

**STATE OF MINNESOTA
MINNESOTA POLLUTION CONTROL AGENCY**

**IN THE MATTER OF THE DECISION
ON THE NEED FOR AN ENVIRONMENTAL
IMPACT STATEMENT FOR THE PROPOSED
BIG LAKE WASTEWATER TREATMENT
FACILITY EXPANSION
SHERBURNE COUNTY
BIG LAKE, MINNESOTA**

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

FINDINGS OF FACT

Pursuant to Minn. R. 4410.1000 - 4410.1600 (2003), the Minnesota Pollution Control Agency (MPCA) staff has prepared an Environmental Assessment Worksheet (EAW) for the proposed project. Based on the MPCA staff environmental review, comments, and information received during the comment period, and other information in the record of the MPCA, the MPCA hereby makes the following Findings of Fact, Conclusions of Law, and Order.

FACILITY HISTORY

Overview

The city of Big Lake (City) is proposing an expansion of its existing wastewater treatment facility (WWTF) to treat an average wet weather (AWW) design flow of 2.19 million gallons per day (mgd). The expansion will occur on the site of the existing WWTF and continue to discharge to the Mississippi River, an Outstanding Resource Value Water (ORVW). The proposed improvements are designed to meet wastewater needs for the City through the design year 2023. Currently, the WWTF has an AWW design flow of 0.840 mgd.

Permitting History

The WWTF is regulated by the MPCA through a National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Permit. The Big Lake WWTF was first constructed in 1982 with a direct discharge to the Mississippi River at a permitted design flow of 0.363 mgd. For purposes of applying nondegradation requirements, this original design establishes the pollutant loading limitations allowed by the MPCA on the effective date of ORVW designation for the Mississippi River in November 1984. The applicable permitted mass loading for Carbonaceous Biochemical Oxygen Demand (CBOD₅) was 34.3 kilograms per day (kg/day) and 41.2 kg/day for Total Suspended Solids (TSS). The WWTF was subsequently expanded in 1999 to treat an AWW design flow of 0.840 mgd. Because the WWTF continued to be permitted at the established nondegradation mass load limitations for CBOD₅ and TSS, that hydraulic expansion did not meet the definition of “expanded discharge” under Minn. R. 7050.0180, subp. 2. Therefore, nondegradation considerations were satisfied at the time of the 1999 expansion.

Previous Environmental Review

Environmental review was conducted during the summer of 1997 for the 1999 expansion of the WWTF. The MPCA was the responsible governmental unit for the project and issued a negative declaration on the need for an Environmental Impact Statement (EIS) on September 30, 1997.

PROPOSED PROJECT DESCRIPTION

Proposed Expansion

The City proposes to expand the existing WWTF to an AWW design flow capacity of 2.19 mgd, and an average dry weather flow capacity of 1.96 mgd. The existing facilities will continue to be used to treat wastewater during construction and after the expansion is complete. Construction will include new preliminary treatment facilities, biological phosphorus removal selector basins, two oxidation ditches, two new final clarifiers, expansion of the UV (ultraviolet) disinfection facility, new tertiary filters and new Class A biosolids treatment and storage facilities. The site of the existing WWTF has room for the proposed improvements. It is expected that site construction will be completed on approximately 8.0 acres of land. Construction of the improvements will take approximately 540 days to complete. Since the WWTF's discharge is to an ORVW, the City has opted to have the WWTF designed to freeze the mass loadings of pollutants to that of the November 1984 discharge levels and satisfy nondegradation considerations.

Environmental Concerns

The following environmental concerns associated with the proposed expansion of the WWTF were identified and addressed in the EAW:

- Potential for noise and dust during the construction phase;
- Stormwater runoff and erosion and sedimentation during construction;
- Water quality impacts to the receiving water; and
- Cumulative impacts from secondary development.

Specific Concerns Described in Comment Letters

One comment letter was received by the MPCA during the 30-day public notice comment period. The comment letter was submitted by the Minnesota Department of Natural Resources (DNR). The DNR expressed concerns about the need for the City to obtain a conditional use permit from Sherburne County because it appears that a portion of the project might extend into the Mississippi River Wild and Scenic River District. The DNR comment letter also expressed concerns about increasing stormwater volumes and loadings from municipal growth along the Mississippi River Wild and Scenic River District.

PROCEDURAL HISTORY

1. Pursuant to Minn. R. 4410.4300, subp. 18.B., an EAW was prepared by MPCA staff on the proposed project. Pursuant to Minn. R. 4410.1500 (2003), the EAW was distributed to the Environmental Quality Board (EQB) mailing list and other interested parties on March 24, 2006.

2. The MPCA notified the public of the availability of the EAW for public comment. A news release was provided to media in Sherburne County, as well as other interested parties on March 29, 2006. In addition, the EAW was published in the *EQB Monitor* on March 27, 2006, and made available for review on the MPCA Web site at <http://www.pca.state.mn.us/news/eaw/index.html> on March 28, 2006.
3. The public comment period for the EAW began on March 27, 2006, and ended on April 26, 2006. During the 30-day comment period, the MPCA received one comment letter from a government agency and received no comment letters from citizens.
4. The MPCA prepared responses to all comments received during the 30-day public comment period. Comment letters and the MPCA responses to comments received have been hereby incorporated by reference as Appendix A to these findings.

**CRITERIA FOR DETERMINING THE POTENTIAL FOR
SIGNIFICANT ENVIRONMENTAL EFFECTS**

5. Under Minn. R. 4410.1700 (2003), the MPCA must order an EIS for projects that have the potential for significant environmental effects that are reasonably expected to occur. In deciding whether a project has the potential for significant environmental effects, the MPCA must compare the impacts that may be reasonably expected to occur from the project with the criteria set forth in Minn. R. 4410.1700, subp. 7 (2003). These criteria are:
 - A. the type, extent, and reversibility of environmental effects;
 - B. cumulative potential effects of related or anticipated future projects;
 - C. the extent to which the environmental effects are subject to mitigation by ongoing public regulatory authority; and
 - D. the extent to which environmental effects can be anticipated and controlled as a result of other available environmental studies undertaken by public agencies or the project proposer, including other EISs.

**THE MPCA FINDINGS WITH RESPECT TO EACH OF THESE CRITERIA
ARE SET FORTH BELOW**

Type, Extent, and Reversibility of Environmental Effects

6. The first criterion that the MPCA must consider, when determining if a project has the potential for significant environmental effects that are reasonably expected to occur, is the "type, extent, and reversibility of environmental effects" Minn. R. 4410.1700, subp. 7.A (2003). The MPCA findings with respect to each of these factors are set forth below.

7. Reasonably expected environmental effects of this project to **air quality**:
 - A. Noise
 - B. Dust
8. The **extent** of any potential air quality effects that are reasonably expected to occur:
 - A. Noise will be generated by heavy equipment and truck traffic during construction. Hours of construction will be limited to daylight hours to minimize the impact on residences located in the vicinity of the project.
 - B. Dust may be generated during construction from truck traffic and from construction activities at the WWTF site, depending on weather conditions. Dust impacts would typically be mitigated through the use of water, as needed, to suppress the dust. The dust should not significantly impact residents due to their distances from the project site.
9. The **reversibility** of any potential air quality effects that are reasonably expected to occur:

The MPCA finds that any potential effect that is reasonably likely to occur from this project would be reversible. As discussed above, the expected effects on air quality are minimal. There is no reason to believe that this project is reasonably expected to cause a significant negative effect on air quality.
10. Comments received that expressed concerns regarding potential effects to air quality:

No comments regarding noise and dust were received during the 30-day comment period.
11. The MPCA finds that the environmental review is adequate to address the concerns because:

All potential impacts to air quality that are reasonably expected to occur from the proposed project have been considered during the review process and methods to prevent these impacts have been developed.
12. The MPCA finds that the project, as it is proposed, does not have the potential for significant environmental effects based on the type, extent, and reversibility of environmental effects reasonably expected to occur as a result of its air emissions.
13. Reasonably expected environmental effects of this project to **water quality**:
 - A. Stormwater runoff from construction of the expanded WWTF;
 - B. Stormwater impacts from enabled development; and
 - C. Water quality impacts to the Mississippi River from the expanded discharge.

14. The extent of any potential water quality effects that are reasonably expected to occur:
- A. The project will generate reasonably expected environmental effects associated with stormwater runoff and erosion during construction of the expanded WWTF. Stormwater runoff from the project will not have any significant impact on downstream waters as the disturbance to the area will be temporary in nature. The site of the project contains no steep slopes or highly erodible soils. The City will be required to obtain an NPDES General Stormwater Permit for Construction Activity from the MPCA prior to commencing any land-disturbing activities. The permit specifically requires the implementation of best management practices and a Stormwater Pollution Prevention Plan to manage pollutants in stormwater during construction and after construction is complete. After completion of construction, there will be little change in the quantity and quality of stormwater runoff due to the WWTF expansion. After completion of construction, the expansion will result in the addition of only 0.1 acre of impervious surfaces on the site.
 - B. The construction of the expanded WWTF will ultimately lead to additional development within the service area, increasing the amount of impervious surfaces in the forms of rooftops, sidewalks, driveways, roadways, and to a certain extent, lawn grass. With increases in impervious surface areas associated with development, increases in stormwater runoff volumes and rates are possible. Effects of stormwater from enabled development will depend upon mitigation measures implemented. Effective management of urban stormwater in a growing community can greatly reduce the nonpoint source loading from surface runoff. The City has several ordinances in place to address stormwater relating to new development. The City is required to obtain an NPDES/SDS Permit under the U.S. Environmental Protection Agency's Phase II Stormwater Program for municipal separate storm sewer systems (MS4s). The City is designated a MS4 under Minn. R. 7090 because it has a population of at least 5,000 with the potential to discharge stormwater into an ORVW. The MS4 permit will require the City to develop, implement and enforce a stormwater pollution prevention program designed to reduce the discharge of pollutants from the MS4 to protect water quality and to satisfy the appropriate water quality requirements of the Clean Water Act to the maximum extent practicable.
 - D. The Mississippi River from St. Cloud to Anoka was added to the Minnesota Wild and Scenic Rivers System by the DNR in 1976. On November 5, 1984, the river was designated an ORVW under MPCA water quality rules. This reach of the Mississippi River is provided special protection under Minn. R. 7050.0180, Nondegradation for Outstanding Resource Value Waters, in recognition of its status as a state-designated scenic or recreational river segment.

Since the WWTF's discharge is to an ORVW, the City has opted to have the WWTF designed to freeze the mass loadings of pollutants to that of the November 1984 discharge levels and satisfy nondegradation considerations. The NPDES/SDS discharge permit will require the expanded WWTF to meet a new phosphorus limit of 1.0 milligrams per liter, resulting in a significant reduction of phosphorus loading to the Mississippi River.

15. The reversibility of any potential water quality effects that are reasonably expected to occur:

The MPCA finds that any potential effect that is reasonably likely to occur from this project would be reversible. As discussed above, the expected effects on water quality from construction are temporary and reversible. The expanded WWTF will be designed to maintain current mass loadings of conventional pollutants and meet a new discharge limit for phosphorus. While enabled development is not reversible, the City is required to implement stormwater control strategies to protect the Mississippi River and other water resources such as wetlands in the area. There is no reason to believe that this project is reasonably expected to cause a significant negative effect on water quality.

16. Comments received that expressed concerns regarding potential effects to water quality:

The MPCA received a comment letter from the DNR expressing concerns about the effects of increasing stormwater volumes and loadings from municipal growth along the Mississippi River Wild and Scenic River District. As discussed above in Findings 14 and 15, the analysis indicates that the effects on water quality that are reasonably expected to occur from this project are not significant. The City is required to implement a stormwater control and inspection program to minimize the impact of nonpoint source pollution related to growth and urban development.

17. The MPCA finds that the environmental review is adequate to address the concerns because:

All potential impacts to water quality that are reasonably expected to occur from the proposed expansion of this WWTF have been considered during the review process and a method to prevent these impacts has been developed.

18. The MPCA finds that the project, as it is proposed, does not have the potential for significant environmental effects on water quality based on the type, extent, and reversibility of environmental effects reasonably expected to occur.

Cumulative Potential Effects of Related or Anticipated Future Projects

19. The second criterion that the MPCA must consider, when determining if a project has the potential for significant environmental effects that are reasonably expected to occur, is the "cumulative potential effects of related or anticipated future projects," Minn. R. 4410.1700, subp. 7.B (2003). The MPCA findings with respect to this criterion are set forth below.

20. The proposed WWTF expansion is being sized to accommodate a 20-year design population growth. The treated effluent will be discharged to a portion of the Mississippi River that was designated an ORVW. Tertiary treatment units will be added to the expanded WWTF to meet the more restrictive mass-based effluent limits. The availability of additional wastewater treatment capacity will encourage additional development in the City. The City is taking a proactive stance to improve necessary infrastructure, including stormwater controls, to protect the environment while serving the growing population. The City's Comprehensive Land Use Plan establishes guidelines to insure that development is carefully integrated with the natural environment.

21. Based on MPCA staff experience, available information on the project, including the EAW, the NPDES/SDS Permit Application, the Wastewater Treatment Facilities Plan, and information presented by the commenters, the MPCA does not reasonably expect significant cumulative effects from this project.
22. In considering the cumulative potential effects of related or anticipated future projects, the MPCA finds that the reasonably expected effects from this project will not be significant.

The Extent to which the Environmental Effects are Subject to Mitigation by Ongoing Public Regulatory Authority

23. The third criterion that the MPCA must consider, when determining if a project has the potential for significant environmental effects that are reasonably expected to occur, is "the extent to which the environmental effects are subject to mitigation by ongoing public regulatory authority," Minn. R. 4410.1700, subp. 7.C (2003). The MPCA findings with respect to this criterion are set forth below.
24. The following permits or approvals will be required for the project:

Unit of Government	Permit or Approval Required	Status
A. MPCA	Facility Plan Approval	Submitted
B. MPCA	Nondegradation to an ORVW Review	Submitted
C. MPCA	NPDES/SDS Discharge Permit	Submitted
D. MPCA	Plans and Specifications Approval	To be submitted
E. MPCA	NPDES General Stormwater Permit for Construction Activity	To be submitted
F. Sherburne County	Conditional Use Permit	To be submitted

25. The following permits or approvals will be required for the WWTF expansion:
 - A. Facility Plan Approval
This plan establishes the preliminary design and technologies used to treat the wastewater.
 - B. Nondegradation to an ORVW Review
Under MPCA water quality rules effective November 5, 1984, this reach of the Mississippi River is provided special protection under Minn. R. 7050.0180, Nondegradation for Outstanding Resource Value Waters. For such waters identified under subpart 6 of this nondegradation rule, new or expanding discharges are not allowed unless there is no prudent and feasible alternative to a discharge as proposed. If so allowed, a new or expanded discharge must then be restricted "to the extent necessary to preserve the existing high

quality, or to preserve the existing high quality, or to preserve the wilderness, scientific, recreational, or other special characteristics that make the water an outstanding resource value water.”

C. NPDES/SDS Discharge Permit

The NPDES/SDS Permit will be prepared and issued by the MPCA following a 30-day public comment period. The NPDES/SDS Permit authorizes a maximum discharge flow and pollutant loading allowed from the WWTF. Effluent limitations established within the permit insure that water quality in the receiving water is protected.

D. Plans and Specifications Approval

Construction plans and specifications for the project are submitted to the MPCA for technical review and approval. This review is performed to insure that the WWTF design is consistent with good engineering practice and state and federal criteria.

E. NPDES General Stormwater Permit for Construction Activity

An NPDES General Stormwater Permit for Construction Activity is required when a project disturbs one or more acres. It provides for the use of best management practices, such as silt fences, bale checks, and prompt re-vegetation to prevent eroded sediment from leaving the construction site. The project proposer must have a sediment and erosion control plan that will provide more detail as to the specific measures to be implemented and will also address: phased construction; vehicle tracking of sediment; inspection of erosion control measures implemented; and time frames in which erosion control measures will be implemented. The general permit also requires adequate stormwater treatment capacity be provided to assure that water quality will not be impacted by runoff once the project is constructed.

E. Conditional Use Permit

A Conditional Use Permit is required when a use is not usually allowed within a zoning district, but may be allowed with certain conditions. A Conditional Use Permit may be approved upon a showing by an applicant that standards and criteria stated in the county's ordinance would be satisfied.

26. The MPCA finds that ongoing public regulatory authority will address any significant potential environmental effects that were identified as reasonably expected to occur.

The Extent to Which Environmental Effects can be Anticipated and Controlled as a Result of Other Available Environmental Studies Undertaken by Public Agencies or the Project Proposer, Including Other EISs

27. The fourth criterion that the MPCA must consider is "the extent to which environmental effects can be anticipated and controlled as a result of other available environmental studies undertaken by public agencies or the project proposer, including other EISs." Minn. R. 4410.1700, subp. 7.D (2003). The MPCA findings with respect to this criterion are set forth below.

28. The following documents were reviewed by MPCA staff as part of the potential environmental impact analysis for the proposed expansion of the Big Lake WWTF. This list is not intended to be exhaustive. The MPCA also relies on information provided by the project proposer, commenters, staff experience, and other available information.
 - EAW data submittal;
 - WWTF Plan;
 - NPDES/SDS Discharge Permit Application form; and
 - Nondegradation to an ORVW Review documents, Effluent Limitations Summary form; Effluent Limit Review Checklist and supporting documents.
29. There are no elements of the project that pose the potential for significant environmental effects that cannot be addressed in the project design and permit development processes, or by regional and local plans.
30. Based on the environmental review, previous environmental studies, and MPCA staff expertise on similar projects, the MPCA finds that the environmental effects of the project that are reasonably expected to occur can be anticipated and controlled.

CONCLUSIONS OF LAW

31. The MPCA has jurisdiction in determining the need for an EIS for this project. The EAW, the permit development process, the WWTF planning process, responses prepared by MPCA staff in response to comments on the Big Lake WWTF Expansion EAW, and the evidence in the record are adequate to support a reasoned decision regarding the potential significant environmental effects that are reasonably expected to occur from this project.
32. Areas where the potential for significant environmental effects may have existed have been identified and appropriate mitigation measures have been incorporated into the project design and permits. The project is expected to comply with all MPCA standards.
33. Based on the criteria established in Minn. R. 4410.1700 (2003), there are no potential significant environmental effects reasonably expected to occur from the project.
34. An EIS is not required.
35. Any findings that might properly be termed conclusions and any conclusions that might properly be termed findings are hereby adopted as such.

ORDER

The Minnesota Pollution Control Agency determines that there are no potential significant environmental effects reasonably expected to occur from the Big Lake Wastewater Treatment Facility Expansion project and that there is no need for an Environmental Impact Statement.

IT IS SO ORDERED

Sheryl A. Corrigan, Commissioner
Minnesota Pollution Control Agency

Date

Minnesota Pollution Control Agency (MPCA)

**Big Lake Wastewater Treatment Facility Expansion
Environmental Assessment Worksheet (EAW)**

COMMENT LETTER RECEIVED

1. Matt Langan, Environmental Planner, Environmental Review Unit, Division of Ecological Services, Minnesota Department of Natural Resources. Letter received April 28, 2006.

RESPONSES TO COMMENTS ON THE EAW

1. **Comments by Matt Langan, Environmental Planner, Environmental Review Unit, Division of Ecological Services, Minnesota Department of Natural Resources (DNR). Letter received April 26, 2006.**

Comment 1-1: Based on the maps provided, it appears that the information in Item #14 may be incorrect. Project maps show that a portion of the wastewater treatment facility expansion will extend into the Mississippi River Wild and Scenic River District. Depending on what work will be completed in this area, a conditional use permit from Sherburne County may be required.

Response: The MPCA staff requested that the city of Big Lake (City) obtain a copy of the Mississippi River Wild and Scenic River District (District) from Sherburne County. All construction for the expanded facilities will take place outside of the District and the City will not alter the wastewater treatment facility outfall. However, since the DNR has expressed concerns about construction near the District, the City is contacting DNR staff to make sure that they comply with all requirements for construction adjacent to the District.

Comment 1-2: Increasing stormwater volumes and loadings from municipal growth remains a concern along the Mississippi River Wild and Scenic River District. The DNR recommends that the Minnesota Pollution Control Agency work with the local government to assure that stormwater ordinances incorporate all appropriate Best Management Practices for new and existing development. This would include adequate stormwater infiltration, as well as stormwater ponds with U.S. Environmental Protection Agency/MPCA specified trash racks for capture of floatable trash and litter.

Response: The City is required to obtain a National Pollutant Discharge Elimination/State Disposal System Permit under the U.S. Environmental Protection Agency's Phase II Stormwater Program for municipal separate storm sewer systems (MS4s). The City is designated an MS4 under Minn. R. ch. 7090 because it has a population of at least 5,000 with the potential to discharge stormwater into an outstanding resource value water. The MS4 permit will require the City to develop, implement and enforce a stormwater pollution prevention program designed to reduce the discharge of pollutants from the MS4 to protect water quality and to satisfy the appropriate water quality requirements of the Clean Water Act to the maximum extent practicable. Designated MS4s must also implement best management practices and develop a stormwater ordinance as part of the MS4 permit requirements.