



Minnesota Pollution Control Agency

STATE OF MINNESOTA

Minnesota Pollution Control Agency

**MUNICIPAL DIVISION
PUBLIC NOTICE OF INTENT TO REISSUE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)/
STATE DISPOSAL SYSTEM (SDS) PERMIT MN0022080**

Public Comment Period Begins: May 10, 2013
Public Comment Period Ends: June 10, 2013

Current Permit Issued: May 30, 2008
Current Permit Expiration Date: April 30, 2013

Name and Address of Permittee:

City of Grand Rapids
420 North Pokegama Avenue
Grand Rapids, MN 55744

Facility Name and Location:

Grand Rapids Wastewater Treatment Facility
1105 23rd Ave SE
T55N, R25W, Section 27,
Grand Rapids, Itasca County, Minnesota

Receiving Water: Mississippi River (Class 2B, 3C, 4A, 4B, 5, 6 water)

Description of Permitted Facility

The Grand Rapids Wastewater Treatment Facility (Facility) is located at SE 1/4 of Section 27, Township 55 North, Range 25 West, Grand Rapids, Itasca County, Minnesota. This is a Class A Facility.

Major components of the Facility include:

- 1 Collection with gravity and/or Pressure Sewer
- 2 Fine Screens (Industrial – Preliminary Treatment)
- 1 Chemical Addition for pH Adjustment (Industrial – Primary Treatment)
- 2 Pre-aeration units - less than two hours detention time (Industrial – Primary Treatment)
- 2 Primary Clarifiers (Industrial – Primary Treatment)
- 1 Fine Screen (Domestic – Primary Treatment)
- 2 Activated Sludge Treatment Units - contact stabilization, conventional, step feed
- 3 Secondary Clarifiers
- 1 Chlorination unit
- 4 Polishing Ponds without aeration (1 acre each)

2 Screw Presses, Gravity Belt
1 Landfill - Biosolids Disposal

The Grand Rapids wastewater treatment system is composed of a network of collection and interceptor sewers that conveys industrial, commercial, and domestic wastewater to the Facility near Grand Rapids, Minnesota. Approximately 80 percent of the influent flow consists of industrial process wastewater from UPM-Kymmene – Blandin Paper Company (UPM – Blandin). The remaining influent flow is primarily domestic wastewater from the cities of Grand Rapids, Cohasset, and La Prairie, and from adjacent unincorporated areas. The total permitted average wet weather design flow (AWWDF) for the Facility is 15.2 million gallons per day (mgd) (13.25 mgd industrial and 1.95 mgd municipal).

This Facility consists of lift stations and force mains for the conveyance of industrial and domestic wastewater, a preliminary treatment segment for treatment of influent industrial wastewater, a primary treatment segment for separate treatment and conveyance of industrial and domestic wastewater, and a secondary treatment segment for treatment and discharge of combined domestic and industrial wastewater.

The preliminary treatment segment provides pumping and screening of industrial wastewater. It consists of a Parkson aquifer traveling water screen with a duplicate standby unit, four pumps, and a 6,000 foot 30-inch diameter force main to the primary treatment segment.

The industrial wastewater primary treatment segment receives the pre-treated industrial process wastewater from UPM – Blandin and consists of a pH neutralization system, dual diffused air flocculation tanks, two 120-foot diameter primary clarifiers with a 14-foot sidewater depth, a primary sludge pump building containing four progressive cavity pumps, a solids dewatering building, and a nutrient addition system. Nutrients are added to the primary clarifier effluent. This segment of the Facility is designed to remove 85 percent of the total suspended solids (TSS) and 20 percent of the five-day biochemical oxygen demand (BOD₅) of the design flow of 13.25 mgd containing 107,000 pounds of TSS and 42,000 pounds of BOD₅.

The domestic wastewater primary treatment segment is designed for a flow of 1.95 mgd containing 3,000 pounds per day of BOD₅ and 3,000 pounds per day of TSS and consists of one fine screen and a pump station with three pumps and approximately 4,300 feet of 18-inch PVC force main that conveys the domestic wastewater to the aeration basin influent splitter structure at the secondary treatment segment. Here the domestic wastewater is combined with the industrial wastewater primary treatment segment effluent and the return flow from the activated sludge process.

The secondary treatment segment consists of two 15-foot deep ponds using the complete mix modification of the activated sludge process and having a 15-hour detention time, three secondary clarifiers (two 100-foot diameter and one 185-foot diameter), a recirculation pump station, chlorination unit, four 15-foot deep non-aerated effluent polishing ponds, each providing a 24-hour detention time, a compressor building, and about 1,200 feet of 36-inch outfall pipe. Effluent from the secondary treatment segment is discharged continuously to the Mississippi River (Discharge SD 004).

The secondary treatment units can be operated in parallel or in series. They are designed to treat an average wet weather flow of 15.2 mgd of primary industrial and domestic wastewater containing 35,000 pounds of BOD₅ and 21,500 pounds of TSS per day.

Sludge from the secondary segment is pumped back to the solids dewatering building where it is blended with the primary sludge from the primary treatment segment. The solids dewatering building consists of a blended sludge storage tank, three progressing cavity blended sludge feed pumps, two rotary screen thickening units, two 42-inch screw presses for dewatering, screw conveyors, silo for cake storage, truck loadout bays, polymer addition facilities, and odor control chemical addition facilities. Polymer is added to the sludge thickening and dewatering process. Odor control chemicals are added to the primary treatment flocculation tanks or in the blended sludge storage tank. The dewatered sludge is hauled by truck to the Permittee-owned landfill. Leachate from the landfill is trucked and discharged to the secondary treatment segment (WS003).

This permit includes monitoring requirements for a perimeter drain tile on the south and east sides of the secondary treatment site that discharges to a storm sewer (Discharge SD 006).

There are three locked and controlled bypasses points located throughout the treatment system:

- § The intermediate industrial lift station bypass (previously combined flow lift station bypass) pumps industrial wastewater to the secondary treatment segment. This bypass is locked and manually controlled. The Permittee plans to install a new forcemain in the summer of 2013 at this location. As part of this project the intermediate industrial lift station and the associated bypass point will be removed.
- § The preliminary industrial treatment segment has a bypass that is locked and manually controlled.
- § The 'Clinic Lift Station Bypass,' is located a short distance upstream of the Clinic Lift Station. It is locked and manually controlled.

The Facility is further described in specifications for the interceptor and outfall sewer and for industrial waste treatment by Henningson, Durham and Richardson (dated 1962 and 1966, respectively); in plans and specifications for the secondary treatment facility by Henningson, Durham and Richardson (dated 1972 and 1973, respectively); in plans and specifications for various facility modifications from 1977 through 1992 by CH₂M Hill; in plans for various facility and collection system modifications by Rieke Carroll Muller Associates, Inc. (dated June 1999); and in plans and specifications for a new secondary clarifier and pumping modifications by Marathon Engineers (approved by the MPCA on February 26, 2002); and in plans and specifications for the "Wastewater Treatment Improvement Project" designed by Advanced Engineering and Environmental Services, Inc. (April 2009).

The location of the Facility is shown on the "Topographical Map of Permitted Facility" (page 6).

Those portions of the Mississippi River from Lake Itasca to the southerly boundary of Morrison County that are included in the Mississippi Headwaters Board comprehensive plan dated February 12, 1981, were designated as Outstanding Resource Value Waters (ORVW) on November 5, 1984. The discharge is located between designated ORVW reaches. In accordance with MPCA rules regarding nondegradation for ORVWs, nondegradation review is required for any new or expanded discharge where any change results in an increased mass loading of one or more pollutants (Minn. R. 7050.0180). The design average wet weather flow of this Facility as of November 5, 1984, and associated mass loading are the baseline design flow and mass loading. This baseline flow and mass loading will be used to determine whether nondegradation review is required for any change in the discharge. The discharge may also be subject to nondegradation review in accordance with Minn. R. 7050.0185, Nondegradation for all waters.

This Permit also complies with Minn. R. 7053.0275 regarding anti-backsliding.

Any point source discharger of sewage, industrial, or other wastes for which a NPDES permit has been issued by the MPCA that contains effluent limits more stringent than those that would be established by parts 7053.0215 to 7053.0265 shall continue to meet the effluent limits established by the permit, unless the Permittee establishes that less stringent effluent limits are allowable pursuant to federal law, under section 402(o) of the Clean Water Act, United States Code, title 33, section 1342.

Preliminary Determination on the Draft Permit

The MPCA Commissioner has made a preliminary determination to reissue this NPDES/SDS permit for a term of approximately five years.

A draft permit and fact sheet is available for review at the Brainerd regional MPCA office at the Baxter address listed below, at the St. Paul office and on-line at <http://www.pca.state.mn.us/news/data/index.cfm?PN=1>.

A copy of the draft permit and fact sheet will be mailed to you if the MPCA receives your written or oral request at this office. If you have questions about this draft permit or the Commissioner's preliminary determination, please contact Nicole Blasing at 218-316-3890.

Written Comments

You may submit written comments on the conditions of the draft permit or on the Commissioner's preliminary determination.

Written comments must include the following:

1. A statement of your interest in the permit application or the draft permit.
2. A statement of the action you wish the MPCA to take, including specific references to sections of the draft permit that you believe should be changed.
3. The reasons supporting your position, stated with sufficient specificity as to allow the Commissioner to investigate the merits of your position.

Petition for Public Informational Meeting

You also may request that the MPCA Commissioner hold a public informational meeting. A public informational meeting is an informal meeting that the MPCA may hold to solicit public comment and statements on matters before the MPCA, and to help clarify and resolve issues.

A petition requesting a public informational meeting must include the following information:

1. A statement identifying the matter of concern.
2. The information required under items 1 through 3 of "Written Comments," identified above.
3. A statement of the reasons the MPCA should hold a public informational meeting.
4. The issues that you would like the MPCA to address at the public informational meeting.

Petition for Contested Case Hearing

You also may submit a petition for a contested case hearing. A contested case hearing is a formal evidentiary hearing before an administrative law judge. In accordance with Minn. R. 7000.1900, the MPCA will grant a petition to hold a contested case hearing if it finds that: (1) there is a material issue of fact in dispute concerning the application or draft permit; (2) the MPCA has the jurisdiction to make a

determination on the disputed material issue of fact; and (3) there is a reasonable basis underlying the disputed material issue of fact or facts such that the holding of the contested case hearing would allow the introduction of information that would aid the MPCA in resolving the disputed facts in making a final decision on the draft permit. A material issue of fact means a fact question, as distinguished from a policy question, whose resolution could have a direct bearing on a final MPCA decision.

A petition for a contested case hearing must include the following information:

1. A statement of reasons or proposed findings supporting the MPCA decision to hold a contested case hearing according to the criteria in Minn. R. 7000.1900, as discussed above.
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.

In addition and to the extent known, a petition for a contested case hearing should also include the following information:

1. A proposed list of prospective witnesses to be called, including experts, with a brief description of proposed testimony or summary of evidence to be presented at a contested case hearing.
2. A proposed list of publications, references, or studies to be introduced and relied upon at a contested case hearing.
3. An estimate of time required for you to present the matter at a contested case hearing.

MPCA Decision

You may submit a petition to the Commissioner requesting that the MPCA Citizens' Board (Board) consider the permit issuance. To be considered timely, the petition must be received by the MPCA by 4:30 p.m. on the date the public comment period ends, identified on page 1 of this notice. Under the provisions of Minn. Stat. § 116.02, subd. 6(4), the decision whether to issue the permit and, if so, under what terms will be presented to the Board for decision if: (1) the Commissioner grants the petition requesting the matter be presented to the Board; (2) one or more Board members request to hear the matter before the time the Commissioner makes a final decision on the permit; or (3) a timely request for a contested case hearing is pending. You may participate in the activities of the Board as provided in Minn. R. 7000.0650.

The written comments, requests, and petitions submitted on or before the last day of the public comment period will be considered in the final decision on this permit. If the MPCA does not receive written comments, requests, or petitions during the public comment period, MPCA staff as authorized by the Board, will make the final decision on the draft permit.

Comments, petitions, and/or requests must be submitted in writing on or before the end date of the public comment period identified on page 1 of this notice to:

Nicole Blasing
Municipal Division
7678 College Road, Suite 105
Baxter, MN 56425

Topographic Map of Permitted Facility

MN0022080: Grand Rapids Wastewater Treatment Facility
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