achieve the same level of pollutant load reduction regardless of location. This unfairly penalizes MS4s that have been pro-active in managing their stormwater. We suggest you use an alternative approach to the waste load allocation that does not penalize proactive MS4s.
8. MS4s in the Nine Mile Creek Watershed can demonstrate compliance with the Waste Load Allocation by simply referencing Figure 19 of the TMDL Report, which show that the respective TSS loading rate of 165 lbs/ac/yr for the watershed are below the TMDL target loading rate of 169 lbs/ac/yr for built up areas. Watersheds that are currently meeting the target loading rates should not be required to further reduce their loading under the TMDL Waste Load Allocation.
9. The estimated cost for MS4 compliance with the TMDL of \$850 million is totally unreasonable. The TMDL Report should demonstrate how these costs were developed.

The Nine Mile Creek Watershed District appreciates that opportunity to provide comments on the South Metro Mississippi Total Suspended Solids TMDL. We hope that our comments will result in a more concise TMDL Report that will achieve significant reductions in TSS loads to the Minnesota and Mississippi Rivers. If you have any questions, please contact the NMCWD at (952) 835-2078.

Sincerely,

A handwritten signature in black ink, appearing to read "K. D. Bigalke". The signature is fluid and cursive, with a large initial "K" and "D".

Kevin D. Bigalke  
Administrator



**From:** [myrna ecker](#)  
**To:** [Finley, Robert \(MPCA\)](#)  
**Subject:** sediment levels  
**Date:** Tuesday, May 08, 2012 11:07:13 AM

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In our watershed the Elm river has eroded 4 to 5 feet in the last few years. We have little tile in our area. I think it is mostly extra precipitation the last few years.

With tile in the ground you will have a lot less soil erosion in the field, because of less surface runoff. There may be cases where water exiting the tile system may cause some erosion in a ditch or small waterway. That just takes a little education on how to handle those situations. We don't need more regulations, just a little education.

Wes Ecker

Water manager North Cass Water Recourse Dist.

2. Significant policy, governmental efficiency, and financial/taxing decisions are being made in this report that affect almost half the state of Minnesota. However, the report does not disclose the full cost of meeting the TMDL. In addition, there is no cost-benefit analysis or means of determining whether the proposed implementation is cost effective or even achievable.
3. The report actually promotes inefficiency. Metro area Municipal Separate Storm Sewer System (MS4) permit holders are estimated in the report as contributing only six percent of the Total Suspended Solids (TSS) Load. However, the TMDL requires a 25 percent TSS reduction from the MS4 permit holders. This will create an overall load reduction of only 1.5 percent. However, the estimated cost according to the report is approximately \$830 million. From a public policy perspective, this does not make any sense.

Scott County shares a common interest in having clean water and looks forward to discussing this matter with the MPCA Citizens Board once a cost benefit analysis is completed. With such an analysis, we are confident that we can jointly find an efficient means of meeting reasonable water quality objectives for the Mississippi River. Correspondence with the County can be sent to Paul Nelson, Scott County Natural Resources Program Manager, at 200 Fourth Ave W., Shakopee, Minnesota, 55379-1220 or via e-mail at [pnelson@co.scott.mn.us](mailto:pnelson@co.scott.mn.us).

Sincerely,



Thomas J. Wolf , Chair  
Scott County

Cc:

Senator Claire Robling  
Senator Julianne Ortman  
Senator Dan Hall  
Senator Al DeKruif  
Representative Michael Beard  
Representative Mark Buesgens  
Representative Glenn Gruenhagen  
Representative Ernie Leidiger  
Representative Pam Myhra  
Representative Kelby Woodard  
Paul Nelson, Scott County



May 24, 2012

Robert Finley  
Minnesota Pollution Control Agency  
12 Civic Center Plaza, Suite 2165  
Mankato, MN 56001

**RE: South Metro Mississippi River TSS TMDL**

Dear Mr. Finley:

Thank you for the opportunity to comment on the Draft South Metro Mississippi River TSS TMDL. Although SWWD—a nontraditional MS4—does not currently have any outfalls to the Mississippi River, we actively work with municipalities in the District to protect and restore water resources, including the Mississippi River. During review of the Draft TMDL, we noted the following comments:

1. (Page 47) The Draft TMDL states that allocations from a number of other TMDLs in the watershed are more restrictive than the proposed South Metro TMDL. We would suggest that the proposed South Metro TMDL reflect allocations that will already be required through other TMDLs. Anything different ignores the valuable work and planning that has already taken place and shifts responsibility for reductions already required through those other TMDLs.
2. (Page 69) How does the Draft TMDL account for communities that are not currently contributing flow or TSS to the Mississippi River? For example, most of the City of Woodbury is non-contributing as runoff now terminates at SWWD's regional infiltration facility.
3. (Page 70) The Draft TMDL estimates a cost for reducing point sources at \$850 million for the affected MS4s. Further, the report speculates that much of the work has already been accomplished and a portion of the \$850 million expended. We agree that significant progress has been made over the past 10 years and recommend that MPCA take steps toward quantifying that progress and resources expended to achieve it.
4. (Page 76) The draft TMDL allows MS4 permittees to demonstrate compliance with the target load allocation through water quality monitoring or modeling. However, the document does not specify expectations or requirements for doing so. SWWD requests that the Draft TMDL provide guidance for demonstrating compliance including:
  - a. Length of data record that is sufficient for demonstrating compliance,
  - b. How to account for climatic variability (i.e. wet and dry years),and
  - c. Standards/expectations for input parameters and data used in modeling.
5. (Page 80) The Draft TMDL states that one of the principles of the implementation plan will be a linkage to water resource management plans at the

federal, state, and local levels. Based on the work plan outline, that link appears limited to mechanisms that require local agencies to incorporate elements of the MPCA implementation plan. What efforts will be made to incorporate or account for long established local efforts in the MPCA implementation plan?

If you have any questions or need additional information, please contact me at 651/714-3714 or [jloomis@ci.woodbury.mn.us](mailto:jloomis@ci.woodbury.mn.us).

Sincerely,  
South Washington Watershed District

A handwritten signature in black ink, appearing to read 'John Loomis', with a long horizontal flourish extending to the right.

John Loomis  
Water Resource Specialist



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Twin Cities Field Office  
4101 American Blvd E.  
Bloomington, Minnesota 55425-1665

May 29, 2012

Mr. Robert Finley  
Southeast Regional Manager  
Minnesota Pollution Control Agency  
12 Civic Center Plaza, Suite 2165  
Mankato, MN 56001

Re: Draft TMDL – South Metro Mississippi River

Dear Mr. Finley:

This letter constitutes U.S. Fish and Wildlife Service's (Service) comments on the Draft South Metro Mississippi River Total Suspended Solids (TSS) Total Maximum Daily Load (TMDL Study).

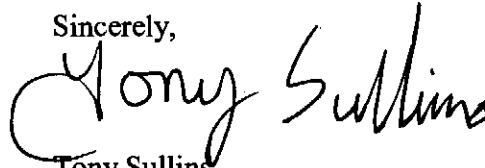
Lake Pepin, Mississippi River and Minnesota River are of high importance to the Service's goals of conserving its trust resources – endangered species, migratory birds, nationally significant and interjurisdictional fisheries, and Service-owned lands. Within this study area, there are four federally listed Endangered mussels and implementation of this report has significant potential to support recovery. The South Metro River will not reach its full potential for the reestablishment of populations of endangered mussels until sediment delivery is substantially reduced and when both suspended and embedded sediments decline.

This TMDL Study identifies that the Minnesota River accounts for 75 percent of the TSS load to the South Metro Mississippi, on an average annual basis. The Service's Minnesota Valley National Wildlife Refuge (Refuge) is located along a 70-mile stretch of the Minnesota River from Henderson to Bloomington, Minnesota. On Page 28, the TMDL Study states that long-term average TSS concentration declines from 141 mg/L at Jordan to 112 mg/L at Fort Snelling. It should be noted that this 21 percent TSS reduction occurs largely on Refuge and State lands that conserve fish, wildlife and plants, and provide recreational opportunities to the public. Recent floodplain deposition has occurred on the Refuge, amounting to several feet of sediment in some areas and is adversely affecting submerged aquatic and emergent vegetation that provides essential food and cover for fish and migratory birds. The frequency and amount of deposition has been increasing and is well documented by Refuge staff between Jordan and Ft Snellings, as well as the Blakely Unit near Henderson, MN. This increase in sediment deposition stresses the importance of swift implantation of the TMDL Study and a focused effort along major TSS contributing watersheds on the Minnesota River. We also recommend that monitoring continue at Jordan on the Minnesota River under Principle Four, Action 3 to address concerns over increased floodplain deposition on Refuge lands.

The Service urges Minnesota Pollution Control Agency to initiate implementation of these conservation measures at the watershed and landscape scales as soon as is practicable. The Service is committed to reducing erosion on Refuge lands and we will strive to put as much of our resources towards reaching the goals outlined in this TMDL Study.

If you have any questions about the Service's position on this TMDL Study, please feel free to contact me or Andrew Horton of this office at (612)725-3548.

Sincerely,

A handwritten signature in black ink that reads "Tony Sullins". The signature is written in a cursive style with a large, prominent "T" and "S".

Tony Sullins  
Field Supervisor

Cc (email only): Charles Blair, Minnesota Valley Wildlife Refuge



May 22, 2012

Robert Finley  
Minnesota Pollution Control Agency  
12 Civic Center Plaza  
Suite 2165  
Mankato, MN 56001

Re: South Metro Mississippi River Total Suspended Solids TMDL

Dear Mr. Finley:

Our Department has reviewed the South Metro Mississippi River Total Suspended Solids (TSS) Total Maximum Daily Load (TMDL) that was public noticed February 27, 2012 and generally supports the sediment load reductions that have been identified in this TMDL. This TMDL was prepared to address the sediment/turbidity impairment problem that has been identified by both our states in the Mississippi River extending from the mouth of the Minnesota River to upper Lake Pepin. Excessive sediment contributions are contributing to water quality standard exceedances and rapid infilling of Lake Pepin. Our Department is interested in this TMDL because it has a direct influence on our Mississippi River border waters and sediment load reductions have been identified for some of Wisconsin's watersheds in the impaired river reach. Staff from our Department have been actively working with the Minnesota Pollution Control Agency (MPCA) on water quality problems on the Mississippi River for the past two decades.

We would like to provide the following comments and questions:

- Although the TMDL addresses sediment load contributions from watersheds in Minnesota and Wisconsin, given legal requirements our Department anticipates a need to prepare a consistent TMDL and public notice that TMDL.
- The sediment TMDL identifies no needed load reductions for the St. Croix River basin and an overall 20% load reduction for the Big River, Trimbelle Creek, Isabelle Creek and Rush River watersheds in Wisconsin. We generally support these load reduction targets. However, we believe the TMDL should provide more specific information on how the actual TSS loads were calculated for these watersheds, where applicable.
- The wasteload allocations for permitted facilities without TSS limitations are based on a TSS concentration of 32 mg/L, equivalent to the site-specific river standard, rather than 30 mg/L which would be consistent with a 6% margin of safety identified in the TMDL. We would like to know why the TMDL doesn't use a 30 mg/L TSS concentration to derive waste load allocations for these facilities.
- Table 7 provides annual TSS load allocations at varying flow conditions for various sources and categories. We believe the TMDL should describe how the five flow categories (very high, high, moderate, low and very low) are defined and derived.

- Although section 7.0 clearly states that the state of Wisconsin has exclusive implementation authority for portions of the watershed/basin in Wisconsin, there are a number of sections, such as 6.8 -- Future Growth and Wastewater Reserve Capacity and 6.9 -- Procedures for New and Expanding Wastewater Dischargers where the reader may be left with the impression that MPCA will be making NPDES permit decisions for all wastewater discharges within the basin. We suggest the text be edited to state that sections, such as 6.8 and 6.9 only apply to Minnesota discharge facilities.

- In section 6.8, the TMDL identifies a reserve capacity of 46 metric tons per year for future wastewater treatment facilities using stabilization ponds in Minnesota. It is unclear whether this reserve capacity was intended to include or exclude Wisconsin facilities using lagoon or stabilization pond treatment systems. We believe a similar provision needs to be provided for similar facilities in Wisconsin and should be added to section 6.8. If the 46 metric tons per year is to apply to the entire basin regardless of the state, the TMDL should provide procedures for defining how this reserve capacity would be equitably administered between our two states. We believe the best approach is to define a reserve capacity exclusively for Wisconsin facilities and leave the use of the reserve capacity to each state.

-Appendix A of the TMDL lists wastewater treatment facility wasteload allocations. We believe this table should include the design flow and TSS concentrations used to derive the allocations.

We would like to thank MPCA for developing the South Metro Mississippi River TSS TMDL. We understand how challenging and complex this effort is considering the size of the watershed and diversity of sediment sources. We believe this TMDL will provide the foundation for implementing sediment reductions efforts that are necessary to address the serious sediment impairment problems that impact the Mississippi River and Lake Pepin. If you have questions concerning these comments or information requests, please contact John Sullivan, Mississippi River Water Quality Specialist, at La Crosse, WI (608-785-9995).

Sincerely,



Susan Sylvester  
Water Quality Bureau Director

C: Pam Biersach Pawloski  
Dan Helsel  
Nicole Clayton  
Jim Baumann  
James Fischer  
John Sullivan



**From:** [Sullivan, John F - DNR](#)  
**To:** [Finley, Robert \(MPCA\)](#)  
**Subject:** South Metro TMDL  
**Date:** Thursday, March 29, 2012 12:29:24 PM

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Robert,

Sorry I was not able to make the TMDL meeting today in Red Wing. I had planned to attend, but I've been having some respiratory problems and thought I should avoid being out in public meetings for now. I have been meaning to talk with you about the South Metro TMDL. I suspect you will be wanting a support letter from us on the TMDL. Further, Wisconsin's needs to resolve how we plan to deal with our portion of the TMDL for those watersheds between the Prescott and Maiden Rock. Obviously we will likely be on a different time tract for these small watersheds. I have several questions listed below that I would like to discuss with you when you have time. Look them over then let me know when you would be available to discuss these items. I will be starting a lot of field work next week but should be available later in the day on most days.

- Load definition of un-monitored tributaries with direct input to the Mississippi – How were loads established for these tribs? I know we have some data for Rush River but little information for Big River, Trimbelle River and Isabelle Creek. All of these are trout streams and would generally have low TSS level except during major runoff events, especially in the spring. How are you planning on approaching TMDL implementation in similar watersheds on your side of the river these small watersheds?
- Minnesota River load reduction - Is the identified TSS load reductions more dependent on achieving the site-specific sediment criterion (LD 2 and LD 3) or is it more dependent upon attaining the sediment/turbidity criterion for the Minnesota River? I know both are important, but is it possible to attain one target but not the other?
- St. Croix River TSS reductions – No TSS reductions are called for but TSS WLAs have been recommend for point sources. These would appear to be “caps” on future TSS loading. I wondering if this was done to be consistent across the UMR basin or if this is more related to the need to address P loading from these sources.
- Point source WLA for permitted facilities with no TSS limit. I am confused as to why you assigned a value of 32 mg/L (x design flow) to calculate the WLA. Why wouldn't you use 30 mg/L which was identified as a margin of safety for assigning loads to NPDES/WPDES facilities?
- General flow conditions (Very High, High, Moderate, Low, Very Low) for

annual allocations (pg 51-Table 7). Is it possible to equate these general flow classifications to flow durations? If not, how does one determine what flows fall under the various conditions for a particular tributary?

- Future growth issues pg 46 – WLAs for stabilization points is set at 45MT/yr. Is this just for Minnesota facilities?
- WLA calculations for Wisconsin WPDES facilities. Is it possible to obtain the file used to calculate WLAs for Wisconsin dischargers? It would be important to have this information in our files in the event they need to be verified.

That's all for now,

John

**John F. Sullivan**

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*"Plain question and plain answer make the shortest road out of most perplexities"* M. Twain