UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

DEC 07 2007

DEC 14

REPLY TO THE ATTENTION OF

WW-16J

Brad Moore, Commissioner
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

Dear Mr. Moore:

The United States Environmental Protection Agency (U.S. EPA) has reviewed the final Total Maximum Daily Loads (TMDL) for fecal coliform in the Pomme de Terre River Watershed. The segment is listed in Table 8 of the enclosed decision document. The Minnesota Pollution Control Agency's TMDL addresses the recreational use impairment for one segment of the Pomme de Terre River, in the Upper Mississippi River Basin. Based on this review, U.S. EPA has determined that Minnesota's one TMDL addressing one impairment 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, U.S. EPA hereby approves one TMDL in the Pomme de Terre River Watershed in Minnesota. 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 wish to acknowledge Minnesota's effort in submitting this TMDL, and look forward to future TMDL submissions by the State of Minnesota. If you have any questions, please contact Mr. Kevin Pierard, Chief of the Watersheds and Wetlands Branch at 312-886-4448.

Sincerely yours,

Robert D. Topa
Acting Director, Water Division

Enclosure

cc: Dave Johnson, MPCA
Katherine Pekarek-Scott, MPCA

wq-iw7-08g

TMDL: Pomme de Terre River, Minnesota, Fecal Coliform
Effective Date:

Decision Document for Approval of
Pomme de Terre River, Muddy Creek to Marsh Lake,
Fecal Coliform TMDL Report

Section 303(d) of the Clean Water Act (CWA) and EPA's implementing regulations at 40 C.F.R. Part 130 describe the statutory and regulatory requirements for approvable TMDLs. Additional information is generally necessary for EPA to determine if a submitted TMDL fulfills the legal requirements for approval under Section 303(d) and 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 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 EPA's TMDL regulations should be resolved in favor of the regulations themselves.

1. Identification of Water body, Pollutant of Concern, Pollutant Sources, and Priority Ranking

The TMDL submittal should identify the water body as it appears on the State's/Tribe's 303(d) list. The water body 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 water body 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 water body. 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 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 water body 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;

There are eight municipal wastewater treatment facilities in the watershed. There are no unsewered communities; however, there are a number of failing individual septic treatment systems in the watershed. Currently there are no MS4 communities in the watershed, however the City of Morris will be designated for MS4 permit coverage because their population exceeds 500 and they discharge to an impaired waterbody. The City of Morris currently contributes less than 1 percent of the fecal coliform load to the Pomme de Terre River. There are 14 CAFOs in the watershed.

Runoff from livestock (non CAFO) feedlots, pastures, and land application areas has the potential to be a significant source of fecal coliform bacteria. Table 4.03 of the TMDL submittal identifies the CAFO and non-CAFO animal units in the watershed. Natural background loads for fecal coliform can be attributed to wildlife, primarily deer and geese.

Priority Ranking: Minnesota does not include separate priority rankings for its waters in the TMDL. MPCA prioritizes its waters during the development of the impaired waters list. Development of the TMDL for this segment was scheduled to begin in 2006 with a final TMDL to be submitted in 2010. A local group worked with MPCA and helped develop the TMDL allowing for the final submittal to be completed ahead of schedule.

EPA finds that the TMDL document submitted by MPCA satisfies all requirements of this first element.

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 water body, the applicable numeric or narrative water quality criterion, and the antidegradation policy. (40 C.F.R. §130.7(c)(1)). 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:

Designated Use of Waterbody: Pomme de Terre is classified as 2B waters. Class 2B refers to those State waters identified to support aquatic (warm and cool water fisheries and associated biota) and recreation (all water recreation activities including bathing).

Water Quality Standard: The applicable WQS is identified in Minn.R. ch. 7050.0222 subpart 4 and 5,

> "fecal coliform water quality standard for class 2B and 2C waters states that fecal coliform shall not exceed 200 organisms per 100 milliliters as a geometric mean of not less than five samples in any calendar month, nor shall more than ten percent of all samples taken during any calendar month individually exceed 2,000 cfu/100 milliliters. The standard applies only between April 1 and October 31."

A proposed change to the water quality standard is to shift indicators from fecal coliform to *E.coli.* which will be set at an equivalent level to the above standard. To meet this level the fecal coliform values would need to be multiplied by 0.63 to have equivalent values of *E. coli.*

Target: The target is the standard as stated above, for both the geometric mean portion and the daily maximum portion, which is applicable from April 1st through October 31st. However, the focus of this TMDL is on the "chronic" standard of 200 cfu/100ml. This results in the greatest reductions in the watersheds, and MPCA believes that the geometric mean is the more relevant value in determining water quality. MPCA stated that while the TMDL will focus on the geometric mean portion of the WQS, compliance is required with both parts of the WQS.

EPA finds that the TMDL document submitted by MPCA satisfies all requirements of this second element.

3. Loading Capacity - Linking Water Quality and Pollutant Sources

A TMDL must identify the loading capacity of a water body for the applicable pollutant. 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. 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 steam 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:
Loading Capacity: MPCA determined the loading capacities through the use of the Load Duration Curve (LDC) method (Section 5 and Appendix A and B of the TMDL submittal). Using this method, daily loads are developed based upon the flow in the waterbody. Loading capacities were determined for the segment for multiple flow regimes. This allows the TMDL to be represented by an allowable daily load across all flow conditions. Table 1 below identifies the loading capacity for the waterbody and for each flow regime.

Table 1 Loading Capacity

Flow Zone (percent of flow)	Loading Capacity (billions org/day)	Wasteload Allocation (billions org/day)	Load Allocation (billions org/day)	Margin of Safety (billions org/day)
High (0-10%)	2985	104	1770	1111
Moist (10-40%)	886	91	457	338
Mid (40 – 60%)	401	88	191	122
Dry (60 -90%)	166	*	*	implicit
Low (90 – 100%)	21	*	*	implicit

Note Allocation for "*" = (flow contribution for source) x (200 orgs/100ml) see section 5.1 of the TMDL submittal. A proposed change to the water quality standard is to shift indicators from fecal coliform to *E.coli.*, which will be set at an equivalent level to the current fecal coliform standard. To meet this level, the fecal coliform values would need to be multiplied by 0.63 to have equivalent *E.coli* values.

MPCA believes that geometric mean portion of the WQS provides the best overall characterization of the status of the watershed. The EPA agrees with this, as stated in the preamble of "The Water Quality Standards for Coastal and Great Lake Recreation Waters Final Rule" (69 FR 67218-67243, November 16, 2004) on pages 67224 "... the geometric mean is the more relevant value for ensuring that appropriate actions are taken to protect and improve water quality because it is a more reliable measure, being less subject to random variations, and more directly linked to the underlying studies on which the 1986 bacteria criteria were based." MPCA will be relying on the geometric mean portion of the WQS to track implementation activity and results.

The LDC method is a cost-effective TMDL implementation approach, while still addressing the reductions necessary to meet WQS for fecal coliform bacteria. The approach also aids in sharing the responsibility for fecal coliform reduction among various municipalities in the TMDL watersheds, which encourages collective implementation efforts.

The data set used for the development of the TMDL was collected between 1970-2005 for flow data, from USGS gage station 05294000. The gage is in the watershed at the mouth of the river. Fecal coliform sampling data was collected from 1971 to 2004. Figure 3.22 of the TMDL submittal presents the spatial extent of the exceedance by months in the watersheds. Table 3.21 of the TMDL submittal lists the data used at the site. Figure 3.21 shows the location of the sampling point where the data was taken.

The LDC can be found in Attachment B of the TMDL submittal. These plots are derived from the flow data and water quality data described above. Existing monitored water pollutant loads are represented by either a triangle for July and August data, or a diamond for all data. Existing loads are compared to the target loads (curve). If the points are below the line no reduction is needed. Points above the line are exceeding the standard and reduction is needed.

MPCA's fecal coliform TMDL approach is based upon the premise that loads vary depending upon the flow, and different sources may contribute loads under different flow conditions. The LDC plots show under what flow conditions the water quality exceedance occurs. Those exceedances at the right side of the graph occur during low flow conditions, suspected to be septic systems malfunctions, point source discharge and illicit sewer connections; exceedance on the left side of the graph occur during higher flow events, such as storm runoff. MPCA has reviewed the load duration curves, and believes that fecal coliform sources are attributed to both wet and dry-weather events.

Critical Condition: For the Pomme de Terre River violations have occurred over all flow regimes, during the months of July and August. During these months all flow conditions had violations of the WQS. During wet weather conditions the fecal coliform contribution is attributed to runoff from manure applications as well as failing septic systems. During dry weather conditions contributions are attributed to failing individual septic treatment systems. The critical condition for this TMDL is considered to be the months of July and August.

EPA finds that the TMDL document submitted by MPCA satisfies all requirements of this third element.

4. Load Allocations (LAs)

EPA regulations require that a TMDL include LAs, which identify the portion of the loading capacity attributed to existing and future non-point 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 non-point sources.

Comments:
Load Allocation: The load allocation is discussed in section 5.1 of the TMDL submittal. MPCA determined available LAs by determining the loading capacity and subtracting out the wasteload allocations and a margin of safety. The load allocation includes nonpoint pollution sources that are not subject to an NPDES permit as well as "natural background" sources such as wildlife.

Although there are numeric loads for each flow regime the LDC is what is being approved for this TMDL. The Table 2 below identifies the load allocation associated for each flow regime.

Table 2 Loading Allocation

Flow Zone (percent of flow)	High (0-10%) (billions org/day)	Moist (10-40%) (billions org/day)	Mid (40 – 60%) (billions org/day)	Dry (60 - 90%) (billions org/day)	Low (90 – 100%) (billions org/day)
Load Allocation	1770	457	191	*	*

Note Allocation for "*" = (flow contribution for source) x (200 orgs/100ml) see section 5.1 of the TMDL submittal. A proposed change to the water quality standard is to shift indicators from fecal coliform to *E.coli.*, which will be set at an equivalent level to the current fecal coliform standard. To meet this level, the fecal coliform values would need to be multiplied by 0.63 to have equivalent *E.coli* values.

EPA finds that the TMDL document submitted by MPCA satisfies all requirements of this fourth element.

5. Wasteload Allocations (WLAs)

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. 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.

Comments:
The WLA is discussed in Section 5.1 of the TMDL submittal. The WLA for all wastewater treatment facilities (WWTFs) were determined by multiplying the wet weather design flow by the permit discharge limit (200 cfu/ 100ml).

There are eight NPDES permitted WWTFs in the watershed. The eight permittees are listed in Table 4.01 of the TMDL submittal. Of these eight, two do not discharge to surface water (see Table 4 below); the Dalton WWTF discharges by spray irrigation, and the Underwood WWTF uses groundwater infiltration. Five of the WWTFs are lagoon systems which discharge intermittently. The one remaining WWTF (Appleton) is the only mechanical system which is a continuous discharger. Table 3 below identifies the WWTF permittees and their waste loads.

Table 3 Wasteload Allocation by Facility with surface water discharge

WWTF	Permit #	County	Wasteload allocation (billions org/day)
Alberta	MNG580002	Stevens	2.0
Appleton	MN0021890	Swift	3.3
Ashby	MNG580087	Grant	5.9
Barrett	MN0022713	Grant	6.9
Chokio	MNG580007	Stevens	5.9
Morris	MN0021318	Stevens	61.7

Table 4 Facility with permits without surface water discharge

WWTF	Permit #	County	Discharge Application	Wasteload allocation (billions org/day)
Dalton	MN0023141	Otter Tail	Spray Irrigation	0
Underwood	MN0025071	Otter Tail	Groundwater infiltration	0

There are currently no permitted MS4 communities in the watershed. The City of Morris will be designated for MS4 permit coverage because their population exceeds 5000 and they discharge to an impaired waterbody (HUC07020002-502, biotic impairment for fish). With the anticipation of the permit being issued, the state has determined the waste load allocation for the City of Morris MS4 permit discharge to be 1 % of the allocation. Along with the WLA for each type of permitted discharge, Morris' MS4 WLA for each flow regime is identified in Table 6 below (page 9).

There are 14 Confined Animal Feeding Operations (CAFO) in the watershed with NPDES permits. Table 5.21C of the TMDL submittal and Table 5 below identify these facilities.

Table 5 permitted CAFOs

Subwatershed	Facility	Permit ID Number
Middle PdT	New Horizon Dairy LLP	051-62611
Middle PdT	James Disselkamp Farm	149-70223
Middle PdT	Deterre Farms	149-70213
Muddy Creek	Farmoco Supply LLP	149-50003
Muddy Creek	Martys Swine Systems Inc	149-70472
Dry Wood Creek	Bruce/Mary Zierke Farm	149-70249
Dry Wood Creek	Fairfield Genetics Inc	149-70183
Lower PdT	Leonards Wulf & Sons Inc	149-50005

Lower PdT	Loren Schmidgall Farm	149-50001
Lower PdT	Riverview Dairy Inc	149-50007
Lower PdT	Farmco Supply	151-84043
Lower PdT	Jennie-O Turkey Store-Jennings Farm	151-50004
Lower PdT	Jennie-O Turkey Store – Pedersen Brood	151-93689
Lower PdT	Outback Five Inc.	151-50001

The WLA for all CAFOs is zero org/day.

Straight pipe septic systems are illegal and unpermitted and as such were assigned a zero org/day WLA.

Table 6 Waste Load Allocation for each type of permitted discharge.

Flow Regimes loadings in Billion organisms per day					
	High	Moist	Mid	Dry	Low
Permitted WWTF	86	86	86	*	*
MS4	18	5	2	*	*
Permitted CAFO	0	0	0	0	0
Straight Pipe	0	0	0	0	0
Total WLA	104	91	88	*	*

Note Allocation for "*" = (flow contribution for source) x (200 orgs/100ml) see section 5.1 of the TMDL submittal. A proposed change to the water quality standard is to shift indicators from fecal coliform to *E.coli.*, which will be set at an equivalent level to the current fecal coliform standard. To meet this level, the fecal coliform values would need to be multiplied by 0.63 to have equivalent *E.coli* values.

EPA finds that the TMDL document submitted by MPCA satisfies all requirements of this fifth element.

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)). 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.

Comments:
The Margin of Safety Section of the TMDL submittal (Section 6.0) states that there is an implicit and an explicit margin of safety calculated for each flow regime (see Table 7 below). MPCA did

not consider the use of the decay rate in the calculation of the TMDL. This is considered to be an implicit MOS. Pathogen organisms ordinarily have limited capability of surviving outside of the hosts and a rate of decay could be developed. However, applying a rate of decay could result in an allocation that would be greater than the WQS, thus no rate of decay was applied to provide for a greater protection of water quality. This was applied to all flow regimes.

As stated above an explicit MOS was also used in the development of the TMDL. The TMDL allocations are a direct function of daily flows, accounting for potential flow variability is an appropriate way to address the MOS. This is done within three of the five flow regimes. The MOS was calculated as the difference between the median flow and minimum flow in each flow regime.

Table 7 MOS values

	Flow Regimes loadings in Billion organisms per day				
	High	Moist	Mid	Dry	Low
MOS	1111	338	122	implicit	implicit

A proposed change to the water quality standard is to shift indicators from fecal coliform to *E.coli.*, which will be set at an equivalent level to the current fecal coliform standard. To meet this level, the fecal coliform values would need to be multiplied by 0.63 to have equivalent *E.coli* values.

EPA finds that the TMDL document submitted by MPCA satisfies all requirements of this sixth element.

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)).

Comments:
The flow duration approach used in developing the TMDL captures the full range of flow conditions over the April to October period, when the standards apply.

EPA finds that the TMDL document submitted by MPCA satisfies all requirements of this seventh element.

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, 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 EPA to determine that the TMDL, including the load and wasteload allocations, has been established at a level necessary to implement water quality standards.

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, 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.

Comments:
The TMDL submittal identifies agricultural inputs, failing septic systems, and wildlife inputs, as the primary fecal coliform sources. Discharges from WWTFs are an additional source in the Pomme de Terre Watershed. The Reasonable Assurance Activities Section of the TMDL submittal (Section 10) discusses some mechanisms that give reasonable assurance that the TMDL can be met. Below is a summary of a few of these assurances. Section 10 of the TMDL submittal has a more detailed discussion on reasonable assurance.

The source reduction strategies listed are shown to be successful in reducing pathogen transport and survival and to be capable of widespread adoption by land owners and local resource managers. Counties will apply for available grants and loans to implement BMPs.

- Feedlot runoff controls.
- Individual Sewage Treatment Systems
- Municipal Wastewater Disinfection
- Buffer Strips for Land Application of Manure
- Erosion Control and Sediment
- Planned Rotational Grazing
- Urban Stormwater Management

The lead for implementation will be sponsored by the Pomme de Terre (PdT) River Joint Powers Board. The technical work group of the PdT is composed of PdT technical staff, County representatives and personnel from Soil and Water Conservation Districts, Board of Soil and Water Resources, Department of Natural Resources, Minnesota Pollution Control Agency, and the Natural Resources and Conservation Services. The technical work group will monitor and evaluate the implementation strategies, and will advise and make recommendations on the progress of the strategies to the PdT Joint Powers Board.

EPA finds that the TMDL document submitted by MPCA adequately addresses this eighth

element.

9. Monitoring Plan to Track TMDL Effectiveness

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.

Comments:
Section 8.0 of the TMDL submittal, states that the monitoring efforts will continue in the watershed. Further monitoring sites may be added upon the implementation of the BMPs. Implementation activities at the sub-watershed level will be re-evaluated after monitoring and BMPs can be modified as needed. Annual results will be included in the yearly Pomme de Terre River watershed Monitoring Summary.

EPA finds that the TMDL document submitted by MPCA adequately addresses this ninth element.

10. Implementation

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, EPA policy recognizes that other relevant watershed management processes may be used in the TMDL process. EPA is not required to and does not approve TMDL implementation plans.

Comment:
Implementation is discussed in section 9.0-9.2 of the TMDL submittal. These sections provide an overview of the implementation options and considerations to address the fecal coliform bacteria TMDL. The final implementation plan is to be developed within a year of the final approval of the TMDL submittal by EPA. The implementation plan will spell out what and where BMPs will be applied in the sub-watersheds, and identify the cost and funding sources for their application. The plan will be broken down into several phases through targeted implementation.

EPA finds that the TMDL document submitted by MPCA adequately addresses this tenth element.

11. Public Participation

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, EPA has explained that final TMDLs submitted to 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 EPA establishes a TMDL, EPA regulations require 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 EPA determines that a State/Tribe has not provided adequate public participation, EPA may defer its approval action until adequate public participation has been provided for, either by the State/Tribe or by EPA.

Comments:
Section 11.0 of the TMDL submittal discusses public participation. The TMDL was public noticed on MPCA's website. A public notice was posted in the State Register and the public comment period was open from August 20, 2007 to September 20, 2007. The Soil and Water Conservation Districts in the counties in the watershed mailed newsletters updating citizens on the progress of the TMDL. One public meeting was held on May 10, 2007 in Morris. For this meeting over 300 invitations were mailed or emailed to citizens and interested parties in the watershed. Notices of the meeting were placed in local newspapers.

MPCA received comments on the TMDL and they were addressed adequately. The comment responsiveness summary is attached in Appendix C.

EPA finds that the TMDL document submitted by MPCA satisfies all requirements of this eleventh element.

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 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 EPA review and approval. This clearly establishes the State's/Tribe's intent to submit, and 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 water body, and the pollutant(s) of concern.

Comment:
The transmittal letter was dated October 26, 2007 from Brad Moore, Commissioner, MPCA, to Kevin Pierard, Acting Director, Water Division, Region 5 EPA. The letter stated that this was a

final TMDL submittal under Section 303(d) of the CWA. The letter also contains the name of the watershed as it appears on Minnesota's Category 5, of the Integrated Report.

After submittal of the TMDL, it was determined that the Waste Load amount for the proposed MS4 permit was placed in the load calculation. A revised copy of the final TMDL was updated and submitted to EPA on the November 20, 2007 (see e-mails between David L. Johnson, MPCA and Donna Keclik, EPA).

EPA finds that the TMDL document submitted by MPCA satisfies all requirements of this twelfth element.

13. Conclusion

After a full and complete review, EPA finds that the TMDL for Pomme de Terre Watershed, satisfies all of the elements of an approvable TMDL. This approval document is for one water body segment impaired by fecal coliform for a total of one TMDL, addressing one impairment, from the 2006 Minnesota 303(d) list. EPA's approval of this document does not extend to those waters that are within Indian Country, as defined in 18 U.S.C. Section 1151. EPA is taking no action to approve or disapprove TMDLs for those waters at this time. EPA or eligible Indian Tribes as appropriate will retain responsibilities under CWA Section 303(d) for those waters.

Table 8

Waterbody	HUC (AU)	Pollutant	Impairments
Pomme de Terre River	07020002-501	Fecal coliform	Aquatic recreation