

**STATE OF MINNESOTA  
MINNESOTA POLLUTION CONTROL AGENCY**

**In the Matter of the Decision to Deny the Petitions  
For a Contested Case Hearing and to Submit the  
Draft Crystal Lake Excess Nutrients  
Total Maximum Daily Load Study to the  
U.S. Environmental Protection Agency For Approval**

**FINDINGS OF FACT,  
CONCLUSIONS OF LAW  
AND ORDER**

Pursuant to the federal Clean Water Act (33 U.S. Code §§ 1251-1387) the Minnesota Pollution Control Agency (MPCA) staff prepared the Draft Crystal Lake Excess Nutrients Total Maximum Daily Load (TMDL) study (referred to herein as "the Crystal Lake TMDL") for submission to the U.S. Environmental Protection Agency (EPA) for approval. After affording all interested persons the opportunity to present written and oral data, statements, and arguments to the MPCA, and after considering all of the evidence in the records, files, and proceedings herein, the MPCA Commissioner, being fully advised, hereby adopts the following Findings of Fact, Conclusions of Law and Order.

**I. FINDINGS OF FACT**

**A. Jurisdiction**

1. The MPCA is authorized and required to administer and enforce all laws relating to the pollution of any waters of the state. Minn. Stat. § 115.03, subd. 1(a) (2016).
2. The MPCA is also authorized "to investigate the extent, character, and effect of the pollution of the waters of this state and to gather data and information necessary or desirable in the administration or enforcement of pollution laws, and to make such classification of the waters of the state as it may deem advisable." Minn. Stat. § 115.03, subd. 1(b).
3. The MPCA is authorized to develop and approve TMDLs for impaired waters and submit an approved TMDL to EPA for final approval. Minn. Stat. § 114D.25, subd. 1(2).
4. The approval of a TMDL by MPCA is a final agency decision and is subject to contested case hearing procedures in accordance with agency procedural rules. Minn. Stat. § 114D.25, subd. 2.
5. The MPCA Commissioner is authorized to decide on behalf of the MPCA whether to grant or deny the Petitioners request for a Contested Case Hearing in this matter. Minn. Stat. § 116.03, subd. 1(c).

**B. Description of Crystal Lake and Impairment**

6. Crystal Lake is a 355 acre lake in Blue Earth County in south central Minnesota. Crystal Lake's lake identification number is 07-0098-00.
7. Crystal Lake has a contributing watershed of approximately 14,000 acres. Crystal Lake is one of three lakes within the Crystal, Loon, and Mills lake system, which is part of the Minneopa Creek watershed, which is in turn, part of the Middle Minnesota River Basin.
8. Crystal Lake has significant local importance as a popular recreational resource.
9. The Crystal Lake watershed is primarily drained by County Ditch (CD) 56 and private field tiles which outlet into Crystal Lake. In addition, approximately 75% of the urban residential areas for the City of Lake Crystal are drained into CD 56 through several storm sewers.
10. The land use in the Crystal Lake watershed is dominated by row crop agricultural activities. Nearly 70% of the watershed land area is row crop agriculture; with additional agricultural activities bringing the total agricultural land to 75%.
11. In the fall of 2004, Crystal Lake experienced a toxic algae bloom. MPCA documented and reported a concentration of microcystin, a blue-green algae toxin, at 7190 ug/L, a level nearly three and a half times the very high risk level of 2,000 ppb for recreational exposure. A 2007 Crystal Lake algal bloom sample recorded a microcystin concentration of 3,800 ppb, almost twice the very high risk level. The World Health Organization's provisional drinking water guideline value for microcystin is 1.0 ug/L and a range of 1-10 ug/L is recommended for recreational exposure.
12. In 2006, Crystal Lake was listed on the Minnesota impaired waters list for excess nutrients.
13. Crystal Lake is considered hypereutrophic based on the Carlson Trophic Status Index (TSI) with levels of phosphorus and algae considered excessive, causing negative impacts on the water quality. Excess nutrients increase the chances of toxic algae blooms within the lake system thereby affecting recreational opportunities.
14. Crystal Lake is a shallow lake in the Western Corn Belt Plains ecoregion. The water quality standard for this area and lake is a total phosphorous concentration of 90 ug/L (Minn. R. ch. 7050.0220).
15. In Crystal Lake, concentrations of total phosphorus (TP) averaged 264 ug/L (micrograms per liter or parts per billion) during the 2008 and 2009 monitoring seasons. This value is very high, and outside the range expected for similar lakes in the region, almost three times the water quality standard of 90 ug/L.
16. A TMDL study was undertaken for Crystal Lake starting with water quality sampling in 2008 and 2009. The specific objective of the Crystal Lake TMDL study was to determine the type and degree of pollutant source reductions needed to achieve the water quality standard of <90 ug/L.

17. The TMDL was the result of a cooperative approach with MPCA assisting the Water Resources Center- Minnesota State University Mankato (WRC-MSUM) and the City of Lake Crystal in data collection, analysis and TMDL development. The draft Crystal Lake TMDL was published by MPCA in 2013.

**C. TMDL Requirements and Content**

***The Clean Water Act establishes a water quality goal and requires states to establish water quality standards.***

18. The Clean Water Act (CWA) seeks to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters” through the elimination of discharge of pollutants into navigable waters. 33 U.S.C. § 1251(a).
19. The CWA requires states to establish water quality standards to protect designated beneficial uses for water bodies. 33 U.S.C. § 1313 (a)-(c). Minnesota water quality standards are established in Minn. R. ch. 7050 (2015).

***To meet the goal and meet established water quality standards, the CWA requires best practices controls for nonpoint sources of pollution and permit-based controls for point sources of pollution.***

20. The CWA focuses on two possible sources of pollution: point sources and nonpoint sources. 33 U.S.C. § 1251(a)(7); 40 C.F.R. § 130. Point sources are “any discernible, confined, and discrete conveyance,” including pipes, ditches, conduits or vessels “from which pollutants are or may be discharged.” 33 U.S.C. § 1362(14). Nonpoint sources include any non-discrete source that does not meet the 33 U.S.C. § 1362(14) definition of “point source,” such as runoff from agriculture, silviculture, forestry or construction activities.
21. Pollution from nonpoint sources is controlled by best management practices. 40 C.F.R. § 130.0 (d). Nonpoint sources are not regulated by permits due to the difficulty involved in tracing pollution to a particular point, measuring it and setting an acceptable level for that point. *Sierra Club v. Meiburg*, 296 F.3d 1021, 1025 (11<sup>th</sup> Cir. 2002).
22. For control of pollution from point sources, the CWA includes two types of permit-based pollution control requirements: technology-based effluent limits (TBELs) (40 C.F.R. § 125); and water quality-based effluent limits (WQBELs) (40 C.F.R. § 130). See 33 U.S.C. §§ 1311(b)(1)(C) and (b)(2)(A), 1313, 1342(a).
23. TBELs are minimum pollution control requirements that must be met regardless of the potential impact a discharge may have on a receiving water. 40 C.F.R. § 125.3(a). TBELs are discharge limitations based on the capabilities of an industry or class of dischargers to treat influent by using pollution control technology. 33 U.S.C. § 1311. TBELs consider technological feasibility and cost and specify the quality of effluent a discharger may release to surface waters. *Id.*
24. If TBELs are not sufficient to ensure attainment of water quality standards in the receiving water, WQBELs must be used. WQBELs consider the impact a discharge will have on the

receiving water. 40 C.F. R. § 130.7. When WQBELs are developed, technical feasibility and economic reasonableness are not factors considered. *Id.*

25. Both TBELs and WQBELs for point sources are imposed on point source dischargers through the National Pollution Discharge Elimination System (NPDES) permit process. 40 C.F.R. § 125. The NPDES permit process sets quantitative limits on the amount of pollutants released from a point source. See 33 U.S.C. § 1342.
26. Pursuant to 33 U.S.C. §1342(b), the EPA delegated its duties to establish and operate its NPDES permit programming authority to the State of Minnesota, which operates the program through the MPCA. Minn. Stat. § 115.03, subd. 5.

***To improve waters that do not meet water quality standards the CWA establishes the TMDL program for impaired waters.***

27. Section 303(d) of the CWA establishes the TMDL program, a water-quality based approach to regulating waters that fail to meet water quality standards despite the application of effluent limits and other pollution control requirements. 33 U.S.C. § 1313(d)(1)(A)-(C). A TMDL expresses the maximum amount of a particular pollutant that can pass through a water body each day without violating water quality standards (i.e. the receiving water's loading capacity). *Id.* TMDLs are water-quality based controls used to supplement technology-based controls where necessary. 33 USC § 1313(d)(1)(C) and(D).
28. Section 303(d)(1) of the CWA requires each state to provide EPA a list of all waters within the state boundaries that fail to meet applicable water quality standards despite the application of effluent limits and other pollution control requirements to those waters. 33 U.S.C. § 1313(d)(1)(A)-(B). This list is known as the "impaired waters list" or the "303(d) list."
29. Each body of water where it is known that water quality does not meet applicable water quality standards, or is not expected to meet applicable water quality standards, even after the application of required TBELs is known as a "water quality limited segment" (WQLS). 40 C.F.R. § 130.2(j).
30. Minnesota must set a TMDL in each WQLS for every pollutant that is preventing or impeding compliance with applicable water quality standards. 33 U.S.C. § 1313(d)(1)(C); 40 CFR 130.7(c)(1)(ii).

***The Crystal Lake TMDL satisfies the CWA legal requirements and follows EPA guidance for developing TMDLs for excess nutrient impairments.***

31. The EPA promulgated guidance for states to follow in developing proposed TMDLs for excess nutrient impairments. The Crystal Lake TMDL is consistent with EPA guidance as set forth in: *Estimating nutrient loading of lakes from nonpoint sources*, EPA- 660/13- 74- 020, 1974; *Modeling phosphorus loading in lake response under uncertainty: A manual and compilation of export coefficients*, EPA- 440/5- 80- 011, 1980; *Quality Criteria for Water*, EPA, 1986 [http://water.epa.gov/scitech/swguidance/standards/criteria/aqlife/upload/2009\\_01\\_13\\_criteria\\_goldbook.pdf](http://water.epa.gov/scitech/swguidance/standards/criteria/aqlife/upload/2009_01_13_criteria_goldbook.pdf); *Protocol for Developing Nutrient TMDLs*, EPA 841-B-99-007, 1999 [http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/upload/2000\\_01\\_10\\_tmdl\\_nutrient\\_nu](http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/upload/2000_01_10_tmdl_nutrient_nu)

[trient.pdf](#); *Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs*, EPA, 2002 <http://www.epa.gov/npdes/pubs/final-wwtmdl.pdf> ; and EPA memorandum dated August 2, 2006, *Clarification Regarding "Phased" Total Maximum Daily Loads*, [http://www.epa.gov/owow/tmdl/tmdl\\_clarification\\_letter.pdf](http://www.epa.gov/owow/tmdl/tmdl_clarification_letter.pdf).

32. In characterizing a receiving water's loading capacity, a TMDL is expressed as the sum of the allocated loads of pollutants set at a level necessary to meet the applicable water quality standards. 40 C.F.R. § 130.2(j). A TMDL includes: wasteload allocations from point sources; load allocations from nonpoint sources; natural background conditions; a margin of safety; and in some cases a reserve capacity if determined to be necessary for future growth. *Id.* A TMDL must also consider seasonal variations. 33 U.S.C. § 1313(d)(1)(C) and (d)(1)(D)(3); 40 C.F.R. § 130.7(6)(c)(1); 40 C.F.R. § 130.7(c)(1). (See also, U.S. Environmental Protection Agency, *Guidance for Water Quality-based Decisions: The TMDL Process*, Office of Water, WH-S53, Washington D.C., April 1991, [http://water.epa.gov/scitech/datait/models/upload/1999\\_11\\_05\\_models\\_SASD0109.pdf](http://water.epa.gov/scitech/datait/models/upload/1999_11_05_models_SASD0109.pdf)).
33. A Wasteload Allocation (WLA) is the portion of a receiving water's loading capacity allocated to existing and/or future **point sources**. 40 C.F.R. § 130.2(h).
34. The Crystal Lake TMDL WLA includes three subcategories of potential point source pollutant loading:
- Municipalities subject to municipal separate stormwater system (MS4) NPDES/State Disposal System (SDS) permits under 40 C.F.R. §§ 122-124, and Minn. R. ch. 7090.
  - Municipal and industrial wastewater treatment facilities subject to NPDES/SDS permits under 40 C.F.R. §§ 122-124, and Minn. R. ch. 7001.
  - Construction and industrial stormwater activities subject to NPDES/SDS permits under 40 C.F.R. §§ 122-124 and 450, and Minn. R. ch. 7090.
35. The Crystal Lake TMDL area does not have any municipalities subject to MS4 permits, therefore no WLA was assigned to MS4s. See draft Crystal Lake TMDL, 2012, at 47.
36. The Crystal Lake TMDL area does not have any municipal or industrial wastewater treatment facilities subject to NPDES/SDS permits, therefore no WLA was assigned to wastewater treatment facilities. See draft Crystal Lake TMDL, 2012, at 47.
37. The Crystal Lake TMDL area has had four construction or industrial stormwater projects over a 10-year period prior to the draft TMDL. Based on the history of construction and industrial stormwater activities, and the potential for future activities, the Crystal Lake TMDL assigns a WLA of 1% (0.05 lbs/day of phosphorus) of the total loading capacity. See draft Crystal Lake TMDL, 2012, at 48.
38. A Load Allocation (LA) refers to the portion of a receiving water's loading capacity attributed to **nonpoint sources** of pollution and **natural background sources**. Load allocations are best estimates of the loading from these sources, which can range from reasonably accurate estimates to gross allotments, depending on the availability of data and appropriate techniques for predicting the loading. Wherever possible, nonpoint source loads and natural background source loads should be distinguished. 40 CFR § 130.2(g).

39. The EPA defines “natural background levels” as “chemical, physical, and biological levels representing conditions that would result from natural processes, such as weathering and dissolution.” U.S. E.P.A., *Clean Water Act, Total Maximum Daily Loads (303d): Glossary*, <http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/glossary.cfm>.
40. The Minnesota Statute governing TMDLs, the Clean Water Legacy Act (CWLA), defines “natural background” as “characteristics of the water body resulting from the multiplicity of factors in nature, including climate and ecosystem dynamics, that affect the physical, chemical, or biological conditions in a water body, but does not include measurable and distinguishable pollution that is attributable to human activity or influence.” Minn. Stat. § 114D.15, subd. 10.
41. Minnesota’s water quality standards rule defines “natural causes” as the multiplicity of factors that determine the physical, chemical, or biological conditions that would exist in a water body in the absence of measurable impacts from human activity or influence. Minn. R. 7050.0150, subp. 4.
42. Based on the definitions provided by EPA and in Minnesota Statute and Rule, the MPCA hereby finds that “natural background” is the condition that occurs outside of human influence.
43. An important distinction must be made between a water body impaired due to natural background and a water body impaired due to anthropogenic (i.e. human influenced) factors. If a water body is determined not to meet water quality standards solely due to natural background conditions, a TMDL is not required and the natural background condition becomes the standard. Minn. R. 7050.0170; U.S. E.P.A., Office of Wetlands, Oceans, and Watersheds, *Consolidated Assessment and Listing Methodology, Toward a Compendium of Best Practices* (2002), <http://water.epa.gov/type/watersheds/monitoring/calm.cfm>.
44. The Crystal Lake TMDL LA is a combination of all nonpoint sources and includes six subcategories of potential nonpoint source pollutant loading:
  - Natural background,
  - County Ditch 56,
  - Internal loading/bioturbation in Lake Crystal,
  - Urban and residential nonpoint sources, and
  - Failing subsurface sewage treatment systems (SSTS), and
  - Atmospheric loading.See draft Crystal Lake TMDL, 2012, at 48-51.
45. The combined LA for all nonpoint sources for Crystal Lake is 5.39 lbs/day of phosphorus. See draft Crystal Lake TMDL, 2012, at 51.
46. A Margin of Safety (MOS) accounts for the uncertainty about the relationship between the pollutant loads and the quality of the receiving water body. The MOS is normally “implicit” which means the MOS is incorporated into the conservative assumptions used to develop TMDLs (generally within the calculations or models). This is particularly true where the pollution is largely by nonpoint sources. If the MOS needs to be larger than the “implicit” levels, additional MOS can be added explicitly and expressed as a separate component of the TMDL.

See *Technical Guidance Manual for Developing Total Maximum Daily Loads: Book 2, Rivers and Streams; Part 1 Biochemical Oxygen Demand/DO and Nutrient Eutrophication*, EPA/823/B-97-002, Year 1997.

47. A ten percent (10%) explicit MOS was used to account for uncertainty within the TMDL calculation process for the Crystal Lake TMDL. See Draft Crystal Lake TMDL, at 52.
48. Reserve Capacity (RC) is that portion of the receiving water's loading capacity, as expressed as a TMDL, that accommodates future loads. See *Technical Guidance Manual for Developing Total Maximum Daily Loads: Book 2, Rivers and Streams; Part 1 Biochemical Oxygen Demand/DO and Nutrient Eutrophication*, EPA/823/B-97-002, Year 1997. Reserve capacity can be ascribed to the WLA, the LA or both. Inclusion of an allocation for reserve capacity is necessary in a number of situations where future loading is anticipated. These situations include: new and expanding Wastewater Treatment Facilities (WWTFs); Municipal Separate Storm Sewer Systems (MS4s) that will be covered by a permit in the future or that are permitted now and may expand; or anticipated land use changes. If an allocation for reserve capacity is not included, either no new future loads are anticipated or allowed, or increased loads must be accommodated by pollutant trading. *Id.*
49. Reserve capacity to account for future industrial development and construction activity was built into the categorical WLA assigned to industrial and construction stormwater in the proposed Crystal Lake TMDL. See Draft *Crystal Lake TMDL* at 48.
50. Combining all of the components described above, a TMDL may be expressed as the equation:  $\sum WLA + \sum LA + MOS + RC = TMDL$  (note: seasonal flow variations are considered throughout the TMDL development by using a load duration curve approach).
51. The proposed Crystal Lake TMDL is consistent with EPA guidance. The MPCA followed EPA protocols in calculating all components (i.e., WLA, LA, MOS and RC) of the EPA recommended approach for developing dissolved oxygen (DO), nutrient eutrophication (nitrates), temperature, and fish bioassessment impairments TMDLS.

***The Crystal Lake TMDL follows state guidance for developing TMDLs for excess nutrient impairments.***

52. The Minnesota Pollution Control Agency developed guidance for assessing excess nutrients in lakes: *Lake Nutrient TMDL Protocols and Submittal Requirements*, (March 2007).
53. In June 2010, MPCA formed a "Natural Background for Streams Workgroup" to develop an approach for considering natural background conditions when assessing lakes for eutrophication. Based on the work of the workgroup, the MPCA developed and issued a document related to the assessment of natural background in water quality: Minnesota Pollution Control Agency, *Guidance for Considering Natural Background When Assessing Lakes for Eutrophication*. Document number wq-s1-63 (2011), <http://www.pca.state.mn.us/index.php/view-document.html?qid=16325>.
54. The purpose of both documents is to provide guidance on the submission requirements for lake nutrient Total Maximum Daily Load (TMDL) studies by the Minnesota Pollution Control Agency

(MPCA) and the United States Environmental Protection Agency (EPA). The intended audience is MPCA staff and management, as well as technical staff of local organizations and consultants responsible for developing TMDLs.

55. The proposed Crystal Lake TMDL is consistent with MPCA guidance.
56. The MPCA finds that the Crystal Lake TMDL was developed in conformance with guidance and processes for setting a TMDL specified by the CWA, EPA guidance, state law and state guidance.

***D. Development of the Crystal Lake Excess Nutrients TMDL***

***The Crystal Lake TMDL met requirements for stakeholder involvement, public notice and comment, and EPA preliminary review.***

57. Minn. Stat. § 114D.35 establishes public involvement goals for TMDLS, including encouraging broad, early, and ongoing participation by the public and stakeholders.
58. EPA advises that, "Analysts should be resourceful and creative in selecting TMDL approaches. Decisions regarding the extent of the analysis should always be made on a site-specific basis as part of a comprehensive, problem-solving approach." *Protocol for Developing Nutrient TMDLs*, EPA 841-B-99-007, Year 1999  
[http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/upload/2000\\_01\\_10\\_tmdl\\_nutrient\\_nutrient.pdf](http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/upload/2000_01_10_tmdl_nutrient_nutrient.pdf)
59. To gain site-specific perspectives, MPCA created a technical advisory team to address the broad interests that would be involved in the project. The technical advisory team was composed of various representatives of stakeholders groups to help ensure that all groups would remain up to date and able to raise concerns and opinions as necessary. The technical advisory team included representative of state, federal and local government, research groups and projects, joint powers boards, and concerned citizens.
60. The technical advisory team met twelve times from January 2008 through December 2009 in Lake Crystal.
61. To gain additional local perspectives, a public information meeting was held in Lake Crystal on October 13, 2008.
62. TMDLs are reviewed and approved by the EPA following regulations at 40 C.F.R. Part 130.
63. In April 2011, the MPCA sent the draft Crystal Lake TMDL study to EPA for preliminary review and comment. EPA submitted preliminary comments to MPCA on April 26, 2011. The MPCA revised the draft TMDL study based on EPA preliminary comments.
64. Minn. Stat. § 114D.25, subd. 4, establishes requirements for public notice and comment on TMDLS.



65. The MPCA published notice of a public comment period for the Crystal Lake TMDL in the *Minnesota State Register* on August 27, 2012. The public comment period was August 27, 2012, through September 26, 2012. 37 *State Register*, 310-312. The draft Crystal Lake TMDL was also posted on the MPCA web site along with a press release; and a copy of the public notice was sent to interested parties.
66. The MPCA met all federal and state requirements for stakeholder involvement, public notice and comment, and EPA preliminary review.

***Comments and petitions for a contested case hearing were received during the public comment period.***

67. The MPCA received two nearly identical Petitions for a Contested Case Hearing on the draft Crystal Lake TMDL. The Petitions for Contested Case Hearing are hereby incorporated by reference as Appendix A to these findings.
68. The two Petitions for Contested Case Hearing requests also included requests for information. The MPCA provided the information requested to the petitioners in October 2012.
69. A total of six (6) written comments from individuals and groups were received during the comment period for the draft Crystal Lake TMDL. The MPCA's Response to Comments received is hereby incorporated by reference as Appendix B to these findings.
70. The comments and contested case hearing requests were timely.

***E. Criteria for Content and Evaluation of Petitions for a Contested Case Hearing***

71. The MPCA must determine if a request for a contested case hearing meets certain criteria specified in Minnesota Rules. Minn. R. 7000.1800, subp. 2(A), requires that a contested case hearing petition include:
  - (1) A statement of reasons or proposed findings supporting a board or commissioner decision to hold a contested case hearing pursuant to the criteria in Minn. R. 7000.1900, subp. 1; and
  - (2) A statement of the issues proposed to be addressed by a contested case hearing and the specific relief requested or resolution of the matter.
72. The MPCA notes that while the information specified in Minn. R. 7000.1800, subp. 2(B) is not required in a contested case hearing petition, it is information that is helpful to the agency as it considers whether a hearing will aid the agency in making a final decision. The information specified in subp. 2(B) is:
  - (1) A proposed list of prospective witnesses to be called at the hearing, including experts, with a brief description of the testimony they will provide;
  - (2) A proposed list of publications, references, or studies that the petitioner would introduce at the hearing; and
  - (3) An estimate of the time required for the petitioner to present the case at a hearing.

73. The MPCA's decision whether to grant the petitions for a contested case hearing is governed by Minn. R. 7000.1900, subp. 1, which states:
- Subpart 1. **Board or commissioner decision to hold Contested Case Hearing.** The board or commissioner must grant the petition to hold a contested case hearing or order upon its own motion that a contested case hearing be held if it finds that:
- A. there is a material issue of fact in dispute concerning the matter pending before the board or commissioner;
  - B. the board or commissioner has the jurisdiction to make a determination on the disputed material issue of fact; and
  - C. there is a reasonable basis underlying the disputed material issue of fact or facts such that the holding of a contested case hearing would allow the introduction of information that would aid the board or commissioner in resolving the disputed facts in making a final decision on the matter.
74. To satisfy the first requirement, Minn. R. 7000.1900, subp. 1(A), the hearing requester must show there is a material issue of fact in dispute as opposed to a disputed issue of law or policy. A fact is material if its resolution will affect the outcome of a case. O'Malley v. Ulland Brothers, 540 N.W.2d 889, 892 (Minn. 1996).
75. In order to satisfy the second requirement, Minn. R. 7000.1900, subp. 1(B), the petitioner(s) must show that the MPCA has jurisdiction or authority to make a determination on the disputed issues of material fact. "Agencies are not permitted to act outside the jurisdictional boundaries of their enabling act." Cable Communications Board v. Nor-West Cable, 356 N.W.2d 658, 668 (Minn. 1984). Therefore, each issue in the contested case request has to be such that it is within the MPCA's authority to resolve.
76. Finally, under Minn. R. 7000.1900, subp. 1(C), the petitioner(s) has the burden of demonstrating there is a reasonable basis underlying the disputed material issue of fact or facts such that the holding of a contested case hearing would allow the introduction of information that would aid the MPCA in making a final decision on the matter. In the Matter of Solid Waste Permit for the NSP Red Wing Ash Disposal Facility, 421 N.W.2d 398, 404 (Minn. App. 1988). To do so, the petitioner(s) may provide the MPCA with specific expert's names, and with any indication of what specific *new facts* an expert might testify to at a contested case hearing. The Minnesota Supreme Court has recognized that to meet this test, "it is simply not enough to raise questions or pose alternatives without some showing that evidence can be produced which is contrary to the action proposed by the MPCA." See In the Matter of Amendment No. 4 to Air Emission Facility Permit, 454 N.W.2d 427, 430 (Minn. 1990).
77. All three criteria of Minn. R. 7000.1900, subp. 1 must be satisfied for the MPCA to grant a petition for a contested case hearing.

***F. Evaluation of Contents of Petitions for Contested Case Hearing Against Criteria***

78. The two petitions for contested case hearing contained the following identical language of the "matter of concern" and "issues to be addressed by contested case hearing," therefore the findings in this document apply equally to both petitions.
79. The matters of concerns identified in the two petitions for contested case hearing are on the topics of: 1) the use of estimated monitoring data; 2) a technical error for atmospheric deposition of phosphorus; and 3) evaluation of natural background conditions and natural background standards.
80. The MPCA evaluated the CCH A and CCH B petitions to determine if they meet the threshold requirements for petition content of Minn. R. 7000.1800, subp. 2( A). The MPCA finds that the petitions do meet the threshold petition content requirements by stating reasons to hold a contested case hearing and by stating issues to be addressed and specific relief requested.
81. The MPCA also evaluated the CCH A and CCH B petitions to determine if the petitions meet the three required criteria for granting a request for a contested case hearing in Minn. R. 7000.1900, subp. 1. The petitions for a contested case hearing fail to satisfy the requirements of Minn. R. 7000.1900, subpart. 1, for the reasons stated in the following specific Findings.

***Regarding the petitions' matter of concern related to the use of estimated monitoring data, the petitions fail criterion A. of Minn. R. 7000.1900, subp. 1, because it states a matter of law and does not state a disputed matter of fact.***

82. The petitions assert that only actual monitoring data should be used as a basis for the draft Crystal Lake TMDL, and therefore the estimated monitoring data described on page 31 of the TMDL should be removed from the TMDL pollutant load calculations because the technical error will have a significant impact on the model output used in the TMDL report.
83. Page 31 of the draft Crystal Lake TMDL includes the following text which references estimated monitoring data.
- "TP FWMC's (flow weighted mean concentrations) in CD 56 have been elevated each of the years monitored. It should be noted that the 1995 and 1996 flows and loads are estimated due to problems with backwater. For the model, the 1995 and 2009 data were not used, as they were not representative of normal yearly flow values..."
84. The MPCA does not dispute the petitions' factual statement that estimated monitoring data was used as a basis for the pollutant load calculations in the draft Crystal Lake TMDL.
85. A statistical model, known as the BATHTUB model, is regularly used by Minnesota and other states to calculate pollutant loads for TMDLs. The BATHTUB model was created by the U.S. Army Corp of Engineers to estimate pollutants in lakes. The EPA supports the use of the BATHTUB model for calculating pollutant loads for TMDLs. See Watershed Modeling Distance Learning Modules on Watershed Management, EPA,

<https://cfpub.epa.gov/watertrain/pdf/modules/wshedmodtools.pdf>; and BATHTUB Model, EPA Science Inventory, [https://cfpub.epa.gov/si/si\\_public\\_record\\_report.cfm?dirEntryId=74889](https://cfpub.epa.gov/si/si_public_record_report.cfm?dirEntryId=74889)

86. The BATHTUB model was used to calculate pollutant loading for the draft Crystal Lake TMDL.
87. The petitioners' assertion that it is improper to use estimated data in the statistical model used for the Crystal Lake TMDL reflects a misunderstanding of how statistical models are created and used. Statistical models, such as BATHTUB, are constructed entirely from estimated data and the output is an estimate. The estimated data in the BATHTUB model is derived from scientific studies of flow and water quality coming from specific land use types (e.g., agricultural land, urban land) located throughout a watershed and flowing into a lake. When used for a specific watershed, the amount of each land use type for that watershed is inputted in the model. The pollutant load calculations for the specific lake in that specific watershed are then produced by a run of the BATHTUB model using the estimated data.
88. For use in the draft Crystal Lake TMDL, the BATHTUB model was improved by replacing some of the estimated flow and water quality data with actual flow and water quality data collected as part of the Crystal Loon Mills Lakes Restoration Project. This act of partially calibrating the model to the Crystal Lake TMDL watersheds produces more precise output results for the watershed and for Crystal Lake. Not all of the estimated data used by the BATHTUB model was replaced with actual data. Without the use of actual data, the model would have used all estimated data.
89. Only actual data from years with normal rainfall are used to calibrate the BATHTUB model. If actual data from non-normal rainfall years (i.e. years with high or low flow conditions) was used by the model, the results would be skewed toward those non-normal years. The actual data for 1995 was not used to calibrate the BATHTUB model for the Crystal Lake TMDL calculations because it represented high flow conditions that were not representative of a normal rainfall year. The 2009 data was also not used as it represented low flow conditions. See Lake Nutrient TMDL Protocols and Submittal Requirements, MPCA, March 2007, pp. 13-23, for an explanation of TMDL modeling for lakes, <https://www.pca.state.mn.us/sites/default/files/wq-iw1-10.pdf>.
90. The 1996 actual data was used to calibrate the BATHTUB model because it was a normal rainfall year. However, the beginning and ending dates for the 1996 monitoring period were estimated because these dates were not reported. The beginning and ending dates for the 1995 monitoring period were also estimated for the same reason.
91. As stated by the petitioners, the petitions' matter of concern related to the use of estimated monitoring data concerns a matter of law, not a disputed fact. The matter of law is whether or not the MPCA is allowed by law to use estimated data or whether the MPCA is restricted by law to only using actual data.
92. State and federal law do not require the MPCA to exclusively use actual monitoring data in TMDL study calculations.

93. The petitions matter of concern related to the use of estimated monitoring data is a matter of law, and therefore, the MPCA finds that the petitioners fail to show the existence of a disputed material issue of fact concerning the matter pending before the board or commissioner. The petitions instead dispute the interpretation and application of law and guidance. This is a question of law or policy, not a question of fact. The MPCA finds the petitions' contention that the proposed Crystal Lake TMDL fails to properly use actual monitoring data fails the criterion of Minn. R. 7000.1900, subp. 1(A) because the petitions state an issue of law or policy, not of fact.
94. The petitions fail to show the existence of a disputed material issue of fact concerning the matter pending before the board or commissioner as required by Minn. R. 7000.1900, subp. 1(A).

***Regarding the petitions' matter of concern related to a technical error for atmospheric deposition of phosphorus, the petitions fail criterion A of Minn. R. 7000.1900, subp. 1, because they fail to state a disputed material issue of fact.***

95. The petitions assert that on page 51 of the draft Crystal Lake TMDL the references for atmospheric deposition are erroneously reported as .3 kg per square kilometer per year, when the actual reference is .3 - .4 kg/hectare/year for the eco-region; and that this technical error will have a significant impact on the model output used in the TMDL report.
96. The .3 kg/km<sup>2</sup>/year coefficient referred to in the report was erroneously used in the report to describe atmospheric loading. However, the erroneous coefficient was not used in the modeling for the TMDL. The correct coefficient for the atmospheric loading to the lake surface was used in the modeling for the TMDL. The default rate in the BATHTUB model used for the TMDL is 30mg/m<sup>2</sup>-year, which calculated loading at 46.5 kg/year, around 102 lbs/year, or .28 lbs/day. The reference to the coefficient on page 51 of the draft Crystal Lake TMDL report will be changed in the final Crystal Lake TMDL report. Because the correct coefficient for the atmospheric loading to the lake surface was used in the modeling for the TMDL, the TMDL load values as modeled are correct.
97. The MPCA did use the correct coefficient in the modeling for the draft Crystal Lake TMDL and the MPCA will correct the editing error in the final TMDL document, therefore the petition does not present a disputed material issue of fact.
98. The petitions fail to show the existence of a disputed material issue of fact concerning the matter pending before the board or commissioner as required by Minn. R. 7000.1900, subp. 1(A).

***Regarding the petitions' matter of concern related to natural background, the petitions fail criterion A of Minn. R. 7000.1900, subp. 1, because they fail to state a disputed material issue of fact and instead dispute an issue of law or policy.***

99. The petitions contend that the Crystal Lake TMDL fails to properly account for and quantify natural background levels as required by state law, specifically the Minnesota Clean Water Legacy Act (CWLA) (Minn. Stat. § 114D.15, subd. 10), and Minn. R. 7050.0170, regarding natural water quality.

100. The petitions mischaracterize the requirements of the CWLA and Minn. R. 7050.0170, and ignore additional federal rule and guidance.
101. Federal rule and EPA guidance state that a separate, explicit load allocation for natural background sources is not required if it is not possible to separate natural background from nonpoint sources (i.e., the two components of load allocations). 40 CFR § 130.33(b). The final sentence of the federal definition of load allocation in 40 CFR § 130.2 (g) states that natural and nonpoint source loads should be distinguished “wherever possible.” *Technical Guidance Manual for Developing Total Maximum Daily Loads: Book 2, Rivers and Streams; Part 1 Biochemical Oxygen Demand/DO and Nutrient Eutrophication*, EPA/823/B-97-002, Year 1997  
[http://water.epa.gov/scitech/datait/models/upload/2006\\_12\\_05\\_standards\\_tmdl\\_guidance.pdf](http://water.epa.gov/scitech/datait/models/upload/2006_12_05_standards_tmdl_guidance.pdf)
102. The petitions’ contention that the State CWLA requires separate quantification of natural background levels is inaccurate. Similar to the Federal rules, the State definition of a TMDL in the CWLA indicates nonpoint sources and natural background are both part of the load allocation, however, the definition does not require a separate, explicit load allocation for natural background sources in a TMDL. Minn. Stat. § 114D.15, Subd. 10.
103. The Crystal Lake TMDL project area is highly altered by human influenced agricultural land uses. Alterations include removal of native perennial cover and hydrologic modification through irrigation and artificial drainage. County Ditch 56 and private field tiles extensively drain the Crystal Lake watershed. See Draft Crystal Lake TMDL at 15. Nearly 75% of the land use in the watershed is agricultural. See Draft Crystal Lake TMDL at 17.
104. The MPCA litigated the precise issue raised in the petition related to the question of whether the CWA and state law requires the MPCA to make a separate accounting for natural background levels of pollutants in a TMDL. In an unpublished opinion, the Minnesota Court of Appeals held that the denial of a contested case hearing by the MPCA was not in error because the CWA and state law did not require the MPCA to make a separate accounting for natural background levels if natural background could not be distinguished from nonpoint source contributors in a watershed that is highly altered by human influenced agricultural land uses. (In the Matter of the Decision to Deny the Petitions for a Contested Case Hearing and to Submit the Draft Little Rock Creek Dissolved Oxygen, Nitrate, Temperature, and Fish Bioassessment Total Maximum Daily Load Study to the U.S. Environmental Protection Agency for Approval. Minn. Ct. of Appeals, A16-0123, filed November 28, 2016, unpublished. (cert. denied Feb. 14, 2017)) A full copy of the opinion is attached as Appendix C to these findings.
105. The MPCA finds the petitions’ contention that Minn. R. 7050.0170 requires separate quantification of natural background levels in a TMDL is a misapplication of the rule. Minn. Rule 7050.0170, states that natural background levels can be used as the water quality standard in streams that are in a “natural condition.” Minn. R. 7050.0170 further states that, “Natural conditions exist where there is no discernible impact from point or nonpoint source pollutants attributable to human activity or from a physical alteration of wetlands.” The Crystal Lake TMDL project area is not in a natural condition due to human activity such as extensive agricultural cultivation, thus the Crystal Lake TMDL project area is not in a natural condition at present. As Minn. R. 7050.0170 is not applicable for the TMDL project area the load allocation sources in the Crystal Lake TMDL project area include both human influenced factors and natural background

conditions, therefore a TMDL is required and natural background levels cannot be used as a water quality standard.

106. The MPCA does not dispute that the Crystal Lake TMDL does not include a separate, explicit load allocation for natural background sources. Natural background loading is included in, but not separately identified, in the load allocations. Natural background sources are not separately identified in the LAs because the pollutant loading to Crystal Lake is dominated by nonpoint sources and natural background, and current research is not sufficient to differentiate between nonpoint and natural background sources of pollutants.
107. Following federal and state law and guidance, the MPCA determined that it was not possible to distinguish natural background loads clearly enough from nonpoint sources to support separate load allocations in the Crystal Lake TMDL.
108. On the petitions' matter of concern related to natural background, the MPCA finds that the petitioners fail to show the existence of a disputed material issue of fact concerning the matter pending before the board or commissioner. The petitions instead dispute the interpretation and application of law and guidance. This is a question of law or policy, not a question of fact. The MPCA finds the petitions' contention that the proposed Crystal Lake TMDL fails to properly account for and quantify natural background levels as required by state law, specifically the CWLA fails the criterion of Minn. R. 7000.1900, subp. 1(A) because the petitions state an issue of law or policy, not of fact.

***The petitions fail criterion C of Minn. R. 7000.1900, subp. 1, because there is no reasonable basis underlying a disputed material issue of fact such that the holding of a contested case hearing would allow the introduction of information that would aid the commissioner in making a final decision on the matter***

109. Petitioners raise questions of law and policy and fail to raise a disputed material issue of fact. Thus, a contested case hearing is not appropriate.
110. Based on the preceding Findings, MPCA finds there is no reasonable basis underlying a "disputed material issue of fact or facts such that the holding of a contested case hearing would allow the introduction of information that would aid the board or commissioner in resolving the disputed facts in making a final decision on the matter" as required by Minn. R. 7000.1900, subp. 1, criterion C.

## II. CONCLUSIONS OF LAW

1. The MPCA commissioner is authorized by Minn. Stat. § 116.03, subd. 1(c) to decide on behalf of the MPCA whether to grant or deny the Petitioner's request for a Contested Case Hearing in this matter, thereby meeting the requirement of Minn. R. 7000.1900, subp. 1(B) to show the commissioner has the jurisdiction to make a determination on a disputed material issue of fact.
2. Due, adequate and timely public notice of the proposed Crystal Lake TMDL was given in accordance with Minn. R. 7001.0100, subps. 4 and 5.

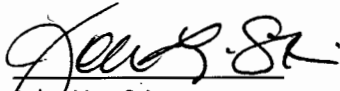
3. The Petitions for a Contested Case Hearing were timely received.
4. The MPCA determines the issues raised by petitioners on the proposed Crystal Lake TMDL do not meet the requirements for granting a Contested Case Hearing because the petitions fail to meet the requirements of criteria A, B and C of Minn. R. 7000.1900, and therefore, the petitions should be denied, based upon the reasons set forth in this document.
5. The MPCA concludes that all procedures related to the development and content of a TMDL were followed and that the draft Crystal Lake TMDL meets all state and federal requirements.
6. Any finding more properly considered a conclusion shall be considered a conclusion. Any conclusion more properly considered a finding shall be considered a finding.

### III. ORDER

All of the Petitions for Contested Case Hearing are hereby denied in their entirety.

The Draft Crystal Lake Excess Nutrient TMDL shall be sent to U.S. EPA for final approval under 40 C.F.R part 130 after the appeals period for this order has run as per Minn. Stat. § 14.63 (2016).

**IT IS SO ORDERED:**

  
John Linc Stine  
Commissioner

Minnesota Pollution Control Agency

3/12/18  
Date



**APPENDIX A**  
**Comment Letters and Petitions for Contested Case Hearing**

All comment letters submitted to MPCA during the public comment period on the Draft Crystal Lake Excess Nutrient TMDL can be found at: <https://www.pca.state.mn.us/sites/default/files/wq-iw7-37n.pdf>  
The documents at the listed website are hereby incorporated by reference into this Appendix A and are thereby made a part of the administrative record supporting the Order of the commissioner in this matter.

**APPENDIX B**  
**MPCA's Response to Comments**

December 7<sup>th</sup>, 2017

Kelly Fleming  
51830 Eagle Lane  
Lake Crystal, MN 56055

RE: Crystal Lake TMDL Project Comments

Dear Ms. Fleming:

This letter is in response to your comments on the Crystal Lake Total Maximum Daily Load (TMDL) Project (Project) that was on public notice August 27, 2012, through September 26, 2012. The Minnesota Pollution Control Agency (MPCA) apologizes for the long delay in responding to your comments. The delay was the result of Contested Case Hearing Requests the MPCA received during the public notice period. The MPCA intends to deny the Contested Case Hearing Requests submitted during the public comment period for the Project. After the MPCA Commissioner signs the Findings of Fact and Order denying the requests, the MPCA will submit the TMDL to the Environmental Protection Agency (EPA) for final review and approval. Since the promulgation of the draft TMDL, city, county, and state agencies, as well as interested individuals and groups, have taken steps to develop and implement plans to improve the aesthetic and recreational opportunities in Crystal Lake and the community. Please consider the following in response to your comments.

The MPCA and I thank you for your comments on the Crystal Lake TMDL Project and for your efforts as part of the Crystal Loon Lake Association. Gaining an interest and understanding of the concerns for Crystal Lake is the first step in improving its condition and allowing you and your family to enjoy it as a recreational resource.

As we move toward implementation, we will need local groups and individuals to provide and respond to information that will guide restoration efforts. Your recommendation for dredging will need further research into costs and potential impacts on the lake and the nutrient loading, but has been suggested by various members of the community. Looking at in-lake phosphorous sources as well as the watershed supply of nutrients will help guide implementation activities to improve water quality within the lake.

Our goal, as stated in your letter, is to improve the lake's ability to provide recreational opportunities including fishing and swimming. We feel that if the water quality standards can be met, there is the potential to return Crystal Lake back into a recreational resource for the community.

Kelly Fleming  
Page 2  
December 7<sup>th</sup>, 2017

Once again, thank you for your interest and comments for improving Crystal Lake, and we look forward to your input in future planning within the watershed.

Please feel free to contact me at 507-344-5246 or [paul.a.davis@state.mn.us](mailto:paul.a.davis@state.mn.us) if you have any questions on the lake or the TMDL process.

Sincerely,

A handwritten signature in black ink, appearing to read 'Paul Davis', written in a cursive style.

Paul Davis  
Environmental Specialist 3  
Mankato Office  
Watershed Division

PD:cز

December 7<sup>th</sup>, 2017

Kris Sigford, Water Quality Director  
Minnesota Center for Environmental Advocacy  
26 East Exchange Street, Suite 206  
Saint Paul, MN 55101-1667

RE: Crystal Lake TMDL Project Comments

Dear Ms. Sigford:

This letter is in response to your comments on the Crystal Lake Total Maximum Daily Load (TMDL) Project (Project) that was on public notice August 27, 2012, through September 26, 2012. The Minnesota Pollution Control Agency (MPCA) apologizes for the long delay in responding to your comments. The delay was the result of Contested Case Hearing Requests the MPCA received during the public notice period. The MPCA intends to deny the Contested Case Hearing Requests submitted during the public comment period for the Project. After the MPCA Commissioner signs the Findings of Fact and Order denying the requests, the MPCA will submit the TMDL to the Environmental Protection Agency (EPA) for final review and approval. Since the promulgation of the draft TMDL, city, county, and state agencies, as well as interested individuals and groups, have taken steps to develop and implement plans to improve the aesthetic and recreational opportunities in Crystal Lake and the community. Please consider the following in response to your comments.

The MPCA and I thank you for your comments on the Project. This report, in its simplest form, looks at the state standard and establishes a goal for the quality of the water entering and residing within the lake. The options we consider to meet these goals are where the real work begins. Meeting with city residents and agricultural landowners to discuss the potential for implementation activities to improve water quality is the next and most difficult step in the process. Your comments have been reviewed, and responses to the areas you discussed are as follows:

**The TMDL is not calculated to meet water quality standards.** The BATHTUB model has been shown to be a good predictor of in-lake phosphorous concentration in response to estimated phosphorous loads. However, the model does not perform as well predicting the response variables of chlorophyll-a and Secchi transparency, especially in shallow lakes like Crystal Lake. The BATHTUB documentation itself states that "While pool nutrient concentrations can be predicted relatively easily from inflow concentrations in reservoirs with high flushing rates, predictions of biological responses (as measured by chlorophyll-a) may be more difficult because of temporal variability in nutrient levels (induced by storm events, for example) and/or controlling effects of turbidity and flushing rate." Therefore, the modeled response variable values do not necessarily fully reflect the water quality improvements we would expect from achieving the phosphorous standard in Crystal Lake.

Data collected for development of the Minnesota Lake Eutrophication Standards (Minn. R. 7050) more accurately represents in-lake phosphorous concentration relationships to response variables. The statement from page 24 of the TMDL "In developing the lake nutrient standards for Minnesota lakes

(Minn. R. 7050), the MPCA evaluated data from a large cross-section of lakes within each of the state's ecoregions (MPCA, 2005). Clear relationships were established between the causal factor total phosphorus and the response variables chlorophyll-*a* and Secchi disk. Based on these relationships, it is expected that by meeting the phosphorus target of 90 µg/L for Crystal Lake, the chlorophyll-*a* and Secchi standards (30 µg/L and 0.7 m respectively) will likewise be met." is a reference to this work.

It is also instructive to consider the margin of safety that results in a lower load capacity than the model predicts in order to meet the in-lake standard. As described in the TMDL, the predicted loads from the First Order and the Canfield-Bachmann models were averaged to estimate the load capacity for Crystal Lake that would allow it to meet the standard of 90 µg/L. This approach was based on professional judgment and best available data. The resulting load capacity was reduced by 10% to account for a margin of safety. A 10% reduction in load results in the lake achieving the Chlorophyll-*a* standard in both the First Order and the Canfield-Bachmann models.

The model run for the standard of 90ppb will include the updated table below and further explanation will be included to clarify the midpoint method for the daily load capacity.

|                         | Observed lake conditions | Lake conditions modeled to TP standard | Load Capacity – First Order model | Load Capacity – Canfield Bachmann lakes model | Daily Load Capacity- Average of First Order and Canfield Bachmann models |
|-------------------------|--------------------------|--|-----------------------------------|---|--|
| <b>Total Phosphorus</b> | 230 (µg/L)               | 90 (µg/L)                              | 791.2 kg P/yr                     | 1,208.9 kg P/yr                               | 6.04lbs/day  |

**Absence of source assessment.** The MPCA staff believes that the pollutant sources assessment work carried out for the Crystal Lake Excess Nutrients TMDL study is sufficient to meet the requirements of the EPA. The protocol from the EPA manual states that efforts should be made to inventory possible nutrient sources using the appropriate methods for utilizing monitored data, empirical methods, and modeling efforts in order to determine the loading information for the TMDL study. We feel that the report follows this protocol.

Further efforts to narrow nonpoint sources in the Crystal Lake watershed included a breakdown of land use categories from the National Agricultural Statistics Service (NASS) and Geographic Information System (GIS) mapping. This information was utilized in modeling efforts along with other data sources, including phosphorous runoff coefficients and monitored data from CD56 and Crystal Lake, Loon Lake, and Mills Lake. These efforts are all described in the EPA protocol, and help to understand the potential of loading from various sources. The modeled loading information includes analyses and estimation for low, medium, and high ranges for each land use category calculated. This work provides a reasonable picture of the loading contributions and where to focus implementation efforts with local partners.

It is difficult to break out individual soil and land use categories that would have resulted in improved information or detail at finer scales without adding significant costs. Landuse export coefficients were used in modeling due to similar agricultural landuse practices using CD56 as the primary conduit of external phosphorous loading to the lake. The city and rural systems that supply phosphorous through surface and subsurface runoff to CD56 are similar; each relies on a drainage network to remove water with the consequence of supplying phosphorous under various conditions. However, identifying loading at a finer scale will need to be done through individual landowner contacts during the implementation efforts.

In this and all TMDL's, the MPCA and its partners balance cost, timeline, federal requirements, local capacity, and level of detail. MPCA staff feel the source assessment work completed for Crystal Lake is relatively detailed in relation to this non-point source dominated study and meets the requirements set forth by the EPA.

**Insufficient margin of safety.** Please refer to the response to "TMDL Not Calculated to Meet the Water Quality Standards" for information on meeting the response variable associated with the TMDL study, as they are the same for this comment. The MPCA staff feels that by meeting the 90 µg/L standard, these response variables will be met.

Using best professional judgment and explained further in the TMDL, we determined that utilizing the mid-point of the models to define the loading capacity was the best method given the information available. A more robust description of the approach has been included in the TMDL (page 44) Therefore, we feel the margin of safety as defined in the report is sufficient to reasonably account for any uncertainty. If during future monitoring activities additional information becomes available, we will be able to better define internal and external loading and will utilize that information in the implementation plan.

**Insufficient monitoring plan.** The monitoring data provided through the Clean Water Partnership and TMDL Project, along with previous data collected as part of the Lake Assessment Project, can be used as a baseline for lake conditions. Future monitoring will be utilized to understand the effectiveness of implementation activities within the watershed and lake itself. The MPCA is focusing efforts to the watershed scale, and the lake will be monitored as part of the watershed approach method on a 10-year rotation. Modeling and research findings will continue to be utilized to help evaluate the effectiveness of practices and watershed improvements.

BMP reductions will be measured and tracked through various Board of Water and Soil Resources (BWSR) programs and other grant opportunities. Individual BMP practice reductions are calculated based on the extent of the project design and submitted to BWSR's eLINK reporting system or as part of grant reporting.

Future implementation planning and activities will help direct monitoring needs. Monitoring at the ditch and finer scales would help to understand drainage systems supply and management potential. More individualized field-scale tile monitoring and stormwater monitoring will be needed. Efforts to collect field and tile data since the completion of the draft TMDL have occurred as led by local efforts to guide implementation. This will be discussed in the implementation planning, using the cooperation of landowners to assist in monitoring.

**Lack of reasonable assurance of nonpoint source reductions.** For all intents and purposes, this TMDL involves nonpoint sources allocations. The watershed contains no wastewater treatment facilities, there are no National Pollutant Discharge Elimination Systems (NPDES) Permits for point sources, and the city of Lake Crystal is not a Municipal Separate Storm Sewer System (MS4) community. The waste load allocations account for construction and industrial stormwater for future business and construction activities within the watershed. It was allocated at 1% of the total loading capacity, assuming that at no more than 1% of the watershed would be under construction at any one point. This allows construction activity without the need to use credits or nutrient trading to offset any potential discharges during construction.

The Reasonable Assurance Section in the TMDL will be modified to include the following discussion:

A TMDL needs to provide reasonable assurance that water quality targets will be achieved through the specified combination of point and nonpoint source reductions reflected in the LAs and WLAs. According to EPA guidance (EPA 2002b), "When a TMDL is developed for waters impaired by both point and NPSs, and the WLA is based on an assumption that nonpoint-source load reductions will occur ... 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 the EPA to determine that the TMDL, including the LA and WLAs, has been established at a level necessary to achieve water quality standards". In the Crystal Lake Watershed considerable reductions in NPSs are required.

The MPCA will adopt portions of the Chesapeake Bay Reasonable Assurance framework, with some modifications as follows:

- Evaluate existing programmatic, funding, and technical capacity to implement watershed strategies.
- Identify gaps in current programs, funding, and local capacity to achieve the needed controls.
- Build program capacity for short-term and long-term goals. Demonstrate increased implementation and/or pollutant reductions.
- Commit to track/monitor/assess and report progress at set regular times.

The phosphorus impairment in this TMDL will not include reductions to point sources by reducing their WLAs, for permitted MS4s or permitted wastewater treatment facilities. There are no permitted MS4s in the Crystal Lake watershed or permitted wastewater treatment facilities. The construction and industrial stormwater contributions are minor sources of phosphorus to Crystal Lake and reductions in their WLAs will not help to accomplish the goals of the TMDL.

Additional requirements could be implemented if nonpoint source targets are not met and will focus on NPSs themselves. They could take the form of:

- Review of statewide nonpoint source control programs and policies by state agencies and their implementation by local agencies.
- Requirements to comply with existing nonpoint source authorities, including but not limited to:
  - 50-foot buffer required for the shore impact zone of streams classified as protected waters (Minn. Stat. § 103F.201) for agricultural land uses
  - Protecting highly erodible land within the 300-foot shoreland district (Minn. Stat. § 103F.201)
  - Buffers on public drainage ditches (Minn. Stat. § 103E.021)
  - Excessive soil loss statute (Minn. Stat. § 103F.415)
  - Nuisance nonpoint source pollution (Minn. R. 7050.0210, subp. 2)
  - Other measures that may be identified in the WRAPS Report or the One Watershed One Plan

The targeting of BMPs and ongoing research to pinpoint phosphorus sources and measure the effectiveness of nonpoint source remediation measures will provide some assurance of achieving the LA of this TMDL. In addition, inter-agency work groups formed to direct the state's Clean Water Fund will help to ensure that nonpoint source load reductions will be addressed. These groups have developed guidance related to monitoring, implementation, research, and identification of measures and outcomes. Within this framework of implementation, reasonable assurance will be provided with regard



to NPSs through commitments of funding, watershed planning, and use of existing regulatory authorities. The CWLA (2006) provided the MPCA authority and direction for carrying out section 303(d) of the Clean Water Act, in addition to one-time funding to initiate a comprehensive 10-year process of assessment and TMDL development in Minnesota.

In November 2008, Minnesotans voted in support of the Clean Water, Land and Legacy Amendment to the state constitution. Through this historic vote, about \$5.5 billion will be dedicated to the protection of water and land over the next 25 years. One third of the annual proceeds from sales tax revenue, an estimated \$80 to \$90 million, will be devoted to a Clean Water Fund to protect, enhance and restore water quality of lakes, rivers, streams, and groundwater. The Amendment specifies that this funding must supplement and not replace traditional funding. Approximately two-thirds of the annual proceeds will be earmarked for water quality protection and restoration.

Reasonable assurance for permitted sources such as construction and industrial stormwater is provided primarily via compliance with the respective NPDES permit programs, which have been described in section 5.1. Point sources were not identified as a primary source of TP in the Crystal Lake Watershed.

In order for Crystal Lake to meet water quality standards the majority of pollutant reductions will need to come from non-point source contributors. With a lack of existing state and federal regulations for NPSs and the monetary incentives for practices that can degrade water quality including agricultural drainage and surface runoff, major contributions of nutrients and increased flows will continue throughout the watershed. State and local agencies will need to work with landowners to identify priority areas for BMPs and practices that will help reduce nutrient runoff, as well as streambank and overland erosion. Agencies, organizations, local units of governments, and citizens alike need to recognize that resigning waters to an impaired condition is not acceptable. Some of these efforts are well underway as a locally led group has formed to focus on finding solutions for improving the water quality of Crystal Lake. Their efforts have led to increased dialogue between the urban and rural residents, native plantings and innovative in-lake treatment approaches. In addition, the Crystal Lake watershed will be included in the Minnesota River – Mankato Watershed Restoration and Protection Strategies Document (WRAPS). The WRAPS document will reflect 10-year targets and water quality goals as determined by the Crystal Lake TMDL with strategies to accomplish the targets and goals. The strategies identified and developed by the WRAPS workshop team will be used to calculate the adoption rates needed to meet the pollutant/stressor 10-year targets. This information is most relevant for local planning efforts including the specific strategies, actions, and responsibilities for BMP implementation.

To best assure that NPS reductions are achieved, a large emphasis will be placed on citizen engagement, where the citizens and communities that hold the power to improve water quality conditions are involved in discussions and decision-making. The watershed's citizens and communities will need to voluntarily adopt the practices at the necessary scale and rates to achieve water quality goals. In addition to citizen engagement, several government programs have been created to support a political and social infrastructure that aims to increase the adoption of strategies that will improve watershed conditions. Selection of sites for BMP implementation will be led by local units of government, local citizen groups, county Soil and Water Conservation Districts (SWCDs), county planning and zoning with guidance and support from multiple state agencies (MPCA, BWSR, DNR, MDA, MDH). One example of a program is the Minnesota Agricultural Water Quality Certification Program (AWQCP), which provides regulatory security and incentives to landowners who adopt conservation practices. Additional financial programs include the Clean Water Act Section 319 grant programs, Board of Water and Soil Resources (BWSR) implementation funding, and Natural Resources Conservation Service (NRCS) incentive

Kris Sigford  
Page 6  
December 7<sup>th</sup>, 2017

programs. Programs and activities are also occurring at the local government level, where county staff, commissioners, and residents work together to address water quality issues.

Since the conclusion of the Crystal Lake TMDL Project, local individuals and groups have concentrated their energies in understanding water quality issues in the Crystal Lake watershed and have begun implementing activities to improve water quality. The Crystal Waters Project (CWP) formed to provide education, outreach and implementation activities for city residents and has opened a dialogue with the agricultural community. The group has focused on educational opportunities and activities to draw awareness of the lakes issues and the connection to watershed land use. They have also been working actively with State and local agencies to understand lake processes in trying to find in-lake solutions. The Blue Earth County Soil and Water Conservation District (SWCD) has made the Crystal Lake watershed one of their priority work areas and have been working one on one with land owners to develop management plans and practices to reduce the nutrient loading from the agricultural area of the watershed. This work has already led to several individuals changing land management activities including nutrient management improvements and tillage and cropping management activities. The CD56 ditch has undergone a redetermination of benefits process that will require buffers and has included several practices to reduce sedimentation and nutrient loading. Local organization has been very effective in providing an opportunity for discussion and options for improvement. These efforts have and will continue to help reduce the impacts of the non-point source nutrient loading to the watershed and the lake.

Once again, thank you for your interest and comments on the Crystal Lake TMDL Report. If possible, I would like to meet with you to discuss your comments and possibly host a tour of the lake and its watershed. We would also appreciate your participation in future watershed projects so your input, comments, and concerns can be discussed with the local staff and residents working to find solutions to remove impairments.

Please feel free to contact me at 507-344-5246 or [paul.a.davis@state.mn.us](mailto:paul.a.davis@state.mn.us) if you have any questions on the lake or the TMDL process.

Sincerely,

A handwritten signature in black ink, appearing to read 'Paul Davis', written in a cursive style.

Paul Davis  
Environmental Specialist 3  
Mankato Office  
Watershed Division

PD:cj

December 7<sup>th</sup>, 2017

John Mages  
Minnesota Corn Growers Association  
738 First Avenue East  
Shakopee, MN 55379

RE: Crystal Lake TMDL Project Comments

Dear Mr. Mages:

This letter is in response to your comments on the Crystal Lake Total Maximum Daily Load (TMDL) Project (Project) that was on public notice August 27, 2012, through September 26, 2012. The Minnesota Pollution Control Agency (MPCA) apologizes for the long delay in responding to your comments. The delay was the result of Contested Case Hearing Requests the MPCA received during the public notice period. The MPCA intends to deny the Contested Case Hearing Requests submitted during the public comment period for the Project. After the MPCA Commissioner signs the Findings of Fact and Order denying the requests, the MPCA will submit the TMDL to the Environmental Protection Agency (EPA) for final review and approval. Since the promulgation of the draft TMDL, city, county, and state agencies, as well as interested individuals and groups, have taken steps to develop and implement plans to improve the aesthetic and recreational opportunities in Crystal Lake and the community. Please consider the following in response to your comments.

The MPCA and I thank you for your comments on the Project. We too feel that it is extremely important that we begin a dialogue with all participants in the watershed in order to come to some common understandings of the processes and practices that will improve water quality in Crystal Lake. This report, in its simplest form, looks at the state standard, and establishes a goal for the quality of the water entering and residing within the lake. The options we consider to accomplish that goal are where the discussion with all who contribute to the loading within the watershed should start. Your comments have been reviewed, and responses to the seven areas you discussed are as follows:

First, there is no disagreement that the ditch has also benefitted the City of Lake Crystal (City) by allowing stormwater outlet access to the ditch system. Through modeling efforts to determine source assessments, the City was included as an individual watershed attempting to identify contributions to Crystal Lake.

Second, the discussion of a Conservation Reserve Program (CRP) was intended to explain land use statistics utilized in modeling efforts. The CRP was accounted for as the prairie/grass category, which has a reduced phosphorous export coefficient when compared to production agricultural ground. Changing the relative percent of CRP and cropland would necessarily affect the predicted phosphorous load to Crystal Lake in terms of the model.

Third, traditionally, nitrate has been considered the nutrient of concern with tile drainage. The common thought was that phosphorous was only found attached to soil particles associated with surface runoff. More recent research indicates tile drainage has the potential to contribute elevated

concentrations of dissolved phosphorus related to soil conditions, including sandy soils, high organic matter soils, and soils with a high phosphorus concentration (Blann 2008). Nutrients monitored as part of the Project in order to understand the loading to the lake from the CD56 system included nitrates, total phosphorous (TP), and dissolved ortho phosphorous (OP). Information from the sampling indicated OP comprises the majority of the TP load. Watershed maps created by Blue Earth County for the Crystal Loon Mills watershed show factors that can contribute to higher OP transport including a relatively high amount of cropland with sensitive soil features for nutrient management based on Natural Resources Conservation Service (NRCS) soil characteristics. The characteristics of coarse soils, potential for high organic content from drained soils, and high soil phosphorus content, along with the application of phosphorus for crop production are all found in the watershed and mirror the conditions in the Blann 2008 research related to the high OP concentration in tile waters. This information corresponds with the data collected in CD56. The MPCA staff agrees that the impact from drainage needs further study to better understand phosphorous loading through tile systems. This is important to consider for implementation planning with producers within the watershed.

Fourth, the report you refer to, (Regionalization of Minnesota’s Rivers for Application of River Nutrient Criteria, MPCA) uses long-term milestone data sites, and defines “minimally impacted streams” as those that do not have an immediate upstream point source of pollution. This data summary and what were termed “minimally-impacted sites” do not take into account the urban and agricultural nonpoint sources/loads from the watershed that may contribute to elevated phosphorous concentrations.

Minnesota has recently adopted river eutrophication standards for phosphorous; a more relevant comparison of the phosphorous concentration from CD56 to Crystal Lake can be seen in Figure I-1 from the Minnesota Nutrient Criteria Development for Rivers Draft at <http://www.pca.state.mn.us/index.php/view-document.html?gid=14947>. Sampled flow-weighted mean concentrations for CD56 have at times been more than double the proposed standard for southern rivers (1996 FWMC- 336 ppb).

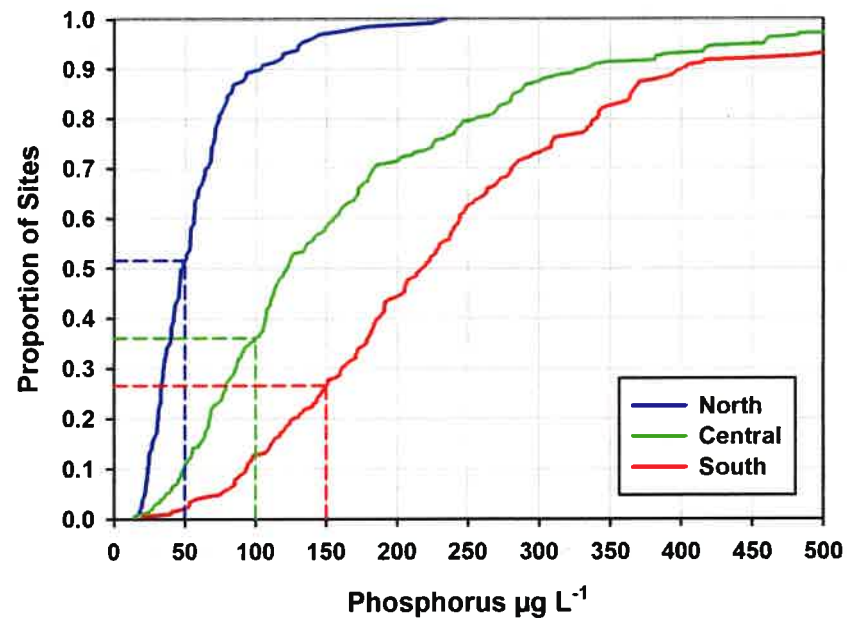


Figure I - 1. Cumulative distribution functions for stream total phosphorus concentrations by RNR. Mean summer (June through September) concentrations for AUIDs from 1995-2009 data drawn from STORET. North= 128 AUIDs, Central=239 AUIDs, and South=206 AUIDs. Dashed lines interpolate the proportion of sites meeting or not meeting the draft total phosphorus criteria for each RNR.

With full-scale changes to the watershed from prairie/wetland complexes to agricultural/urban, the addition of ditching and drainage has changed dramatically the sources and supply system for phosphorous to Crystal Lake. A local news article from 1897 explained that construction of the ditch, eventually adding 9000+ acres of drainage area, "will drain a great scope of wet country that has heretofore been practically worthless. This will give us an abundant water supply for our lakes and keep them up to the high water mark." Any lost nutrient contributes to the elevation of phosphorous levels in the lake; therefore, it is critical that any practice that limits the loss of phosphorous from the watershed to the ditch is key to reducing the load that affects Crystal Lakes nutrient balance. Implementation efforts will need to be discussed with land owners that keep applied phosphorous available to the crop to limit the amount that is sent to the lake.

Fifth, the predicted lake concentrations based on the modeling are included in tables 4.6B and 4.6E. The model has a calculation that includes fertilizer as a source of the loading for CD56, as stated in your comment. A moderate value was used in the calculations to account for all loading within the watershed even though Rechow/Simpson (1980) recommends higher coefficients for agricultural watersheds that are highly tiled and ditched. Through the modeling efforts, a large source of phosphorus could not be accounted for when the predicted model results and the observed water quality data were compared. The model itself describes running "what if" scenarios to help understand the "Unaccounted for phosphorus" including, but not limited to:

- Excessive runoff and phosphorus loading in wet years;
- Feedlot runoff or excessive pasturing of animals;
- Excessive loading from urban areas via storm sewers; and
- Internal phosphorus recycling from sediments.

Due to citizen comments, manure application issues were thought to be contributing directly to the lake. This source was examined to better understand its potential contribution. The model allows further investigation of the watershed sources when the model predictions and the observed sampled data diverge. The model allowed the break out of the known animal units within the watershed to better understand the potential for loading from this specific source.

Loading from the urban area was given the highest export coefficient of all land uses within the Crystal Lake watershed modeling efforts. The 1 kilogram (kg) per hectare urban loading, when converted to an average concentration, equates to .79 milligrams per Liter (mg/L) as compared to the referenced Minneapolis Park and Recreation Board 2010 Water Resources Report that showed a flow-weighted mean concentration of .332 mg/L to .583 mg/L in their sampling efforts.

We agree that internal loading is a major source of phosphorous levels within Crystal Lake. We would also hope that you agree that CD56 is the major source of external phosphorous loading for Crystal Lake. Both urban and agriculture will need to look at their potential for reducing the amount of external phosphorous load to the lake while working on controlling the internal loading through other in-lake efforts for water quality improvement.

Sixth, in nonpoint source TMDLs, the scope and scale of the project are limited in the ability to identify individual loading. Crystal Lake watershed land uses are primarily agricultural and urban. Modeling efforts are used to generate the potential loading in order to identify implementation activities to reduce phosphorous loading from all sources. The model does not identify individual fields or residences that are contributing at a higher rate within the TMDL process. During implementation, local partners can use model outputs to help identify landowners that are a potential source and evaluate the

John Mages  
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individual landuse at a finer scale. This information can be used to talk with landowners to discuss their land use practices and provide options that can reduce their individual phosphorous loading if necessary. There is no easy fix; the ditch itself is the conveyor for the majority of phosphorous coming to the lake. Any attempt to identify the sources requires talking to individuals on a one-to-one basis to change land use practices that will improve the lake's water quality.

Seventh, this is an area where your contacts with local landowners could aid in the implementation process. A strategy for restoring Crystal Lake's water quality will be included in the Watershed Restoration and Protection Strategy (WRAPS) for the Minnesota River-Mankato watershed. The WRAPS will include an inventory of Best Management Practices (BMP) that are essential to reduce phosphorous loading from the agricultural lands. The Minnesota Corn Growers Association could aid in this process by talking with local growers and organizing meetings to discuss the water quality issues and solutions as many of the BMPs depend on the willingness of landowners to implement the practices.

At this time, there are no efforts to re-evaluate the water quality standards for the Crystal Lake TMDL. The goal will be to work on implementation strategies designed to reduce both external and internal phosphorous loading. Combined, these efforts will help to improve the lake's water quality in order to return Crystal Lake back into a resource that the community can be proud of.

Once again, thank you for your interest and comments for improving Crystal Lake, and we look forward to your input in future planning within the watershed.

Please feel free to contact me at 507-344-5246 or [paul.a.davis@state.mn.us](mailto:paul.a.davis@state.mn.us) if you have any questions on the lake or the TMDL process.

Sincerely,

A handwritten signature in black ink, appearing to read 'Paul Davis', with a stylized flourish at the end.

Paul Davis  
Environmental Specialist 3  
Mankato Office  
Watershed Division

PD:cz

December 7<sup>th</sup>, 2017

Mike Herbst  
Minnesota Pheasants Inc., Blue Earth County Chapter  
P.O. Box 202  
Good Thunder, MN 56137

RE: Crystal Lake TMDL Project Comments

Dear Mr. Herbst:

This letter is in response to your comments on the Crystal Lake Total Maximum Daily Load (TMDL) Project (Project) that was on public notice August 27, 2012, through September 26, 2012. The Minnesota Pollution Control Agency (MPCA) apologizes for the long delay in responding to your comments. The delay was the result of Contested Case Hearing Requests the MPCA received during the public notice period. The MPCA intends to deny the Contested Case Hearing Requests submitted during the public comment period for the Project. After the MPCA Commissioner signs the Findings of Fact and Order denying the requests, the MPCA will submit the TMDL to the Environmental Protection Agency (EPA) for final review and approval. Since the promulgation of the draft TMDL, city, county, and state agencies, as well as interested individuals and groups, have taken steps to develop and implement plans to improve the aesthetic and recreational opportunities in Crystal Lake and the community. Please consider the following in response to your comments.

The MPCA and I thank you for your comments and suggestions on the Project. As we continue to move forward with the TMDL process, we will use your suggestions to work with Minnesota Pheasants Inc., U.S. Fish and Wildlife Service, and the Minnesota Department of Natural Resources as we look at implementation planning and activities after EPA approval.

Once again, thank you for your interest and comments for improving Crystal Lake, and we look forward to your input in future planning within the watershed.

Please feel free to contact me at 507-344-5246 or [paul.a.davis@state.mn.us](mailto:paul.a.davis@state.mn.us) if you have any questions on the lake or the TMDL process.

Sincerely,



Paul Davis  
Environmental Specialist 3  
Mankato Office  
Watershed Division

PD:cz

December 7<sup>th</sup>, 2017

Paul Rosenberg  
51830 Eagle Lane  
Lake Crystal, MN 56055

RE: Crystal Lake TMDL Project Comments

Dear Mr. Rosenberg:

This letter is in response to your comments on the Crystal Lake Total Maximum Daily Load (TMDL) Project (Project) that was on public notice August 27, 2012, through September 26, 2012. The Minnesota Pollution Control Agency (MPCA) apologizes for the long delay in responding to your comments. The delay was the result of Contested Case Hearing Requests the MPCA received during the public notice period. The MPCA intends to deny the Contested Case Hearing Requests submitted during the public comment period for the Project. After the MPCA Commissioner signs the Findings of Fact and Order denying the requests, the MPCA will submit the TMDL to the Environmental Protection Agency (EPA) for final review and approval. Since the promulgation of the draft TMDL, city, county, and state agencies, as well as interested individuals and groups, have taken steps to develop and implement plans to improve the aesthetic and recreational opportunities in Crystal Lake and the community. Please consider the following in response to your comments.

The MPCA and I thank you for your comments on the Project. With your connection as a shoreland resident and business owner that relies on water resources, I understand your interest in improving water quality within Crystal Lake, and all local lakes.

Your discussion of past lake experiences is important to help track changes made within the watershed in the past 10, 20, and even 50 years to understand how the lake has responded to nutrient loading. Looking toward implementation, these stories help us gather local historical context for what the lake can be. I would ask that you and the lake group work together with local government and other interested partners in telling the tale of the watershed, beginning the process of communication and cooperation between all individuals needed to restore the lake as a recreational resource.

We feel that if the water quality standards can be met, there is the potential to return Crystal Lake back into a resource that the community can be proud of. Trying to bring together a local group that determines goals for restoration is important. With the community as the lead, the frustration and apathy can be replaced by local actions that continue to improve both aesthetic and recreational opportunities.



Paul Rosenberg  
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Once again, thank you for your interest and comments for improving Crystal Lake, and we look forward to your input in future planning within the watershed.

Please feel free to contact me at 507-344-5246 or [paul.a.davis@state.mn.us](mailto:paul.a.davis@state.mn.us) if you have any questions on the lake or the TMDL process.

Sincerely,

A handwritten signature in black ink, appearing to be 'PD', written over a horizontal line.

Paul Davis  
Environmental Specialist 3  
Mankato Office  
Watershed Division

PD:cz

**APPENDIX C**  
**In the Matter of the Decision**  
**to Deny the Petitions for a Contested Case Hearing and**  
**to Submit the Draft Little Rock Creek Dissolved Oxygen, Nitrate, Temperature,**  
**and Fish Bioassessment Total Maximum Daily Load Study to the**  
**U.S. Environmental Protection Agency for Approval.**  
**Minn. Ct. of Appeals, A16-0123, filed November 28, 2016, unpublished.**  
**Cert. Denied February 14, 2017.**

*This opinion will be unpublished and  
may not be cited except as provided by  
Minn. Stat. § 480A.08, subd. 3 (2014).*

**STATE OF MINNESOTA  
IN COURT OF APPEALS  
A16-0123**

In the Matter of the Decision  
to Deny the Petitions for a Contested Case Hearing and  
to Submit the Draft Little Rock Creek Dissolved Oxygen, Nitrate, Temperature,  
and Fish Bioassessment Total Maximum Daily Load Study to the  
U.S. Environmental Protection Agency for Approval.

**Filed November 28, 2016  
Affirmed  
Reilly, Judge**

Minnesota Pollution Control Agency

Matthew C. Berger, Dean M. Zimmerli, Gislason & Hunter LLP, New Ulm, Minnesota  
(for relators Duane Kroll, et al.)

Lori Swanson, Attorney General, Ann E. Cohen, Assistant Attorney General, St. Paul,  
Minnesota (for respondent Minnesota Pollution Control Agency)

Considered and decided by Reilly, Presiding Judge; Halbrooks, Judge; and Johnson,  
Judge.

**UNPUBLISHED OPINION**

**REILLY, Judge**

Relator-landowners petitioned for certiorari review of the Minnesota Pollution Control Agency's (the MPCA) decision to submit a Total Maximum Daily Load (TMDL) study of the Little Rock Creek watershed area to the Environmental Protection Agency (the EPA) for approval pursuant to the federal Clean Water Act, 33 U.S.C. § 1313(d) (2012)

(the CWA). The MPCA asserts that (1) relators lack standing to pursue this certiorari appeal; (2) the MPCA's decision is supported by the record; and (3) relators are not entitled to a contested-case hearing. We determine that relators have standing through a legislative enactment granting standing. However, because relators have not met their burden of demonstrating that the MPCA's decision was unsupported by the record and the MPCA did not err by denying a contested-case hearing, we affirm.

## FACTS

### I. Parties

Relators are residents, landowners, and farmers near the Little Rock Creek watershed. The MPCA is the state agency charged with enforcing the CWA and has the authority to “administer and enforce all laws relating to the pollution of any of the waters of the state.” Minn. Stat. §115.03, subd. 1(a) (2014); *Minn. Env'tl. Sci. & Econ. Review Bd. v. Minn. Pollution Control Agency*, 870 N.W.2d 97, 99 (Minn. App. 2015).

### II. Statutory and Regulatory Framework

The stated objective of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the Nation's waters.” 33 U.S.C. § 1251(a) (2012). To attain this objective, the CWA provides two methods for controlling water pollution: effluent limitations and water quality standards. *Arkansas v. Oklahoma*, 503 U.S. 91, 101, 112 S. Ct. 1046, 1054 (1992). “Effluent limitations” restrict the “quantities, rates, and concentrations of chemical, physical, biological, and other constituents” discharged from point sources into waterways. *Id.*; 33 U.S.C. § 1362(11) (2012). “Point sources” are “any discernible, confined and discrete conveyance” from which pollutants are or may be

discharged including pipes, ditches, tunnels, wells, and other containers. 33 U.S.C. § 1362(14) (2014). Unlike point source discharges, “nonpoint-source discharges” are not explicitly defined by the CWA, but have been described as “nothing more than a water pollution problem not involving a discharge from a point source.” *Def. of Wildlife v. U.S. Env’tl. Prot. Agency*, 415 F.3d 1121, 1124 (10th Cir. 2005) (quotation omitted).<sup>1</sup>

“Water quality standards set the permissible level of pollution in a specific body of water without direct regulation of the individual sources of pollution.” *City of Arcadia v. U.S. Env’tl. Prot. Agency*, 411 F.3d 1103, 1105 (9th Cir. 2005). The CWA requires each state to adopt water quality standards for bodies of water within the state’s boundaries that “establish the desired condition of a body of water.” *In re Cities of Annandale & Maple Lake NPDES/SDS Permit*, 731 N.W.2d 502, 510 (Minn. 2007); 33 U.S.C. § 1313(a)-(c). After establishing its water quality standards, a state is required by the CWA to identify “impaired” bodies of water within its boundaries that fail to meet those standards. 33 U.S.C. § 1313(d)(1)(a); 40 C.F.R. § 130.7(b). This list of substandard waters is known as the “§ 303(d) list” or the “impaired waters” list. *Thomas v. Jackson*, 581 F.3d 658, 661, 667 (8th Cir. 2009). When creating a § 303(d) list, a state “must assemble and evaluate all existing and readily available water quality-related data and information.” *Id.* at 661 (citing 40 C.F.R. § 130.7(b)(5)).

For each impaired body of water on the § 303(d) list, the state must establish a TMDL for each pollutant the water can sustain without exceeding water quality standards.

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<sup>1</sup> A number of federal courts have rendered decisions arising out of the federal Clean Water

Act, 33 U.S.C. § 1313(d), and we find the reasoning in these federal decisions to be persuasive authority in the present case.

*Id.* at 662; 33 U.S.C. § 1313(d)(1)(C) (articulating this requirement). A TMDL is defined as:

the sum of the pollutant load allocations for all sources of the pollutant, including a wasteload allocation for point sources, a load allocation for nonpoint sources and natural background, an allocation for future growth of point and nonpoint sources, and a margin of safety to account for uncertainty about the relationship between pollutant loads and the quality of the receiving surface water.

Minn. Stat. § 114D.15, subd. 10 (2014) (defining TMDL as “a scientific study that contains a calculation of the maximum amount of a pollutant that may be introduced into a surface water and still ensure that applicable water quality standards for that water are restored and maintained”); 40 C.F.R. § 130.2(g)-(i) (defining load allocation, wasteload allocation, and TMDL allocation); 33 U.S.C. § 1362(6) (defining “pollutant” as “dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water”). The state must submit its § 303(d) list and the TMDL to the EPA for approval. 33 U.S.C. § 1313(d)(2). The EPA will either approve or disapprove the state’s § 303(d) list within 30 days of submission and, if the EPA disapproves a state’s § 303(d) list, it will establish its own list within 30 days of the date of disapproval. 40 C.F.R. § 130.7(d)(2).

### **III. Factual and Procedural Background**

Little Rock Creek is a DNR-designated trout stream in central Minnesota. The land-use in the watershed area consists of approximately 50% crops, 14% woodland, 22% grass

and pasture, 13% water and wetlands, and less than 1% residential development. The area is considered “highly altered by human influenced agricultural land uses.”

In 2002, the MPCA proposed placing Little Rock Creek on the § 303(d) list for lack of coldwater fish assemblage and “due to a biological impairment as indicated by a poor warmwater fish . . . score” on the Indices of Biological Integrity. The EPA approved this designation in 2003. During the 2006 assessment cycle, Little Rock Creek was removed from the § 303(d) list when an examination revealed that it was designated as a Class 2A coldwater stream and, at that time, the MPCA lacked the tools to properly assess the biology of coldwater streams. In 2010, the MPCA again placed Little Rock Creek on the § 303(d) list because it failed to meet water quality standards for dissolved oxygen and nutrients, and due to the “lack of a coldwater assemblage.” The EPA approved the list in 2012.

Following Little Rock Creek’s initial placement on the § 303(d) list in 2002, the MPCA began working with the Benton County Soil and Water Conservation District and the Morrison County Soil and Water Conservation District (the SWCDs) on the Little Rock Creek TMDL, using a three-phased approach.

In phase I, the MPCA collected and organized existing data and developed a list of potential stressors on the Little Rock Creek watershed area.

In phase II, the MPCA, in conjunction with the SWCDs, produced a Stressor Identification Report to “identify stressors contributing to [the] lack of cold water fish assemblage in Little Rock Creek.” “Stressors” are “[the] specific physical and/or chemical factors that . . . caus[e] [a] biological impairment.” The MPCA invited local, state, and

federal agencies, interest groups, organizations, and citizens to participate in the process and provide input into the development of the TMDL. The Stressor Identification Report was published in 2009 and included watershed data, stakeholder meeting comments, technical group meetings and coordination information, causal analysis, and stressor identification documentation, “contain[ing] the complete stressor identification for lack of cold water fish assemblage.” The study “used a variety of methods to evaluate the current loading and contributions from the various pollutant sources,” along with “the allowable pollutant loading capacity of the impaired reaches.” The report concluded that “it is probable that altered flow, temperature, sediment, dissolved oxygen, and nitrates may be causing a biological impairment in Little Rock Creek.”

Following the release of the Stressor Identification Report, the MPCA developed a draft TMDL work plan in phase III of the project for “temperature, bedded sediment, nitrates, and dissolved oxygen, by calculating the total pollutant load with reference to flow as [a] source of impairment.” The specific objective of the TMDL was to “determine the type and degree of pollutant source reductions needed to achieve the water quality standards . . . for drinking water . . . [and] temperature” in the water. The TMDL advised that in order to satisfy water quality standards, Little Rock Creek required a 52% reduction in total oxygen demand; a 19-47% reduction in the nitrate load, depending on flow conditions; and a 1% reduction in thermal loading. The TMDL developed an implementation plan to address the water’s stressors and their sources. The TMDL stated that the “ideal combination” of implementation strategies and best management practices would include: (1) reducing groundwater use, which could include limiting total



appropriations, improving irrigation efficiency, scheduling and technologies, and identifying alternative sources; (2) reducing nutrient and organic constituents; and (3) creating “more of a free flowing system” to improve connectivity and temperature issues.

The MPCA submitted its draft TMDL to the EPA in November 2012 for preliminary review. The EPA provided comments on the TMDL, which the MPCA incorporated. The MPCA held a public comment period and posted a draft of the study on its website. The MPCA received, and responded to, nine timely written comments.

The MPCA’s approval of a TMDL is a final decision of the agency and is subject to the contested-case hearing procedures of the Administrative Procedure Act. Minn. Stat. § 114D.25, subd. 2 (2014); Minn. Stat. Ann. § 14.57(a) (2014). The MPCA received two timely petitions for a contested-case hearing on Little Rock Creek’s TMDL study. The petitions are largely identical and raised issues relating to “(1) the natural backgrounds in load allocations; and (2) the effect of reducing nitrate loading on bio-accumulative toxin methyl-mercury and for blue-green algae.” The MPCA determined that “the petitions do not meet the threshold petition content requirements by stating reasons to hold a [contested-case hearing] and by stating issues to be addressed and specific relief requested.” The MPCA concluded that “the issues raised . . . do not meet the requirements for granting a [contested-case hearing]” and denied the petitions.

This certiorari appeal follows.

## DECISION

### **I. Relators have standing to pursue this appeal.**

#### **a. Standard of Review**

“Standing is a legal requirement that a party have a sufficient stake in a justiciable controversy to seek relief from a court.” *McCaughtry v. City of Red Wing*, 808 N.W.2d 331, 338 (Minn. 2011) (quotation and citation omitted). Standing is conferred upon a party in one of two ways: either the plaintiff has suffered an injury-in-fact or the plaintiff maintains a statutory right to sue. *Nash v. Wollan*, 656 N.W.2d 585, 588 (Minn. App. 2003). “The purpose of the standing requirement is to ensure that issues before the court will be vigorously and adequately presented.” *State ex rel. Hatch v. Allina Health Sys.*, 679 N.W.2d 400, 404 (Minn. App. 2004) (quotations omitted). Because standing is a jurisdictional issue, we evaluate standing determinations de novo. *In re Custody of D.T.R.*, 796 N.W.2d 509, 512 (Minn. 2011).

#### **b. A legislative enactment grants relators standing.**

The MPCA challenges relators’ standing to pursue this appeal. Standing may be acquired “when a party is the beneficiary of some legislative enactment granting standing.” *Citizens for a Balanced City v. Plymouth Congregational Church*, 672 N.W.2d 13, 18 (Minn. App. 2003) (quotation omitted). Minnesota Statutes section 114D.25, subdivision 2, provides that “[t]he approval of a TMDL by the [MPCA] is a final decision of the agency for purposes of section 115.05, and is subject to the contested case procedures of sections 14.57 to 14.62.” Minnesota Statutes section 115.05, subdivision 11 (2014), provides that

“[a]ny person aggrieved by any final decision of the [MPCA] may obtain judicial review thereof pursuant to sections 14.63 to 14.69.”

The MPCA argues that relators are not “aggrieved” parties within the meaning of section 115.05. An “aggrieved person” is

one who is injuriously or adversely affected by the judgment or decree when it operates on his rights of property or bears directly upon his personal interest. The word “aggrieved” refers to a substantial grievance, a denial of some personal or property right, or the imposition on a party of a burden or obligation.

*In re Application by City of Rochester for Adjustment of Serv. Area Boundaries*, 524 N.W.2d 540, 542 n.1 (Minn. App. 1994) (citing *In re Getsug*, 290 Minn. 110, 114, 186 N.W.2d 686, 689 (1971)).

Relators argue that they are aggrieved parties because they will be affected by the pollutant load limits imposed as a result of the Little Rock Creek TMDL, including lower property values and compliance costs. The MPCA argues that relators’ claims are too speculative and remote at this stage because the draft TMDL was merely “one step in a long chain” that may eventually cause relators “unspecified injuries.” *See, e.g., Missouri Soybean Ass’n v. U.S. E.P.A.*, 289 F.3d 509, 513 (8th Cir. 2002) (dismissing case on jurisdictional grounds where appellants challenged the EPA’s approval of Missouri’s § 303(d) list because appellants’ claims of potential harm were too remote).

We previously rejected a similar argument. In *Minn. Env’tl. Sci. & Econ. Review Bd.*, municipalities, public-utilities commissions, sanitary sewer districts, and farmers who were potentially affected by changes in clean-water rules sought declaratory judgment in a pre-enforcement challenge to water quality standards promulgated by the MPCA. 870 N.W.2d

at 98-99. The MPCA argued that petitioners lacked standing because they “fail[ed] to specify any specific rights which [were] currently affected” and their potential harms were “too tenuous and rel[ied] on too many indeterminate assumptions” to establish standing. *Id.* at 100. We disagreed and determined that petitioners had standing to bring an action for a pre-enforcement declaratory judgment. *Id.* at 100-01 (stating that petitioners were among “the class of persons who would be affected” by a change in water quality standards and had a “more particularized interest” in the outcome of the decision).

The Third Circuit Court of Appeals also determined that standing existed in a similar case. In *Am. Farm Bureau Fed’n v. U.S. E.P.A.*, the EPA published the TMDL of pollutants nitrogen, phosphorous, and sediment that could be released into Chesapeake Bay. 792 F.3d 281 (3d Cir. 2015), *cert. denied sub nom. Am. Farm Bureau Fed’n v. E.P.A.*, 136 S. Ct. 1246 (2016). Appellants were trade associations with members who would be affected by implementation of the TMDL. *Id.* at 287. The appellate court raised the issue of standing sua sponte. *Id.* at 292. The court acknowledged that there was “a plausible argument that [appellants’] injury is insufficiently particularized and too speculative,” as it was unclear “precisely what form new regulations will take.” *Id.* at 293. However, the court also recognized that appellants would “incur compliance costs when the TMDL is implemented and enforcement mechanisms are put in place,” and determined that appellants had standing to challenge the EPA’s approval of the TMDL. *Id.* at 292-94.

Because relators stand to be adversely affected by a final decision from the MPCA which bears directly upon their personal interest, we determine that relators fit within the definition of an “aggrieved party” and have statutory standing to challenge the MPCA’s

action.<sup>2</sup>

**II. The MPCA’s decision was supported by the factual record and by controlling federal and state law.**

**a. Standard of Review**

The MPCA’s approval of a TMDL is a “final decision of the agency for purposes of section 115.05.” Minn. Stat. § 114D.25, subd. 2. We review a final decision of the MPCA under the Minnesota Administrative Procedures Act, Minn. Stat. §§ 14.63-.69 (2014). Minn. Stat. § 115.05, subd. 11. We will affirm the MPCA’s decision unless its findings, inferences, conclusions or decisions are affected by an error of law, unsupported by substantial evidence in view of the entire record as submitted, or are arbitrary and capricious. Minn. Stat. § 14.69(b)-(f) (2014). We afford the decision of an administrative agency “a presumption of correctness” and defer to the agency’s expertise. *In re N. Dakota Pipeline Co. LLC*, 869 N.W.2d 693, 696 (Minn. App. 2015), *review denied* (Minn. Dec. 15, 2015) (citation omitted). We defer to the agency’s decision as long as it is reasonable and supported by substantial evidence, and we will not replace the agency’s findings with our own. *In re Rocheleau*, 686 N.W.2d 882, 891 (Minn. App. 2004), *review denied* (Minn. Dec. 22, 2004). However, we are not bound by an agency’s rulings on matters of law and we review legal issues de novo. *Cable Commc’ns Bd. v. Nor-west Cable Commc’ns P’ship*, 356 N.W.2d 658, 668-69 (Minn. 1984). “On appeal, the party challenging the agency’s decision [bears] the burden of proof.” *In re Reichmann Land & Cattle, LLP*, 847 N.W.2d

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<sup>2</sup> The MPCA also challenges whether relators have injury-in-fact standing. Because we determine that relators may assert a claim as aggrieved persons, we do not reach this argument.

42, 46 (Minn. App. 2014), *aff'd*, 867 N.W.2d 502 (Minn. 2015).

**b. The MPCA’s approval of the TMDL without a separate determination of “natural background” sources was neither an error of law nor arbitrary and capricious.**

EPA regulations define the TMDL for a pollutant as the sum of (1) the “wasteload allocation” for point source pollution; (2) the “load allocation” for nonpoint source or natural background pollution; and (3) a margin of safety. *See* 40 C.F.R. § 130.2(g)-(i); Minn. Stat. § 114D.15, subd. 10. “Natural background” includes those characteristics of a body of water “resulting from the multiplicity of factors in nature, including climate and ecosystem dynamics, that affect the physical, chemical, or biological conditions in a water body, but does not include measurable and distinguishable pollution that is attributable to human activity or influence.” Minn. Stat. § 114D.15, subd. 10.

In its report to the EPA, the MPCA explained its methodology for arriving at load allocations, wasteload allocations, and margins of safety.<sup>3</sup> The MPCA attributed zero discharge to point source categories such as wastewater treatment facilities, concentrated animal feeding operations, construction activities, and municipal and industrial stormwater sources. The MPCA attributed less than one percent to construction and industrial

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<sup>3</sup> “Wasteload allocation” is “[t]he portion of a receiving water’s loading capacity that is allocated to one of its existing or future point sources of pollution.” 40 C.F.R. § 130.2(h). “Load allocation” is “[t]he portion of a receiving water’s loading capacity that is attributed either to one of its existing or future nonpoint sources of pollution or to natural background sources.” *Id.*, (g). Load allocations are “best estimates of the loading” and range “from reasonably accurate estimates to gross allotments, depending on the availability of data and appropriate techniques for predicting the loading.” *Id.*

stormwater, and applied a ten-percent margin of safety “to account for uncertainty” in the allocation. The remaining 89.9% was attributed to “nonpoint pollution sources” and “natural background sources.”

Relators argue that the MPCA failed to separately distinguish the pollutant loads attributable to the “natural background” of Little Rock Creek from those attributable to nonpoint source loads. “Wherever possible, natural and nonpoint source loads should be distinguished.” 40 C.F.R. § 130.2(g). The MPCA acknowledges that the TMDL did not include a separate load allocation for natural background sources, but notes that “nearly the entire pollutant loading to Little Rock Creek is from nonpoint sources and natural background, and current research is not sufficient to differentiate between nonpoint and natural background sources of pollutants.” Our review of the record supports the MPCA’s assertion that “consideration of natural background enter[ed] into essentially every phase of MPCA water quality programs.” By way of example, the Stressor Identification Report reveals that the MPCA considered “physical,” “chemical,” “biological,” and “other” stressors in the Little Rock Creek watershed, and eliminated physical stressors such as “[e]levation, habitat variety, in-stream habitat, land use, riparian zone, warm-water vs. cold-water environments, lakebed sediment, and wetlands/drainage” because such natural background sources “were not deemed to be primary causes of impairment based on the group’s professional judgment.” Instead, the MPCA determined that the Little Rock Creek watershed area “is highly altered by human influenced agricultural landuses.”

The record supports the conclusion that the MPCA gathered and considered natural background sources but did not assign a separate load allocation to those sources due to

their marginal impact on Little Rock Creek’s overall water quality. This determination is consistent with *Sierra Club, N. Star Chapter v. Browner*, 843 F. Supp. 1304 (D. Minn. 1993). The *Sierra Club* court recognized that the “plain language” of clean water regulations requires consideration of “both point, nonpoint, and natural sources” of pollutants in the water. *Id.* at 1313. In that case, the court found “no evidence” that the MPCA failed to consider nonpoint and natural sources of pollution when it developed the TMDL, and noted that the TMDLs may be based on point source pollution “when nonpoint and background sources have relatively little impact on water quality.” *Id.* at 1314.

Relators argue that the “plain language” of the statute requires the MPCA to develop a separate load allocation for the natural background of Little Rock Creek. Federal law instructs an agency to distinguish between natural and nonpoint source loads “[w]herever possible.” 40 C.F.R. § 130.2(g). However, Minnesota law does not compel the MPCA to develop a separate load allocation for natural background sources, distinct from nonpoint sources. A review of the statutory language is instructive. Chapter 114D defines a TMDL as “the sum of pollutant load allocations for all sources of the pollutant” based on four elements: “a wasteload allocation for point sources, a load allocation for nonpoint sources and natural background, an allocation for future growth of point and nonpoint sources, and a margin of safety.” Minn. Stat. § 114D.15, subd. 10. Relators argue that “nonpoint sources” and “natural background” should be interpreted as separate elements. This interpretation is not supported by the plain and unambiguous language of the statute. The portion of the statute that defines TMDL contains four clauses, each of which is separated by a comma from the other clauses. *Id.* The phrase “a load allocation for nonpoint sources



and natural background” is set off by commas from the remaining three clauses. *Id.* If “nonpoint sources” and “natural background” were intended to be read separately they would have been separated by a comma or other disjunctive phrase. *See, e.g., State v. Rausch*, 799 N.W.2d 19, 23 (Minn. App. 2011) (advising that statutory language that is not “subdivided or separated” should be read as a whole) (citing *Munger v. State*, 749 N.W.2d 335, 338 (Minn. 2008) (stating that under “normal rules of grammatical construction,” a statute’s several parts will be interpreted separately when signified by a disjunctive conjunction or separated by a comma)). Here, “nonpoint sources” and “natural background” are not separated by a comma or otherwise set apart from one another. *See* Minn. Stat. § 114D.15, subd. 10. Thus, according to a plain and ordinary reading of the statute, the legislature chose not to separate “nonpoint sources” from “natural background.” Therefore, relators’ assertion that the statute requires the MPCA to develop an independent load allocation for nonpoint sources, as well as a second load allocation for natural background, is not well-founded. *See Dupey v. State*, 868 N.W.2d 36, 39 (Minn. 2015) (“[I]f the statutory language is unambiguous, [the court] must enforce the plain meaning of the statute and not explore the spirit or purpose of the law.”); *Christianson v. Henke*, 831 N.W.2d 532, 536 (Minn. 2013) (discussing statutory interpretation).

Relators also argue that Minn. R. 7050.0170 “establishes a simple procedure for determining the ‘natural background’” that the MPCA failed to utilize. Rule 7050.0170 provides that “[n]atural conditions exist where there is no discernible impact from point or nonpoint source pollutants attributable to human activity or from a physical alteration of wetlands.” *Id.* These “[n]atural background levels are defined by water quality

monitoring.” *Id.* “Where water quality monitoring data are not available, background levels can be predicted based on data from a watershed with similar characteristics.” *Id.* “Where background levels exceed applicable standards, the background levels may be used as the standards for controlling the addition of the same pollutants from point or nonpoint source discharges in place of the standards.” *Id.* Rule 7050.0170 does not control our analysis because relators have not identified any facts in the record suggesting that the natural background levels “exceed applicable standards.” Moreover, rule 7050.0170 provides only that the agency “may” use natural background levels, and statutory construction informs us that “[m]ay’ is permissive.” Minn. Stat. § 645.44, subd. 15 (2014).

On appeal, this court defers to the MPCA’s expertise, *In re N. Dakota Pipeline Co. LLC*, 869 N.W.2d at 696, and we do not replace the agency’s findings with our own. *In re Rocheleau*, 686 N.W.2d at 891. Based upon the agency record before us, along with our de novo review of the governing statutory framework, we determine that the MPCA did not err by considering nonpoint sources and natural background sources together in the creation of the Little Rock Creek TMDL.

**c. The MPCA did not exceed its scope of authority.**

Relators argue that the MPCA exceeded the scope of its authority in approving the TMDL because only the DNR may regulate and control water usage in Minnesota. *See* Minn. Stat. § 103G.255 (2014) (authorizing the commissioner of natural resources to allocate and control the waters of the state). Relators have not provided authority to support this contention. Federal regulations require states to establish TMDLs for water quality for

impaired waters and require that “[d]eterminations of TMDLs shall take into account critical conditions for stream flow, loading, and water quality parameters.” 40 C.F.R. § 130.7(c)(1) (2014). A TMDL also accounts for “the normal water temperatures, flow rates, seasonal variations, existing sources of heat input, and the dissipative capacity of the identified waters” in determining the total maximum thermal load where water temperature is an issue. *Id.*, (c)(2); *see also* 33 U.S.C. § 1313(c)(2)(A) (providing that a state’s water quality standards must be established “taking into consideration [each body of water’s] use and value”). For the reasons stated above, the MPCA correctly followed the procedures outlined by federal and state law in establishing a TMDL for Little Rock Creek and did not exceed its authority.

### **III. The denial of a contested-case hearing was not error.**

We review the denial of a contested-case hearing request under Minn. Stat. § 14.69. *In re Solid Waste Permit for the NSP Red Wing Ash Disposal Facility*, 421 N.W.2d 398, 403 (Minn. App. 1988), *review denied* (Minn. May 18, 1988). A contested-case hearing must be held if:

- A. there is a material issue of fact in dispute concerning the matter pending before the board or commissioner;
- B. the board or commissioner has the jurisdiction to make a determination on the disputed material issue of fact; and
- C. there is a reasonable basis underlying the disputed material issue of fact or facts such that the holding of a contested case hearing would allow the introduction of information that would aid the board or commissioner in resolving the disputed facts in making a final decision on the matter.

Minn. R. 7000.1900, subp. 1 (2009).

The party requesting a contested-case hearing bears the “burden of demonstrating the existence of material facts that would aid the agency before [it is] entitled to a contested case hearing.” *Red Wing Ash Disposal Facility*, 421 N.W.2d at 404. Conversely, a contested-case hearing is unnecessary if there are no material facts in dispute. *In re Kandiyohi Co-op. Elec. Power Ass’n*, 455 N.W.2d 102, 106 (Minn. App. 1990). The MPCA has wide discretion to determine whether a party has met its burden to show that a contested-case hearing is warranted. *See, e.g., In re N. States Power Co. v. Wilmarth Indust. Solid Waste Incinerator Ash Storage Facility*, 459 N.W.2d 922, 923 (Minn. 1990).

Relators argue that the MPCA erred by denying their request for a contested-case hearing. The MPCA denied relators’ hearing requests on the ground that the petitions “fail[ed] to show the existence of a disputed material issue of fact” and instead disputed “the interpretation and application of law and guidance.” We agree. Relators’ petitions argued that nonpoint sources must be distinguished from natural background sources, and urged the MPCA to “properly determine the natural background levels of the load allocation” in light of this argument. The MPCA reasoned that hearings were unnecessary because relators’ petitions asserted questions of law or policy, as opposed to questions of fact.<sup>4</sup>

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<sup>4</sup> On appeal, relators argue that the MPCA must make further findings on the natural background levels, which could be more completely resolved through the introduction of testimony and evidence at a hearing. Relators contend that they will submit evidence in the form of scientific studies, reports, and expert witness testimony to aid in establishing load allocations. However, relators have not offered specific facts or information buttressing this argument. *See Red Wing Ash Disposal Facility*, 421 N.W.2d at 404 (stating that party failed to raise any fact issues which could be resolved in a contested-case hearing because they did not provide “any indication of what specific new facts an expert might

We therefore conclude that the MPCA did not err by declining to grant a contested-case hearing where the petitions asserted legal, rather than factual, arguments. *See Costle v. Pac. Legal Found.*, 445 U.S. 198, 204, 100 S. Ct. 1095, 1100 (1980) (“If a request for an adjudicatory hearing raises only legal issues, a hearing will not be granted[.]”); *In re Kandiyohi Co-op. Elec. Power Ass’n*, 455 N.W.2d at 106 (“Where no genuine or material issue of fact is presented the court or administrative body may pass upon the issues of law after according the parties the right of argument.”) (quotations omitted).

**Affirmed.**

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testify to”); Minn. R. 7000.1800, subp. 2(a) (predicating a hearing on the existence of a material issue of fact which supports “a board or commissioner decision to hold a contested case hearing”).