Just finished reading the draft TMDL. Wow, good work!

Just a few comments. For the following sections it would be nice to include “semi-permanently and permanently store water”. More and more wetlands and associated uplands are going to be restored by DNR and USFWS as new WMAs/WPAs are developed, and through private lands initiatives, which over time should hopefully make some contribution to reduced flows. A good management option would be to drain many of these wetlands during late fall/winter to provide spring storage, hence the semi-permanently store water option. Some of these basins could be quite large considering what’s all been drained in the watershed.

Nonpoint sources – Regarding nonpoint source practice implementation, a more detailed implementation strategy addressing those sources will be developed following approval of this TMDL study. A balance of practices that keep the soil in place, temporarily store water, and address near channel sources will be selected.

BMP Strategy - the types of alternative practices include:

a. Perennial vegetation to keep soil in place in increase infiltration;
b. Crop residue or cover crops to keep soil in place;
c. Elimination or protection of surface tile inlets to decrease the amount of sediment transported directly to surface water;
d. Decreasing ravine erosion;
e. In-line ditch design;
f. Water storage (surface or subsurface storage of one inch of runoff for 24 hours); and
g. Focusing on areas downstream of knickpoints where near channel source contributions are high.

For the following paragraph it assumes converting land to perennial cover has to be expensive. That’s not necessarily true considering there are people interested in farming the land with managed grazing, biofuel production, timber, organically, etc. It would be nice to see mention of the potential for alternate farming practices and the promotion of funding programs geared to help get such farmers started.

One component of the model scenarios was to increase perennial vegetation (pasture, CRP, perennial crops, and forest on cropland) to 20 percent of each watershed. This could amount to about 1.5 million acres and range in cost from $2,000 to $4,500 per acre, depending on local land prices. Approximately two to eight percent of the land in each watershed is enrolled in conservation programs.

Something to consider regarding the following paragraph. . . During summer LQP Lake can produce some very dense blooms of aphanizomenon which would likely have some interesting effects on downstream turbidity.
However, a thorough investigation of the relationships between turbidity, TSS and chlorophyll-a completed in the Phase I Report of the Lower Vermillion River Watershed Turbidity TMDL Project (Tetra Tech, 2004), concluded that algae do not play a major role in the observed turbidity. The Vermillion Study settled on a simple TSS regression as the best overall predictor of turbidity. At this time, we believe a similar approach is warranted in this project. Algae, other volatile solids, and non-volatile solids are all component parts of TSS, and contribute more or less to turbidity.
May 29, 2012

Mr. Larry Gunderson  
Minnesota Pollution Control Agency  
520 Lafayette Road North  
St. Paul, MN 55155-4194

RE: Minnesota River Turbidity Total Maximum Daily Load Report Comments by the Minnesota Department of Transportation

Dear Mr. Gunderson

The Minnesota Department of Transportation (MnDOT) appreciates the opportunity to provide comments on this Total Maximum Daily Load (TMDL). In general, MnDOT supports efforts to protect Minnesota’s water resources. MnDOT activities and facilities are subject to the National Pollutant Discharge Elimination System (NPDES) permits including Construction Stormwater (CSW) and potentially the Municipal Separate Storm Sewer System (MS4) permits. As such, we work diligently to preserve and protect water quality in a responsible and cost effective manner. As drafted, we see a document which proposes to burden MS4s with an substantial task (an apparent 90% reduction of their TSS loading), at substantial cost (currently estimated at 175 million dollars), to achieve little reduction (less than 1%) 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 suggest that site specific standards would be appropriate for this river system. We offer the following comments.

Baseline

We recommend that the baseline for any MS4 reduction be based on a no Best Management Practice (BMP) baseline. This would be consistent with other TMDLs, such as the Lower Minnesota River Dissolved Oxygen TMDL. Setting a baseline year of 2000 penalizes MS4s who implemented stormwater BMPs prior to that time. We do not believe that the year 2000 baseline is warranted and suggest that any baseline be based on no BMPs.

An Equal Opportunity Employer
Waste Load Allocation (WLA) Values

The current draft mandates substantial load reductions for MS4s (approximately 90%) at great cost. It is noted that previous versions of the TMDL (5-18-2010) had higher WLA values for MS4s (e.g., Minnesota River to Shanaska Creek, and other reaches). Please explain why the WLAs for MS4s have been further reduced.

NPDES Compliance

We appreciate the statement that MS4s will be considered in compliance with the WLA if they are in compliance with the MS4 permit. We note a similar statement for other NPDES permits. This is appropriate.

Use of Flow Duration Curves for Large River Systems

For large rivers, such as the Minnesota, 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 might be needed to address the different flow regimes. This is quite impractical as most water quality BMPs are designed based on the 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

We do not see, at this point, that the Turbidity Standard/TSS goals can be achieved under the current structure. We would therefore suggest that MPCA consider the development of site specific standards (SSS) for this watershed. This is appropriate when the existing WQ standard cannot be achieved: "The Agency and local entities involved in TMDLs are looking at SSS as a cost effective and logical way to deal with situations where meeting the statewide (or eco-region-based) standard is not possible." (STATEMENT OF NEED AND REASONABLENESS BOOK I of III, In the Matter of Proposed Revisions of Minnesota Rules Chapter 7050, Relating to the Classification and Standards for Waters of the State..., July 2007).

Process for Including New MS4 areas

The document indicates that MnDOT and other entities may be newly regulated MS4 entities in this TMDL study area. What is the process for adding additional MS4s to the regulated status? As written, it is not clear how this will be done, or how new regulated MS4s are accounted for in the WLA process. Please provide additional clarification.
Transfers - New MS4 Areas and Allocation Transfers

As additional MS4 areas become regulated, there needs to be a mechanism to provide them with WLAs. 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).

Costs

The current version of the TMDL estimates cost of implementation to the MS4s of 175 million dollars. While this is a substantial cost, a previous draft provided and estimated cost of 948 million dollars. Please explain this large discrepancy.

Conclusion

The report shows that NPDES MS4 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 Minnesota 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. We suggest that MPCA consider developing site specific standards for this watershed. Please feel free to contact our office should you have any questions regarding our comments.

Sincerely,

[Signature]

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

cc: Lisa Thorvig, Director, MPCA Municipal Division
    Jon Chiglo, MnDOT Engineering Services
    Scott Peterson, MnDOT Government Affairs
    Mike Barnes, MnDOT Operations
    Scott Morgan, MnDOT District 7
Dear Mr. Gunderson:
The Lower Minnesota River Watershed District appreciates the opportunity to comment on the Minnesota River Basin Turbidity Total Maximum Daily Load (TMDL). Because of our location and responsibilities, the District approaches this subject very seriously. The letter is organized in three 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; and comments and recommendations on the TMDL report.

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 Mdewakanton 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.

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.
Lower Minnesota River Watershed District

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. 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. 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.

These items identified are not the result of the normal functioning 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. In addition, sediment deposition in the floodplain is reducing the
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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 upstream 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). Several studies show TSS concentrations in the Minnesota River declining, but TSS loads measured at Jordan show no trend. A likely reason for the failure to reduce TSS loads and improve biological health is given in the concluding paragraph of the 2011 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.

The District strongly supports the science conducted under the supervision of the MPCA for the TMDL study. 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
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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. With the exception of the agricultural community there appears to be little or 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 several major concerns: first, the TMDL is based on a turbidity standard likely to be replaced within a year; second, the 90 percent reduction in TSS loads required by the TMDL would return the river to natural background conditions, a finding that raises questions about the standard and the processes used to develop the loading capacity of the river; third, the implementation timeline seems inappropriate given the significant amount of data that has been compiled on sediment sources; and fourth, the requirements for MS4s are difficult to interpret and, moreover, pointless unless a definite timetable is set for TSS reductions from nonpoint sources. We will expand on these issues one by one.

The turbidity standard of 25 nephelometric turbidity units (NTU) for warm water streams lacks the definition needed to serve as a target for the TMDL. The TMDL acknowledges this by choosing to use TSS values as a surrogate for NTUs. The MPCA has gone to great lengths to establish accurate correlations between TSS and NTU values for many parts of the basin.

The TMDL refers to the possibility of a new standard to replace the 25 NTU standard on pages 15 and 194. The MPCA web site includes draft documents supporting criteria for the new standard. It appears that 65 mg/L TSS is the criterion that would apply to all or most of the Minnesota River basin. In the lower part of the basin, the proposed new standard would seem to be significantly more stringent than the present standard with TSS surrogates of 70 to 100 mg/L. In the western part of the basin the proposed criterion of 50 mg/L TSS would appear to be a relaxation from the current standard.

Another discrepancy between the current standard and the proposed criteria seems likely to result in a new standard that is considerably less stringent. The current 25 NTU standard provides no guidance for which monitoring data to use, and how to analyze it, to determine compliance. The MPCA has taken the conservative approach of supposing that the standard must be met year round on a daily basis. Even those monitoring values that are orders of magnitude greater than other data in the total sample set must be included, even though they likely represent highly abnormal conditions for which no kind of best management practices would be effective. Requiring the watershed model to bring these abnormally high values down to the standard with “an extremely effective suite of management measures” (TMDL, page 174) is likely why a 90 percent load reduction is called for.

The proposed new standard wisely addresses this issue by allowing 10 percent of the monitoring data points to exceed the criterion of 65 mg/L. MPCA biologists have evidently determined that this is consistent with protecting biotic health. This 10 percent exceedence provision may well result in load reduction requirements considerably less than 90 percent. At the very least, the TMDL document should have calculated the effect of the proposed new standard on allocations and TSS reduction requirements, especially when the new standard is expected to take effect within several months.
Supposing the TMDL receives final approval in November 2012, and the new TSS/turbidity standard takes effect in February 2013 — a not-unlikely scenario. Will the allocations of the just-completed draft TMDL remain valid? How does the MPCA justify proceeding with the TMDL based on a standard that it intends to change within the coming year? The District strongly urges the MPCA to delay sending the TMDL to EPA for final approval until the new standard is fully promulgated, and the TMDL is adjusted as needed to meet the new standard. No one in the Minnesota River Basin will take seriously a TMDL which espouses a clearly unattainable goal, and blindly proposes revolutionary changes in land use to attain it. To proceed with the current draft is irresponsible, foolhardy, and likely to detract attention from the need for very significant — but feasible — TSS load reductions.

In stark contrast to the lofty targets set for TSS load reduction, the MPCA provides little assurance that any significant nonpoint source TSS reductions can be achieved. 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.

The MPCA proposes a 30-year implementation period divided into 10-year phases. The chart on page 193 lays out a schedule for implementing various types of BMPs. The District is concerned that only crop residue management and urban stormwater source reduction are listed as activities to be undertaken immediately. We recommend placing ravine stabilization in the “start now” category as well. The University of Minnesota has identified many ravines with GIS in a project sponsored by MPCA. Ravine erosion fixes such as water-retaining structures at the top of the ravine combined with downslope piping are well known to the Natural Resources Conservation Service and many engineering contractors. Eliminating surface tile intakes and side inlets to drainage ditches, and stepped up compliance with state buffer rules for protected streams and drainage ditches, also belong in the “start now” category if the state is serious about making significant reductions in TSS. Finally, the District supports removing urban BMP implementation from the initial phase of implementation, for reasons that will be explained shortly.

The District recommends establishing three components of LA for the Minnesota River basin as a whole 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 sufficiently stable at the whole-basin scale to warrant their use in disaggregating the LA at this level of aggregation. We consider these data sufficiently robust to recommend their use in creating three LA categories for the basin as a whole, measured at the Jordan monitoring station, which marks the endpoint of the TMDL domain.
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 that the MPCA chose not to single out in this TMDL. 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 to provide an estimate of controllable non-field sediment, 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 so defined. 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 a basin-wide implementation plan with specific targets and milestones for field and non-field erosion sources.

The TMDL document (page 183-84) 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 TSS 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 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
Lower Minnesota River Watershed District

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 shoreline 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 192) calls for a Phased Approach to TMDL implementation over an expected 30-year period. The District suggests that the regulatory approaches outlined above, if systematically implemented, could go a long way toward accomplishing progress in the first phase. Most of these authorities are listed in Section 9 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 expect that existing authorities will be carried out as part of the Phase One Sediment-Reduction Plan.

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 9 of the TMDL lays out a process for implementing the TMDL through an adaptive management approach developed for the Chesapeake Bay TMDL, 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 9, 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; and 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.

Finally, the District finds the discussion of waste load allocations for urban storm water in Section 6 difficult to interpret and apply, and lacking in clear justification. Municipal Storm Sewer Separate Systems (MS4s) will apparently be required to install BMPs that result in the infiltration of the first inch of runoff from both impervious and pervious surfaces. It is not clear how the "first inch of runoff" can be measured in practice. In Section 4, this is said to correspond to 50 pounds/acre/year for mid-flow conditions. MS4s also are given an aggregate WLA listed for the impaired reach to which they discharge. Is this simply a TMDL reporting requirement, or could it have regulatory implications?

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 in Minnesota, add considerably to the regulatory risk faced by MS4s that are subject to a TMDL.

The District recommends that the MPCA use its regulatory discretion to coordinate its point and nonpoint source programs for the TMDL as follows. Establish 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 defined portion of their WLA: for example, 15 years following TMDL approval. This will provide time needed to evaluate the TMDL and the implementation approach as a whole in the context of adaptive management, making adjustments as needed to attain the water quality standard on schedule.

The Lower Minnesota River Watershed District is submitting these comments and requests in order to increase the likelihood that the Minnesota River Turbidity 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, though incomplete, provides reasonable starting point. 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

[Signature]

Kent Francis, President
Lower Minnesota River Watershed District

cc:
Senator Daley
Senator Hall
Senator Hann
Senator Ingebrigtsen
Senator Kelash
Senator Metzen
Senator Ortman
Senator Robling
Representative Lanning
Representative Anderson
Representative Beard
Representative Hamilton
Representative Hansen
Representative Hoppe
Representative Leigiger
Representative Lenczewski
Representative Loon
Representative McNamara
Representative Morrow
Representative Myhra
Representative Slocum
Commission Aasen
Commissioner Landwher
Director Jaschke
Administrator Jackson