



Minnesota  
Pollution  
Control  
Agency

Municipal Division  
Municipal  
Wastewater  
Section

# Minnesota River Basin General NPDES Phosphorus Phase I Permit

## Continuous Dischargers with Design Capacity for More than 1,800 Pounds of Phosphorus Discharge Per Year

Water Quality/Basins #3.13, Updated April 2007

### NPDES:

National Pollutant  
Discharge Elimination  
System

### SDS:

State Disposal System

**Minnesota River  
Basin General  
NPDES Phosphorus  
Phase I Permit** is also  
referred to as the  
**General Phosphorus  
Permit**

### TMDL:

Total Maximum Daily  
Load project – a water  
quality study that  
addresses a specific  
pollutant exceeding  
water quality

### MPCA Area Offices

**Brainerd:**  
218/828-2492  
**Detroit Lakes:**  
218/847-1519  
**Duluth:**  
218/723-4660  
**Mankato:**  
507/389-5977  
**Marshall:**  
507/537-7146  
**Rochester:**  
507/285-7343  
**St. Paul:**  
651/296-6300  
800/657-3864  
**Willmar:**  
320/214-3786

This factsheet provides an overview of requirements in the Minnesota River Basin General NPDES Phosphorus Phase I Permit for existing, continuously discharging wastewater treatment facilities permitted to discharge more than 1,800 pounds of phosphorus per year. Appendix B of the General Phosphorus Permit lists 40 facilities in this category (35 municipal and 5 industrial) upstream from the city of Jordan.

Six additional facilities with a design capacity to discharge more than 1,800 pounds of phosphorus annually exist between Jordan and the city of Shakopee. These facilities are listed in Appendix D, Part 1, of the General Phosphorus Permit. The facilities in this category do not have phosphorus requirements in addition to existing NPDES/SDS permits.

The General Phosphorus Permit covers the five-year timeframe, 2005-2010. The permit represents the first phase of implementation of the wastewater discharge requirements detailed in the Lower Minnesota River Low Flow Dissolved Oxygen TMDL project.

### Phosphorus Effluent Limits

The General Phosphorus Permit requires the 40 facilities listed in its Appendix B to:

- 1) Meet a 5-month mass limit for phosphorus;
- 2) Meet applicable phosphorus limits in existing general or individual NPDES/SDS operating permits; and
- 3) Monitor for phosphorus according to individual frequency requirements of one or two times per week.

These facilities have been assigned mass limits on total phosphorus discharged from May 1 through Sept. 30 each year. The individual limits are based on monitoring data collected from 1999-2000.

The Phase I General Phosphorus Permit (2005-2010) limits are based on milestones for aggregate phosphorus reduction from individual baselines as follows:

- 2008 – 15 percent
- 2009 – 25 percent
- 2010 – 35 percent

Phase II of phosphorus management within the basin will provide the necessary measures to meet the ultimate TMDL goal of 1 milligram of phosphorus per liter (mg/L) of treated effluent by 2015.

Under the Phase I General Phosphorus Permit, a permittee may be excluded from the mass limit

- If the facility has a signed compliance document in place by April 1, 2008, establishing a timeline to meet the 1 mg/L by the end of the permit;
- Alternatively, if the facility already has a 1 mg/L phosphorus limit in an individual NPDES/SDS permit and will not be participating in pollutant trading.

### Phosphorus Trading

To provide greater flexibility in achieving the basin-wide phosphorus reduction goal, the General Phosphorus Permit authorizes pollutant trading between and among wastewater facilities in the basin.



Permittees with facilities that remove phosphorus below the permit mass limits for any given year may sell some of that capacity to another permittee. The General Phosphorus Permit allows only the 40 large facilities to sell if they have reduced phosphorus below their permitted limit. Any Permittee may buy trading units.

While the MPCA is not party to any trading agreements, the Permittees are required to use a trading contract form provided by the MPCA. Trades become effective when the forms are received by the MPCA. The General Phosphorus Permit also allows the formation of Trade Associations.

### Monitoring Requirements

The General Phosphorus Permit requires a once or twice per week monitoring frequency for influent and effluent total phosphorus concentrations. If the frequency in a facility's existing NPDES/SDS operating permit is more stringent, that frequency must be met. Other monitoring requirements include the continuous measurement of flow, sampling at locations specified in NPDES/SDS operating permits, use of 24-hour flow proportional composite samples, use of a certified lab, and use of required sample preservation and test procedures.

### Reporting Requirements

In addition to reporting phosphorus discharges on preprinted discharge reports, an annual Pre-season Implementation Plan is required by April 30 starting in 2008, or earlier if the facility is engaged in trading. The Plan must include

- 1) A description of how the Permittee will meet the assigned 5-month mass phosphorus limit;
- 2) An evaluation of monthly phosphorus mass load discharged May-September during the two previous years;
- 3) A graph of the previous two year's mass loadings;
- 4) An estimate of the anticipated May-September phosphorus loadings;
- 5) A notification of any pollutant trading;
- 6) An analysis of the phosphorus load intended to trade;
- 7) Copies of trading contracts; and
- 8) A notification of membership in any trade association.

### For More Information

Minnesota River Basin General NPDES Phosphorus Phase I Permit contact:

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Lower Minnesota River dissolved oxygen at low flow TMDL project contact:

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MPCA phosphorus strategy available on the Web at [www.pca.state.mn.us/water/phosphorus.html](http://www.pca.state.mn.us/water/phosphorus.html)

TMDL program information on the Web at [www.pca.state.mn.us/water/tmdl/index.html](http://www.pca.state.mn.us/water/tmdl/index.html)

Additional information about the Minnesota River Basin General NPDES Phosphorus Phase I Permit is available in the following factsheets on the MPCA Web site: [www.pca.state.mn.us](http://www.pca.state.mn.us).

- Minnesota River Basin General NPDES Phosphorus Phase I Permit
- Minnesota River Basin General NPDES Phosphorus Phase I Permit - Phosphorus Trading Overview
- Minnesota River Basin General NPDES Phosphorus Phase I Permit – Continuous Dischargers with Design Capacity to Discharge Over 1,800 Pounds per Year
- Minnesota River Basin General NPDES Phosphorus Phase I Permit – Continuous Dischargers with Design Capacity to Discharge Under 1,800 Pounds per Year
- Minnesota River Basin General NPDES Phosphorus Phase I Permit – Pond Facilities
- Minnesota River Basin General NPDES Phosphorus Phase I Permit – New and Expanding Facilities