



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

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CHICAGO, IL 60604-3590

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REPLY TO THE ATTENTION OF:

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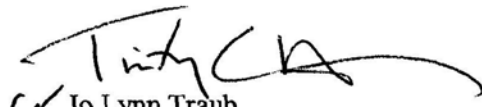
Sheryl A. Corrigan, Commissioner
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Dear Ms. Corrigan:

The United States Environmental Protection Agency (U.S. EPA) has conducted a complete review of the final Total Maximum Daily Load (TMDL) submitted for Un-ionized Ammonia in the Chippewa River, including supporting documentation and information. Based on this review, U.S. EPA has determined that Minnesota's TMDL for one segment of the Chippewa River, Watson Sag Diversion to Minnesota River, 07020005-501, for one pollutant (total ammonia) addressing one impairment (ammonia) meets the requirements of Section 303(d) of the Clean Water Act and U.S. EPA's implementing regulations at 40 C.F.R. Part 130. Therefore, by this letter, U.S. EPA hereby approves one (1) TMDL for the Chippewa River. The statutory and regulatory requirements and U.S. EPA's review of Minnesota's compliance with each requirement are described in the enclosed decision document.

We appreciate your hard work in this area and the submittal of the TMDL as required. If you have any questions, please contact Kevin Pierard, Chief of the Watersheds and Wetlands Branch, at 312-886-4448.

Sincerely yours,


Jo Lynn Traub
Director, Water Division

Enclosure

cc: Jeff Risberg, MPCA
Muriel Runholt, MPCA

Decision Document for the Chippewa River Un-ionized Ammonia TMDL

Section 303(d) of the Clean Water Act (CWA) and the United States Environmental Protection Agency's (U.S. EPA) implementing regulations at 40 C.F.R. Part 130 describe the statutory and regulatory requirements for approvable TMDLs. Additional information is generally necessary for U.S. EPA to determine if a submitted TMDL fulfills the legal requirements for approval under Section 303(d) and U.S. EPA regulations, and should be included in the submittal package. Use of the verb "must" below denotes information that is required to be submitted because it relates to elements of the TMDL required by the CWA and by regulation. Use of the term "should" below denotes information that is generally necessary for U.S. EPA to determine if a submitted TMDL is approvable. These TMDL review guidelines are not themselves regulations. They are an attempt to summarize and provide guidance regarding currently effective statutory and regulatory requirements relating to TMDLs. Any differences between these guidelines and U.S. EPA's TMDL regulations should be resolved in favor of the regulations themselves.

1. Identification of Waterbody, Pollutant of Concern, Pollutant Sources, and Priority Ranking

The TMDL submittal should identify the waterbody as it appears on the State's/Tribe's 303(d) list. The waterbody should be identified/georeferenced using the National Hydrography Dataset (NHD), and the TMDL should clearly identify the pollutant for which the TMDL is being established. In addition, the TMDL should identify the priority ranking of the waterbody and specify the link between the pollutant of concern and the water quality standard (see section 2 below).

The TMDL submittal should include an identification of the point and nonpoint sources of the pollutant of concern, including location of the source(s) and the quantity of the loading, e.g., lbs/per day. The TMDL should provide the identification numbers of the NPDES permits within the waterbody. Where it is possible to separate natural background from nonpoint sources, the TMDL should include a description of the natural background. This information is necessary for U.S. EPA's review of the load and wasteload allocations, which are required by regulation.

The TMDL submittal should also contain a description of any important assumptions made in developing the TMDL, such as:

- (1) the spatial extent of the watershed in which the impaired waterbody is located;
- (2) the assumed distribution of land use in the watershed (e.g., urban, forested,

agriculture);

- (3) population characteristics, wildlife resources, and other relevant information affecting the characterization of the pollutant of concern and its allocation to sources;
- (4) present and future growth trends, if taken into consideration in preparing the TMDL (e.g., the TMDL could include the design capacity of a wastewater treatment facility); and
- (5) an explanation and analytical basis for expressing the TMDL through *surrogate measures*, if applicable. *Surrogate measures* are parameters such as percent fines and turbidity for sediment impairments; chlorophyll *a* and phosphorus loadings for excess algae; length of riparian buffer; or number of acres of best management practices.

Comment:

The Chippewa River is located in Douglass, Grant, Otter Tail, Stevens, Pope, Stearns, Swift, Kandiyohi and Chippewa Counties, Minnesota. The Chippewa River is listed on Minnesota's 2004 303(d) list for failing to meet the designated use standards for aquatic life due to elevated levels of un-ionized ammonia. The portion of the Chippewa River directly addressed by this TMDL is the southernmost (downstream) portion of the river. The TMDL document identifies the impaired segment as running from the confluence with the Minnesota River upstream to Dry Weather Creek, assessment unit ID 07020005-001. This is an incorrect description of the impaired segment. This describes the original 303(d) listed segment as it appeared on the 1998 303(d) list. In developing the 2002 list, MPCA resegmented this impaired segment of the Chippewa River into two segments, 07020005-501 and 07020005-502. During the 2002 303(d) list development the State determined that insufficient data existed to support listing the upper portion of the Chippewa River, 07020005-502. Therefore, this upper segment was not included on the 303(d) list. The lower segment, 07020005-501, remained listed for elevated levels of un-ionized ammonia. (August 7, 2002 and October 26, 2004 electronic mail messages from Celine Lyman, MPCA, to Julianne Socha, U.S. EPA) This is the impaired segment that is being addressed in the TMDL.

MPCA determined that the entire Chippewa River basin needed to be evaluated in the TMDL, to ensure all sources were addressed. The basin is mainly agricultural in nature, with cropland accounting for approximately 64% of the area, with an additional 16% in pasture/grassland. (Section 3.2.1 of the TMDL document) The entire Chippewa River basin drains an area of approximately 2085 square miles.

Historical data collected by MPCA showed elevated levels of un-ionized ammonia in the Chippewa River near the city of Montevideo. Monitoring was ceased in 1994 when the Montevideo wastewater treatment plant (NPDES permit number MN0020133) was upgraded and new permit limits were issued. (Section 1.4 of the TMDL document) However, additional monitoring was performed by MPCA in 2001, and showed that exceedances of the water quality standard for un-ionized ammonia were occurring. MPCA considered the impact of point and

nonpoint sources on the impaired portion of the Chippewa River. There are seven wastewater treatment plants (WWTPs) in the watershed and five stabilization ponds. (Identification numbers for NPDES permits are included in Tables 3-1 and 3-3 of the TMDL document and in Table 4 at the end of this document.) Nonpoint sources included agricultural run-off can contain significant amounts of ammonia, mainly due to manure applications. The results of the modeling indicated that the non-point sources are not significantly impacting the impaired portion of the Chippewa River. Modeling also indicated that none of the WWTPs and stabilization ponds in the Chippewa watershed, except Montevideo WWTP, were significantly contributing to the impairment. MPCA determined the major source of the ammonia impairment to be the Montevideo WWTP. (Section 3 of the TMDL document)

Future growth was not given a specific allocation in this TMDL. Future impacts on the Chippewa River due to facility expansions or new facilities will be addressed through the NPDES permit process. (Section 5.6 of the TMDL document) If there is an increase from the existing ammonia contribution from sources within the Chippewa watershed the State may need to reconsider the allocations established in this TMDL.

The loads in the TMDL are expressed as total ammonia. MPCA believes this is an appropriate surrogate for un-ionized ammonia, as the un-ionized ammonia concentrations vary based upon water temperature and pH (See #2 below).

The schedule of TMDL development on the State's 303(d) list reflects the State's priority ranking. The 2004 303(d) list schedule targeted this TMDL for completion in 2004.

U.S. EPA finds the State's approach reasonable and it meets the requirements of this section.

2. Description of the Applicable Water Quality Standards and Numeric Water Quality Target

The TMDL submittal must include a description of the applicable State/Tribal water quality standard, including the designated use(s) of the waterbody, the applicable numeric or narrative water quality criterion, and the antidegradation policy. (40 C.F.R. §130.7(c)(1)). U.S. EPA needs this information to review the loading capacity determination, and load and wasteload allocations, which are required by regulation.

The TMDL submittal must identify a numeric water quality target(s) – a quantitative value used to measure whether or not the applicable water quality standard is attained. Generally, the pollutant of concern and the numeric water quality target are, respectively, the chemical causing the impairment and the numeric criteria for that chemical (e.g., chromium) contained in the water quality standard. The TMDL expresses the relationship between any

necessary reduction of the pollutant of concern and the attainment of the numeric water quality target. Occasionally, the pollutant of concern is different from the pollutant that is the subject of the numeric water quality target (e.g., when the pollutant of concern is phosphorus and the numeric water quality target is expressed as Dissolved Oxygen (DO) criteria). In such cases, the TMDL submittal should explain the linkage between the pollutant of concern and the chosen numeric water quality target.

Comment:

All waters in the State of Minnesota are assigned classes. The classes are based on the suitability of that water for particular beneficial uses. The Minnesota Rules set forth water quality standards for each of the classes. The Chippewa River has been assigned classes 2B, 3B, 4A, 4B, 5, and 6 under the Minnesota rules. Class 2B signifies waters that must support aquatic life, and is considered the most protective of the various applicable uses. The Class 2B standard for un-ionized ammonia is 0.04 mg/l expressed as nitrogen under Minnesota Rule 7050.0222 Subpart 4. This is a chronic standard, which is defined as the highest water concentration of a toxicant to which organisms can be exposed indefinitely without causing chronic toxicity. MPCA uses a 30-day averaging period for ammonia to determine compliance with the standard. (Section 2 of the TMDL document)

Ammonia dissolves in water to form NH_3 (un-ionized) and NH_4^+ (ionized). The total of these two amounts is Total Ammonia Nitrogen. The percentage of un-ionized ammonia to ionized ammonia varies based upon temperature and pH. To account for these variations, MPCA has determined that the TMDL will be expressed as total ammonia, to ensure the TMDL loads are protective of the water quality standard under the critical flow conditions. (Section 2.2 of the TMDL document) Table 1 below contains the seasonal temperature, pH, and total in-stream ammonia concentrations needed to attain the WQS for un-ionized ammonia. Maximum allowed in-stream concentrations of total ammonia were back-calculated according to the formula in Section 2.2 of the TMDL document from the WQS for un-ionized ammonia and assuming seasonal median values for water temperature and pH.

U.S. EPA finds the State's approach reasonable and it meets the requirements of this section.

3. Loading Capacity - Linking Water Quality and Pollutant Sources

A TMDL must identify the loading capacity of a waterbody for the applicable pollutant. U.S. EPA regulations define loading capacity as the greatest amount of a pollutant that a water can receive without violating water quality standards (40 C.F.R. §130.2(f)).

The pollutant loadings may be expressed as either mass-per-time, toxicity or other appropriate measure (40 C.F.R. §130.2(i)). If the TMDL is expressed in terms other than a daily

load, e.g., an annual load, the submittal should explain why it is appropriate to express the TMDL in the unit of measurement chosen. The TMDL submittal should describe the method used to establish the cause-and-effect relationship between the numeric target and the identified pollutant sources. In many instances, this method will be a water quality model.

The TMDL submittal should contain documentation supporting the TMDL analysis, including the basis for any assumptions; a discussion of strengths and weaknesses in the analytical process; and results from any water quality modeling. U.S. EPA needs this information to review the loading capacity determination, and load and wasteload allocations, which are required by regulation.

TMDLs must take into account *critical conditions* for stream flow, loading, and water quality parameters as part of the analysis of loading capacity. (40 C.F.R. §130.7(c)(1)). TMDLs should define applicable *critical conditions* and describe their approach to estimating both point and nonpoint source loadings under such *critical conditions*. In particular, the TMDL should discuss the approach used to compute and allocate nonpoint source loadings, e.g., meteorological conditions and land use distribution.

Comment:

MPCA reviewed the data from numerous monitoring sites in the Chippewa River basin from 1971-1994, as well as data gathered in 2001. (Section 1 of the TMDL document) The results indicate that the ammonia standard was exceeded on several occasions, and all but one of the exceedances occurred downstream of the Montevideo WWTP. (Section 2 of the TMDL document)

MPCA performed a linkage analysis to determine the relative impacts of ammonia load from point and non-point sources. The model selected for this analysis was the Hydrologic Simulation Program - FORTRAN (HSPF) model (Section 4.2 of the TMDL). HSPF is a watershed model that simulates water quality and quantity continuously for a range of pollutants. The model also accounts for varying land uses, such as urban and agricultural land, temperature and pH, and pollutant decay and transformation (Section 4.3 of the TMDL). For the Chippewa River TMDL, the water temperature was simulated and calibrated, but not pH, due to limited data. Instead, the pH was estimated.

MPCA divided the watershed into 8 subbasins, and the land use in each subbasin was determined. Much of the agricultural land in the basin is drained by tiles, which have the effect of draining surface water faster than the model would normally account for. Since HSPF does not account directly for tile drainage, and it can have a significant impact on the response of the river to rain events, MPCA specifically calibrated the interflow variable to the density of the tile drainage in the subbasin (Section 4.3 of the TMDL). MPCA also accounted for the potential

impacts from non-sewered communities and direct-discharging septic systems (Section 4.3 of the TMDL). The HSPF model can account for unsewered communities directly, but the direct-discharge septic systems were aggregated by subbasin and the number and loadings estimated from MPCA data.

Once MPCA determined the inputs, the model was calibrated for flow using gauging data from 1986-1992 (Section 4.4.1 of the TMDL). The calibration showed the model represents the watershed fairly well, except for tending to overestimate the amount of snowmelt into the river. However, given the difficulties in modeling snowmelt (slight increases in temperature can cause a significant change in the volume of runoff), the U.S. EPA agrees the model is appropriate for modeling flow in the basin.

The model was also calibrated for water quality (Section 4.4.2 of the TMDL). MPCA determined that for most land uses, non-point source loads of ammonia are low, since ammonia oxidizes on the land surface, except for land where manure is applied. MPCA determined that the water quality calibration for HSPF was weak in the portion of the Chippewa River near the Montevideo WWTP, and therefore another model would have to be used. However, the HSPF model was adequate to model the rest of the basin, which accounted for the relative impact of point and non-point sources of ammonia in the Chippewa watershed other than the Montevideo WWTP.

MPCA developed a spreadsheet model to determine the loading capacity of the impaired segment (TMDL), the wasteload allocation for the Montevideo WWTP (Section 5 below), the load allocation attributed to all other sources of ammonia (Section 4 below), and the margin of safety (Section 6 below). This spreadsheet model is essentially a formula that accounts for several variables, such as the design flow of the facility, the river low flow, the WQS, the upstream ammonia concentration, and the current ammonia permit limits (Section 5.1 of the TMDL). Critical conditions are assumed to occur when the impaired segment is experiencing low flow. This spreadsheet model allows the TMDL to be calculated under both dry and wet weather conditions. When calculating permit mass limits, MPCA uses the average wet weather design flow for the WWTP. This accounts for wet weather infiltration into the system. However, MPCA believes it is highly unlikely that a WWTP would discharge at the wet weather flow when the river is at low flow drought conditions, and therefore uses a ratio between wet weather flow and dry weather flow when calculating the critical load under wet weather conditions. (Section 5 of the TMDL).

Based upon the models, loads were determined for seasonal dry and seasonal wet weather conditions. Table 2 and 3 below show the loading capacity (TMDL) for total ammonia. The seasons are spring (April-May), summer (June-September), fall (October-November), and winter (December-March).

4. Load Allocations (LAs)

U.S. EPA regulations require that a TMDL include LAs, which identify the portion of the loading capacity attributed to existing and future nonpoint sources and to natural background. Load allocations may range from reasonably accurate estimates to gross allotments (40 C.F.R. §130.2(g)). Where possible, load allocations should be described separately for natural background and nonpoint sources.

Comment:

The HSPF modeling analysis simulated background loads of ammonia to be 7 to 12 percent of the predicted assimilated capacity of the Chippewa. In the modeling analysis the background loads represent all point and nonpoint sources in the Chippewa watershed other than Montevideo WWTP. Modeled predictions and actual data from upstream sources do not result in ammonia concentrations above water quality standards. As a result of the modeling analysis, the State is assigning a gross load allocation to all upstream sources by season for dry and wet weather conditions. Tables 2 and 3 below include this gross load allocation. The gross load allocations were calculated using seasonal median upstream ammonia data from eleven different monitoring stations and seasonal median pH and temperature values from MPCA monitoring data. Seasonal 30-day low flow values were estimated based on USGS field gage data between 1938 and 2000. These load allocations do not represent a reduction from current conditions. Any major land use changes that could impact the current ammonia load contribution from nonpoint sources may provide reason for the State to conduct additional analysis to ensure that water quality standards will continue to be met. (Sections 5.1 and 5.3 of the TMDL document and February 4, 2003 letter from Marvin Hora, MPCA, to Julianne Socha, U.S. EPA)

U.S. EPA finds the State's approach reasonable and it meets the requirements of this section.

5. Wasteload Allocations (WLAs)

U.S. EPA regulations require that a TMDL include WLAs, which identify the portion of the loading capacity allocated to individual existing and future point source(s) (40 C.F.R. §130.2(h), 40 C.F.R. §130.2(i)). In some cases, WLAs may cover more than one discharger, e.g., if the source is contained within a general permit.

The individual WLAs may take the form of uniform percentage reductions or individual mass based limitations for dischargers where it can be shown that this solution meets WQSs and does not result in localized impairments. These individual WLAs may be adjusted during the NPDES permitting process. If the WLAs are adjusted, the individual effluent limits for each

permit issued to a discharger on the impaired water must be consistent with the assumptions and requirements of the adjusted WLAs in the TMDL. If the WLAs are not adjusted, effluent limits contained in the permit must be consistent with the individual WLAs specified in the TMDL. If a draft permit provides for a higher load for a discharger than the corresponding individual WLA in the TMDL, the State/Tribe must demonstrate that the total WLA in the TMDL will be achieved through reductions in the remaining individual WLAs and that localized impairments will not result. All permittees should be notified of any deviations from the initial individual WLAs contained in the TMDL. U.S. EPA does not require the establishment of a new TMDL to reflect these revised allocations as long as the total WLA, as expressed in the TMDL, remains the same or decreases, and there is no reallocation between the total WLA and the total LA.

Comment:

The State determined that in order to achieve the water quality target in the impaired segment of the Chippewa River, it will be necessary to manage the major contributor of ammonia, the Montevideo WWTP (MN0020133). The wasteload allocations included in Table 2 and 3 below apply only to Montevideo WWTP. Seasonal wasteload allocations for wet and dry weather were established. Montevideo WWTP's NPDES permit limits for total ammonia and dry and wet weather design flows were used to establish the wasteload allocations. (Sections 1.4, 3.1, 4, and 5.2 of TMDL document)

Table 4 below lists the other NPDES permitted sources in the Chippewa watershed. These other point sources were determined to be small to insignificant contributing sources of ammonia in this segment of the Chippewa. (Section 3.1 and 5.2 of the TMDL document) No revisions or modifications to existing permit limits are being established through this WLA for any point source other than Montevideo. The WLA for these other NPDES permitted facilities is their existing permit limits. Any expansions or modifications to these other point sources may be reason for the State to conduct additional analysis to ensure that water quality standards will continue to be met.

U.S. EPA finds the State's approach reasonable and it meets the requirements of this section.

6. Margin of Safety (MOS)

The statute and regulations require that a TMDL include a margin of safety (MOS) to account for any lack of knowledge concerning the relationship between load and wasteload allocations and water quality (CWA §303(d)(1)(C), 40 C.F.R. §130.7(c)(1)). U.S. EPA's 1991 TMDL Guidance explains that the MOS may be implicit, i.e., incorporated into the TMDL through conservative assumptions in the analysis, or explicit, i.e., expressed in the TMDL as loadings set aside for the MOS. If the MOS is implicit, the conservative assumptions in the

analysis that account for the MOS must be described. If the MOS is explicit, the loading set aside for the MOS must be identified.

Comment:

An implicit and explicit margin of safety are included in this TMDL. The implicit margin of safety is established through the use of conservative flow estimates. Upstream of the impaired reach flow is diverted into the Lac qui Parle Reservoir. This diversion is a means of flood control. During average flow conditions approximately 50% of the flow in the Chippewa River is diverted into the reservoir. During low flow conditions, only 10% to 20% of the flow is diverted. In order to provide a more conservative estimate of stream flow during low flow conditions, the 50% diversion was used instead of the 10% to 20%. Use of the 50% diversion results in lower, more conservative flow estimates during the low flow critical period. (Sections 1.3, 4.4 and 5.4 of the TMDL document)

An explicit margin of safety was added to each allocation for each season and for both wet and dry weather conditions. This margin of safety represents the portion of the total maximum daily load not allocated to point and nonpoint sources. Since the allocations were established for each season a seasonal explicit margin of safety was calculated. The explicit margin of safety ranges from 3.3 kg/d to 270.1 kg/d depending on the season and weather conditions. Tables 2 and 3 below include the explicit margin of safety for each season and weather condition. (Section 5.4 of the TMDL document)

U.S. EPA finds the State's approach reasonable and it meets the requirements of this section.

7. Seasonal Variation

The statute and regulations require that a TMDL be established with consideration of seasonal variations. The TMDL must describe the method chosen for including seasonal variations. (CWA §303(d)(1)(C), 40 C.F.R. §130.7(c)(1)).

Comment:

To ensure that the water quality target will be met throughout the year, seasonal allocations were established. Seasonal variation exists in the flow, ammonia load, and in-stream pH and temperature conditions. The seasonal variation of these parameters is addressed by establishing seasonal allocations. (Sections 2.2 and 5.5 of the TMDL document)

U.S. EPA finds the State's approach reasonable and it meets the requirements of this section.

8. Reasonable Assurances

When a TMDL is developed for waters impaired by point sources only, the issuance of a National Pollutant Discharge Elimination System (NPDES) permit(s) provides the reasonable assurance that the wasteload allocations contained in the TMDL will be achieved. This is because 40 C.F.R. 122.44(d)(1)(vii)(B) requires that effluent limits in permits be consistent with “the assumptions and requirements of any available wasteload allocation” in an approved TMDL.

When a TMDL is developed for waters impaired by both point and nonpoint sources, and the WLA is based on an assumption that nonpoint source load reductions will occur, U.S. EPA’s 1991 TMDL Guidance states that the TMDL should provide reasonable assurances that nonpoint source control measures will achieve expected load reductions in order for the TMDL to be approvable. This information is necessary for U.S. EPA to determine that the TMDL, including the load and wasteload allocations, has been established at a level necessary to implement water quality standards.

U.S. EPA’s August 1997 TMDL Guidance also directs Regions to work with States to achieve TMDL load allocations in waters impaired only by nonpoint sources. However, U.S. EPA cannot disapprove a TMDL for nonpoint source-only impaired waters, which do not have a demonstration of reasonable assurance that LAs will be achieved, because such a showing is not required by current regulations.

Comment:

The State has determined that the major contributing source of ammonia to the impaired segment is the point source, Montevideo WWTP. This source operates under a NPDES permit and the permit does include ammonia limits. The TMDL document does not establish any reduction in these limits. In 1994 this source upgraded its facility. Past violations of the permit limits were detected in 2001 by MPCA. These violations were attributed to an upset at the WWTP which has been resolved. The TMDL is not establishing any reductions in the current contributions from nonpoint sources or any other point sources therefore no specific measures of assurance were provided for these other sources.

U.S. EPA finds that the state’s approach reasonable.

9. Monitoring Plan to Track TMDL Effectiveness

U.S. EPA’s 1991 document, *Guidance for Water Quality-Based Decisions: The TMDL Process* (EPA 440/4-91-001), recommends a monitoring plan to track the effectiveness of a TMDL, particularly when a TMDL involves both point and nonpoint sources, and the WLA is

based on an assumption that nonpoint source load reductions will occur. Such a TMDL should provide assurances that nonpoint source controls will achieve expected load reductions and, such TMDL should include a monitoring plan that describes the additional data to be collected to determine if the load reductions provided for in the TMDL are occurring and leading to attainment of water quality standards.

Comment:

In order to remove this reach from the 303(d) list data is needed to show that the water quality standard is being met. Three years of monitoring data with no more than one exceedance during the critical time period is needed to remove the reach. MPCA collected water quality samples upstream and downstream of Montevideo WWTP's discharge point in June and July 2004 as part of MPCA's Milestone Monitoring Program. Additional samples will be collected by MPCA during the fall of 2004. The June 2004 sample was non-detectable for total ammonia nitrogen. The State has shared its protocol for monitoring of this reach with the City of Montevideo and the Chippewa River Watershed Project staff. The State anticipates that both the City of Montevideo and the Watershed Project staff will collect water quality samples in the future to determine if water quality standards are being met.

U.S. EPA finds that the state's approach is reasonable.

10. Implementation

U.S. EPA policy encourages Regions to work in partnership with States/Tribes to achieve nonpoint source load allocations established for 303(d)-listed waters impaired by nonpoint sources. Regions may assist States/Tribes in developing implementation plans that include reasonable assurances that nonpoint source LAs established in TMDLs for waters impaired solely or primarily by nonpoint sources will in fact be achieved. In addition, U.S. EPA policy recognizes that other relevant watershed management processes may be used in the TMDL process. U.S. EPA is not required to and does not approve TMDL implementation plans.

Comment:

Implementation plans usually target mechanisms to achieve necessary reductions from nonpoint sources. Since the State has not identified nonpoint sources as a major contributing source of the ammonia impairment in the Chippewa River an implementation plan was not included with this TMDL. Upgrades to the WWTP were made in 1994 and past problems at the WWTP in 2001 have been resolved. The State anticipates that future monitoring by Montevideo WWTP, the Chippewa River Watershed Project, and Milestone Monitoring by MPCA will demonstrate that this segment of the Chippewa River is meeting water quality standards for ammonia.

U.S. EPA finds that the state's approach is reasonable.

11. Public Participation

U.S. EPA policy is that there should be full and meaningful public participation in the TMDL development process. The TMDL regulations require that each State/Tribe must subject calculations to establish TMDLs to public review consistent with its own continuing planning process (40 C.F.R. §130.7(c)(1)(ii)). In guidance, U.S. EPA has explained that final TMDLs submitted to U.S. EPA for review and approval should describe the State's/Tribe's public participation process, including a summary of significant comments and the State's/Tribe's responses to those comments. When U.S. EPA establishes a TMDL, U.S. EPA regulations require U.S. EPA to publish a notice seeking public comment (40 C.F.R. §130.7(d)(2)).

Provision of inadequate public participation may be a basis for disapproving a TMDL. If U.S. EPA determines that a State/Tribe has not provided adequate public participation, U.S. EPA may defer its approval action until adequate public participation has been provided for, either by the State/Tribe or by U.S. EPA.

Comment:

The State held a public comment period from July 6 to August 6, 2004. A public meeting was held on July 22, 2004. The draft TMDL report was available on the State TMDL website, <http://www.pca.state.mn.us/water/tmdl.html>. A Notice of Availability and Request for Comments announced the public comment period, provided information about the public meeting, and identified how a copy of the draft TMDL could be obtained. This Notice was mailed to a mailing list of interested parties. The State provided U.S. EPA with a copy of the draft TMDL for public comment, a Fact Sheet, and the mailing list for the Notice of Availability. A copy of the public meeting attendance sheet, agenda of the public meeting, presentations from the public meeting, questions and answers from the public meeting, and official public meeting notice, news releases, and press coverage of the public meeting were also submitted by MPCA to U.S. EPA. No written public comments were received by the State.

U.S. EPA finds the State's approach acceptable and it meets the requirements of this section.

12. Submittal Letter

A submittal letter should be included with the TMDL submittal, and should specify whether the TMDL is being submitted for a *technical review* or *final review and approval*. Each final TMDL submitted to U.S. EPA should be accompanied by a submittal letter that explicitly states that the submittal is a final TMDL submitted under Section 303(d) of the Clean Water Act for U.S. EPA review and approval. This clearly establishes the State's/Tribe's intent to submit, and U.S. EPA's duty to review, the TMDL under the statute. The submittal letter, whether for technical review or final review and approval, should contain such identifying information as the name and

location of the waterbody, and the pollutant(s) of concern.

Comment:

On September 29, 2004, U.S. EPA received a letter dated September 22, 2004 from Sheryl A. Corrigan, Commissioner, MPCA, submitted the final Chippewa River Un-ionized Ammonia TMDL for U.S. EPA's review and approval. A Fact Sheet prepared by MPCA was included as an enclosure to the submittal letter along with the final TMDL. This letter also mentioned that additional information relating to the TMDL was submitted to Julianne Socha, U.S. EPA, on August 6 and September 2, 2004. Although not mentioned in this letter, MPCA also submitted additional information regarding the TMDL to Julianne Socha on September 10, 2004.

U.S. EPA finds the State's transmittal letter acceptable.

13. Conclusion:

After a full and complete review, U.S. EPA finds that the TMDL for the Chippewa River, Minnesota, satisfies the elements of an approvable TMDL. This approval is for one (1) waterbody reach impaired for ammonia for a total of one (1) TMDL addressing one (1) impairment as identified on Minnesota's 2004 303(d) list.

<u>Waterbody Reach</u>	<u>Assessment Unit ID</u>	<u>Pollutant</u>	<u>Impairment</u>
Chippewa River; Watson Sag Diversion to Minnesota River	07020005-501	total ammonia	ammonia

U.S. EPA's approval of this TMDL extends to the waterbody which is identified in this document and the TMDL with the exception of any portions of the waterbody that is within Indian Country, as defined in 18 U.S.C. Section 1151. U.S. EPA is taking no action to approve or disapprove the State's TMDL with respect to those portions of the water at this time. U.S. EPA, or eligible Indian Tribes, as appropriate, will retain responsibilities under Section 303(d) for those waters.

Decision Document Tables

Table 1 (from Table 2-1 of the TMDL)

Season	Temperature (C)	pH	Total ammonia (mg/l)
Spring (April-May)	14.0	8.2	1.04
Summer (Jun-Sep)	23.5	8.2	0.53
Fall (Oct-Nov)	10.5	8.2	1.35
Winter (Dec-Mar)	0.0	7.8	7.73

Table 2: Dry Weather Loads (Table 5-6 from the TMDL report)

Season	TMDL (kg/d)	WLA (kg/d)	LA (kg/d)	MOS (kg/d)	% MOS
Spring	197.5	86.5	30.0	81.1	41.1
Summer	13.4	7.0	3.2	3.3	24.5
Fall	40.4	24.0	3.8	12.6	31.3
Winter	61.3	36.0	2.4	22.9	37.3

Table 3: Wet Weather Loads (Table 5-7 from the TMDL report)

Season	TMDL (kg/d)	WLA (kg/d)	LA (kg/d)	MOS (kg/d)	% MOS
Spring	659.9	289.7	100.0	270.1	40.9
Summer	44.8	23.4	10.5	10.9	24.4
Fall	135.1	80.4	12.7	42.0	31.1
Winter	204.9	120.6	8.1	76.3	37.2

Table 4: NPDES Permitted facilities in Chippewa Watershed

Facility or Stabilization Pond	NPDES Permit Number
Benson WWTP	MN0020036
Hancock WWTP	MN0023582
Kensington WWTP	MN0021598
Kerkhoven WWTP	MN0020583
Starbuck WWTP	MN0021415
Watson WWTP	MN0022144
Evansville WWTP stabilization pond	MN0023329
Danvers stabilization pond	MN0025593
Hoffman stabilization pond	MN0021199
Lowry stabilization pond	MN0024007
Murdock stabilization pond	MN0054305