



Minnesota  
Pollution  
Control  
Agency

# Minnesota River Basin General NPDES Phosphorus Phase I Permit Pond Facilities

Municipal Division  
Municipal  
Wastewater  
Section

Water Quality/Basins #3.14, 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**

This factsheet describes the requirements in the Minnesota River Basin General NPDES Phosphorus Phase I Permit for wastewater treatment facilities using controlled discharge stabilization ponds. In these facilities, wastewater receives primary and secondary treatment in large ponds.

The goal of the permit is to protect water quality in the basin according to state and federal rules and statutes. It is part of a Total Maximum Daily Load (TMDL) project to achieve the water quality standard for dissolved oxygen at low flow in the lower 22 miles of the Minnesota River, from Jordan to the confluence with the Mississippi River.

A general permit, such as this contains requirements and conditions for facilities with similar characteristics. Currently, there are 71 stabilization pond facilities in the Basin, 38 with individual and 33 with general NPDES permits. The General Phosphorus Permit requirements must be met in addition to requirements in existing individual or general NPDES/SDS permits. The General Phosphorus Permit requires for controlled discharge ponds to:

1. Monitor for phosphorus and
2. Develop a phosphorus management plan.

## Phosphorus Management Plan

A phosphorus management plan (PMP) details a facility's strategies to reduce the amount of phosphorus leaving a wastewater treatment plant by reducing the amount coming in or through treatment modifications.



## Identifying and Reducing Sources of Phosphorus

Sources that contribute phosphorus to wastewater treatment facilities include commercial, industrial and institutional operations such as agricultural co-ops, car/truck washing facilities, dairies, food processing plants, meat packing and locker plants, metal finishing facilities, municipal drinking water treatment plants, nursing homes, restaurants, schools and other institutions. Wastewater treatment facility operators should identify all sources and work to reduce phosphorus contributions wherever possible.

## Five-Steps to Building a PMP

1. Measure influent and effluent phosphorus concentrations.
2. Evaluate phosphorus reduction potential.
3. Set phosphorus reduction goals.
4. Evaluate the phosphorus reduction potential of contributing sources.
5. Create an implementation plan to meet phosphorus reduction goals.

## 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



### **PMP Assistance**

The MPCA and the Minnesota Technical Assistance Program (MnTAP) have resources to help with phosphorus management planning. Additional information and a phosphorus management template is available MnTAP Website at <http://mntap.umn.edu/pmp/index.htm>.

### **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