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

SEP 25 2012

REPLY TO THE ATTENTION OF:

WW-16J

Rebecca Flood, Assistant Commissioner
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Dear Ms. Flood:

The U.S. Environmental Protection Agency has conducted a complete review of the final Total Maximum Daily Loads (TMDLs) for Pearl Lake and Mill Creek including supporting documentation and follow up information. Pearl Lake and Mill Creek are located in central Minnesota, in Stearns County. The TMDL addresses the Aquatic Recreation Use impairments due to excess nutrients (total phosphorus) in Pearl Lake and bacteria in Mill Creek.

The TMDLs meet the requirements of Section 303(d) of the Clean Water Act and EPA's implementing regulations at 40 C.F.R. Part 130. Therefore, EPA hereby approves Minnesota's two TMDLs, one for total phosphorus for Pearl Lake and one for *E. coli* for Mill Creek. The statutory and regulatory requirements, and 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 these TMDLs and look forward to future TMDL submissions by the State of Minnesota. If you have any questions, please contact Mr. Peter Swenson, Chief of the Watersheds and Wetlands Branch, at 312-886-0236.

Sincerely,

Tinka G. Hyde
Director, Water Division

Enclosure

cc: Greg VanEeckout, MPCA
David L. Johnson, MPCA

wq-iw8-36g

TMDL: Pearl Lake and Mill Creek TMDLs, MN

Date: SEP 25 2012

DECISION DOCUMENT FOR THE PEARL LAKE AND MILL CREEK TMDL, MN

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 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 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:
Pearl Lake and Mill Creek are impaired waterbodies within the Sauk River Basin in central Minnesota. The Minnesota Pollution Control Agency (MPCA) placed Pearl Lake on the State of Minnesota 303(d) Impaired Waters List in 2008 and Mill Creek on the State of Minnesota 303(d) Impaired Waters List in 2006. Pearl Lake is listed as impaired due to excess nutrients resulting from high phosphorus concentrations, while Mill Creek is listed as impaired due to high bacteria levels (Table 1 of this Decision Document).

Table 1. Pearl Lake and Mill Creek Status on Minnesota's 2010 303(d) list

Waterbody Name	County	State ID	Impairments	Pollutant	Designated Use
Pearl Lake	Stearns	73-0037	Nutrients/Eutrophication Biological Indicators	Total Phosphorus	Aquatic Recreation
Mill Creek, Headwaters to Sauk River	Stearns	07010202-537	Pathogens	*E. coli*	Aquatic Recreation

Location Description/Spatial Extent:
Pearl Lake: Pearl Lake is 750 acres in size, and the surrounding watershed is 18,000 acres in size. One smaller unnamed tributary drains into Pearl Lake. MPCA determined that portions of the Pearl Lake watershed are land-locked and do not drain to Pearl Lake, and therefore do not contribute phosphorus to the lake. The watershed that drains to Pearl Lake is 9700 acres in size. Pearl Lake has a maximum depth of 18 feet, and an average depth of 8 feet. The MPCA classified Pearl Lake as a deep lake based upon the maximum depth greater than 15 feet. The lake is located in the North Central Hardwood Forest Ecoregion (NCHF).

Mill Creek: Mill Creek begins at Goodners Lake, flows east approximately three miles into Pearl Lake, then exits Pearl Lake and flows north about seven miles until it enters the Sauk River, which is a tributary to the Mississippi River (Section 2.2 of the TMDL). The Mill Creek watershed is approximately 31,000 acres in size. An additional waterbody, Grand Lake discharges into Mill Creek downstream of Pearl Lake (Figure 2-3 of the TMDL).

Population and Future Growth:
Population in the watershed is small; the only significant population center is the City of Rockville at the mouth of Mill Creek. MPCA estimated the population at 1,700. MPCA noted that there are residences on the lakeshore of Pearl Lake. Population growth is not expected, and MPCA did not include a reserve capacity in the TMDL allocations for either pollutant (Part I Section 3.4.4 and Part II 5.8 of the TMDL).

Land Use:
Land use in the Pearl Lake/Mill Creek watershed is comprised mainly of cropland (45%) and grassland/pasture (25%), with some forest (17%). Developed lands comprise approximately 5% of the watershed.

Problem Identification: Pearl Lake was originally listed on the 2008 Minnesota 303(d) list for excessive nutrients (phosphorus). Pearl Lake is currently on the draft 2012 Minnesota 303(d) list for impaired aquatic recreation due to excessive nutrients. MPCA assessment of in-lake water quality data from 2007 indicated that Pearl Lake was impaired by excess nutrients (total phosphorus) and was not attaining its designated uses. Additional monitoring was performed in 2008 and 2009 and summer total phosphorus (TP) values (June 1 through September 30) exceeded the phosphorus water quality criteria in 2008. Chlorophyll-a (chl-a) concentrations also exceeded the water quality criteria, while Secchi depth transparencies generally met the water quality criteria. In 2009, the water quality criteria were met. MPCA noted that one difference between 2008 and 2009 was the reduced presence of curly-leaf pondweed in 2009. Curly-leaf pondweed is an invasive plant found in many Minnesota lakes that grows in early spring, and dies off in mid-summer. When it dies, it releases phosphorus into the lake, increasing phosphorus levels in the lake and consuming oxygen, thereby reducing dissolved oxygen levels in the lake.

While TP is an essential nutrient for aquatic life, elevated phosphorus levels can lead to nuisance algal blooms that negatively impact aquatic life and recreation (swimming, boating, fishing, etc.). Algal decomposition depletes oxygen levels which stresses benthic macroinvertebrates and fish. Excess algae can shade the water column which limits the distribution of aquatic vegetation. Aquatic vegetation stabilizes bottom sediments, and also is an important habitat for macroinvertebrates and fish. Furthermore, depletion of oxygen can cause phosphorus release from bottom sediments (i.e. internal loading).

Mill Creek was originally listed on the 2006 Minnesota 303(d) and is currently listed in the draft 2012 Minnesota 303(d) list for impaired aquatic recreation due to excessive pathogens. MPCA and the Sauk River Watershed District (SRWD) have monitored the creek since 2003, and indicate that the water quality standard for bacteria had been exceeded consistently for the summer months. Recreation-based contact can lead to ear, nose, and throat infections, and stomach illness. At elevated levels, bacteria may cause illness within humans who come in contact with or ingest bacteria laden water

Priority Ranking: The Pearl Lake/Mill Creek watershed was given a priority ranking for TMDL development due to the impairment impacts on public health and aquatic life, the public value of the impaired water resource, the likelihood of completing the TMDL in an expedient manner, the inclusion of a strong base of existing data and the restorability of the water body, the technical capability and the willingness of local partners to assist with the TMDL, and the appropriate sequencing of TMDLs within a watershed or basin. Pearl Lake is a popular location for aquatic recreation. Water quality degradation has led to efforts to improve the overall water quality within the Pearl Lake/Mill Creek watershed, and to the development of the TMDLs.

Pollutant of Concern: The pollutant of concern for Pearl Lake is total phosphorus (TP), and the pollutant of concern for Mill Creek is *E. coli*.

Source Identification (point and nonpoint sources):
Point Source Identification: The potential point sources to the Pearl Lake/Mill Creek watershed are:

National Pollutant Discharge Elimination Systems (NPDES) permitted facilities: There are no NPDES-permitted facilities within the watershed.

Municipal Separate Storm Sewer System (MS4) communities: There are no MS4 communities within the watershed.

Stormwater from construction activities: MPCA did not identify any permitted construction activities in the watershed.

Concentrated Animal Feedlot Operations (CAFOs): MPCA did not identify any CAFO facilities in the watershed.

Nonpoint Source Identification: The potential nonpoint sources of phosphorus and bacteria to Pearl Lake/Mill Creek are:

Internal loading: Phosphorus-rich sediments often settle out in the lakes, and when dissolved oxygen levels are reduced (often during the summer months) the phosphorus dissolves out of the sediment and into the water column. When the lake mixes during the spring and fall, the phosphorus-rich water is spread throughout the lake, and is available for use by algae and plants. Curly-leaf pondweed is a phosphorus-rich plant that can release phosphorus when the plant dies and decomposes.

Atmospheric deposition: Phosphorus may be added via particulate deposition. Particles from the atmosphere may fall onto lake surfaces or other surfaces within the Pearl Lake watershed. Phosphorus can be bound to these particles which may add to the phosphorus inputs to surface water environments.

Agricultural sources (pasture, cropland, and open lands): Phosphorus and bacteria may be added via surface runoff from grasslands, and agricultural lands used for growing hay and row crops such as corn and soybeans. Stormwater runoff may contribute nutrients and bacteria to surface waters from livestock manure, fertilizers, vegetation and erodible soils.

Livestock sources (animal feeding operations): Animal feeding operations (AFOs), which fall beneath the animal threshold limits to be given an NPDES permit, may nevertheless transport phosphorus to surface waters during storm events (via stormwater runoff). AFOs may transport phosphorus laden materials from feeding, holding and manure storage areas to surface waters. MPCA identified 78 AFOs within the Pearl Lake/Mill creek watershed. The MPCA estimates that these facilities have approximately 9,174 total animal units. None of these operations is classified as a CAFO. By rule, CAFOs and other feedlots are generally not allowed to discharge to waters of the State (Minnesota Rule 7020.2003). Manure from these lots is spread on nearby fields and can be a significant source of phosphorus and bacteria found in nonpoint-derived watershed runoff. However, runoff from manure spread onto fields in accordance with federal and state requirements is unregulated, and included in the watershed runoff portion of the load allocation (LA).

Residential sources: Nutrients and bacteria may be added via runoff from homes near Pearl Lake and Mill Creek. Runoff from residential properties can include phosphorus or bacteria derived

from fertilizers, leaf and grass litter, pet wastes, and other sources of anthropogenic derived materials.

Inadequate Subsurface Sewage Treatment Systems (SSTS): Phosphorus and bacteria may be added to Pearl Lake and Mill Creek from failing septic systems. Age, construction and use of SSTS can vary throughout a watershed and influence the nutrient contribution from these systems. Those systems sited closer to the waterbodies are more likely to contribute nutrients and bacteria than those systems sited further away from the lake. Failing SSTS can discharge nutrients and bacteria directly into surface waters by straight pipe connections (considered point sources) or by effluents leaching into groundwater or ponding at the surface, where they can be washed into surface waters via stormwater runoff.

Future Growth: Significant development is not expected in the Pearl Lake/Mill Creek watershed. The land use within the watershed is primarily agricultural and according to the MPCA is expected to remain as agricultural for the foreseeable future. The WLA and LA for the Pearl Lake/Mill Creek TMDL were calculated for all current and future sources. Any expansion of point or nonpoint sources will need to comply with the respective WLA and LA values calculated in the Pearl Lake/Mill Creek TMDL.

The EPA finds that the TMDL document submitted by the MPCA satisfies the requirements of the 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 waterbody, 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 Uses:

Minnesota Rule Chapter 7050 designates uses for waters of the state. Pearl Lake and Mill Creek are designated as Class 2B water for aquatic recreation use (boating, swimming, fishing, etc.). The Class 2 aquatic recreation designated use is described in Minnesota Rule 7050.0140 (3):

"Aquatic life and recreation includes all waters of the state that support or may support fish, other aquatic life, bathing, boating, or other recreational purposes and for which quality control is or may be necessary to protect aquatic or terrestrial life or their habitats or the public health, safety, or welfare."

Standards:

Narrative Criteria: Minnesota Rule 7050.0150 (3) set forth narrative criteria for Class 2 waters of the State:

"For all Class 2 waters, the aquatic habitat, which includes the waters of the state and stream bed, shall not be degraded in any material manner, there shall be no material increase in undesirable slime growths or aquatic plants, including algae, nor shall there be any significant increase in harmful pesticide or other residues in the waters, sediments, and aquatic flora and fauna; the normal fishery and lower aquatic biota upon which it is dependent and the use thereof shall not be seriously impaired or endangered, the species composition shall not be altered materially, and the propagation or migration of the fish and other biota normally present shall not be prevented or hindered by the discharge of any sewage, industrial waste, or other wastes to the waters."

Numeric criteria for Phosphorus: Numeric criteria for TP, chl-a, and Secchi depth are set forth in Minnesota Rules 7050.0222. These three parameters are the eutrophication standards that must be achieved to attain aquatic recreation designated use. The numeric eutrophication standards that are applicable to Pearl Lake are those set forth for Class 2B shallow lakes in the NCHF Ecoregion (Table 2 of this Decision Document). In developing the lake nutrient standards for Minnesota lakes, the MPCA evaluated data from a large cross-section of lakes within each of the State's ecoregions. Clear relationships were established between the causal factor, TP, and the response variables, chl-a and Secchi depth. Based on these relationships, TP loadings designed to meet the TP WQS of 40 µg/L were determined to also result in attainment of chl-a and Secchi depth standards.

Table 2: Minnesota Eutrophication Criteria for lakes within the North Central Hardwood Forest ecoregion

Parameter	Eutrophication Standard
Total Phosphorus (µg/L)	TP < 40
Chlorophyll-a (µg/L)	chl-a < 14
Secchi Depth (m)	Secchi depth > 1.4

Numeric criteria for E. coli: Numeric criteria for bacteria in Class 2B waters is set forth in Minn. R. ch. 7050.0222 subp. 4, *E. coli* water quality standard for Class 2B and 2C waters. This standard states that *E. coli* shall not exceed 126 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 1,260 organisms per 100 milliliters. The standard applies from April 1 through October 31. Mill Creek was originally listed for impairment by fecal coliform but in 2008 the standards were changed to the *E. coli* indicator used for development of this TMDL.

Phosphorus target: MPCA selected a target of 40 µg/L of TP to develop the TMDL. MPCA selected total phosphorus as the appropriate parameter to address eutrophication problems at Pearl Lake because of the interrelationships between TP and chl-a, as well as Secchi depth. Algal abundance is measured by chl-a, which is a pigment found in algal cells. As more phosphorus becomes available, algae growth can increase. Increased algae in the water column will decrease water clarity that is measured by Secchi depth.

E. coli target: MPCA selected to use the geometric mean portion of the criteria, 126 org/100 mL, to develop the TMDL. This target applies during the recreational season of April 1 through October 31. Waterbodies are held to recreation use criteria during the time of the year when people are most likely to be engaged in activities such as swimming, wading or boating. The recreational use criteria were established to protect against disease carrying organisms that may be ingested or introduced to the eyes, skin or other body parts during water recreation activities.

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

3. Loading Capacity - Linking Water Quality and Pollutant Sources

A TMDL must identify the loading capacity of a waterbody 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:
Phosphorus Loading Capacity: The TP Loading Capacity for Pearl Lake is **3.86 kg/d.**

The approach utilized by MPCA to calculate the loading capacity for Pearl Lake is described in Section 3.0 of the final TMDL document. The MPCA first determined estimated phosphorus for each source type and then utilized the finite difference model (Section 3.3.3.4 of the TMDL) to determine the TP concentration in the lake as a result of these loads.

To estimate nutrient loading within the Pearl Lake watershed, the MPCA first calculated a water balance using the formula:

Change in lake volume = Watershed Inflow + Direct Precipitation – Evaporation – Outflow

Outflow for Pearl Lake was determined by measuring the lake level and the flow in Mill Creek just downstream of the outlet. A hydrologic rating curve was generated (Figure 3-5 of the TMDL) that was used to chart the average daily outflow. Daily precipitation data were used to determine direct precipitation, and evaporation was estimated based upon values for central Minnesota.

Once the water balance was completed, MPCA used a finite difference model to determine the TP concentration corresponding to a given hydrologic and phosphorus load.

$$C = Co + \frac{(W * t - Qout * C - K * V * Co) * \Delta T}{V}$$

Where: C = phosphorus concentration in the lake, Co = initial phosphorus concentration or concentration of previous time step, or phosphorus concentration from the previous time step, W = phosphorus loading from external sources, internal sources, and dry or wet deposition directly on the lake, Qout = flow out of the lake, which is assumed to be equal to the seven day running average inflow rate, K = net apparent settling velocity (units of 1/y, and KVCo=phosphorus mass loss by settling). The net apparent settling velocity (K) can also be expressed in units of m/y if the average lake depth is used in the settling loss equation.

The model was run using the water quality data for Mill Creek and Pearl Lake. Internal loading of phosphorus was determined based upon the difference in the modeled output and the observed TP concentrations (Figure 3-6 of the TMDL). The model used 2008 flow data, which MCPA determined was more representative of the long-term climate values.

The model demonstrated that internal load contributes approximately 50% of the current TP load, and watershed runoff contributes approximately 50% of the current TP load (Figure 3-8 of the TMDL). To achieve the in-lake target of 40 µg/L, the TP load needs to be reduced by 22%. The TMDL is summarized in Table 3 of this Decision Document.

The finite difference model was not used to determine the chl-a and Secchi depth; rather, MPCA relied upon the work done in determining the lake nutrient standards in Minnesota. As discussed in Section 2 of this Decision Document, the MPCA evaluated data from a large cross-section of lakes within each of the State's ecoregions in developing the lake nutrient standards for Minnesota lakes. Clear relationships were established between the causal factor (TP) and the response variables (chl-a and Secchi depth). Based on these relationships, TP loadings designed to meet the TP WQS of 40 µg/L were determined to also result in attainment of chl-a and Secchi depth standards.

EPA supports the data analysis and modeling approach utilized by MPCA in its calculation of wasteload allocations, load allocations and the margin of safety. Additionally, EPA concurs with the loading capacity calculated by the MPCA in the Pearl Lake TMDL. Model selection and development are consistent with EPA guidance [1] and the State has submitted sufficient documentation in the TMDL Report as discussed above, to demonstrate that the model is capable of reasonably simulating conditions in the watershed.

Table 3 Pearl Lake TP TMDL Summary

Source	Daily Load (kg/d)
WLA	0
LA	3.67
Internal load	1.75
Watershed sources	1.77
Atmospheric sources	0.14
Margin of Safety	0.19
Total Loading Capacity	3.86

E. coli Loading Capacity: The loading capacities for *E. coli*, (Table 4 of this Decision Document) for the Mill Creek watershed were determined by MPCA using the load duration curve method (LDC) (Part II Section 4.2 of the TMDL). MPCA used the monitoring station at the mouth of Mill Creek to determine the pollutant loads, as the data were the most extensive (Part II Section 3 of the TMDL).

To calculate the TMDL, a flow duration curve (FDC) was developed from the flow frequency table based on recorded and scaled flow volumes measured at the USGS flow gage (05270500) located on the nearby Sauk River near St. Cloud (Part II Section 5.1 of the TMDL). For *E. coli*, the flow data focused on dates within the recreation season (April 1 – October 31), and dates outside of the recreation season were excluded from the flow record. The FDC graph has the flow duration interval (percentage of time flow exceeded) on the X-axis and discharge (flow per unit time) on the Y-axis.

The FDC was then transformed into a LDC by multiplying individual flow values by the applicable water quality standard (see Section 2 of this Decision Document) and by a conversion factor. Loading capacities are usually expressed as a mass per time (e.g. pounds per day). For *E. coli*, however, mass is not always an appropriate measure because *E. coli* is expressed in terms of organism counts. For the Mill Creek TMDL, MPCA used organisms per day (org/d) as the target. The resulting curve on a graph is the TMDL, identifying how many billions of organisms per day a stream can assimilate for a given flow value and still attain WQS.

The LDC plot was subdivided into five flow regimes; high flows, moist flows, mid-range range flows, dry weather flows, and low flows. High flows are exceeded 0-10% of the time, moist flows are exceeded 10-40% of the time, mid-range flows are exceeded 40-60% of the time, dry

[1] U.S. Environmental Protection Agency, November 1999. *Protocol for Developing Nutrient TMDLs.* Office of Water, EPA 841-B-99-007. Washington D.C ; and *Compendium of Tools for Watershed Assessment and TMDL Development,* 1997, Office of Water. EPA-841-B-97-006. Washington D.C

weather flows are exceeded 60-80% of the time and low flows are exceeded 90-100 % of the time. The LDC plot, showing the individual sampling loads and the LDC, display under what flow conditions water quality exceedances occur (Part II, Section 5.3 of the TMDL). Individual sampling loads which plot above the LDC represent violations of the WQS and the allowable load under those flow conditions. The difference between individual sampling loads plotting above the LDC, and the LDC measured at the same flow, is the amount of reduction necessary to meet WQS.

The lower flow value within each flow zone of the LDC was used to provide a discrete loading capacity. However, it should be understood that the components of the TMDL equation could beillustrated for any point on the entire curve. Although there are numeric loads for each flow regime in the tables, the LDC represent the actual loading capacity.

The plot shows under what flow conditions the water quality exceedences occur. Those exceedences at the right side of the graph occur during low flow conditions; exceedences on the left side of the graphs occur during higher flow events, such as storm runoff. MPCA provided an analysis of the LDC to determine the flow conditions for which exceedences (or the most severe exceedences) occurred (Part II, Section 5.2 of the TMDL). By knowing the flow conditions under which exceedences are occurring, MPCA can focus implementation activities on those sources most likely to contribute loads

Using the load duration curve approach allows MPCA to determine which implementation practices are most effective for reducing pollutant loads based on flow magnitude. For example, if loads are significant during storm events, implementation efforts can target those best management practices (BMPs) that will most effectively reduce runoff. This allows for a more efficient implementation effort. The load duration curve is a cost-effective TMDL approach, to address the reductions necessary to meet WQS for these pollutants.

Weaknesses of the TMDL analysis are that non-point source (NPS) load allocations were not assigned to specific sources within the watershed, and the identified sources of the pollutants were assumed based on the data collected in the watershed, rather than determined by detailed monitoring and sampling efforts. Moreover, specific source reductions were not quantified. However, EPA believes the strengths of the State's proposed TMDL approach outweigh the weaknesses and that this methodology is appropriate based upon the information available. In the event that the pollutant levels do not meet WQSs in response to implementation efforts described in the TMDL submittal, the TMDL implementation strategy may be amended. As new information on the watershed is developed, it will better account for contributing sources of the impairment and determine where reductions in the Mill Creek watershed are most appropriate. Natural background was not determined.

EPA concurs with the data analysis and LDC approach utilized by MPCA in its calculation of wasteload allocations, load allocations, the margin of safety, and the allowance for future growth for the Mill Creek watershed TMDL. The methods used for determining the TMDL are consistent with EPA technical memos.[2]

[2] U.S. Environmental Protection Agency. August 2007. *An Approach for Using Load Duration Curves in the Development of TMDLs*. Office of Water. EPA-841-B-07-006. Washington, D.C.

Table 4 Mill Creek E. coli TMDL

Flow Interval	WLA (10E9 org/d)	LA (10E9 org/d)	Margin of Safety (10E9 org/d)	Total Loading Capacity (10E9 org/d)
High	0	158	40	198
Moist	0	54.8	37.8	92.6
Mid-range	0	29.2	12	41.2
Dry	0	8.51	7.39	15.9
Low	0	1.06	4.51	5.57

Critical condition: MPCA determined that the critical condition for *E. coli* and TP is the summer dry period, when the flows are the lowest and dilution is limited. This is also the time period when recreational use occurs. The *E. coli* TMDL was developed specifically to address the summer recreational season, while the TP TMDL was developed to specifically address the summer growing season. The MPCA believes that the loading capacities established by the TMDL will be protective of water quality during the remainder of the calendar year (October through May).

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

4. Load Allocations (LA)

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:
Phosphorus Load Allocation: The TP LA for Pearl Lake is **3.67 kg/d.** Load allocations are addressed in Part I, Section 3.4.2 of the final TMDL (Table 3 of this Decision document). MPCA recognized the LA for the Pearl Lake TMDL as originating from a variety of nonpoint sources including atmospheric deposition, nonpoint source inputs from the Pearl Lake watershed, and internal loading sources (ex. lake sediments). The watershed nonpoint sources include TP inputs from agricultural nonpoint source runoff, and septic inputs. MPCA did subdivide the LA for these source types. EPA finds the MPCA's approach for calculating the LA to be reasonable.

E. coli Load Allocation: The *E. coli* LA is in Table 4 of this Decision Document. MPCA determined that the major source of bacteria in the watershed is related to livestock. MPCA estimated the amount of bacteria potentially available for a variety of sources[3]. These sources include manure applied to cropland, pastureland near waterbodies, types of grazing animals, wildlife, and failing septics. Once the available load of bacteria was determined (Table 4-2 of Part II of the TMDL), MPCA calculated the bacteria delivery potential, based upon wet or dry

[3] See the Clearwater River TMDL approved by the EPA on January 26, 2010.

conditions. For example, the delivery potential for feedlots without runoff controls was assumed to be high (6%) under wet conditions and moderate (4%) under dry conditions. The delivery potentials were multiplied by the total available bacterial load to estimate bacterial loading by sources (Figures 4-5 and 4-6 of Part II of the TMDL). The relative percentage of loading for each source category was used to determine load allocations under the various flow regimes. MPCA noted that feedlots without runoff controls and failing septic systems are both illicit sources, and therefore have a LA of 0 (Table 5 of this Decision Document).

Table 5: *E. coli* LA by source in the Mill Creek watershed

Source	Estimated Existing "Wet" Loading	Estimated Existing "Dry" Loading	Load Allocation (10^9 organisms *E. coli* per day)				
			High Flow	Wet	Mid-Range	Dry	Low Flow
Riparian pastures	48%	67%	76	26	17	5.7	0.71
Non-riparian pastures	17%	15%	26	9.1	4.7	1.3	0.16
Feedlots w/o runoff controls	--*	--*	0	0	0	0	0
Applied Manure	20%	18%	31	11	5.5	1.5	0.19
Incorporated Manure	16%	0%	25	8.7	2.3	0	0
Septic systems (SSTS)	--*	--*	0	0	0	0	0
Urban runoff	0.1%	0%	0.16	0.054	0.014	0	0
Wildlife	0.01%	0.03%	0.023	0.008	0.006	0.002	0.0003
Total	100%	100%	158	54.8	29.2	8.51	1.06

EPA finds MPCA's approach for calculating the load allocation to be reasonable and consistent with EPA guidance. The EPA finds that the TMDL document submitted by the MPCA satisfies the requirements of the 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.

Comment:
MPCA did not identify any point sources in the Mill Creek or Pearl Lake watershed. The TP WLA for Pearl Lake is **0 kg/d.** The *E. coli* WLA for Mill Creek is **0 org/d**.

EPA finds MPCA's approach for calculating the wasteload allocation to be reasonable and consistent with EPA guidance. The EPA finds that the TMDL document submitted by the MPCA satisfies the requirements of the 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.

Comment:
Phosphorus : Section 3.4.3 of Part I of the final TMDL outlines the MOS used in the Pearl Lake TMDL. An explicit MOS of 5% was utilized in the Pearl Lake TMDL to account for uncertainty in the model outputs. MPCA believes this MOS is appropriate based upon the generally good calibration for both flow and water quality in the model.

E. coli: MPCA used an implicit MOS for the Mill Creek TMDL. The loading capacity is calculated for lowest flow in each flow regime but is applied for the entire flow regime (Figure 5-3 of Part II of the TMDL). This increases the reduction needed to achieve the WQS. Although the MOS varies for each point on the lod duration curve, MPCA estimated the MOS for the midpoint of each flow regime (high, moist, etc.) by calculating the difference between the median load and minimum load in each of the flow zones. For example, the MOS for the high flow zone is the 10^{th} percentile flow value subtracted from the 0 percentile flow value (the entire flow zone is from 0 percentile to the 10^{th}). This methodology, taking the difference between the median load and minimum load per zone, was repeated in each of the remaining four flow zones.

In addition, no rate of decay, or die-off rate of pathogen species, was incorporated within the creation of load duration curve for *E. coli*. Bacteria have a limited capability of surviving outside their hosts, and normally a rate of decay would be incorporated. As stated in *EPA's*

Protocol for Developing Pathogen TMDLs (EPA 841-R-00-002), many different factors affect the survival of pathogens, including the physical condition of the water. These factors include, but are not limited to: sunlight, temperature, salinity, and nutrient deficiencies. These factors vary depending on the environmental condition/circumstances of the water, and therefore it would be difficult to assert that the rate of decay caused by any given combination of these environmental variables was sufficient to meet the WQS. Thus, it is more conservative to apply the State's WQS as the MOS, because this standard must be met at all times under all environmental conditions.

As a result of these efforts, MPCA believes the MOS properly accounts for uncertainty in the TMDL effort. The EPA finds that the TMDL document submitted by the MPCA satisfies the requirements of the 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)).

Comment:
Seasonal variation was considered in this TMDL as described in Section 7.0 of the final TMDL document. The nutrient targets employed in the Pearl Lake TMDL were based on the average nutrient values collected during the growing season (June 1 to September 30). The water quality targets were designed to meet the NCHF eutrophication WQS during the period of the year where the frequency and severity of algal growth is the greatest.

The Minnesota eutrophication standards state that total phosphorus WQS are defined as the mean concentration of phosphorus values measured during the growing season. In the Pearl Lake phosphorus TMDL, the LA and WLA estimates were calculated from modeling efforts which incorporated mean growing season total phosphorus values. Nutrient loading capacities were set in the TMDL development process to meet the WQS during the most critical period. The mid-late summer time period is typically when eutrophication standards are exceeded and water quality in Pearl Lake is deficient. By calibrating the modeling efforts to protect these waterbodies during the worst water quality conditions of the year, it is assumed that the loading capacities established by the TMDLs will be protective of water quality during the remainder of the calendar year (October through May).

For *E. coli*, the development of the LDC utilized flow measurements for a 50-year period from a local USGS gage. These flow measurements were collected over a variety of flow conditions observed in the watershed. The LDC developed from these flow records represented a range of flow conditions within the Mill Creek watershed and thereby accounted for seasonal variability. For *E. coli*, bacterial WQS need to be met during the recreational season (April 1st through October 31st), regardless of the flow condition, and the LDC was developed using recreational season flow and water quality data

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

8. Reasonable Assurance

When a TMDL is developed for waters impaired by point sources only, the issuance of a 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.

Comment:
The Pearl Lake/Mill Creek TMDLs outline reasonable assurance activities in the final TMDL document. The Sauk River Watershed District (SRWD) has the primary responsibility for monitoring water quality efforts in the watershed. The SRWD is expected to be highly involved in the development of implementation efforts in the watershed. The SRWD has implemented numerous activities in the Sauk River watershed (including the Mill Creek watershed) designed to reduce nutrient and bacteria loads into the waterbodies. This includes holding workshops to educate landowners on land management activities, monitoring of waterbodies in the watershed, assisting in cost-share activities to promote best management practices (BMPs), implementing the District rules regarding erosion control, and to seeking funds to help implement these activities (SRWD 2012 Plan of Operations).

Various funding mechanisms will be utilized to execute the recommendations made in the implementation section of these TMDLs. An implementation plan based on the recommendations from the Pearl Lake/Mill Creek TMDL will be finalized within one year of the approval of the Pearl Lake TMDL. Funding for these efforts will be a mixture of local, state and federal funding vehicles. Local funding may be through Soil and Water Conservation District cost-share funds, Natural Resources Conservation Service (NRCS) cost-share funds, and Stearns County Soil and Water Conservation District (SCSWCD) cost-share funds. Federal funding, via the Section 319 grants program, may provide money to implement voluntary nonpoint source programs within the Pearl Lake/Mill Creek watershed. State efforts may be via Clean Water Legacy Act (CWLA) grant money and the Minnesota Clean Water Partnership program.

The SCSWCD recently announced that nearly $200,000 were available from the U.S. Department of Agriculture to fund conservation efforts in the Grand-Pearl-Mill Creek watershed. SCSWCD Press Release) . This money is specifically targeted to reduce nutrient loads into Sauk River and the Mississippi River.

Clean Water Legacy Act: The CWLA is a statute passed in Minnesota in 2006 for the purposes of protecting, restoring, and preserving Minnesota water. The CWLA provides the process to be used in Minnesota to develop TMDL implementation plans, which detail the restoration activities needed to achieve the allocations in the TMDL. The TMDL implementation plans are required by the State to obtain funding from the Clean Water Fund. The Act discusses how MPCA and the involved public agencies and private entities will coordinate efforts regarding land use, land management, water management, etc. Cooperation is also expected between agencies and other entities regarding planning efforts, and various local authorities and responsibilities. This would also include informal and formal agreements to jointly use technical, educational, and financial resources. MPCA expects the implementation plans to be developed within a year of TMDL approval.

The CWLA also provides details on public and stakeholder participation, and how the funding will be used. The implementation plans are required to contain ranges of cost estimates for point and nonpoint source load reductions, as well as monitoring efforts to determine effectiveness. MPCA has developed guidance on what is required in the implementation plans (Implementation Plan Review Combined Checklist and Comment, MPCA), which includes cost estimates, general timelines for implementation, and interim milestones and measures. The Minnesota Board of Soil and Water Resources administers the Clean Water Fund as well, and has developed a detailed grants policy explaining what is required to be eligible to receive Clean Water Fund money (FY '11 Clean Water Fund Competitive Grants Policy; Minnesota Board of Soil and Water Resources, 2011).

The EPA finds that this element has been adequately addressed.

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.

Comment:
The final TMDL document outlines the water monitoring efforts in the Pearl Lake/Mill Creek watershed. The SRWD will continue to conduct water quality monitoring as described in its 2012 Plan of Operation. Water quality monitoring is a critical component of the adaptive management strategy employed as part of the Pearl Lake/Mill Creek implementation plan. Water quality information will aid watershed managers in understanding how BMP efforts are

impacting water quality within the watershed. Water quality monitoring combined with an annual review of BMP efficiency will provide information on the success or failure of BMP systems designed to reduce nutrient loading into Pearl Lake and Mill Creek. Watershed managers will have the opportunity to reflect on the progress or lack of progress, and will have the opportunity to change course if progress is unsatisfactory.

The EPA finds that this element has been adequately addressed.

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 ideas are outlined in the final TMDL document. The MPCA presented a variety of possible implementation activities which could be undertaken within the Pearl Lake/Mill Creek watershed. The Pearl Lake TMDL estimated that nonpoint source inputs from the Pearl Lake watershed will require a 22% phosphorus reduction in order for Pearl Lake to meet WQS, and 60% - 90% reductions for *E. coli*.

MPCA will be developing a detailed implementation plan within the next year. This plan will contain specific activities and related costs to reduce TP loads into Pearl Lake and Mill Creek Some of these activities include grass waterways, sediment control structures, improved tillage practices, manure management, wetland restoration, and erosion controls.

The EPA finds that this element has been adequately addressed. The EPA reviews but does not approve implementation plans.

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.

Comment:
The public participation section of the TMDL submittal is found in Section 9.0 of the final TMDL. Through the development of the Pearl Lake/Mill Creek TMDL the public was given various opportunities to participate in the TMDL process. The MPCA encouraged public participation through public meetings and small group discussions. The MPCA worked with members of the SRWD and SCSWCD to solicit their input for potential implementation strategies. The MPCA met with the public several times from 2009 to 2011 in order to share information about the TMDL development efforts, to share monitoring data, and to present the public notice draft of the Pearl Lake TMDL.

The public notice period for this TMDL was provided from January 9, 2012 to February 8, 2012. The draft TMDL was posted online by the MPCA at (http://www.pca.state.mn.us/water/tmdl). Four sets of comments were received. The MPCA submitted all of the public comments and responses in the final TMDL submittal packet received by the EPA on July 5, 2012. The comments focused the pollutant sources in the Pearl Lake/Mill Creek watershed.

One commentor raised concerns over the results of the *E. coli* source assessments in the watershed, noting that bacteria can survive and reproduce in soil, water, and sediments. MPCA added additional language to the TMDL document noting the existence of recent studies regarding "naturalized" bacteria, but that the study noted the origin of the bacteria was still uncertain, and that the author cautioned about extrapolating the results beyond the study area. Comments were also raised regarding the impacts of urban stormwater and what the definition of "properly managed" animal waste is. MPCA noted that there is very little urban stormwater in the watershed (none requiring a NPDES permit), and while urban stormwater can be a significant source of pollutants, little urban stormwater is present in the Mill Creek watershed. MPCA also explained that properly managed livestock waste means the livestock waste is can still be applied as fertilizer, and thus is subject to runoff.

Two commentors raised concerns about the source assessments for TP in the Pearl Lake watershed. The commentors noted that without specific information on sources, control of TP loads will be difficult to achieve. MPCA explained that detailed phosphorus runoff data does not exist at this time, particularly since the 2009 tributary sampling data did not meet quality assurance requirements. A detailed implementation plan will be developed within the next year and will contain more information on specific source types. While the EPA agrees that detailed source assessments are important to TMDL implementation, the source discussion and assessments in the Pearl Lake/Mill Creek TMDL are sufficient given the data available.

The EPA finds that the TMDL document submitted by the MPCA satisfies the requirements of the 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 waterbody, and the pollutant(s) of concern.

Comment:
The EPA received the final Pearl Lake phosphorus TMDL document, submittal letter and accompanying documentation from the MPCA on July 5, 2012. The transmittal letter explicitly stated that the final Pearl Lake/Mill Creek TMDL for excess nutrients and bacteria was being submitted to EPA pursuant to Section 303(d) of the Clean Water Act for EPA review and approval. The letter clearly stated that this was a final TMDL submittal under Section 303(d) of CWA. The letter also contained the name of the watershed as it appears on Minnesota's 303(d) list, and the causes/pollutants of concern. This TMDL was submitted per the requirements under Section 303(d) of the Clean Water Act and 40 CFR 130.

The EPA finds that the TMDL transmittal letter submitted for Pearl Lake/Mill Creek by the MPCA satisfies the requirements of this twelfth element.

13. Conclusion

After a full and complete review, the EPA finds that the TMDL for Pearl Lake/Mill Creek satisfies all of the elements of an approvable TMDL. This approval is for two TMDLs, addressing two waterbodies for aquatic recreational use impairments, Pearl Lake (ID 41-0089-00; total phosphorus) and Mill Creek, Headwaters to Sauk River (07010202-537; *E. coli*)

The EPA's approval of these TMDLs extends to the waterbodies which are in the Pearl Lake/Mill Creek watershed, with the exception of any portions of the waterbody that is within Indian Country, as defined in 18 U.S.C. Section 1151. The EPA is taking no action to approve or disapprove TMDLs for those waters at this time. The EPA, or eligible Indian Tribes, as appropriate, will retain responsibilities under the CWA Section 303(d) for those waters.