

Origination Date: 9/2008

Revision Dates:

CITY OF SUPERIOR



THE CITY OF
SUPERIOR

W I S C O N S I N

Living up to our name.

POLLUTION PREVENTION PROGRAM

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SECTION 1 PURPOSE AND OBJECTIVES

1.1 PURPOSE

- 1.1.1** The purpose of this document is to outline the City of Superior's (hereafter "City") plan for pollution prevention.
- 1.1.2** The general purpose of pollution prevention is to address local water quality issues by reducing the influence of activities that negatively impact water quality and increase the influence of activities that help improve it within the municipal operations of the City.
- 1.1.3** This plan will assure compliance with:
 - A.** Sections 2.6 of Wisconsin Pollutant Discharge Elimination System (WPDES) Permit No. WI-S050075-1,
 - B.** NR 216.07 (6),
 - C.** NR 151.12, NR 151.13, NR 151.24

1.2 OBJECTIVES

- 1.2.1** Describe the permit requirements.
- 1.2.2** Describe the City's approach to pollution prevention.
- 1.2.3** List the measurable goals for the program aimed at achieving compliance with NR 216.07 (6) and Section 2.6 of WPDES Permit No. WI-S050075-1.
- 1.2.4** Establish an implementation timeline for program initiatives that address the pollution prevention stormwater management conditions set forth in WPDES Permit No. WI-S050075-1.

1.3 GENERAL DEFINITIONS AND TERMS

A comprehensive list of terms and definitions used by the Environmental Services Division of Public Works (ESDPW) in its Plans and Programs can be found in the "Glossary of Terms and Definitions."

SECTION 2 INTRODUCTION

2.1 BASIS FOR REGULATION

2.1.1 Since the passage of the Clean Water Act, the quality of our Nation's waters has improved dramatically. Despite this progress, degraded water bodies still exist. According to the 2000 National Water Quality Inventory, a biennial summary of State surveys of water quality, approximately 40 percent of surveyed U.S. water bodies are still impaired by pollution and do not meet water quality standards. A leading source of this impairment is polluted runoff. In fact, according to the Inventory, 13 percent of impaired rivers, 18 percent of impaired lake acres and 32 percent of impaired estuaries are affected by urban/suburban stormwater runoff.

The Stormwater Phase II Final Rule requires operators of small Municipal Separate Storm Sewer Systems (MS4s) in urbanized areas to implement programs and practices to control polluted stormwater runoff. Phase II is intended to further reduce adverse impacts to water quality and aquatic habitat by instituting the use of controls on the unregulated sources of stormwater discharges that have the greatest likelihood of causing continued environmental degradation. The environmental problems associated with discharges from MS4s in urbanized areas and discharges resulting from construction activity are outlined below.

Stormwater discharges from MS4s in urbanized areas are a concern because of the high concentration of pollutants found in these discharges. Concentrated development in urbanized areas substantially increases impervious surfaces, such as city streets, driveways, parking lots, and sidewalks, on which pollutants from concentrated human activities settle and remain until a storm event washes them into nearby storm drains. Common pollutants include pesticides, fertilizers, oils, salt, litter and other debris, and sediment.

2.2 GENERAL PERMIT

- 2.2.1** The City is required to comply with the Stormwater Phase II Final Rule implemented by the Environmental Protection Agency (EPA) under the Clean Water Act. This rule requires the City to implement Stormwater regulations as administered by the Wisconsin Department of Natural Resources (WDNR).
- 2.2.2** The City received the General Permit to Discharge under the Wisconsin Pollutant Discharge Elimination System WPDES Permit No. WI-S050075-1 in May 2006. Our Notice of Intent to Comply was approved April 1, 2007.
- 2.2.3** The six minimum control measures in the permit include:
- A.** Public Education and Outreach
 - B.** Public Involvement and Participation
 - C.** Illicit Discharge Detection and Elimination
 - D.** Construction Site Pollutant Control
 - E.** Post-Construction Storm Water Management
 - F.** Pollution Prevention

2.2.4 Permit requirements for Pollution Prevention

- A.** Develop and implement a pollution prevention program.
- B.** Establish measurable goals with an implementation schedule to achieve these requirements.
- C.** Routine inspection and maintenance of municipally owned or operated structural stormwater management facilities to maintain their pollutant removal operating efficiency.
- D.** Develop procedures for routine street sweeping and cleaning of catch basins with sumps where appropriate.
- E.** Develop procedures for proper disposal of street sweeping and catch basin cleaning waste.
- F.** Develop procedures for proper application of road salt and/or other deicers as specified in the DOT Highway Maintenance Manual, chapter 35.
- G.** Develop procedures for proper management of leaves and grass clippings, which may include on-site beneficial reuse as opposed to collection.
- H.** Develop policies and procedures for stormwater pollution prevention planning for municipal garages, storage areas and other sources of stormwater pollution from municipal facilities.
- I.** Develop procedures for the application of lawn and garden fertilizers on municipally controlled properties, with pervious surface over 5 acres each, in accordance with a site-specific nutrient application schedule based on appropriate soil tests.
- J.** Develop education of appropriate municipal and other personnel involved in implementing this program.
- K.** Develop measures to reduce municipal sources of stormwater contamination within source water protection areas.

SECTION 3 POLLUTION PREVENTION PROGRAM

3.1 MUNICIPAL POLLUTION PREVENTION

3.1.1 Municipal Pollution Prevention programs are designed to control and reduce the amount of stormwater pollution generated by their own operations and to develop practices and programs to control and reduce the amount of stormwater pollution that is discharged into their municipal storm drain systems.

3.1.2 All communities conduct activities that influence water quality. Some activities, such as vehicle facility maintenance, waste handling and disposal and street repair can negatively impact water quality, while others, such as street sweeping, storm drain maintenance and employee training can help improve it. By reducing the influence of the operations that negatively impact water quality and increasing the influence those that can help improve it, the City of Superior can help control and reduce stormwater pollution and address local goals and objectives. The Municipal Pollution Prevention Program involves identifying and inventorying municipal operations, assessing the activities associated with the operations, selecting and implementing appropriate Best Management Practices (BMPs) and evaluating their effectiveness.

3.2 BEST MANAGEMENT PRACTICES (BMPs), MEASURABLE GOALS, AND TIMELINES.

3.2.1 BMP: Identify and inventory potential pollutant generating municipal fixed facilities.

- A.** Description: The City of Superior will identify and inventory potential pollutant generating municipal operation fixed facilities and collect basic information.
- B.** Measurable goals and timeline:
 - 1.** Within the City of Superior Municipal Pollution Prevention Program, begin development of the identification and inventory of potential pollutant generating municipal fixed facilities by March 31, 2009.
 - 2.** Complete identification and inventory of potential pollutant generating municipal fixed facilities by September 30, 2009.
 - 3.** Review annually and revise as needed.

3.2.2 BMP: Identify and inventory potential pollutant generating municipal field programs.

- A.** Description: The City of Superior will identify and inventory potential pollutant generating municipal operation field programs and collect basic information.
- B.** Measurable goals and timeline:
 - 1.** Within the City of Superior Municipal Pollution Prevention Program, begin development of the identification and inventory of potential pollutant generating municipal field programs by March 31, 2009.
 - 2.** Complete identification and inventory of potential pollutant generating municipal field programs by September 30, 2009.

3. Review annually and revise as needed.

3.2.3 BMP: Assessment of potential pollutant generating activities at municipal fixed facilities.

- A. Description: The City of Superior will conduct an activity assessment of potential pollutant generating municipal fixed facilities and identify the current BMP practices related to those activities.
- B. Measurable goals and timeline:
 1. Within the City of Superior Municipal Pollution Prevention Program, begin assessment of potential pollutant generating activities at municipal fixed facilities by March 31, 2009.
 2. Complete the assessment of potential pollutant generating activities at municipal fixed facilities by September 30, 2009.
 3. Identify appropriate Best Management Practices for activities at each municipal fixed facility by September 30, 2009.
 4. Begin implementation of BMPs for stormwater pollution planning for municipal garages, storage areas and other sources of stormwater pollution from municipal facilities by September 30, 2009.

3.2.4 BMP: Assessment of potential pollutant generating activities at municipal field programs.

- A. Description: The City of Superior will conduct an activity assessment of potential pollutant generating municipal field programs and identify the current BMP practices related to those activities.
- B. Measurable goals and timeline:
 1. Within the City of Superior Municipal Pollution Prevention Program, begin assessment of potential pollutant generating municipal field programs by March 31, 2009.
 2. Complete the assessment of potential pollutant generating municipal field programs by September 30, 2009.
 3. Identify appropriate Best Management Practices for activities for each municipal field program by September 30, 2009.
 4. Begin implementation of BMPs for stormwater pollution planning for municipal garages, storage areas and other sources of stormwater pollution from municipal facilities by September 30, 2009.

3.2.5 BMP: Evaluate and/or develop policies and procedures for structural stormwater management facilities and catch basin maintenance.

- A. The City of Superior has in place an on-going storm drain and catch basin inspection, and cleaning program to reduce pollutants, trash and debris. Cleaning and inspection includes storm drain grates, detention ponds, pump stations, catch basins and other appurtenances.
- B. Measurable goals and timeline:
 1. Within the City of Superior Municipal Pollution Prevention Program, begin evaluation and/or development of policies and procedures for

structural stormwater management facilities and catch basin maintenance by March 31, 2009.

2. Complete the evaluation and/or development of policies and procedures for structural stormwater management facilities and catch basin maintenance by September 30, 2009.
3. Begin implementation of policies and procedures for stormwater management facilities and catch basin maintenance by September 30, 2009.

3.2.6 BMP: Evaluate and/or develop policies and procedures for street sweeping.

- A. Description: The City of Superior has in place an on-going street sweeping program.
- B. Measurable goals and timeline:
 1. Within the City of Superior Municipal Pollution Prevention Program, begin evaluation of current practices and develop policies and procedures for street sweeping by March 31, 2009.
 2. Complete the evaluation and development of policies and procedures for street sweeping by September 30, 2009.
 3. Begin implementation of policies and procedures for street sweeping by September 30, 2009.

3.2.7 BMP: Evaluate and/or develop policies and procedures for the disposal of street sweepings and catch basin cleaning waste.

- A. Description: The City of Superior has in place a procedure for the disposal of street sweepings and catch basin cleaning waste.
- B. Measurable goals and timeline:
 1. Within the City of Superior Municipal Pollution Prevention Program, begin evaluation of current practices and develop policies and procedures for the disposal of street sweepings and catch basin cleaning waste by March 31, 2009.
 2. Complete the evaluation and development of policies and procedures for the disposal of street sweepings and catch basin cleaning waste by September 30, 2009.
 3. Begin implementation of policies and procedures for street sweeping and catch basin cleaning waste by September 30, 2009.

3.2.8 BMP: Evaluate and/or develop policies and procedures for application of road salt and other deicers.

- A. Description: The City of Superior has in place a procedure for the use of salt for road deicing according to the WDOT Highway Maintenance Manual, chapter 35.
- B. Measurable goals and timeline:
 1. Within the City of Superior Municipal Pollution Prevention Program, begin evaluation of current practices and develop policies and procedures for the application of road salt and other deicers by March 31, 2009.

2. Complete the evaluation and development of policies and procedures for the application of road salt and other deicers by September 30, 2009.
3. Begin implementation of policies and procedures for application of road salt and other deicers by September 30, 2009.

3.2.9 BMP: Evaluate and/or develop policies and procedures for leaves and grass clippings.

- A. Description: The City of Superior has in place a policy for leaves and grass clippings.
- B. Measurable goals and timeline:
 1. Within the City of Superior Municipal Pollution Prevention Program, begin evaluation of current practices and develop policies and procedures for leaves and grass clippings by March 31, 2009.
 2. Complete the evaluation and development of policies and procedures for leaves and grass clippings by September 30, 2009.
 3. Begin implementation of policies and procedures for leaves and grass clippings by September 30, 2009.

3.2.10 BMP: Evaluate and/or develop policies and procedures for the application of lawn and garden fertilizers on municipally controlled properties, with pervious surface over 5 acres each.

- A. Description: The City of Superior has in place a policy for the application of lawn and garden fertilizers on municipally controlled properties with pervious surfaces over 5 acres each.
- B. Measurable goals and timeline:
 1. Within the City of Superior Municipal Pollution Prevention Program, begin evaluation and/or development of policies and procedures for the application of lawn and garden fertilizers on municipally controlled properties, with pervious surfaces over 5 acres each by March 31, 2009.
 2. Complete the evaluation and/or development of policies and procedures for the application of lawn and garden fertilizers on municipally controlled properties, with pervious surfaces over 5 acres each by September 30, 2009.
 3. Begin implementation of policies and procedures for the application of lawn and garden fertilizers on municipally controlled properties, with pervious surfaces over 5 acres each by September 30, 2009.

3.2.11 BMP: Train appropriate municipal employees and other personnel who engage in potential pollution generating activities.

- A. Description: The City of Superior has in place a policy for educating municipal employees and other personnel engaged in potential pollution generating activities.
- B. Measurable goals and timeline:
 1. Within the City of Superior Municipal Pollution Prevention Program, begin identification of appropriate municipal employees and other

personnel who engage in potential pollution generating activities to be trained by March 31, 2009.

2. Conduct general stormwater training for the staff at the municipal garage, parks and recreation, sign shop, street department, carpenter shop, wastewater, stormwater and collections departments by March 31, 2009.
3. Complete the identification of appropriate municipal employees and other personnel who engage in potential pollution generating activities by September 30, 2009.
4. Begin training of employees and/or contractors for BMP specific topics by September 30, 2009.
5. Conduct annual refresher training.

3.2.12 BMP: Evaluate and/or develop policies and procedures to reduce municipal sources of stormwater contamination within source water protection areas.

- A. Description: The City of Superior will evaluate and/or develop policies and procedures to reduce municipal sources of stormwater contamination within sources water protection areas.
- B. Measurable goals and timeline:
 1. Within the City of Superior Municipal Pollution Prevention Program, begin evaluation and/or development of policies and procedures to reduce municipal sources of stormwater contamination within source water protection areas by March 31, 2009.
 2. Complete the evaluation and/or development of policies and procedures to reduce municipal sources of stormwater contamination within source water protection areas by September 30, 2009.
 3. Begin implementation of policies and procedures to reduce municipal sources of stormwater contamination within source water protection areas by September 30, 2009.

3.2.13 BMP: Establish Recordkeeping Procedures

- A. Description: Maintaining accurate records of facilities, field programs, activities, policies, procedures, BMPs and educational trainings are an essential part of the Pollution Prevention Program.
- B. Measurable goals and timeline:
 1. Within the City of Superior Municipal Pollution Prevention Program, begin evaluation and/or development of recordkeeping procedures by March 31, 2009.
 2. Complete the evaluation and/or development of recordkeeping procedures by September 30, 2009.
 3. Begin implementation of recordkeeping procedures by September 30, 2009.



Fixed Facility: Wastewater Treatment Plant

Address: 51 E. 1st St
Phone: 715 394-0392
Contact: Dan Romans, Administrator
Type of Facility: Wastewater Treatment Plant
Division: Public Works

Associated BMPs

- Vehicle/Equipment Washing
- Outdoor Loading/Unloading
- Outdoor Storage
- Waste Handling & Disposal
- Parking Lot Maintenance
- Turf Management
- Spill Prevention
- Municipal Training

Overview

The Environmental Services Division of Public Works (ESDPW) manages the City assets for wastewater treatment and collections, stormwater treatment and collections and performs design, construction and inspections of these assets. The main plant treats approximately 5 million gallons per day of wastewater during normal operation. Wastewater originates from homes, industry, and commercial facilities.



Potential Pollutants of Current Activities

Potential Stormwater Pollutants						
Hotspot Operation or Activity	Sediment	Nutrients	Metals	Hydro-carbons	Toxins	Others
Vehicle Washing	●	●	⊙	⊙	●	
Outdoor Storage	●	⊙	⊙	⊙	⊙	Trash
Waste Management	○	●	⊙	⊙	●	
Building Repair	●	○	⊙	⊙	⊙	
Building Maintenance	●	X	●	○	⊙	
Parking Lot Maintenance	●	○	⊙	●	⊙	
Turf Management	●	●	X	X	●	Pesticides
Key X = not a pollutant source ○ = minor pollutant contribution ⊙ = moderate pollutant contribution ● = major pollutant contribution						

List of Significant Materials/Chemicals/Quantity

- Chlorine – 4 1-ton cylinders
- Sulfur Dioxide – 4 1-ton cylinder
- Oil and Grease – 2 to 3 55-gallon drums
- Acids/bases
- Gasoline – limited (less than 10 gallons)
- Ferric Chloride 1 6000-gallon 1 5000-gallon containers
- Polymers – 8 55-gallon drums
- Salt/sand
- Diesel – 290 gallon drum
- Kerosene – limited (1 gallon)

For more information:

ESDPW
Stormwater Coordinator
51 East 1st Street
Superior, WI 54880
715 394-0392

Current Practices

Within ESDPW, the Hazard Communication Program has requirements related to labeling, material safety data sheets, employee training, information to contractors, personnel policies, record keeping, community hazard communication and program evaluation. A copy of the Program is in the appendix.

Within ESDPW, the Hazard Recognition/Self Inspection Program has requirements related to the identification and elimination of unsafe conditions which could lead to injuries including chemical substances. A copy of the Program is in the appendix.

Within ESDPW, the Site Emergency Procedures has requirements related to a natural gas leak, methane leak, ferric chloride leak and a chlorine/sulfur dioxide leak. A copy of the Program is in the appendix.

Vehicle Storage – Vehicles are usually stored in the garage. Vector truck and equipment are stored within the equipment building.

Outdoor Storage – A 290-gallon drum of diesel fuel is stored outside within a cement containment area. In addition, manhole covers, castings, pvc-pipe, a plow, sand and gravel are also in an outdoor storage area.



290-gallon drum of diesel fuel stored outside within a cement containment area.

Building Maintenance – Building maintenance work is contracted out. Any cleanup of materials such as paint brushes are cleaned in an area with drainage to the treatment plant.

Parking Lot Maintenance – Rooftop drains from the main building and the pump building drain to rain barrels which flow into rain gardens. Salt is applied to the parking lot as needed in the winter. The parking lot is plowed of snow. The snow is piled on the grassy areas adjacent to the lot.

Turf Management – Lawn maintenance is contracted out by the Division of Public Works. The Service Contract requires the contractor to remove all trash (wrappers, paper, twigs, rocks, cardboard, plastics, etc.) from the lawn areas before mowing. Per City of Superior Pesticide Ordinance, No city department, except the Nemadji Golf Course, shall use or authorize the use of pesticides by this article and upon prior approval given by the common council. Fertilizer is not used on the treatment plant grounds.

Spill Prevention, Control & Cleanup – Ferric chloride, sulfur dioxide, chlorine and diesel are stored within containment areas. Chemicals that are stored within the buildings have spill/leak prevention kits in close proximity. All chemicals are properly labeled and checked often for leaks and/or deterioration. The chemical suppliers are responsible for the transfer of chemicals from their vehicles to the tanks or where the tanks are stored. The sewer hauler dump station is situated on top of a grate catch basin for any spills during the transfer from their truck to the sewer screen building.



Storage area of unused chlorine tanks in cold storage garage.



Storage area of unused sulfur dioxide tanks in belt filter bldg.



Polymer in 55-gallon containers stored in belt filter building.



6000-gallon container of ferric chloride located in CSPT 2 bldg.



Waste hauler dump station located outside of screen bldg.



In-use chlorine tanks stored next to operator room, main bldg.

Vehicle & Equipment Washing – Currently vehicle washing is done in the garage bays or outside on the parking lot.

Waste Handling & Disposal – Six 55-gallon garbage cans are available for use in a designated area. Three 62-gallon recycling bins are available in a separate area from the garage collection. The recycling area has information signage adjacent to the bins. A litter receptacle is located just within the front door of the main building.

The main building is the collection site for fluorescent light bulbs and unwanted mercury. These bulbs are dropped off by residents and small businesses. The storage site for bulbs is adjacent to the main stairwell just inside of the front door and sometimes is transferred to cold storage.

Mercury can be dropped off at the main office area on the second floor of the main building. Mercury is kept in a locked room in the main building until disposal through Northwest Clean Sweep.

Expired lab supplies are collected by Northwest Clean Sweep.

All Northwest Clean Sweep collections are on an as-needed basis.

Used oil and grease from the treatment process is held in 55-gallon drums. A contractor removes the used oil to a proper disposal area off-site.

GIS MAP OF ESDPW

