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

REPLY TO ATTENTION OF
WW-16J

May 12, 2021

Glenn Skuta, Watershed Division Director
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Subject: Approval of the Sauk River Chain of Lakes Watershed TMDL

Dear Mr. Skuta:

The U.S. Environmental Protection Agency has conducted a complete review of the final Total Maximum Daily Loads (TMDLs) for the Sauk River Chain of Lakes Watershed, including supporting documentation and follow up information. The Sauk River Chain of Lakes Watershed is located in northcentral Minnesota. The TMDLs were calculated for phosphorus to address the impaired Aquatic Recreation Use.

EPA has determined that these 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 14 TMDLs for the Sauk River Chain of Lakes Watershed. 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 submissions by the State of Minnesota. If you have any questions, please contact David Werbach of the Watersheds and Wetlands Branch at Werbach.david@epa.gov or 312-886-4242.

Sincerely,

Digitally signed by
TERA FONG
Date: 2021.05.17
17:11:22 -05'00'

Tera L. Fong
Division Director, Water Division

Enclosure

cc: Celine Lyman, MPCA
Scott Lucas, MPCA

wq-iw8-38g

TMDL: Sauk River Chain of Lakes TMDL; Stearns, Meeker, Todd, Douglas, and Pope Counties, Minnesota
Date: 05/17/2021

DECISION DOCUMENT FOR THE APPROVAL OF THE SAUK RIVER CHAIN OF LAKES WATERSHED TMDLS, 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 (chl-*a*) and phosphorus loadings for excess algae; length of riparian buffer; or number of acres of best management practices.

Comments:

Location Description/Spatial Extent

The Minnesota Pollution Control Agency (MPCA) has submitted TMDLs for the Sauk River Chain of Lakes (SRCL) watershed, located in central Minnesota. The watershed covers approximately 600,000 acres over five counties (Section 3 of the TMDL). The Sauk River is the major tributary to the Chain of Lakes, and accounts for 82% of the inflow to the lakes.

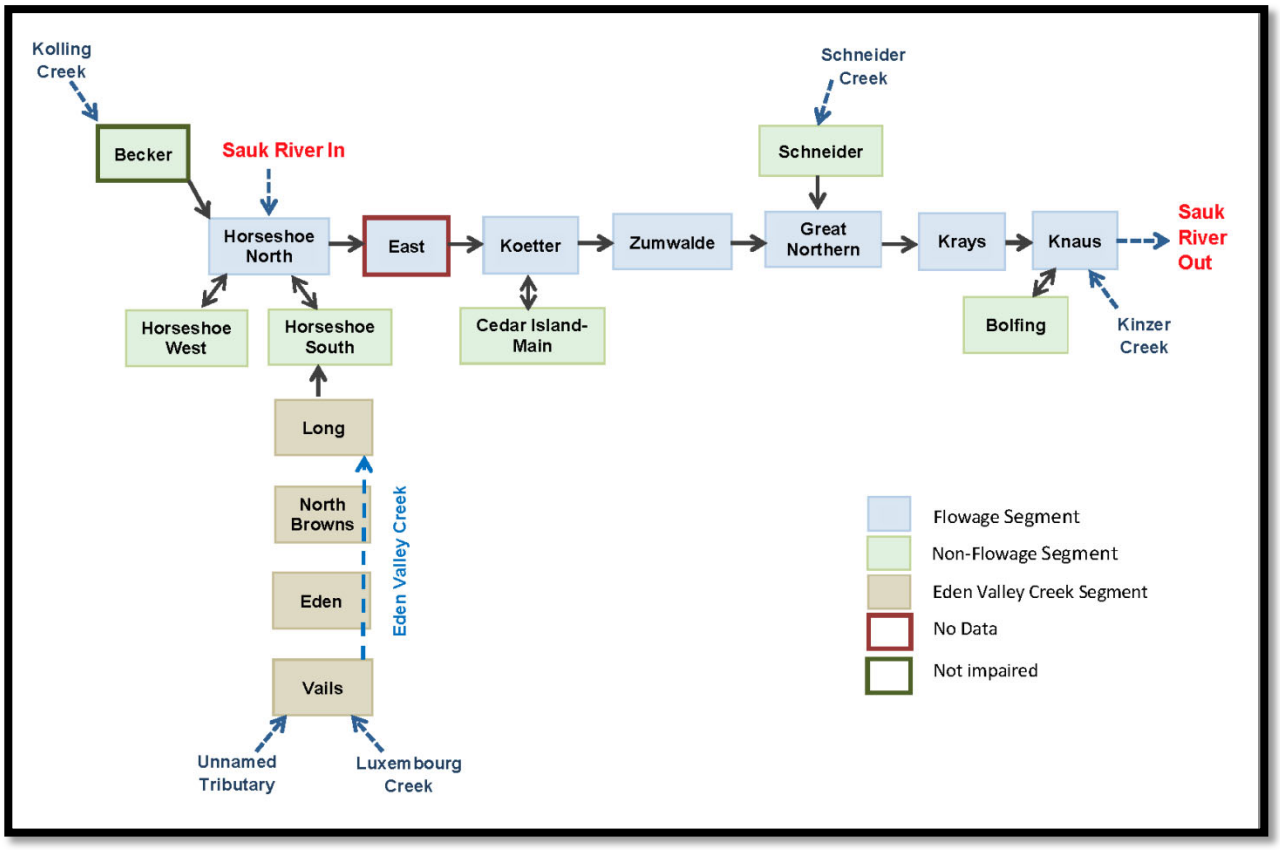
As shown in Figure 1 of this Decision Document, there are essentially two lake chains; the Sauk River flows into Horseshoe Lake, which is divided into smaller subunits by MPCA. Flow is generally to the east, through several lakes, and discharging from Knaus Lake. The second lake chain (also known as the Eden Valley Creek chain (EVC)) begins with two smaller tributaries flowing north into Vails Lake, through several lakes, and enters Horseshoe Lake. MPCA explained that several lakes (noted in green in Figure 1) are not considered flowage lakes, but are connected to the lake system (Section 3.0 of the TMDL). The State noted several small tributaries entering lakes in the system, but also noted that these tributaries are relatively minor compared to the Sauk River. Figure 3 of the TMDL contains flow paths for the system on a portion of the topographical map. Table 1 of this Decision Document lists the waterbodies addressed in the TMDL document.

Table 1: SRCL Watershed TMDL waterbodies

TMDLs Identified in the SRCL Watershed TMDL					
Lake	**MN DNR Lake #**	**Year Listed**	**Affected Designated Use**	**Use Class**	**Pollutant**
Bolfing Lake	73-0088-00	2004	Aquatic Recreation	2B, 3C	phosphorus
Cedar Island Lake (East Lake)	73-0133-04	2022*			
Cedar Island Lake (Koetter Lake)	73-0133-03	2004			
Cedar Island Lake (Main Bay)	73-0133-01	2004			
Eden Lake	73-0150-00	2010			
Great Northern Lake	73-00083-00	2004			
Horseshoe Lake	73-0157-00	2004			
Knaus Lake	73-0086-00	2004			
Krays Lake	73-0087-00	2004			
Long Lake	73-0139-00	2004			
North Browns Lake	73-0147-00	2008			
Schneider Lake	73-0082-00	2004			
Vails Lake	73-0151-00	2010			
Zumwalde Lake	73-0089-00	2004			

* - proposed for inclusion on the MPCA 2022 303(d) list

Figure 1: Schematic map of the Sauk River Chain of Lakes (from Figure 5 of the TMDL)



Land Use

The SRCL TMDL watershed is in the North Central Hardwood Forest ecoregion. The land uses in the lake subwatersheds vary considerably, with some lakes having a forest/undeveloped dominant land use, while other have significant amounts of cropland. Table 4 of the TMDL contains the lake morphometric characteristics, and Table 5 of the TMDL contains the land use for each lake subwatershed.

MPCA also looked at the land use of the tributaries in the watershed, including the Sauk River (Table 6 of the TMDL). Sauk River, the dominant source of flow for the SRCL, has over 75% cropland/pastureland use. There is a limited amount of urban land area in the subwatersheds, although the City of Richmond (population 1400) is located in the subwatershed for Cedar Lake East. MPCA noted that there are no Native American Reservation lands within the SRCL watershed.

Problem Identification

Most of the TMDL waterbodies in this study were placed on the MPCA 2004 or 2010 303(d) list of impaired waters. One waterbody (Cedar Island Lake-East Lake) will be placed on the 2022 303(d) list of impaired waters. The waterbodies were placed on the 303(d) list due to exceedances of eutrophication criteria due to excessive phosphorus. Section 3.4 and Table 7 of the TMDL summarize the data used to assess the waterbodies. Review of the data in Table 7 of the TMDL as well as more recent water quality data in Appendix H of the TMDL indicates all the lakes but one (Becker Lake)

are impaired due to excessive amounts of phosphorus and related chl-*a* and Secchi Disk (SD) transparency. No TMDL was developed for Becker Lake, but it was included in the modeling effort as a source of flow into Horseshoe North Lake.

A TMDL was first started in 2014, but deferred until now to review the adequacy of the water quality criteria. As noted in Section 2 of this Decision Document, revised water quality criteria are in place for several of the waters.

Pollutants of Concern

The pollutant of concern is phosphorus. Phosphorus is an essential nutrient for aquatic life, but elevated concentrations of phosphorus can lead to nuisance algal blooms that negatively impact aquatic life and recreation (swimming, boating, fishing, etc.). Excess algae increase turbidity which degrades aesthetics and causes adverse ecological impacts. Algal decomposition depletes oxygen levels stressing aquatic biota (fish and macroinvertebrate species). Oxygen depletion can cause phosphorus release from bottom sediments (i.e. internal loading), which contributes to increased nutrient levels in the water column. Excess phosphorus can alter biological communities by shifting species composition toward organisms better suited to excess levels of phosphorus. Measurements were collected for phosphorus, chl-α, and Secchi Disk (SD) transparency from June through September for the years 2002 through 2011.

Pollutant Sources

The pollutant loads in the SRCL are primarily attributed to nonpoint sources with some loading coming from wastewater treatment plants, and a minimal amount from construction and industrial stormwater sources.

Point sources

Wastewater Treatment Facilities (WWTFs) – NPDES permitted facilities may contribute phosphorus loads to surface waters through discharges of treated wastewater. Permitted facilities must discharge treated wastewater according to their NPDES permit. MPCA determined that there are six WWTFs in the SRCL (Section 3.5.1.1 of the TMDL). All six are located on the Sauk River, upstream of the lakes. The loads from these facilities were assigned by MPCA to Horseshoe Lake North, into which the Sauk River drains.

MPCA noted that there are other WWTFs in the Sauk River watershed that were not assigned allocations; the State explained that these facilities drain into lakes which are in the process of having TMDLs developed, and therefore will be addressed through those TMDLs. Other WWTFs already have allocations assigned in previous TMDLs (Section 3.5.1.1 of the TMDL). MPCA assumed these waterbodies are attaining the appropriate water quality standards in regard to the SRCL TMDL.

Concentrated Animal Feedlot Operations (CAFOs) – MPCA did not identify CAFOs in the SRCL watershed (Section 3.5.1.1 of the TMDL). CAFOs are generally defined as having over 1000 animal units confined for more than 45 days in a year. Under MPCA NPDES permit requirements, discharges of pollutants from CAFOs are not allowed except under extreme circumstances (24-hour storm duration exceeding the 25-year recurrence interval) and cannot cause or contribute to a water quality exceedance, and therefore no allocations were developed by MPCA for the manure-handling facilities

(WLA = 0). Runoff from the spreading of manure in agronomic rates is not regulated as a point source discharge and is therefore considered in the nonpoint source load discussed below.

Municipal Separate Storm Sewer System (MS4) communities – No MS4 dischargers were identified by MPCA in the lake subwatersheds.

Combined Sewer Overflows (CSOs) and Sanitary Sewer Overflows (SSOs) – No CSOs or know occurances of SSOs were identified by MPCA in lake subwatersheds.

Stormwater from Construction and Industry – Stormwater from construction and industrial sites may contribute sediment containing phosphorus to a waterway if the stormwater is untreated. This sediment may have phosphorus sorbed to the sediment particles and in turn be a source of phosphorus in the SRCL subwatersheds. While MPCA developed wasteload allocations for these sources, MPCA does not consider these to be significant sources of phosphorus (Section 3.5.1.1 of the TMDL).

Nonpoint sources

Tributary loads – MPCA identified tributary loads as the loading from the Sauk River and various smaller tributaries in the SRCL watershed (Section 3.5.1.2 of the TMDL). Runoff from agricultural lands may contain significant amounts of nutrients, organic material and organic-rich sediment which may contribute to impairments in the SRCL watershed. Manure spread onto fields is often a source of phosphorus, and can be exacerbated by tile drainage lines, which channelize the stormwater. Tile lined fields and channelized ditches enable particles to move more efficiently into surface waters. Stormwater field runoff may contribute nutrients and organic-rich sediment to surface waters from livestock manure, fertilizers, vegetation and erodible soils. Additionally, stormwater from feedlots can be high in nutrients. Furthermore, livestock with direct access to a waterway can directly deposit nutrients via animal wastes into a waterbody, which may result in very high localized nutrient concentrations.

In total, the tributary load accounts for 94% of the loading into the SRCL watershed. MPCA did not further refine the loading from the tributaries, but did determine the existing phosphorus loads from tributaries. Impacts from tributaries were based upon water quality data and flow information for the tributaries.

Upstream lakes – MPCA noted that water flows between lakes, and therefore upstream lakes will affect water quality in lakes downstream (Section 3.5.1.2 of the TMDL). The model process used by MPCA took into account the current water quality of upstream lakes and the impacts of in-lake reductions of phosphorus on downstream lakes. Further discussion of how upstream lakes were accounted for in loading calculations is found in Section 3 of this Decision Document.

Lakeshed runoff – MPCA also looked at loading from the immediate watershed surrounding the lakes (lakeshed). MPCA used similar land use values as those used in the tributary loading, but focused more on septic systems and the impacts of shoreline lots.

Atmospheric Deposition – Phosphorus and organic material may be added via particulate deposition. Particles from the atmosphere may fall onto lake surfaces or other surfaces within the SRCL lake

subwatersheds. Phosphorus can be bound to these particles which may add to the phosphorus inputs to surface water environments.

Internal Loading – When phosphorus inputs are greater than the in-lake biological needs and phosphorus input is greater than export, phosphorus can build up in lake sediment. This phosphorus then can be directly leached from sediments, released though physical disturbance from benthic fish (rough fish, ex. carp), and/or released by mixing of the water column. Table 16 in the TMDL indicates that internal loading of phosphorus was accounted for in several of the lakes beyond the BATHTUB model default value. (Section 4.1.1.4 of the TMDL).

Priority Ranking

As discussed in Section 1.3 of the TMDL, MPCA's schedule for TMDL completions, as indicated on the 303(d) impaired waters list, reflects Minnesota's priority ranking of this TMDL. The MPCA has aligned TMDL priorities with the watershed approach and Watershed Restoration and Protection Strategy (WRAPS) cycle. The schedule for TMDL completion corresponds to the WRAPS report completion on the 10-year cycle. Mainstem river TMDLs, which are not contained in major watersheds and thus not addressed in WRAPS, must also be completed. The MPCA developed a state plan, Minnesota's TMDL Priority Framework Report, to meet the needs of EPA's national measure (WQ-27) under EPA's Long-Term Vision for Assessment, Restoration and Protection under the CWA Section 303(d) program. As part of these efforts, the MPCA identified water quality-impaired segments that will be addressed by TMDLs by 2022. The waters of the SRCL watershed addressed by this TMDL are part of the MPCA prioritization plan to meet EPA's national measure.

EPA finds that the TMDL document submitted by MPCA satisfies the requirements of the first criterion.

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)(l)). 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.

Comments:

Designated Use

Minnesota Rule Chapter 7050 designates uses for waters of the state. As noted in Table 1 of this Decision Document, the impaired waters addressed by this TMDL are designated as Class 2B and 3C. For phosphorus, Class 2B is the most protective.

Class 2B waters are protected for aquatic life and recreation use (boating, swimming, fishing, etc.). The Class 2B aquatic life and recreation designated use is described as:

> *"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."*

Numeric Criteria:

Numeric criteria for phosphorus, chl-*a*, and SD depth in lakes are set forth in Minnesota Rules 7050.0222. These three parameters form the MPCA eutrophication standard that must be achieved to attain the Aquatic Recreation Use. The numeric eutrophication criteria which are applicable to the SRCL lake TMDLs are found in Table 2 of this Decision Document. By evaluating multiple lakes in multiple ecoregions, MPCA has determined that achieving these phosphorus targets will also achieve the targets for SD depth and chl-*a*.

MPCA developed separate criteria for shallow and deep lakes (Section 2.4 of the TMDL). MPCA defines a shallow lake having a maximum depth less than 15 feet or if the littoral zone (area of the lake less than 15 feet deep) covers at least 80% of the lake's surface area. Under this definition, several lakes were determined to be shallow lakes.

During the initial development of the TMDL, MPCA determined that the water quality criteria needed to be reviewed for the lakes. MPCA developed revised criteria for the Sauk Chain of Lakes, which were approved by the EPA on February 12, 2020 (https://www.pca.state.mn.us/water/tmdl/sauk-river-horseshoe-chain-lakes-excessive-nutrients-tmdl-project)

Table 2: Water Quality Criteria for Lakes in the SRCL Watershed TMDL

Lake Type	Phosphorus (ppb*)	Chl-*a* (ppb)	Secchi (m)
NCHF General: Eden, Schneider, Long, North Browns	<40	<14	>1.4
NCHF Shallow Lakes: Vails	<60	<20	>1.0
Site-Specific Criteria			
Flowage (Shallow): Horseshoe North, Cedar-East, Cedar Island-Koetter, Zumwalde, Great Northern, Krays, Knaus	<90	<45	>0.8
Nonflowage: Horseshoe West, Horseshoe South, Bolfing, Cedar Island-Main	<55	<32	>1.4

* - parts per billion

Target: MPCA indicated that there is a clear causal relationship between phosphorus and the response variables, chl-*a* and Secchi depth. Therefore, MPCA anticipates that meeting the phosphorus concentrations noted in Table 2 of this Decision Document will sufficiently address all other parameters, achieving their designated beneficial uses. For lakes to achieve their designated beneficial use, the lake must not exhibit signs of eutrophication and must allow water-related recreation, fishing and aesthetic enjoyment. MPCA views the control of eutrophication as the lake experiencing minimal nuisance algal blooms and exhibiting desirable water clarity.

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

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)(l)). 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:
Functionally a TMDL is represented by the equation:

$$TMDL = LC = \Sigma WLA + \Sigma LA + MOS + RC,$$

where: LC is the loading capacity; WLA is the wasteload allocation; LA is the load allocation; MOS is the margin of safety; and (pursuant to MPCA rules) RC is any reserve capacity set aside for future growth. In the SRCL TMDL, MPCA did not set aside any RC. The lake TMDLs were developed using the BATHTUB model for their underlying calculations.

BATHTUB: MPCA used the U.S. Army Corps of Engineers (USACE) BATHTUB model to calculate the loading capacities for the lake TMDLs. BATHTUB is a model used to calculate steady-state water volume and nutrient mass balances for lakes and reservoirs (surficial depressions with retention times greater than two weeks) in a "spatially segmented hydraulic network". BATHTUB uses empirical relationships to determine "eutrophication-related water quality conditions". These TMDLs use the BATHTUB model to link observed phosphorus water quality conditions and modeled phosphorus loading to in-lake water quality values. BATHTUB can be a steady-state annual or seasonal model that predicts a lake's water quality. BATHTUB utilizes annual or seasonal timescales which are appropriate because watershed phosphorus loads are normally impacted by seasonal conditions. To estimate loading capacity the model is rerun, reducing current loading to the lake until the modeled result shows that in-lake total phosphorus would meet the applicable WQS.

For this TMDL effort, eleven of the interconnected lakes were represent by one model effort (Chain of Lakes model). The lakes are Horseshoe North, Horseshoe West, Horseshoe South, Cedar Island Main, Cedar Island East, Cedar Island Koetter, Zumwalde, Great Northern, Krays, Bolfing, and Knaus (Section 4.1.1.1 of the TMDL). The remaining lakes were modeled individually (Section 4.1.1.1 of the TMDL). The individually modeled lakes are Schneider, Long, North Browns, Eden, and Vails. MPCA explained these lakes follow separate flow patterns than the main flowage lakes. MPCA also included Becker Lake in the Chain of Lakes model, even though the lake is not impaired. MPCA noted that the flows from Becker Lake into Horseshoe Lake impact water quality, and therefore need to be included in the modeling effort. Section 4.1 and Appendices D, E, and F of the TMDL contain details of the modeling effort and supporting data.

MPCA modeled phosphorus loading capacity with the BATHTUB model. These calculations were done for the lake's critical conditions, the summer growing season, when water quality in each lake is most likely to be degraded and phosphorus loading inputs are the greatest. Therefore, the resulting allocations will protect the SRCL lakes during the time of the year with the highest potential for degraded water quality. MPCA also determined that the loading capacities established by the TMDL will be protective of water quality during the remainder of the calendar year (October through May). Minnesota reflects this assumption with its targeted WQS approach for the months of June through September. In addition to the allocations being set for the summer months and Minnesota's WQS reflecting this period, the BATHTUB model is calibrated to the summer growing season.

MPCA calibrated the BATHTUB models with lake data from 2002 through 2011 (Section 4.1.1.4 of the TMDL). MPCA used these calibrated models to determine the proportional loading for the SRCL phosphorus TMDLs. This data was provided in the form of tributary inflow, watershed loading, precipitation (atmospheric loading), and internal load. The watershed and internal loading portions were reduced until the modeled results obtained the phosphorus criterion for each lake. MPCA determined that several lakes needed an additional internal loading factor, based upon the initial model results. Table 16 of the TMDL documents the additional internal loading factor included in the model. The model accounted for both advective flow (physical movement of water containing phosphorus) as well as diffusive flow (the movement of phosphorus across a concentration gradient).

Typically, MPCA would run the models to determine the reductions needed to attain the water quality criteria in each lake. Because these lakes are so interconnected, MPCA developed three scenarios to

determine the loading capacity for the lake system (Section 4.1.1.5 of the TMDL). Since the Sauk River is the predominant source of phosphorus in the system, MPCA determined that Horseshoe Lake North is the "king-pin" of the Chain of Lakes model, and that Vails Lake is in a similar position for the EVC system. By modeling the impacts of flow and phosphorus through the lake systems, MPCA determined that a more accurate assessment of water quality impacts could be made.

The three scenarios are:
1. The loading capacity for each lake independent of upstream flow
2. Lake-by-lake sequential effects of phosphorus loading along the chain of lake system
3. Cumulative domino effect of improved water quality for downstream lakes

The second scenario was used to determine the loading capacities for the TMDLs. The first scenario simply determined the amount of reduction needed in phosphorus to attain the appropriate WQS for each lake. The second scenario used an inflow from the Sauk River of 100 ppb phosphorus (the criteria for the river), and utilized the BATHTUB model to determine the water quality impacts from both local (lake subwatershed) sources, and the phosphorus inflow needed to attain the lake WQS. The scenario used the immediately upstream lake to determine upstream load. MPCA also noted that if the loading calculation demonstrated that the modeled water quality in a lake exceeded (was lower than) the criteria, the "excess capacity" was used as an explicit Margin of Safety (Section 4.1.4 of the TMDL).

The third scenario (Comprehensive TMDL Scenario) was used to determine the Load Allocation and Wasteload Allocation for each lake. In this scenario, the upstream-most lakes were modeled to meet the appropriate WQS, the Sauk River inflow and other tributaries were modeled to meet the appropriate WQS, and the water quality tracked through each lake to meet or exceed WQSs.

For the lakes in the EVC system (Vails, Eden, North Browns and Long Lakes) as well as Schneider Lake, independent BATHTUB modeling was performed on each lake (Section 4.1.1 of the TMDL). Each lake was modeled assuming the upstream lake was meeting the appropriate WQS, and the loadings reduced. Appendix E of the TMDL contains details of the modeling effort for these lakes.

The TMDL summaries for each of the lakes are contained in Attachment 1 at the end of this document (Tables 3-18 of this Decision Document).

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

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 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:

Non-permitted sources of phosphorus are summarized in Section 3.5.1.2 of the TMDL. In the TMDL summaries for each lake, MPCA estimated the contributions from inflows, advective flows, lakeshed drainage, and atmospheric deposition (Tables 3-18 in Attachment 1 of this Decision Document). MPCA noted that the total LA is the number to be approved as part of the TMDL; the further categorization of the LA is to guide implementation activities, and will likely be adjusted as new data are developed (Section 4.1.2 of the TMDL).

As discussed in Section 3 of this Decision Document, internal load was determined as a source for several of the lakes. As discussed in Section 3 of this Decision Document, MPCA investigated internal loading impacts in the lakes. MPCA explained that the internal load reduction noted in the TMDL summaries applies to the additional internal load calculated for these lakes, not the general internal load implicitly accounted for in BATHTUB (Section 4.1.1.4 of the TMDL).

EPA finds that the TMDL document submitted by MPCA satisfies the requirements of the fourth criterion.

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:
The MPCA states that WLAs were determined for applicable point sources in each subwatershed (Sections 3.5.1.1 and 4.1.3.4 of the TMDL). In the phosphorus-impaired lakes, WLAs are provided for municipal wastewater and for permitted construction and industrial stormwater. There are no permitted MS4s in the impaired lake subwatersheds. CAFOs are required to completely contain runoff.

WWTFs– MPCA identified six municipal WWTFs that received WLAs (Table 19 of this Decision Document). These facilities are located upstream of Horseshoe Lake North, in the Sauk River watershed (Section 3.5.1.1 of the TMDL). To determine the WLAs, MPCA multiplied the facility's Average Wet Weather Design Flow by the permitted effluent limit from their NPDES permit. MPCA noted that if any of these facilities has a WLA under a previous TMDL, the most restrictive WLA will be utilized for permit purposes (Section 4.1.3.4 of the TMDL). For the Freeport WWTF, there is no phosphrous effluent limit in their permit. MPCA used a 1.0 mg/L concentration to determine the WLA (Section 4.1.3.4 of the TMDL).

Table 19. WWTP WLAs in the SRCL project area.

Facility Name	NPDES Permit	Design Flow (MGD)	WLA Concentration Assumptions (mg/L)	Permit Limit (kg/yr)	WLA lbs/yr	WLA lbs/day
Freeport WWTP	MNG580019	0.13	*1.0*	180#	*397*	***1.1***
Lake Henry WWTP	MN0020885	0.04	*3.1*	174*	*384*	***1.1***
Melrose WWTP	MN0020290	3.0	*0.8*	3,325*	*7,730*	***20***
Richmond WWTP	MN0024597	0.31	*0.4*	168*	*370*	***1.0***
Saint Martin WWTP	MN0024783	0.042	*0.8*	46.5*	*103*	***0.3***
Sauk Centre WWTP	MN0024821	0.888	*0.8*	982.5*	*2,166*	***5.9***

#Freeport WWTP does not currently include a total phosphorus effluent limit.
*Existing total phosphorus effluent limit.

Construction and industrial stormwater – A categorical WLA for phosphorus is provided for construction stormwater and industrial stormwater. Section 4.1.3.1 of the TMDL explains that MPCA estimated where permitted construction activity had occurred between 2007 and 2012 in Meeker and Stearns Counties (0.1%). This percentage was multiplied by the lakeshed drainage and monitored tributary loads to determine the WLA. For industrial stormwater, MPCA assumed the industrial stormwater percentage was equal to the construction stormwater percentage (Section 4.1.3.2 of the TMDL).

MPCA explained that BMPs and other stormwater control measures should be implemented at active construction sites to limit the discharge of pollutants of concern. BMPs and other stormwater control measures which should be implemented at construction sites are defined in the State's NPDES/State Disposal System (SDS) General Stormwater Permit for Construction Activity (MNR100001). If a construction site owner/operator obtains coverage under the NPDES/SDS General Stormwater Permit and properly selects, installs and maintains all BMPs required under the permit, including those related to impaired waters discharges and any applicable additional requirements found in Appendix A of the Construction General Permit, the stormwater discharges would be expected to be consistent with the WLA in this TMDL (Section 7.1 of the TMDL).

The WLA for stormwater discharges from sites where there is industrial activity reflects the number of sites in the watershed for which NPDES industrial stormwater permit coverage is required, and the

BMPs and other stormwater control measures that should be implemented at the sites to limit the discharge of pollutants of concern; they are defined in the State's NPDES/SDS Industrial Stormwater Multi-Sector General Permit (MNR050000) or NPDES/SDS General Permit for Construction Sand & Gravel, Rock Quarrying and Hot Mix Asphalt Production facilities (MNG490000). If a facility owner/operator obtains coverage under the appropriate NPDES/SDS General Stormwater Permit and properly selects, installs and maintains all BMPs required under the permit, the stormwater discharges would be expected to be consistent with the WLA in this TMDL (Section 7.1 of the TMDL).

Other point sources – MPCA determined that there are no MS4 or CSOs in the TMDL watersheds. For CAFOs, MPCA did not identify CAFOs in the SRCL watershed (Section 3.5.1.1 of the TMDL). CAFOs are generally defined as having over 1000 animal units confined for more than 45 days in a year. Under MPCA NPDES permit requirements, discharges of pollutants from CAFOs are not allowed except under extreme circumstances (24-hour storm duration exceeding the 25-year recurrence interval) and cannot cause or contribute to a water quality exceedance, and therefore no allocations were developed by MPCA for the manure-handling facilities (WLA = 0). In Appendix G of the TMDL, MPCA provided maps locating the locations of feedlots and soil sensitivity in the TMDL watershed (including the Sauk River watershed).

EPA finds that the TMDL document submitted by MPCA satisfies the requirements of the fifth criterion.

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)(l)(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:
MPCA applied an explicit 5% MOS to the lakes where an independent BATHTUB model was utilized (Long, North Browns, Schneider, Eden, and Vails lakes) (Attachment 1 of this Decision Document). MPCA noted that these lakes are upstream of the Sauk River flowage lakes and therefore are not significantly impacted by water quality in the Sauk River. Because of the generally good calibration of the BATHTUB models for these lakes, MPCA determined that the 5% MOS was sufficient (Section 4.1.4 and Appendix E of the TMDL).

For the flowage lakes, MPCA calculated at least a 5% MOS for each lake, as noted in Table 18 of the TMDL and Attachment 1 of this Decision Document. MPCA explained that for the flowage lakes, the water quality of the Sauk River dominates lake water quality. MPCA also explained that when modeling phosphorus loads from lake to lake, the model assumed each lake met the appropriate WQS. Some lakes receive flow from lakes with lower phosphorus criteria, thus the inflow has significantly less phosphorus. As part of the Comprehensive TMDL Scenario model effort, several lakes were

determined to have additional phosphorus reductions as upstream lakes meet WQS (and the Sauk River phosphorus WQS is met). MPCA determined the additional reductions and noted these in Table 18 of the TMDL.

For the three downstream-most flowage lakes, MPCA determined that pass-through flow from Sauk River was even more dominant as a source of phosphorus (Sections 4.1.4, 4.1.8.6 and 4.1.8.7 of the TMDL). For two of these lakes (Knaus and Krays), MPCA determined that an explicit MOS was not appropriate, as the lake subwatersheds were small, and inflow from the upstream lakes dominate the lake water quality. For the third lake (Great Northern Lake), both an explicit MOS of 2.7% was used as well as an implicit MOS. The implicit MOS for these lakes are based upon the upstream lakes achieving the appropriate WQS.

EPA finds that the TMDL document submitted by the MPCA satisfies the requirements of the sixth criterion.

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)(l)(C), 40 C.F.R. §130.7(c)(l)).

Comment:
The Minnesota eutrophication standards state that total phosphorus WQS are defined as the mean concentration of phosphorus values measured during the growing season. Seasonal variations are addressed in the lake phosphorus TMDLs by assessing conditions during the summer growing season, which is when the water quality standards apply (June 1 through September 30). The frequency and severity of nuisance algal growth in Minnesota lakes is typically highest during the growing season. By setting the TMDL to meet targets by setting the TMDL to meet targets established for the most critical period (summer), the TMDL will inherently be protective of water quality during all other seasons. Established for the most critical period (summer), the TMDL will inherently be protective of water quality during all other seasons if the standards are met for the critical summer months. Seasonal variation is also addressed by the water quality standards' application during the period when high pollutant concentrations are expected via storm event runoff.

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

8. Reasonable Assurances

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:
Sections 5 and 7 of the TMDL provide information on actions and activities to reduce pollutant loading in the watershed. The main entities responsible for overseeing the pollutant reduction activities will be the MPCA, the counties in the watershed, and several local groups including the Sauk River Watershed District (SRWD) and the Stearns County Soil and Water Conservation District (SWCD).

A TMDL was developed for the Sauk River and approved by the EPA in 2017. The TMDL addressed several lakes for phosphorus in the larger Sauk River watershed as well as segments in the Sauk River watershed that are impaired due to bacteria. Although the Sauk River TMDL does not directly address the phosphorus impairments in the SRCL TMDL waters, MPCA noted that implementation activities have been occuring as part of the TMDL effort, and several of the sources of phophorous in the SRCL waters are related to bacteria impairments (i.e., manure).

The local groups will provide actions and activities to attain WQSs in the SRCL watershed. For example, the Stearns County SWCD has developed a *Local Water Management Plan (2008-2017)* that has been extended to 2025 that identifies impaired waters in the County, identifies priority areas for protection and restoration, and notes that nutrients are a specific pollutant of concern. The plan also contains an implementation section that identifies responsible agencies/groups, ongoing and proposed actions, and sources of funding available to implement BMPs. The SRWD has listed numerous projects either completed or underway in the Sauk River watershed (https://srwdmn.org/water-quality-projects/). Several of these projects directly involve the Sauk River Chain of Lakes and involve nutrient reduction projects.

MPCA discussed the history of phosphorus reduction efforts in the SRCL watershed. Sections 5.2 and 5.4 of the TMDL notes that implementation efforts began at least back in the 1970's, and have resulted in approximately 46 metric tons of phosphorus being reduced in the Sauk River watershed. MPCA determined that from 1995-2013, over 700 implementation projects have been completed in the watershed, with over $3.2 million in grant funds and $6.7 million in loan funds having been used (Section 5.2 and Table 18 of the TMDL). Additional funding information can be found in Section 5.5 of the TMDL.

MPCA also discussed the Buffer Law that was passed in 2015 and most recently amended in 2017 (Section 5.2.3 of the TMDL). The Buffer Law requires a 50-foot average width vegetative buffer to be planted along public streams, and a 16.5-foot minimum width buffer to be planted along public drainage systems. These systems are regulated by the County SWCD. Buffers can filter runoff from fields and agricultural operations, removing sediment, bacteria, and nutrients. The buffers can also improve habitat and reduce streambank erosion. According to the Minnesota Board of Water and Soil Resources (BWSR) website, compliance with the Buffer Law is over 98% (https://bwsr.state.mn.us/minnesota-buffer-law). MPCA has studied the effects of stream buffers on the fish and macroinvertebrate populations in stream across the state. The studies indicate that streams with significant buffers systems in place have higher biological scores (https://www.pca.state.mn.us/water/buffers-improve-water-quality).

Clean Water Legacy Act: The Clean Water Legacy Act (CWLA) was passed in Minnesota in 2006 for the purposes of protecting, restoring, and preserving Minnesota water. The CWLA provides the protocols and practices to be followed in order to protect, enhance, and restore water quality in Minnesota. The CWLA outlines how MPCA, public agencies and private entities should coordinate in their efforts toward improving land use management practices and water management. The CWLA anticipates that all agencies (i.e., MPCA, public agencies, local authorities and private entities, etc.) will cooperate regarding planning and restoration efforts. Cooperative efforts would likely include informal and formal agreements to jointly use technical, educational, and financial resources.

The CWLA also provides details on public and stakeholder participation, and how the funding will be used. In part to attain these goals, the CWLA requires MPCA to develop WRAPS. The WRAPS are required to contain such elements as the identification of impaired waters, watershed modeling outputs, point and nonpoint sources, load reductions, etc. (*Chapter 114D.26*; CWLA). The WRAPS also contain an implementation table of strategies and actions that are capable of achieving the needed load reductions, for both point and nonpoint sources (*Chapter 114D.26*, Subd. 1(8); CWLA). Implementation plans developed for the TMDLs are included in the table, and are considered "priority areas" under the WRAPS process (*Watershed Restoration and Protection Strategy Report Template*, MPCA). This table includes not only needed actions but a timeline for achieving water quality targets, the reductions needed from both point and nonpoint sources, the governmental units responsible, and interim milestones for achieving the actions. MPCA has developed guidance on what is required in the WRAPS (*Watershed Restoration and Protection Strategy Report Template*, MPCA). There is an existing WRAPS for the Sauk River watershed (2017 TMDL) that was approved by MPCA in 2015.

The Minnesota BWSR 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 2014 Clean Water Fund Competitive Grants Request for Proposal (*RFP*); *Minnesota Board of Soil and Water Resources*, 2014).

In order to address pollutant loading in the SRCL watershed, required point source controls will be effective in improving water quality if accompanied by considerable reductions in nonpoint source loading. Reasonable assurance for permitted wastewater sources is provided primarily via compliance with their respective NPDES/SDS permit programs, as described in Section 5.1 of the TMDL.

EPA finds that the TMDL document submitted by the MPCA satisfies the requirements of the eighth criterion.

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 assess if load reductions provided for in the TMDL are occurring and leading to attainment of water quality standards.

Comment:
MPCA has a comprehensive water quality monitoring program, Minnesota's Water Quality Monitoring Strategy. This program is comprised of three monitoring programs: Intensive Watershed Monitoring, Watershed Pollutant Load Monitoring Network, and the Citizen Stream and Lake Monitoring Program (Section 6 of the TMDL). MPCA's statewide monitoring program assesses the states waters on a ten-year rotating timeframe. This historical monitoring created a robust dataset that was used for the model development of the SRCLTMDL and will be used as a baseline to evaluate overall improvements in the watershed. Furthermore, continued water quality monitoring within the basin will provide insight into the success or failure of BMP systems designed to reduce nutrient loading into the surface waters of the watershed. Local watershed managers will be able to reflect on the progress of the various pollutant removal strategies and would have the opportunity to change course if observed progress is unsatisfactory. The SRWD has performed monitoring in the SRCL TMDL watershed for several years, and is available for review (https://srwdmn.org/wp-content/uploads/2021/01/SRCLA-Summary-2020.pdf).

EPA finds that the ninth criterion 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:
As was noted in the Reasonable Assurance Section of this Decision Document, MPCA outlines various BMPs to be implemented providing a roadmap towards achieving WQS. The findings from the TMDLs, WRAPS, and other existing plans will be used to support local working groups and jointly develop scientifically supported restoration and protection strategies. These goals will be

accomplished through education and outreach, local ordinances, and BMPs. The Sauk River WRAPS document approved by MPCA in 2015 contains an analysis of various BMPs that are also targeted for the Sauk River Chain of Lakes TMDL watershed.

Pasture Management/Livestock Exclusion Plans – Reducing livestock access to stream environments will lower the opportunity for direct transport of bacteria and nutrients to surface waters. The installation of exclusion fencing near stream and river environments to prevent direct access for livestock, installing alternative water supplies, and installing stream crossings between pastures, would work to reduce the influxes of bacteria and nutrients and improve water quality within the watershed. Additionally, introducing rotational grazing to increase grass coverage in pastures, and maintaining appropriate numbers of livestock per acre for grazing, can also aid in the reduction of pollutant inputs.

Manure Collection and Storage Practices – Manure has been identified as a source of bacteria and nutrients. Bacteria can be transported to surface waterbodies via stormwater runoff. Pollutant-laden water can also leach into groundwater resources. Improved strategies for the collection, storage and management of manure can minimize impacts of pollutants entering the surface and groundwater system. Repairing manure storage facilities or building roofs over manure storage areas may decrease the amount of pollutants in stormwater runoff.

Manure Management Plans – Developing manure management plans can ensure that the storage and application rates of manure are appropriate for land conditions. Determining application rates that consider the crop to be grown on that particular field and soil type will ensure that the correct amount of manure is spread on a field given the conditions. Spreading the correct amount of manure will reduce the availability of bacteria and nutrients to migrate to surface waters.

Feedlot Runoff Controls – Treatment of feedlot runoff via diversion structures, holding/storage areas, and stream buffering areas can all reduce the transmission of pollutants to surface water environments. Additionally, cleaner stormwater runoff can be diverted away from feedlots to prevent contamination.

Septic Systems – Improvements to septic management programs and educational opportunities can reduce the occurrence of septic pollution. Educating the public on proper septic maintenance, finding and eliminating illicit discharges and repairing failing systems could lessen the impacts of septic derived pollutant inputs into the TMDL watershed.

Riparian Area Management Practices – Protection of streambanks within the watershed through planting of vegetated/buffer areas with grasses, legumes, shrubs or trees will mitigate bacteria inputs into surface waters. These areas will filter stormwater runoff before the runoff enters the main stem or tributaries of the SRCL.

Internal Loading Control Measures – MPCAs control strategies for internal loading include rough fish control, chemical binding of phosphorus, and a re-establishment of native vegetation. Additionally, MPCA has indicated that controlling lake levels may help mitigate phosphorus release from sediment.

These practices in combination with watershed controls can reduce or eliminate the impact of internal loading on overall lake water quality.

EPA finds the tenth criterion has been adequately addressed. EPA reviews, but does not approve TMDL 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)(l)(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 notice period on the draft TMDL report was provided via a public notice in the State Register from March 1, 2021 through March 31, 2021. The draft TMDL was posted online by the MPCA at (http://www.pca.state.mn.us/water/tmdl). No comments were received.

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

Comment:
The EPA received the final SRCL watershed TMDL document, submittal letter and accompanying documentation from the MPCA on April 20, 2021. The transmittal letter explicitly stated that the final Sauk River Chain of Lakes TMDLs for nutrient impairment were being submitted to EPA pursuant to

Section 303(d) of the Clean Water Act for EPA review and approval. 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 document submitted by the MPCA satisfies the requirements of this twelfth element

13. Conclusion

After a full and complete review, the EPA finds that the TMDLs for the Sauk River Chain of Lakes Watershed for phosphorus meet all of the required elements of approvable TMDLs. This TMDL approval is for a total of **fourteen (14) TMDLs** for phosphorus. These TMDLs address impairments for aquatic recreational use impairments.

The EPA's approval of the these TMDLs extend to the waterbodies which are identified in this Decision Document with the exception of any portions of the waterbodies that are within Indian Country, as defined in 18 U.S.C. Section 1151. The EPA is taking no action to approve or disapprove the State's TMDLs with respect to those portions of the waters at this time. The EPA, or eligible Indian Tribes, as appropriate, will retain responsibilities under Section 303(d) for those waters.