Item 9E
BCWMC 5-16-13

Page #	Line #	Comment	Name of Person Providing Comments	Organization
28	lines 8-9	Only the most downstream reach of Rice Creek (Long Lake to the mouth at Miss. R.) is shown as impaired. No other reach in the upper watershed is listed as impaired. Please explain how the upper watershed can be included when there are no direct impairments in those areas. Runoff is conveyed through extensive wetland systems and other surface waters before reaching the impaired reach. There is no indication of impairments in the upper watershed area.	Jim Hafner	City of Blaine
29	2,20,33	Frequently refer to Figure 2-2 for a map of TMDL and Protection subwatersheds, but 2-2 is only for the Sartell Subwatershed.	Kari Oquist	Mississippi Watershed Management Organization
32	40	Thanks for naming the national park!	Lark Weller	Mississippi National River and Recreation Area - NPS
40	25	Report doesn't discuss bacteria's survival rates in sediment much, although in earlier phases of the project, that was discussed as a potentially important factor. Would the 1st sentence of Sect. 4.1 work as, "Humans, pets, livestock, wildlife contribute bacteria to the environment, *where they can survive for long periods in sand and sediments"*?	Lark Weller	Mississippi National River and Recreation Area - NPS
40	45	add "upstream" so sentence reads, "for dischargers within 25 miles *upstream* of a water intake…"	Lark Weller	Mississippi National River and Recreation Area - NPS
40	18-19	Page 40, line 18-19: The document referenced here (Upper Mississippi River Bacteria TMDL: Data Analysis, Source Assessment, and Monitoring Recommendations) states on page 179 "…no bacteria data were available for Rice Creek for this study." If data is not available to support a bacteria impairment, how can a watershed be included in the TMDL? If data has been made available since the date of the referenced document then it should be included in the TMDL report. Without data, how are MS4's to know what needs to be done?	Jim Hafner	City of Blaine
42	2	3M believes the facility design flow of the 3M Cottage Grove Center, Permit MN0001449, is 12.9 mgd as listed in previous NPDES permits. The design flow is based upon 6.1 mgd at SD001 and 6.8 mgd at SD002 or a total combined flow of 12.9 mgd to the Mississippi River. 3M believes Table 4-2 lists the daily average flow for SD001 at 3.6 mgd.	Tina Berg	3M
42	24 thru 35	Sources of bacteria should be quantified, at least in relative terms, the impact of the various sources of bacteria. With the declining numbers of feedlots and riparian pastured areas within these watersheds and with the implementation of feedlot rules, livestock related agriculture may be a minimal source of contamination.	Dennis Fuchs/Greg Berg	Stearns County SWCD
43	21-31	REPLACE the 1st paragraph under the subheading, "*Aging Infrastructure*" with the following: "*Sanitary Sewer Overflows* (rename the section) WWTF bypasses, also called sanitary sewer overflows (SSOs) are emergency discharges of partially treated or untreated sewage. They occur during periods of heavy precipitation, when WWTFs become overloaded due to illicit stormwater connections and/or inflow and infiltration (I&I). Inflow typically is from a structure or device that collects stormwater and drains to the sanitary sewer. Infiltration is the seepage of groundwater into sanitary pipes through cracks and joints. They occur during periods of heavy precipitation, when WWTFs become overloaded due to illicit stormwater connections and/or I&I. SSOs typically last from a few hours to a few days. Violations are recorded if a WWTF's effluent exceeds the 200 cfu/100 ml fecal coliform bacteria. Bypasses occur in separated and combined sewer systems. CSOs, in contrast to SSOs, are specific to combined sewer systems. Table 4-3 identifies the subwatersheds that have experienced more than five SSO events of water that has not received secondary treatment during the period 2002-2011 (according to WWTF bypass reports submitted to MPCA)."	Lois Eberhart	City of Minneapolis
43	33-37	COMMENT on *"According to Future Wastewater...standards (MPCA 2012a)"*: The City of Minneapolis typically assumes a 100-year life for its sanitary sewer pipes, not a 50-year life. The system is televised (closed-circuit TV) to inspect for cracks and other problems, and an annual repair and rehabilitation program is carried out. A common rehabilitation method is lining, and original construction dates do not reflect whether or not pipes have been lined. As an example, 8.1 miles of sanitary pipes were lined in 2012. CIPP lining (Cured-in-place-pipe) is a method to address pipes that are leaking or are structurally unsound. Because it is a trenchless process, little or no excavation needs to occur. The result is a corrosion-resistant replacement pipe with no joints. (The Metropolitan Council Environmental Services also owns and operates sanitary sewer infrastructure in Minneapolis. MCES also has a rehabilitation program.)	Lois Eberhart	City of Minneapolis
44	7	Comment on *"Considering the age of some...system."* COMMENT 1 As described above, the age of a sewer does not necessarily indicate its condition. COMMENT 2 Seepage from leaking sanitary sewers is unlikely to enter storm sewers through cracks or joints because sanitary sewers are nearly always deeper that storm sewers.	Lois Eberhart	City of Minneapolis
44	25	Page 44, line 25: If data was available for only 4 outfalls out of hundreds, how can that provide suitable data to support the findings of this TMDL, or to list specific reaches of impaired or unimpaired waters in this TMDL?	Jim Hafner	City of Blaine
44	11-13	Page 44, lines 11-13: Sanitary sewer lines are typically buried deeper, 5 to 7 feet on average, than storm sewer lines. Therefore, the likely hood of leaking sewage routinely reaching storm drains is unlikely with the occasional exception of large storm events. The studies listed as examples are from large metropolitan areas without mention of whether or not those cities have separate sanitary and storm systems or if they have significant CSO problems. These examples may not be pertinent to the TMDL study area.	Jim Hafner	City of Blaine
44	13-18	If sewage originating from breaches in sanitary sewage infrastructure is making its way to storm sewers, how can a non-traditional MS4 that does not maintain a sanitary sewer system, reduce this source of contamination?	Tara Carson	MnDOT
44	16-18	Page 44, lines 16-18: This quote is taken from the second line of an abstract that goes on to provide a number of qualifiers. I find the quote as used in the TMDL report to be out of context, very broad in nature, and not necessarily representative of actual conditions in the study area. (See also comment above for page 44, lines 11-13.) Supporting documentation would be better suited if taken from the study area, or at least from Minnesota.	Jim Hafner	City of Blaine
46	Table 4-3	Any thoughts as to how two (highly urbanized) reaches with CSOs in them have managed to not become impaired? Also, do you think the dams help clear/mix bacteria concentrations, and that may contribute to the stretches below Upper St. Anth. Falls and LD 1 being unimpaired, despite being surrounded by impaired, urbanized stretches?	Lark Weller	Mississippi National River and Recreation Area - NPS
47	21-22	Who provides the septage application license? Report goes on (p. 48) to say PCA doesn't regulate land application of septage.	Lark Weller	Mississippi National River and Recreation Area - NPS
47	Table 4-4	Page 47, Table 4-4: While this table makes the point that septic systems can be a problem and are more so in certain counties, it provides a sense of sensationalism in this report. Using Rice Creek as an example, most of that area is sewered. Small parts of it may still have private systems. Does the 6% statistic shown for the entire Anoka County represent the area included in the study? It would be more helpful in understanding the scope of the problem if statistics were more accurate to the specific areas affected by the TMDL.	Jim Hafner	City of Blaine
53	Fig. 4-4	Dots are very hard to distinguish for sure on e-version due to pixelation.	Lark Weller	Mississippi National River and Recreation Area - NPS
55	Section 4.1.4	Section 4.1.4 on Page 55 discusses wildlife sources of bacteria. In addition to the areas already listed, it should be noted that Waterfowl Production Areas, RIM easement lands, lands under CRP contracts and urban stormwater ponds may also be potential sources of bacteria. In some areas of the TMDL area, historic wetlands in urban areas have been previously drained for a variety of purposes, such as housing and commercial developments. With development, urban stormwater ponds are constructed, which can provide some habitat for wildlife and waterfowl species. As an example, a map of the City of Sartell is included that illustrates wetlands that have been previously drained. Upon viewing the map, several stormwater ponds can be seen within the urban landscape, which eventually drain to the Mississippi River. Due to the numbers of waterfowl and wildlife species that populate the areas mentioned above for feeding, nesting, brooding and resting purposes, it is reasonable to expect some bacteria contributions from these areas as well. Waterfowl species can fluctuate in a given location based on time of the year due to annual migration patterns, weather conditions and the type of habitat conditions that are available for feeding, nesting, brooding and resting. Also, earlier springs and late falls may make it more conducive for waterfowl species to arriver earlier and to stay later in Minnesota. Regarding resident waterfowl populations, some consideration should be given to bacterial contributions from goose populations that reside the entire year in certain regions of the TMDL area. As an example, the Mississippi River just below the Sartell dam is usually open during the winter, with resident goose populations occupying the open water frequently during this time. The MDA recommends some additional discussion and need for more information about the potential impacts from resident waterfowl populations and the inclusion of the other habitat areas mentioned above. The MDA realizes that it is difficult to obtain data in the short-term, but it may warrant additional study by the MPCA or more discussion within the draft TMDL Study and Protection Plan.	Rob Sip	MDA
56	31	Page 56, line 31: The tool would be much more valuable if municipal boundaries were included on the maps. At the very least, insert maps with boundaries on the TMDL web site and reference them in the report.	Jim Hafner	City of Blaine
56	10-12	Comment on *"Absent of stormwater BMPs…system networks":* Add "runoff" to sentence -- ". . . loads in urban stormwater runoff are directly conveyed . . ."	Lois Eberhart	City of Minneapolis
56	12-15	Comment on *"As a result of aging infrastructure...Sercu et al. 2011)"*: The first paragraph of Sauer, 2011, talks about "failing infrastructure and illicit cross connections between the stormwater and sewage systems." Replacing this language with "as a result of aging infrastructure" is not the same. Please be sure to concentrate on failure and illicit cross connections as valid concerns, not age.	Lois Eberhart	City of Minneapolis
56	24-27	Comment on *"Aging Infrastructure -Leakage from sanitary sewers, inflow and infiltration, combined sewer overflows":* REPLACE WITH *Bypasses/Overflows (rename)* Inflow and infiltration Sewer failure Illicit connections Combined sewer overflows	Lois Eberhart	City of Minneapolis
56	lines 9-17	Page 56, lines 9-17: See comments for page 44 listed above.	Jim Hafner	City of Blaine
69	Fig. 4-13	I can't see Metro WWTF on this.	Lark Weller	Mississippi National River and Recreation Area - NPS
70	Table 4-8	These are "bacteria production rates by head," rather than production rates we'd expect to see relative to their likely proportionately in the environment, right? So, dogs and cats produce 2-1/2 times more bacteria than humans?	Lark Weller	Mississippi National River and Recreation Area - NPS
70		Table 4.8 on Page 70 lists bacteria production by animal type. The MDA recommends using data that is more recent than the 1991 data that is provided if it is available. Given the large body of water quality scientific research that has occurred since 1991, it is reasonable to expect more recent data and information. The MDA realizes that more recent data simply may not exist and that the use of the 0.5 conversion factor listed within Table 4.8 is the best method to calculate bacteria production rates.	Rob Sip	MDA

71	Table 4-9	ITPHS SSTS, last 4 lines: half the fecal coliform concentration of what? I could use some additional explanation here.	Lark Weller	Mississippi National River and Recreation Area - NPS
71	Table 4-9	SSTS Discharge to Groundwater: I thought we know so little about groundwater/surface water interactions that we can't really say with confidence there's no potential connection between ground- and surface water contamination?	Lark Weller	Mississippi National River and Recreation Area - NPS
71	Table 4-9	Comment on *"Data Sources and Assumption column"*: COMMENT 1 As stated above, we suggest that leakage from sanitary sewer into storm sewer is unlikely if sanitary sewer is deeper (seepage instead may impact groundwater). COMMENT 2 As stated above, we suggest that age not be used as a surrogate for pipe failure or illicit connections. Age of pipe is not a predictor of failure or illicit connections, because failure or illicit connections can occur at any age. Data about pipe condition, and/or dry weather flow screening information may instead be available from sewered communities.	Lois Eberhart	City of Minneapolis
72	4 thru 20	In this day and age of DNA testing would it be possible to determine the animal source of the most prevalent bacteria? There are more non-migrating waterfowl in the Mississippi and its tributaries than ever before.	Dennis Fuchs/Greg Berg	Stearns County SWCD
74	3 thru 7, 11	How were horse estimates made, if they're not required to be registered and weren't included in windshield surveys?	Lark Weller	Mississippi National River and Recreation Area - NPS
75	Table 4-11	Do AVMA data include estimates of un-licensed pets that are not taken to the vet? Where do feral cats figure in? (I live in the Feral Cat Central neighborhood of Minneapolis). Feral cats would make the 100% cat waste collected by owners number inaccurate. 38% of dog waste not collected by owners seems low to me, based on very informal observations around town. How do the "collected" vs. "not collected" pet waste categories account for waste that sits in the yard for awhile until the owner does a big clean-up? (This again ties to the bacteria survival rate question.) What do we know about how immediately pet waste has to be picked up in the yard to avoid bacteria pollution?	Lark Weller	Mississippi National River and Recreation Area - NPS
85		For 07010206-568 and 07010206-564, I'm surprised to see ITPHS as such important sources, and don't recall any particular discussion of this.	Lark Weller	Mississippi National River and Recreation Area - NPS
91	7-9 and Table 5-1	MWMO also added a monitoring location on the Mississippi River, between Upper and Lower Saint Anthony Falls, AUID 07010206-513 to fill in data gaps. Details are in EQuIS.	Kari Oquist	Mississippi Watershed Management Organization
96	5.5.1	In Section 5.5.1., there is discussion of "the area that falls under MS4 regulation". This discussion should include specific information regarding the fact that only areas within MS4 permitted cities that are served by their stormwater conveyance systems are included in the WLA and covered under their MS4 permit requirements. Areas within MS4 permitted cities that are not served by their stormwater conveyance systems are included in the LA and are not covered under their MS4 permit requirements. This distinction is significant and should be clearly explained in the text of the TMDL report. Areas not served by an MS4 conveyance system may include, but not be limited to: · Surfaces of waters of the State (lakes, wetlands, etc.) · Land that drains directly to receiving waters without running through any components of the MS4 conveyance system (land immediately adjacent to waters of the State) · Large-lot residential areas that are not served by the MS4 city's conveyance system.	Randy Neprash	Stantec on behalf of the MN Cities Stormwater Coalition
97		I believe the connection between E. coli WLAs and WWTF fecal coliform permit limits needs to be clarified. It's my understanding that 126 E. coli org/100 ml equals 200 fecal coliform org/100 ml.	Ron LaFond	Stantec on behalf of the City of Albany
98	22	If a CSW permittee is discharging ONE microorganism without a WLA, are they in violation? The MOU does not provide a rationale for not establishing a WLA. Why was the MOU mentioned?	Tara Carson	MnDOT
99	19	Does the ongoing source investigation include looking into sediment regrowth, die off and natural background levels?	Tara Carson	MnDOT
99	19-21	Is a 10% MOS really enough to cover extrapolating stream gage data, bacteria re-growth in sediment, die-off, and natural background levels?	Tara Carson	MnDOT
99		Page 99 includes this text: "any expansion of a non-regulated source will need to comply with the LAs provided in this report". This statement is confusing or misleading. Is there any method to compel compliance with the LA for any expansion of a non-regulated source? If yes, an explanation should be provided. If not, this statement should be revised.	Randy Neprash	Stantec on behalf of the MN Cities Stormwater Coalition
104	25-32	The sources of the bacteria were not analyzed before this study was completed. How can we know the most effective action to take if we don't know where it is coming from? But see page 24 and page 154 of "UMRB TMDL: Data Analysis, Source Assessment, and Monitoring Recommendations" report... More sampling needs to be done to more accurately determine where the loading is coming from.	Bill Douglass	Bolton & Menk, Inc.
138	Fig. 6-34	No flow data available since 2010?	Lark Weller	Mississippi National River and Recreation Area - NPS
180	Table 7.3	There may be portions of the MS4 permitted cities listed in Table 7-3 that are landlocked and do not contribute bacteria loading to the Mississippi River or its tributaries. These areas should be identified, mapped, and removed from the WLA. The cities should be able to provide information about these areas.	Randy Neprash	Stantec on behalf of the MN Cities Stormwater Coalition
180	Table 7.3	There should be maps showing the boundaries of the MS4 cities listed in Table 7.3 in relation to the boundaries of the WLA area. These maps could be part of the supporting documentation on the project Web site. These maps should be in sufficient detail to show the affected cities which parts of their jurisdiction they should focus on during implementation. These maps should include boundaries related to Comments 5 and 6 above.	Randy Neprash	Stantec on behalf of the MN Cities Stormwater Coalition
181	Table 7-3	The report concludes pet waste is a major contributor to the bacterial impairments and provide categorical WLA to MS4s. North Hennepin Technical College MS4 and the other MNSCU colleges to be evaluated later on in the separate study of the Coon Creek watershed do not have pet populations, nor do they have significant wildlife populations. Therefore, lumping the MNSCU MS4s into a categorical WLA requiring load reductions equivalent with other MS4s who do have large pet populations does not seem appropriate.	Rebecca Kluckhohn	Wenck Associates on behalf of Anoka Ramsey Community College and Anoka Technical College and North Hennepin Community College
182		The following listed MS4s are not within the Rice Creek Watershed and should be removed from the TMDL list for Rice Creek: Ham Lake City (MS400092), Minneapolis Municipal Storm Water (MN0061018), North Oaks City (MS400109), Pine Springs City (MS400044)	Matt Kocian	Rice Creek Watershed District
184	1	Implementation Strategies- The literature review presented at the first Stake Holder meeting in Elk River indicated a wide range of effectiveness of BMPs in reducing the bacteria loading. The data also indicated BMP's may be a sink, releasing large quantities of retained bacteria. Implementation should not be part of the discussion at this time in my opinion. I liken it to going to the doctor for a sinus infection and he insists on giving you pills for acid reflux. The pills he prescribed are effective for the problem they are intended, however they do not address your problem. When you receive the proper medication your infection goes away. Implementation of the BMP's for the TMDL should not be undertaken until a toolbox of BMP's effective for bacterial removal in all flow regimes and conditions is available. All levels of government are struggling with shrinking budgets. Spending money on unproven practices or practices with a spotty track record must be avoided at all cost. The graphs in the document show the bacteria loading varies significantly in a reach within each flow regime and across reaches for the same time. Most BMPs are not effective across such widely varying conditions. More research must be conducted on treatment before requiring implementation of BMPs.	Leonard Linton	City of Ramsey
184	1	The rules must be changed to require non-regulated entities to install BMP's to help with the reduction once a toolbox is created. Expecting the regulated (MS4) communities to do all of the cleanup will not work. The presentation on March 22 showed that many watersheds do not have and MS4 that can be pressured to install BMP's so the untreated water will continue to flow out of the watershed.	Leonard Linton	City of Ramsey
184	38	Sediment can be associated with sediment, but it's not the only source, so I propose revising the end of the sentence to something like, "…sedimentation and filtration *may help limit bacteria pollution opportunities."*	Lark Weller	Mississippi National River and Recreation Area - NPS
184	39	Bacteria "*may"* or "*is known to be"* removed/deactivated with sunlight exposure?	Lark Weller	Mississippi National River and Recreation Area - NPS
184	9-11	What would MnDOT have to do outside of our urbanized boundary?	Tara Carson	MnDOT
185	4	Page 185, line 4: Wetlands can be a source of pollutants/bacteria as much as they can be a sink. This problem with created wetlands and other BMPs listed as treatment for bacteria removal is pointed out in a 2011 document written by EOR, Inc. There is a wide variability in BMP effectiveness and a limited number of BMPs that can be considered for bacteria removal. This makes selection of BMPs difficult and potentially more expensive. The variable nature of these BMPs should be more clearly stated and taken into consideration when discussing implementation.	Jim Hafner	City of Blaine
185	19	Designs *"are estimated"* or *"have been shown to have"* higher removal efficiencies?	Lark Weller	Mississippi National River and Recreation Area - NPS
186	36 thru 41	Generalizations of types of BMP's is a fine starting point. To take it a step farther, and make progress, specific monitoring of watershed areas needs to be conducted to identify critical source areas to develop priority management zones for the greatest success of reducing load.	Dennis Fuchs/Greg Berg	Stearns County SWCD
187	25	Page 187, line 25: The cost of implementing this TMDL should not be underestimated not under stated. Blaine has spent over $8million in lining old sanitary sewer pipes and is not yet finished. If leaking infrastructure is actually a significant problem as indicated in this report, the cost of resolving that problem alone could exceed the estimates listed on page 187. A more accurate estimate of potential cost should be developed for this study.	Jim Hafner	City of Blaine
187	footnote 3	This is another instance that may be misleading as to aging infrastructure and transport of sanitary sewer seepage.	Lois Eberhart	City of Minneapolis
188	7	At how many square miles of urban stormwater-shed in the project area? How do these BMPs compare to others' efficacy (cost-benefit comparison would be helpful with such numbers)?	Lark Weller	Mississippi National River and Recreation Area - NPS
188		8.C. Page 188 of the TMDL report includes this text: "It is important to note that the urban stormwater cost estimate does not account for large-scale capital projects such as replacing existing wastewater and stormwater collection systems due to age and/or failure. Note that resolving underground breaches in sanitary sewer that results in the leakage of raw sewage into stormsewer would likely require these large-scale efforts. <underlining added>" This language is inappropriate, insufficiently supported, and dangerously irresponsible in the context of the TMDL report. It should be deleted.	Randy Neprash	Stantec on behalf of the MN Cities Stormwater Coalition

189		The Draft MS4 NPDES General Permit requires permittees to show how they are in compliance with TMDL WLAs in their SWPPP. If this is a categorical WLA, will we need information from MPCA on what our percentage reduction is in order to update our SWPPP?	Tara Carson	MnDOT
197	Table A-1	Comment on "City of Minneapolis, City of Minneapolis Public Works, City of Minneapolis Water Treatment and Distribution Services" This should read (only) "City of Minneapolis". Or if you are attempting to show the two divisions that have been involved, then you could state as: "City of Minneapolis Public Works Surface Water & Sewers Division" and "City of Minneapolis Public Works Water Treatment & Distribution Division"	Lois Eberhart	City of Minneapolis
170, 172		These two reaches appear to have similar amount of data, but one is determined to be "ID" while the other is impaired. Again, maybe preparing readers for this incongruity, or explaining it, would be helpful	Lark Weller	Mississippi National River and Recreation Area - NPS
175-178	Table 7-1	Pages 175-178, Table 7-1: Listing "Reductions" (far right column) as "required" is problematic. Please change the term to "Estimated Reductions".	Jim Hafner	City of Blaine
175-178	Table 7-1	Include the 5 impaired reaches where TMDLs are being deferred so that the 0% reduction required is transparent to partners, EPA and other interested parties	Kari Oquist	Mississippi Watershed Management Organization
175-178		It is understandable that Straight Pipes should get a WLA of 0, but why are MS4s or WWTFs given a WLA of 0 for some reaches? I assume this occurs where there are no MS4s or WWTFs present. Would it be more appropriate to refer to these situations as Not Applicable to avoid legal confusion?	Tara Carson	MnDOT
184-188		10. All of Section 9: Implementation Strategies should be revised significantly.	Randy Neprash	Stantec on behalf of the MN Cities Stormwater Coalition
184-189		10.A. This section includes the following text: "Source reduction is the initial focus for implementation efforts. Limiting bacteria sources is expected to lower the concentration of bacteria entering a BMP and increase the likelihood that the outflow from the BMP will support surface water quality standards. Treatment BMPs should be implemented to provide bacteria reduction in support of source control efforts." Source reduction is the appropriate initial focus for implementation. The term "source reduction" should be consistently paired with "pollution prevention", as per Section 9.1.8. Source reduction should be elevated in importance and prominence throughout this section. Education and maintenance should be consistently included as source reduction and pollution prevention strategies. In Section 9.1, there should be a special subsection for source control and pollution prevention strategies. All of the strategies that fall into this category should be addressed within this section.	Randy Neprash	Stantec on behalf of the MN Cities Stormwater Coalition
184-190		10.B. Street sweeping should be consistently listed as a source control strategy. Street sweeping should be included as a subsection in Section 9.1. Street sweeping should be consistently listed as a high priority implementation strategy.	Randy Neprash	Stantec on behalf of the MN Cities Stormwater Coalition
184-191		10.C. Public education about water quality issues in general, including mass media campaigns, should be consistently listed as a source control strategy.	Randy Neprash	Stantec on behalf of the MN Cities Stormwater Coalition
184-192		10.D. There should be a discussion of the fact that some source control strategies are not connected to specific bacteria sources. This does not diminish the value of these strategies.	Randy Neprash	Stantec on behalf of the MN Cities Stormwater Coalition
184-193		10.E. There should be a prominent discussion about the lack of knowledge and understanding of the effectiveness of many types of implementation BMPs. The wide range of BMP effectiveness, including negative removal rates, should be presented and discussed. The implications of this should be considered and discussed. The need for adaptive management should be further emphasized, in this context. The implications of this lack of knowledge for tempering the regulation of the permitted MS4 cities within this TMDL should be considered and discussed in the implementation section of the TMDL report.	Randy Neprash	Stantec on behalf of the MN Cities Stormwater Coalition
184-194		10.F. The paper titled "Effectiveness of Best Management Practices for Bacteria Removal" includes the following text: "Three studies evaluated not only the overall removal of pollutants by the best management practices but also whether or not the resulting outflow concentration was low enough to meet a recreational contact standard. These three studies found that few practices will provide the reduction needed to meet standards." and "The study by Schueler and Holland (2000) stated that most practices discharge in the range of 2,500 to 5,000 colonies per 100 mL, well above a recreational contact standard. The study asserts that even if stormwater practices are implemented throughout a watershed, bacteria concentrations may exceed the standard." Studies appear to indicate that it is likely that the implementation of known BMPs will probably not result in reducing the bacteria loading sufficiently to meet water quality standards. This text should be included in the implementation section of the TMDL report. The implications of these studies should be considered and discussed in the implementation section of the TMDL report. The need for adaptive management should be further emphasized, in this context. The implications of these studies for tempering the regulation of the permitted MS4 cities within this TMDL should be considered and discussed in the implementation section of the TMDL report.	Randy Neprash	Stantec on behalf of the MN Cities Stormwater Coalition
184-195		10.G. The supporting documentation for this TMDL lists sump manholes as possible sources of bacteria. Underground infiltration devices should be included as a possible source, similar to sump manholes. The fact that these BMPs are likely sources of bacteria should be included in the implementation section of this TMDL. There should be a discussion of the fact that these types of BMPs may be useful for reducing sediment loads but may contribute to bacteria loads. This contradiction should be discussed in the implementation section of this TMDL. The implications for reducing both sediment and bacteria TMDL load reductions should be considered, presented, and discussed.	Randy Neprash	Stantec on behalf of the MN Cities Stormwater Coalition
189 & 190		Section 10 on Pages 189 and 190 discuss regulatory programs. There are several counties within the TMDL area that have had feedlot ordinances for many years. In addition, there are many townships that have specific requirements for feedlots, manure storage structures and manure management. Some cities may also have regulations and zoning standards for sites with less than 10 animal units. There should be additional discussion about the various local ordinances that regulate feedlots, manure management, pastures and livestock operations. While data may not be readily available, the MPCA may want to contact the local units of government to determine what types of regulations exist, including city ordinances.	Rob Sip	MDA
28, 92, 169		There appear to be inconsistencies in the TMDL listing vs. data and analysis related to Rice Creek. The reach listed as impaired (07010206-584; pg 28, 169) does not match the reach listed as having data (07010206-586; pg 92). Does the data shown in Figure 6-70 match the listing data used on page 92?	Matt Kocian	Rice Creek Watershed District
42 and 43	7-26 and 1-19	REPLACE 5 paragraphs of existing text under the subheading "*Combined Sewer Overflows*" with the following: [paragraph 1] A combined sewer overflow event, or CSO, is a discharge of untreated sewage mixed with stormwater runoff (from buildings, parking lots, streets and so on) to the Mississippi River. The occurrence of a CSO can result in adversely affecting downstream use of the resource. Combined sewer systems were designed to collect sanitary sewage and stormwater runoff in a single pipe system. These systems were designed to overflow in the event of heavy rain, if the combined total of wastewater and stormwater exceeded the capacity of the sewer system, to protect property and prevent sewer backups into homes and other buildings. [paragraph 2] Minneapolis, Saint Paul and Metropolitan Council Environmental Services have been actively working on sewer separation since the construction of the first wastewater treatment plant in the 1930s. The City of Minneapolis and the Metropolitan Council hold a joint CSO Permit and are actively working to minimize CSO events to the river as well as other system requirements. CSOs have become relatively rare in the Twin Cities. There were zero overflow events in the years 2007, 2008, 2009, 2011 and 2012. In 2010 there were two overflow events that lasted a total of 2 hours with an estimated 211,000 gallons of combined stormwater and sewage being discharged 1. By comparison, in 1984 there were 77 overflow events in the Twin Cities, with over 1 billion gallons of overflow. [paragraph 3] There are nine CSO regulator locations remaining, one in Saint Paul, and the others in Minneapolis. The locations in applicable TMDL and Protection Subwatersheds are shown in Table 4-3. The elimination of overflow structures may not be feasible in every case without causing a public health or safety hazard. Some overflow regulators may need to remain operational for emergency bypasses necessitated by extreme storm or flood events, or to minimize damage due to accidents or system failures. [paragraph 4] Typical CSO concentrations for total coliforms are reported as 10^5 to 10^7 MPN/100 mL (Novotny et al., 1989), or about 1 order of magnitude greater than treatment plant effluent. Raw sewage entering a WWTF typically has a total coliform count of 10^7 to 10^9 most probable number2 (MPN) per 100 mL (Novotny et al., 1989). Associated with raw sewage are proportionally high concentrations of pathogenic bacteria, viruses, and protozoans. A typical plant reduces the total coliform count by about three orders of magnitude, to the range of 10^4 to 10^6 MPN/100 mL. The magnitude of pathogen reduction, however, varies with the treatment process employed. [1] [footnote] The 2010 events occurred after a breach between the downtown Minneapolis storm and sanitary sewer systems. The breach was identified during a routine July 2010 inspection. It had not been visible during a May 2010 inspection. Once identified, plans and special provisions were completed, construction started in September 2010 and was completed in January 2011.	Lois Eberhart	City of Minneapolis
42-43		good CSO info/stats here	Lark Weller	Mississippi National River and Recreation Area - NPS
44,90 & 104		In the draft TMDL report, the following text appears at least three times: "Bacteria concentrations along the Mississippi River mainstem peak around the metropolitan area." (pages 44, 90, and 104). On page 44, this language is listed as one of a set of "the following conclusions were reached with respect to water quality associated with stormsewer discharges".	Randy Neprash	Stantec on behalf of the MN Cities Stormwater Coalition
44,90 & 104		In the draft TMDL report, there are at least three references to "data were available from only four sites out of hundreds of outfalls to the Mississippi River and tributaries" (pages 44, 90, and 104). On pages 44, this language is included in a short list of "following conclusions". On page 90, this language is listed as part of a "key finding" asserting that "storm sewer data exhibit high E. coli concentrations". On page 104, this language is included as part of a "compilation of trends and findings".	Randy Neprash	Stantec on behalf of the MN Cities Stormwater Coalition
44,90 & 104		There are other possible (even likely) explanations for this peaking of bacteria concentrations that are not related to stormsewer discharges. One of these is the probability that there are bacteria in the river sediments in the Metro area and regrowth and/or resuspension from these sediments is contributing to the high concentrations. The TMDL report repeatedly states that regrowth and sediment contributions are not addressed in this study. In light of these items, this text should be removed entirely and the related text revised appropriately.	Randy Neprash	Stantec on behalf of the MN Cities Stormwater Coalition
44,90 & 104		This sample size (4) is absurdly small. It is totally inappropriate, irresponsible, and unprofessional to cite data from such a small number of samples as sufficient support for "conclusions", "key findings", or "trends and findings". These references should be removed entirely and the related text revised appropriately.	Randy Neprash	Stantec on behalf of the MN Cities Stormwater Coalition
45-46	Table 4-3	Pages 45-46, Table 4-3: Is the far right column for sanitary sewers only or does it include storm sewers as well? Simply stating the age of the system assumes that no maintenance has been performed and that the systems are faulty as a result of age. Please be more specific as to why the data was included and what it means to the study. Many cities are investing large sums of money (Blaine has spent over $8million in recent years) to replace or repair/line older infrastructure. Perhaps that is information for implementation plans but it should be considered, at the very least acknowledged, for this study.	Jim Hafner	City of Blaine
45-46	Table 4-3	Comment on column heading, *"% Area Having Sewers Over 50 Years Old"* REVISIT -- This is not necessarily a predictor of a problem	Lois Eberhart	City of Minneapolis

45-46	Table 4-3	Comment on Column Heading, *"Number of Locations where CSOs are Known to Occur"* REPLACE WITH "Number of Locations where CSOs Could Still Occur"	Lois Eberhart	City of Minneapolis
51-53, 96	Pages 51-53 & 162	MS4s are the most regulated bodies in the watershed, and they make up only a small geographic area of the watershed. It is not fair to make such a small area be accountable for a WLA for the majority of the watershed. For example, the permitted vs. unpermitted animal feeding operations (AFO) in each watershed are shown on UMRB TMDL pages 51-53, but the numbers of permitted vs. unpermitted are not specifically stated. (Page 162 of "UMRB TMDL: Data Analysis, Source Assessment, and Monitoring Recommendations" report states that only some feedlots are required to register with the State. The number of NPDES permitted feedlots is 30 within the study area, while there are 7,541 open feedlots not requiring NPDES coverage.) These numbers should be added to the TMDL to illustrate that livestock is a major contributor, but is not nearly as regulated as MS4s. Please prove that the majority of the problem is coming from a specific MS4 before requiring them to mitigate such a large portion of the load.	Bill Douglass	Bolton & Menk, Inc.
82-86	Table 4-15	Comment on column heading *"Raw Sewage Leakage from Sanitary Sewer to Storm Sewer"*: REVISIT - I suggest changing column to "Illicit Connections or Leakage of Raw Sewage from Sanitary Sewer to Storm Sewer", and I suggest revisiting the ranking of "high"	Lois Eberhart	City of Minneapolis
82-89		According to Table 4-15 in the TMDL, the primary potential bacteria sources in the Rice Creek Watershed are individual septic systems, pet waste from impervious runoff, and wildlife. The Rice Creek Watershed District (RCWD) does not regulate individual septic systems, wildlife, or pet waste. Further, the RCWD has no legal authority over land use, and cannot legally deny access to the public drainage system. The RCWD MS4 system consists solely of public ditches and tiles authorized under M.S. 103E. Stormwater discharge containing bacteria that enters the RCWD system originates in other regulated MS4 systems (i.e. city stormsewer). For these reasons, we suggest that the RCWD should not be listed as an MS4 in this TMDL.	Matt Kocian	Rice Creek Watershed District
99 and 100		For expanding WWTFs, is it correct to state that the WWTF is likely to receive an increased bacterial WLA since the standard permit limit of 200 fecal/100 ml is protective of the water quality standard of 126 E. coli/100 ml?	Ron LaFond	Stantec on behalf of the City of Albany
Appendix E		There are several Assessment Unit Identifications (AUIDs) where there is not sufficient information to know if it supports the E. coli standard or not. More sampling needs to be done to more accurately determine where the loading is coming from.	Bill Douglass	Bolton & Menk, Inc.
General		Incorporate additional detail into the study for Rice Creek Watershed (metro). We are concerned that the study does not provide adequate detail to characterize existing bacteria loads and to allocate loadings within the Rice Creek Watershed. In particular, Rice Creek and its tributary streams extend more than 20 miles upstream of Long Lake and flow through more than a dozen of the metro area's largest lakes. The study generally evaluates major watersheds by either: a) recognizing other TMDL Studies that are planned for the watershed, or b) evaluating each assessment unit identification (AUID) reach within the watershed. This process is outlined in Section 5 of the report. The calculations and allocations for Rice Creek Watershed are not consistent with this methodology. Instead, the report suggests that all MS4s within Rice Creek Watershed are responsible for bacteria loads discharging to Rice Creek's downstream reach (AUID 07010206-584). Research presented as a part of this TMDL indicates that bacteria populations are generally not transferred through large lakes due to extended exposure to ultraviolet light. In addition, stakeholders were informed that large lakes would be used as an upstream boundary condition for this TMDL. Recommendation: List upstream AUID segments of Rice Creek and its tributaries and indicate that insufficient testing has been performed on those reaches to determine if a TMDL is needed. Flow data that has been collected as a part of other TMDL studies could be incorporated into the subject Study to serve as a basis for future allocations once additional bacteria monitoring has been performed. If science indicates that bacteria are not transferred through large lakes, then it seems reasonable to remove MS4s from Table 7-3, unless they discharge directly to the impaired stream segment without passing through a large lake.	Jay Hartman; Paul Hudalla	City of St. Anthony Village; WSB & Associations on behalf of the City of Circle Pines, City of Grant, City of Hugo, City of Lino Lakes, and City of Mahtomedi
General		The load duration curve for Shingle Creek (Figure 6-47 attached) is difficult to review because of one outlier value. We would like to see the figure plotted on a log scale. For comparison also attached is a load duration curve for monitoring site SC-0 (Webber Park) with Commission-collected data.	Diane Spector/Joe Bischoff	Wenck Associates on behalf of Shingle Creek/West Mississippi WMO Commissions
General		The microbial source tracking study would provide important input to the source identification, especially where we disagree that human waste from aging infrastructure is a significant source. That information is not yet available and we would like to see the results.	Diane Spector/Joe Bischoff	Wenck Associates on behalf of Shingle Creek/West Mississippi WMO Commissions
General		Very little guidance has been given on implementation actions. There is a growing body of literature regarding rooftop, sump, and other urban impervious areas having high bacteria runoff concentrations, likely due to local wildlife populations, including songbirds. We did not see that this is addressed in the TMDL, either as a source or appropriate BMPs.	Diane Spector/Joe Bischoff	Wenck Associates on behalf of Shingle Creek/West Mississippi WMO Commissions
General		Wash off of pet waste, specifically dogs, was also identified as a high probability source. While we agree this is a contributor, we believe that waterfowl waste is a more likely source. Many of the cities in the watersheds have been actively managing the Canada geese population. There are resident geese and duck populations on Shingle Creek and on a variety of wetlands and small ponds immediately adjacent to and discharging to Shingle Creek. However, the TMDL identifies this as a low probability source.	Diane Spector/Joe Bischoff	Wenck Associates on behalf of Shingle Creek/West Mississippi WMO Commissions
General		We question the identification of aging infrastructure as a probable source of bacteria in Shingle Creek and the West Mississippi Protection subwatershed. There are no known CSOs (combines sewer overflows), and few if any reportable SSOs (sanitary sewer overflows). Where the infrastructure is older, cities in the two watersheds have been routinely reconstructing their local streets and making sanitary repairs and replacements as necessary based on televising sewer lines. While there are occasional localized failures, televising has not revealed any significant or systematic failures or issues with aging infrastructure. While this cannot be ruled out as a source, we believe it is not a significant source of bacteria to Shingle Creek or from the West Mississippi Protection subwatershed.	Diane Spector/Joe Bischoff	Wenck Associates on behalf of Shingle Creek/West Mississippi WMO Commissions
General		Is it true that if the MS4 General Stormwater Permit is issued before this Bacteria TMDL is approved by EPA, then MS4s would not be required to include BMPs in their SWPPP or implement BMPs in the field until the next 5-year permit cycle?	Jeff Oliver/Eric Eckman	City of Golden Valley
General		Please provide guidance for MS4s regarding the installation and maintenance of stormwater ponds that may increase bacteria loads in some circumstances.	Jeff Oliver/Eric Eckman	City of Golden Valley
General		Please provide guidance for MS4s regarding the installation and maintenance of underground structural water quality practices that may harbor or promote bacteria growth such as sumps, environmental manholes, wet vaults, etc.	Jeff Oliver/Eric Eckman	City of Golden Valley
General		Research documents presented during the stakeholder process indicate that bacteria can rapidly decay in natural systems, particularly when exposed to ultraviolet light. It is also suggested that bacteria populations can rapidly decline in large lakes / basins, and that these basins could reasonably serve as a boundary condition for bacteria loads in streams. The TMDL and allocations presented in the study do not account for these scientific observations. If the study does not account for the decay of bacteria, it is difficult to justify the numeric thresholds presented in the study.	Jeff Oliver/Eric Eckman	City of Golden Valley
General		The study identifies very few bacteria sources that could be regulated by the MS4 (mostly pet waste and raw sewer leakage). In contrast, a wide variety of unregulated sources have been identified including livestock, manure application, and wildlife. It will be difficult for MS4s to justify expending efforts to address bacteria loads unless the study clearly and reasonably shows the extent that MS4 discharges are responsible for the bacteria impairment. Additional monitoring work should be performed as a part of the TMDL study to quantify the extent that bacteria sources are coming from MS4s (vs. non-regulated runoff). We request that MPCA assist MS4s in providing monitoring, or seeking funding to provide monitoring/analysis for bacteria standards compliance at MS4 system discharge points and other key discharge locations upstream.	Jeff Oliver/Eric Eckman	City of Golden Valley
General		We request that MPCA organize the format of the Final TMDL Plan document in a way that makes it easy to find key information. Ideas include providing something web-based and geographically-based so you can click on a watershed, creek, or city; OR providing a pdf document with bookmarks/tabs listing watershed, creek, or city name.	Jeff Oliver/Eric Eckman	City of Golden Valley
General		We request that MPCA provide a list of possible BMPs that could help MS4s to reduce bacteria and meet the compliance standard.	Jeff Oliver/Eric Eckman	City of Golden Valley
General		We request that MPCA provide guidance on how to quantify bacteria reduction (percent, number of orgs, etc.) based upon the selected BMPs.	Jeff Oliver/Eric Eckman	City of Golden Valley
General		We request that MPCA provide the criteria we should use in our GIS analysis to effectively target priority locations of BMPs.	Jeff Oliver/Eric Eckman	City of Golden Valley
General		We understand based on the recent stakeholder meeting, that MS4s are not responsible for wildlife waste expelled within or on land adjacent to natural waters of the state that are not part of the MS4 system.	Jeff Oliver/Eric Eckman	City of Golden Valley
General		We understand that a TMDL is not regulated, but the MS4 permit is regulated, and that MS4s need to add BMPs in their SWPPP to address impairments. This Bacteria TMDL will have significant reductions that cannot be mitigated within a 5-year permit term. However, when included in the SWPPP, these BMPs should include descriptions, dates, and estimated reductions which together show annual progress toward meeting the required bacteria reductions. Is this correct?	Jeff Oliver/Eric Eckman	City of Golden Valley
General		We understand that, through localized monitoring and testing, an MS4 can demonstrate to the MPCA that its discharge consistently meets TMDL compliance standards (the bacteria standard), and that the MS4 would not be required to implement additional BMPs so long as it can demonstrate it meets these standards. Anna Kerr of MPCA stated she would consider this.	Jeff Oliver/Eric Eckman	City of Golden Valley
General		Can you get the summary of a paragraph at the first, before the technical information. As a "Lay person" it was difficult to get through all the technical information, before I could find the problem (situation). Also I think our problem may be smaller dairy operations (herds) that may not be "registered"	Jerry Finch	Lynden Township; Clearwater River Watershed District
General		I found the Study and protection Plan difficult to get the "Basic Message"!! Each subject begins with a lot of technical information that a non-technical person like me finds difficult to understand and difficult to find the conclusions that you want us to know and understand. It may be contradictory to report form, but I recommend you tell us what you want us to know and give the supporting details (for those who understand it)	Jerry Finch	Lynden Township; Clearwater River Watershed District
General		Rather than requiring BMPs, implementation should provide an option for MS4s in the upstream portions of a TMDL subwatershed to monitor streams downstream of their discharges to show that the reach they directly discharge to is not impaired.	Kari Oquist	Mississippi Watershed Management Organization
General		Across a number of the LDCs, some "unimpaired" reaches seem to have a lot of exceedances (e.g. Fig. 6-41, p. 144), while some "impaired" reaches seem to have fewer (Fig. 6-44, p. 147). The data is what it is, but maybe including a more explicit narrative preparing readers for this apparent incongruity.	Lark Weller	Mississippi National River and Recreation Area - NPS

General		Also tied to survival rate question: how does what we don't/know about bacteria's survival rates tell us how far downstream we can expect to see the influence of a certain source remain relevant? (e.g., entire stretches in Table 4-16 seem dominated by poultry sources, and then we switch to dog sources. I realize that's based on contributing sources to each subwatershed, but are we able to make any statements about how far downstream we can expect bacteria concentrations to remain problematic, etc.?)	Lark Weller	Mississippi National River and Recreation Area - NPS
General		For mainstem LDC Section and Figure names, I suggest including relevant river miles in the reach's title. This is currently done for some, but not all.	Lark Weller	Mississippi National River and Recreation Area - NPS
General		In LDCs, I found myself wanting discussion of why we see some sites whose major exceedances happened awhile ago, some where major exceedances are more recent, what may have driven some of these changes (major ag outreach? CSO elimination?), and why they're so different from location to location), but I think I'm missing the point of this particular document....	Lark Weller	Mississippi National River and Recreation Area - NPS
General		Not sure there's ever discussion of how many data collection locations are likely to be in each reach--find myself wondering how representative of a stretch/subwatershed the data are, or whether a few data points are driving the stretch's outcome.	Lark Weller	Mississippi National River and Recreation Area - NPS
General		I recommend that the proposed reductions for the unnamed stream (07010206-552 North Branch of Bassett Creek) be reconsidered. The watershed of the stream is highly urbanized and flow in the stream is principally urban storm water so the standards that were used to develop the reductions are inappropriate. In the past the stream was significantly altered by human activity that is irreversible, most of it is channelized, it has no opportunities for swimming, fishing or boating, and it has long periods of no flow almost every year. Please contact me or Laura Jester (952 270 1990), administrator for Bassett Creek Watershed Management Commission for additional information.	Len Kremer	Barr Engineering on behalf of the Bassett Creek Watershed Management Commission
General		Bacteria monitoring data are lacking in all stream reaches (AUIDs) above the Rice Creek TMDL reach (07010206-584). All upstream reaches flow through lakes and/or wetlands before discharging to the TMDL reach. In the absence of monitoring data, and the high level of uncertainty regarding fate and transport mechanisms for bacteria in lentic systems (Section 4.2.7), we suggest removing the watershed area above (i.e. upstream of) 07010206-584 from the TMDL. Correspondingly, we suggest removing all MS4s that do not have regulated conveyances that drain to 07010206-584 from the TMDL.	Matt Kocian	Rice Creek Watershed District
General		Thank you for this opportunity to submit comments on the Draft Upper Mississippi Bacteria TMDL Study and Protection Plan, dated February 21,2013. The City of Sartell is a small MS4 that has been identified in the report as draining to an impaired reach of the Mississippi River. After carefully reviewing the draft report and attending stakeholder meetings, we respectfully request that the following comments be addressed before issuing the Study to the EPA for approval. 1. The study should further evaluate the extent that farmland could be solely contributing to the bacteria impairment within the Sartell area. There are five reaches and associated subwatersheds studied that eventually drain to the Watab River and through Sartell. All of these subwatersheds have a high percentage of agricultural land use and have been assigned a TMDL as a part of this study. Based on this finding, it is apparent that the dominant, agricultural land use is largely and perhaps completely, responsible for the bacteria impairment. Until the sources of bacteria from these agricultural areas have been identified and addressed, it will be nearly impossible to determine if the Sartell MS4 may be exceeding the water quality standards for bacteria. Recommendation: Perform additional testing to determine the extent that agricultural bacteria sources may be leading to the impairment.	Patti Gartland/Mike Nielson	City of Sartell
General		11. There should be a separate and fairly lengthy section in the TMDL report listing the research needs to better and adequately understand various aspects of bacteria loading and load reduction. It should be clearly stated that the work supporting the development of this TMDL has exposed and identified these flaws and deficiencies in our understanding and knowledge. The development of future bacteria TMDLs should be linked to addressing these research needs. These research needs should include, but not be limited to: · Growth, regrowth, and/or resuspension in and bacteria contributions from sediments, ditches, storm sewer pipes, soils, sump manholes, and infiltration BMPs · Die-off in streams, lakes, and other places · Natural background · Study results showing negative removal rates for many types of stormwater BMPs · Sanitary sewer leakage reaching stormwater sewer piping systems · Street sweeping as a source control BMP · The appropriateness of using the flow duration curve methodology to develop WLAs and LAs for land areas draining to large river systems · The influence of flooding on bacteria loading · Establishing a track record (demonstration and pilot projects) showing that bacteria load reductions sufficient to meet water quality standards are achievable, in both rural and urban land areas	Randy Neprash	Stantec on behalf of the MN Cities Stormwater Coalition
General		4. Load reduction percentages are not required components of TMDLs. When there is as much uncertainty about multiple elements of the TMDL, including the effectiveness of many implementation strategies, listing the load reductions is not useful and just results in greater and poorly supported permit burdens on regulated parties. The following adjustments should be considered for this TMDL (listed in order of preference): 4.A. Delete the load reduction percentages from the TMDL. These estimated load reduction percentages belong in the Implementation Plan, not the TMDL report. 4.B. Separate the load reduction percentage listings from the TMDL section (Section 7) and Table 7.1. Move the load reduction percentage information to the implementation section and include text that qualifies these listings in light of all the relative uncertainties and the lack of knowledge or demonstrated success in achieving load reductions to meet water quality standards. 4.C. Change the heading of the last column of Table 1 from "Required Reduction in Watershed Runoff" to "Estimated Reduction in Watershed Runoff". Also, include text that qualifies these listings in light of all the relative uncertainties and lack of knowledge or demonstrated success.	Randy Neprash	Stantec on behalf of the MN Cities Stormwater Coalition
General		Effort should be made to clarify which elements of the TMDL allocations are supported by the additional monitoring done in 2010 and 2011.	Randy Neprash	Stantec on behalf of the MN Cities Stormwater Coalition
General		Flooding is a well-known factor in the spread of bacteria throughout landscapes. Once spread, the bacteria remaining in the soils and other landscape features are a source of regrowth and contribution to receiving waters. Flooding should be addressed and discussed in this TMDL.	Randy Neprash	Stantec on behalf of the MN Cities Stormwater Coalition
General		This commenter had problems with printing some of the project documents. When the pdf files are printed, there are many places where the text or numbers are printed as just empty squares. This occurred on a sophisticated computer system with many types of available fonts. Our IT staff has indicated that this type of problem is usually the result of using non-standard fonts in the pdf files. This problem should be resolved and the documents revised to fix this problem.	Randy Neprash	Stantec on behalf of the MN Cities Stormwater Coalition
General		Will Robbinsdale receive a reduced WLA for the Shingle Creek portion of the TMDL, given that Crystal Lake does not have a natural outlet into Shingle Creek ?	Richard McCoy	City of Robbinsdale
General		The draft document should consider discussion about furthering voluntary initiatives, such as the use of: • Enhanced use of precision ag and GIS/GPS technologies. While adoption of technology in agriculture has been widely adopted and accepted by many agricultural producers, there may be additional opportunities to further encourage the voluntary use of technology in various agricultural settings of the TMDL area. • Cover crops, when appropriate, can be beneficial for soil quality improvements, erosion control and soil fertility. The use of cover crops may not be conducive to every crop rotation or landscape setting and individual producers may have specific reasons for not utilizing cover crops. • Enhanced and innovative residue management techniques that are crop rotation appropriate and designed to fit the needs of individual farming operations. • Enhanced promotion of buffer strips, filter strips, water and sediment and control basins and grassed waterways in areas with steep slopes, coarse soils and other high priority areas. The MDA realizes that staff and financial resources are needed to accomplish promotional and educational initiatives to encourage the adoption of these types of practices. The local units of government in within the TMDL area may want to partner with other local units of government in promoting higher levels of adoption for the above mentioned practices. Thank you for the opportunity to comment. If you have any questions, I can be reached at 651-201-6487.	Rob Sip	MDA
General		The MDA recommends additional focus on pasture management plans, reducing livestock access to surface water bodies and heightened awareness of proper land application of nutrients including fertilizers and manure. BWSR and NRCS have traditionally had technical assistance and incentive payments available to bring feedlots and manure storage structures into compliance. While great success has been made by local units of government in the area of correcting open feedlot runoff, the MDA recommends additional prioritization of feedlots and manure storage structures that are need of structural updates to meet current standards. There are also NRCS incentives and technical assistance to install alternative water sources for livestock that are pastured if a permanent water source is not available. Local livestock organizations may be interested in partnering in these efforts and outreach should be conducted to gain farmer and landowner support in these areas.	Rob Sip	MDA
General		The MDA recommends that SWCDs, watershed districts and counties within the TMDL area determine and prioritize what agricultural areas would benefit from Drainage Water Management (DWM) implementation within the watershed. The NRCS and BWSR currently have incentives for landowners to develop DWM plans to address agricultural water management issues. When properly implemented, these practices are beneficial in keeping soil in place on the landscape. DWM practices may include but not be limited to bioreactors, saturated buffers, water control structures for subsurface tile, etc. Regarding tile inlets, it may not be possible to remove all tile inlets due to slope and landscape setting. However, efforts should be made to convert or eliminate open tile inlets when feasible and possible. The local governmental units may want to consider inventories in select areas to determine regions where tile inlets can be removed and/or converted to alternative intakes to reduce the potential for bacteria transport. Water and sediment control basins are another practice that can keep soil in place on the landscape. There should be discussion about this practice in the implementation section of the draft report if it is not already listed.	Rob Sip	MDA
General		Comment #10: Part IV.C.4. of the permit states that inlet protection may be removed for a particular inlet if a specific safety concern (street flooding/freezing) has been identified and the Permittee(s) have received written approval from the jurisdictional authority. Requiring an individual determination of every inlet and written permission from the jurisdictional authority for each inlet is unreasonable and is an unfunded administrative task. We request that the permit language be revised to require that the permittee(s) obtain written permission from the MPCA for each inlet, with notification to the jurisdictional agency.	Steve Bot	City of St. Michael
General		Comment #11: Appendix A.B.b.ii. of the permit states that the permittee(s) must include in the SWPPP "BMPs identified in the TMDL and any other construction related implementation activities identified in the TMDL". Some USEPA approved TMDL Implementation Plans identify rather vague BMP's, such as "*construct 200 rain gardens to meet the phosphorous reduction target*". Please clarify the expectations if a project is proposed within a drainage area of a water body with a vague TMDL Implementation Plan (e.g. is the permittee required to install all 200 rain gardens, a pro-rated share based on land are, or a pro-rated share based on drainage contribution)? Please provide clear and specific permit language. In addition, we request that the MPCA acknowledge that the efficiency of infiltration methods like rain gardens do not work well in tight soil conditions like those that exist in St. Michael and as such are not as efficient or practical to utilize these methods.	Steve Bot	City of St. Michael
General		Comment #12: Provision C.3. in Appendix A requires a permanent undisturbed buffer zone of not less than 100 linear feet from special waters. A construction stormwater permit is not the appropriate means for establishing permanent buffer requirements. We request that this language be deleted from the permit.	Steve Bot	City of St. Michael

General		Comment #2: On January 3, 2013 a federal court ruled that the EPA had exceeded its authority in establishing a flow-based TMDL and ordered that the Accotink Creek TMDL is vacated. The MPCA has stated in various stakeholder meetings that it considers volume as a surrogate for pollutants, which was specifically challenged in this court case. Based upon this decision, we request that the MPCA reconsider all portions of the permit that regulate the flow of stormwater and the volume of stormwater.	Steve Bot	City of St. Michael
General		Comment #3: Please provide a definition for the term "routine maintenance" as it applies to the definition of "construction activity" in Part 1.A.1. of the permit.	Steve Bot	City of St. Michael
General		Comment #4: Part III.A.2. of the permit requires that "the owner must identify a person knowledgeable and experienced in the application of erosion prevention and sediment control BMP's who will oversee the implementation of the SWPPP, and the installation, inspection and maintenance of the erosion-prevention and sediment control BMP's before and during construction". For public improvement projects, the Contractor ultimately determines his means and methods, his phasing schedule, and is responsible for coordinating his sub-contractors. Please revise this language to allow the Permittee(s) to identify the knowledgeable person.	Steve Bot	City of St. Michael
General		Comment #5: Part III.D. of the permit states "The permittee(s) shall design the project so that all stormwater discharged from the project during and after construction activities does not cause a violation of state water quality standards, including nuisance conditions, erosion in receiving channels or on downslope properties, or inundation of wetlands causing a significant adverse impact to the wetlands". It is unreasonable to require that the permittee design the project for all stormwater discharges, as most designs are based on particular rainfall events. It is also unreasonable to expect the designer to design for future (possibly unknown) stormwater discharges or downstream receiving channels that are located off-site and may have been unstable prior to the project. Please revise the permit language accordingly.	Steve Bot	City of St. Michael
General		Comment #6: Part III.D. of the permit requires the Permittee to make a reasonable attempt to obtain right of way during the project planning process and further that the permittee document those attempts in the SWPPP. We disagree with the language that requires the Permittee to document the attempts of obtaining right-of-way in the SWPPP and further request that "other treatment methods" be allowed for linear projects without first proving infeasibility. Please revise the language to allow for other treatment methods (i.e. grassed swales, filtration systems, smaller ponds, or grit chambers) for linear projects without requiring the documentation of infeasibility and remove the language requiring the documentation of easement acquisition attempts.	Steve Bot	City of St. Michael
General		Comment #7: Part III.D.1.b requires that infiltration basins cannot be graded until the entire contributing area has been constructed and fully stabilized. This requirement will increase project costs and will require multiple mobilizations. We request that this provision be revised to allow the infiltration basin to be graded simultaneous with the other grading activities and protected.	Steve Bot	City of St. Michael
General		Comment #8: Part III.D.1.k.viii. requires soil to be amended when the infiltration rate exceeds 8.3 inches per hour. In certain soils, infiltration may occur naturally at a rate that exceeds 8.3 inches per hour in areas that are outside of a designed infiltration practice – please clarify the intent of this permit language. Further, we request that the permit be revised to allow (designed) infiltration practices where the soil is conducive without amending when sufficient separation to the water table is present to provide the desired treatment. We also request that the MPCA address the fact that the efficiency of infiltration BMP's do not work well in tight soil conditions like those that exist in St. Michael and as such Cities with tight soils should not be expected in infiltrate as much as those with more favorable soils.	Steve Bot	City of St. Michael
General		Comment #9: Part IV.B.3. of the permit requires the permittee(s) to "design stormwater conveyance channels to route water around unstabilized areas on the site and to reduce erosion". While it is possible to design stormwater conveyance channels to re-route the stormwater, it seems to be irresponsible. Grading will be required to construct the "by-pass" conveyance channels, thus directing concentrated run-off to newly graded channels without vegetation. Please reconsider this requirement.	Steve Bot	City of St. Michael
General		In addition, we offer the following comments regarding the specific language of the proposed TMDL: Comment #1: The revisions to the Construction Stormwater General Permit should be closely aligned with the federal Construction and Development (C & D) rule. In general, the language in the draft Construction Stormwater General Permit substantially expands on the C & D rule. We request that the permit be revised to closely align with the federal C & D rule, including the anticipated revisions included in the related settlement agreement.	Steve Bot	City of St. Michael
General		Please consider the ramifications that this study may have on MS4 permit holders. If the comments above are addressed, it will be much easier to understand the extent that our MS4 may be responsible for the bacteria impairment. We are especially concerned about the financial burden that could be transferred our MS4 due to the limited monitoring that was used to establish this Study. The MS4 would prefer to expend its resources on water quality improvement projects guided by a TMDL rather than on bureaucratic exercises to demonstrate compliance for a problem that may not originate within the MS4. Please contact me if you have any questions or would like to discuss these comments in greater detail.	Steve Bot; Paul Hudalla; Jay Hartman; Patti Gartland/Mike Nielson	City of St. Michael; WSB & Associations on behalf of the City of Circle Pines, City of Grant, City of Hugo, City of Lino Lakes, City of Sunfish Lake, and City of Mahtomedi; City of St. Anthony Village; City of Sartell
General		The study should account for the decay / growth of bacteria Research documents presented throughout the stakeholder process indicate that bacteria can rapidly decay in natural systems, particularly when exposed to ultraviolet light. It is also suggested that bacteria populations can rapidly decline in large lakes / basins, and that these basins could reasonably serve as a boundary condition for bacteria loads in streams. The TMDL and allocations presented in the study do not account for these scientific observations. If the study does not account for the decay of bacteria, it is difficult to justify the numeric thresholds presented in the study, including the TMDL (vs. protect) classifications and the load / wasteload allocations. Recommendation: Determine a reasonable decay rate (if any) to use for the purposes of this TMDL and provide supporting documentation in the study. Determine if large basins / lakes can reasonably be expected to serve as a boundary condition for reaches and provide supporting documentation in the study. If large basins / lakes are found to be a reasonable boundary condition, then we recommend that Table 7-3 only display the MS4s that discharge directly to an impaired stream segment without passing through a large basin / lake. This will make it more clear which communities may work together to address TMDL impairments for each reach.	Steve Bot; Paul Hudalla; Jay Hartman; Patti Gartland/Mike Nielson; Paul Hudalla	City of St. Michael; WSB & Associations on behalf of the City of Sunfish Lake; City of St. Anthony Village; City of Sartell; WSB & Associations on behalf of the City of Circle Pines, City of Grant, City of Hugo, City of Lino Lakes, and City of Mahtomedi
General		The study does not clearly demonstrate the extent that MS4s may be responsible for impairments. The study identifies very few bacteria sources that could be regulated under the MS4 permit (mostly dog waste and raw sewage received by the MS4). In contrast, a wide variety of unregulated sources have been identified including livestock, manure application, and wildlife. It will be difficult for MS4s to justify expending efforts to address bacteria loads unless the study clearly and reasonably shows the extent that MS4 discharges are responsible for the bacteria impairment. Although we understand that a categorical waste load allocation may meet EPA's requirements, we do not feel that enough information is provided to determine the extent that impairments can be attributed to the regulated (MS4) area vs. unregulated areas. Furthermore, we are concerned that the lack of research and monitoring performed under this Study will result in the need for significant research and monitoring by MS4s. This will be a financial burden to MS4s and if it is found that MS4s discharges do not contribute to the impairment, the monitoring data will serve no purpose for the MS4 other than to demonstrate compliance. Without this information, it is difficult to understand the impacts that this TMDL may have on MS4s. In addition, it seems unreasonable and not feasible to expect a MS4 to regulate agricultural properties in their City when an adjoining township farm has no regulation requirements. As such, if your numbers show that agriculture is a major form of pollutants, then the MPCA should deal with the agriculture community through state requirements and not through the MS4's. Recommendation: Additional monitoring work should be performed as a part of the TMDL study to quantify the extent that bacteria sources are coming from MS4s (vs. non-regulated runoff). If the MPCA is not willing to accommodate this request, then additional language should be incorporated into the TMDL specifically noting that the available monitoring data is not available to determine the extent that bacteria may be coming from MS4s vs. unregulated areas. Include additional information in the report related to monitoring efforts that will be needed to determine if MS4s are contributing to the impairment(s). Additional information should include the estimated costs, identified funding sources, and regulatory responsibilities for these monitoring efforts.	Steve Bot; Paul Hudalla; Jay Hartman; Patti Gartland/Mike Nielson; Paul Hudalla	City of St. Michael; WSB & Associations on behalf of the City of Sunfish Lake; City of St. Anthony Village; City of Sartell; WSB & Associations on behalf of the City of Circle Pines, City of Grant, City of Hugo, City of Lino Lakes, and City of Mahtomedi
General (Sanitary Sewers)		8. Very significant revisions are appropriate for all the text related to leakage from aging sanitary sewer systems.	Randy Neprash	Stantec on behalf of the MN Cities Stormwater Coalition
General (Sanitary Sewers)		8.A. This source is listed as having high or medium-high potential for comparable contribution of bacteria loading (Tables 4-9 and 4-15). There is not sufficient scientific support for this assertion. Two studies in California and one in Milwaukee are not sufficient. There should be research done in Minnesota and the physical processes should be described and understood before such an assertion is made. If any assertions are made regarding this possible type of source, these statements should be thoroughly qualified and explained. The footnote for Table 4-9 is not sufficient.	Randy Neprash	Stantec on behalf of the MN Cities Stormwater Coalition
General (Sanitary Sewers)		8.B. There should be information gathered and discussed, at length, in the TMDL report regarding the cities' efforts to line older sanitary sewer pipes. These efforts have been ongoing for a number of years, driven largely by the Met Council's I & I surcharge fees. The cities should be able to provide a wealth of information about the extent and nature of their lining programs. Lining is a very cost-efficient method of addressing the deterioration of older sanitary sewer pipes.	Randy Neprash	Stantec on behalf of the MN Cities Stormwater Coalition
General (Sanitary Sewers)		8.D. Any discussion of possible leakage from sanitary sewer systems must include analysis and discussion of the Met Council interceptor system.	Randy Neprash	Stantec on behalf of the MN Cities Stormwater Coalition
General (Sanitary Sewers)		8.E. The discussion of possible leakage from sanitary sewer system should resolve and discuss the differences between "chronic" leakage and "sewage originating from breaches". These are different types of phenomena and should not be grouped together.	Randy Neprash	Stantec on behalf of the MN Cities Stormwater Coalition
General (Sanitary Sewers)		8.F. It is widely known that, in most installations, storm sewer pipes are placed several feet above sanitary sewer pipes. This makes it highly unlikely that leakage from the sanitary sewer pipes is entering the storm sewer systems. The discussion of sanitary sewer leakage as a possible source should address this understanding directly. It should be demonstrated or proven that this leakage is actually occurring in multiple Minnesota installations. Otherwise, this assertion lacks credibility.	Randy Neprash	Stantec on behalf of the MN Cities Stormwater Coalition