

City of Appleton  
Pollution Prevention Program  
Section 2.6 WPDES Permit No. WI-S050075-~~12~~  
Permit Start Date ~~December 15, 2006~~May 7, 2014  
August 2008  
Update August 2011December 2015

This document describes the City of Appleton Pollution Prevention Program as required in the ~~Phase II~~ Stormwater Permit from the Wisconsin Department of Natural Resources (WDNR). The program includes specific procedures intended to prevent pollution from City of Appleton operations conducted by several departments. Bold text is from the permit.

The following City of Appleton departments and divisions are involved in this program:

- Department of Public Works - Engineering Division
- Department of Public Works – Operations Division
- Department of Public Works – Parking Division
- ~~Parks, and Recreation~~ and Facilities Management -Department ~~– Reid Golf Course~~
- ~~Facilities, Grounds and Construction Management Department (Facilities)~~
- Fire Department
- Utilities Department
- Valley Transit

One copy of this document will be kept in the Engineering Division of the Department of Public Works located on the fifth floor of City Center, 100 N. Appleton Street, Appleton, Wisconsin 54911. All questions regarding this document should be directed to Paula Vandehey, Director of Public Works, at the above address, [paula.vandehey@appleton.org](mailto:paula.vandehey@appleton.org) or (920)-832-6474. Portions of this document will also be kept with other City of Appleton departments and divisions. Individual departments and divisions may elect to establish an alternate format of this plan for ease of implementation and monitoring or to fit within existing operations manuals.

Each department that is responsible for implementing a section(s) of this plan is also responsible for updating the plan as needed and training department staff on the plan requirements. Supporting documentation for activities by individual departments and divisions will be kept with those departments and divisions. Individual department and division updates will be collected by the Department of Public Works Engineering Division every ~~two~~ five years, beginning in ~~2011~~2020, for an overall plan update. This updated plan will be brought to the Utilities Committee and Common Council for review and approval prior to submitting the plan to the WDNR.

Costs associated with this program are generally funded through the budget of each responsible department. Some costs associated with this program are funded through the City of Appleton Stormwater Utility.

Tables are provided at the end of the narrative summarizing measurable goals for this program.

**2.6 Pollution Prevention – The permittee shall continue to implement its pollution prevention program. The A-program that establishes shall have measurable goals for pollution prevention and include:**

Tables are provided at the end of the narrative summarizing sections 2.6.1 through 2.6.5 and 2.6.7 through 2.6.9.

### **2.6.1 An inventory of municipally owned or operated structural stormwater management facilities.**

#### **2.6.1 Routine inspection and maintenance of municipally owned or operated structural stormwater management facilities to maintain their pollution removal operating efficiency.**

~~This section is the responsibility of the Department of Public Works, Engineering and Operations Divisions and Facilities.~~ The Department of Public Works is currently responsible for:

- ~~28-39~~ wet stormwater ponds
- ~~27-86 manholes and~~ curb inlets with sumps (Hydrodynamic Separation Device – HSD)
- ~~5-8~~ dry ponds
- One Nutrient Separating Baffle Box (NSBB)
- Numerous ditches and ravines
- Four Biofilters
- One “Stormceptor” (HSD)
- ~~Nine eight (8) foot diameter manholes with sumps (HSD)~~
- ~~One four (4) foot diameter manhole with a sump (HSD)~~

The Parks, Recreation and Facilities Management Department is currently responsible for:

- Two biofilters at the Police Station
- Two biofilters at Valley Transit
- One biofilter at Lutz Park
- ~~One~~ Two biofilters at Telulah Park

This inventory is continually changing as the city and private developers construct new stormwater ponds, biofilters, water quality manholes and inlets with sumps and other stormwater management practices. The City of Appleton typically takes ownership of stormwater ponds in residential developments after the pond has been stabilized and the vegetation is established to ensure long term maintenance of the ponds.

Changes to this inventory will be included in the annual report.

### **2.6.2 Routine inspection and maintenance of municipally owned or operated structural stormwater management facilities to maintain their pollution removal efficiency.**

This section is the responsibility of the Department of Public Works, Engineering and Operations Divisions, and the Parks, Recreation, and Facilities Management Department.

Many of the City owned and maintained ponds have Activities for pond maintenance are guided by “Adaptive Management Plans” developed for each pond. These plans are on file at the City of Appleton Department of Public Works located on the fifth floor of City Center, 100 N. Appleton Street, Appleton, WI 54911. The plans identify goals and priorities that help staff to establish the yearly inspection and maintenance activities. Engineering and Operations staff

inspect as many of the ponds [and biofilters in the DPW inventory](#) for erosion and structural problems each spring as time permits.

Approximately half of the ditches and ravines are also inspected each year and are monitored for erosion and other damage. A prioritized spreadsheet is maintained that shows all needed repairs at ponds, ditches and ravines. City Operations staff perform most of the maintenance.

The City of Appleton contracts ~~yearly~~ for muskrat trapping that occurs each spring and fall. Muskrats are known to damage vegetation and embankments at stormwater ponds. City staff collapse the dens and repair the embankments. Vegetation is replanted as necessary. The city has a horticulturist on staff and also contracts on a three year basis with a qualified firm for native wetland and prairie vegetation management at the ~~wet~~-ponds [and biofilters](#).

Maintenance plans for the Stormceptor and water quality [inlets and](#) manholes (HSD) provide measure down depths to determine when cleaning is needed. [The “Stormceptor” is cleaned each year by the “Sewer TV and Cleaning” contractor.](#) The City of Appleton Sewer Crew checks the [other devices/structures](#) each year and removes sediment ~~if the depth requirements have been reached annually.~~

[City crews have designed and installed baskets in the inlets in the downtown area to capture cigarettes and trash. These baskets are cleaned weekly.](#)

The City of Appleton also cleans and televises the storm sewer system on approximately a 10-year cycle to ensure pipe integrity and monitor for improper connections.

[The Parks, Recreation, and Facilities Management Department inspects and maintains the biofilters in their inventory per the Operation and Maintenance Plans developed with the project designs.](#)

### **2.6.2.3 Routine Street Sweeping and cleaning of catch basins with sumps where appropriate.**

This section is the responsibility of the Department of Public Works, Operations ~~and Parking~~ Divisions.

The Department of Public Works Operations Division currently owns two (2) mechanical sweepers, one (1) high efficiency street sweeper (HESS) and one Vac-All. [Although the entire City is swept, additional efforts are focused on areas that are not tributary to regional stormwater ponds. The City of Appleton Common Council has adopted the City-wide Stormwater Management Plan that calls for replacing the current mechanical sweepers with high efficiency sweepers when the equipment is due for replacement, subject to available funding.](#)

~~The sweeper owned by~~ The Parking Division [also owns a vacuum sweeper that](#) is smaller than a street sweeper, appropriately sized to operate inside the parking ramps. ~~This sweeper was replaced with an upgraded model in 2011.~~

[All city streets are generally swept on a 4 to 5 week cycle, with](#) The downtown [is swept twice a week with half mechanical sweeping and half high efficiency sweeping. Arterial streets and industrial areas are swept once every two weeks with the Vac-All or the HESS sweeper. The](#)

remaining areas are generally swept on a four week cycle, from approximately April to October. The first sweeping in the spring is completed prior to hydrant flushing activities. ~~In 2012 the city will further evaluate changing to a high intensity spring street sweeping cycle to help meet Section 2.7 of the NR 216 Permit.~~

City parking ramps are swept daily and two downtown public parking lots are swept ~~three to five times per week~~ ly by the Parking Division.

The Parks, Recreation and Facilities Management parking lot is swept every two weeks by the Operations Division of Public Works. The Municipal Services Building parking lot is swept weekly. Telulah Park parking lot is swept once per month. All parks, the Wastewater Treatment Plant and the Water Filtration Plant parking lots are swept once per year during spring cleanup. Parking lots in city parks are swept weekly and other department lots may be swept upon request, if staff and equipment are available.

All sweeping is subject to weather conditions and staff and equipment availability. Per the 2014 Stormwater Management Plan Update, the City will work to improve sweeping frequency for areas not in the downtown, industrial areas or arterial streets to a three week frequency, as labor and equipment are available. The City will also evaluate supplementing efforts with private street sweepers and upgrading mechanical sweepers to high efficiency sweepers at the time of replacement.

Maintenance plans for the Stormceptor and water quality inlets and manholes (HSD) provide measure down depths to determine when cleaning is needed. The Stormceptor is cleaned each year by the "Sewer TV and Cleaning" contractor. The City of Appleton Sewer Crew checks the other structures each year and removes sediment annually.

#### **2.6.3-4 Proper disposal of street sweeping and catch basin cleaning waste.**

This section is the responsibility of the Department of Public Works, Operations Division.

Street sweeping and storm sewer cleaning waste collected by the Operations Division is currently disposed of at the Outagamie County Landfill. Alternative methods of disposal are continually being sought to reduce the cost associated with tipping fees. Sweepings collected by the Parking Division are collected and disposed of by a private hauler.

#### **2.6.4 If road salt or other deicers are applied by the permittee, no more shall be applied than necessary to maintain public safety.**

The information provided below is current as of the revision date of this Program document. Any changes that occur before the next official update of this document will be reported with the annual report.

This section is the responsibility of the Department of Public Works, Operations and Parking Divisions and Parks, Recreation and Facilities Management Department.

The Department of Public Works Operations Division has a written "Snow and Ice Control Program" adopted by the Common Council to address winter street maintenance. This program is being updated in 2015/2016. This program does not commit to bare pavement, establishes

proper use of chemicals, and sets guidelines for the amount of salt used per lane mile depending on temperature, the type of storm event, and the type of street. [It also includes the use of pre-wetting solutions to further reduce salt usage.](#) The equipment used to apply salt is kept in good working condition and calibrated regularly. [The City updated the “Snow and Ice Control Program” to add the use of pre-wetting solutions to further reduce salt usage.](#)

A new salt shed was constructed in 2001 at the Municipal Services Building. It was inspected yearly by the State of Wisconsin through 2009. The State did not provide this service in 2010, but resumed inspections in 2011. It is unclear how long this service will be provided.

The Parking Division applies deicer to the parking ramps and lots as needed to ensure pedestrian and vehicle safety. The smaller amounts needed in these areas have allowed city staff to try new, more environmentally friendly products and still monitor the sites for safety. Which products are used on a regular basis is determined by availability and cost.

[Parks, Recreation and Facilities Management](#) applies deicers to parking lots, access roads and sidewalks at various city facilities to maintain pedestrian and vehicle safety. They also remove snow from some of the city trails and apply deicers as needed. The smallest effective amount of salt is used.

The Department of Public Works, Operations Division and [Parks, Recreation and Facilities Management](#) remove snow and apply deicers on approximately [2327.8 miles \(2014-2015\)](#) of public sidewalk. The smallest effective amount of salt is used.

**[Information on deicing activities shall be submitted with the annual report required under section 2.9 of this permit beginning with the annual report due March 31, 2016 and annually thereafter and include:](#)**

**[2.6.5.1 Contact information for the individual\(s\) with overall responsibility for winter roadway maintenance.](#)**

[The following people are responsible for winter roadway maintenance:](#)

- [1. Nate Loper, Deputy Director of Public Works – Operations  
Office 920-832-5804, Cell 920-419-6225, \[nathan.lover@appleton.org\]\(mailto:nathan.lover@appleton.org\)](#)
- [2. Carl Schultz, Operations Foreman, Department of Public Works  
Office 920-832-5581, Cell 920-419-6036, \[carl.schultz@appleton.org\]\(mailto:carl.schultz@appleton.org\)](#)
- [3. Paula Vandehey, Director of Public Works  
Office 920-832-6474, Cell 920-419-6713, \[paul.vandehey@appleton.org\]\(mailto:paul.vandehey@appleton.org\)](#)

[The following people are responsible for winter maintenance at parking ramps and downtown city-owned parking lots:](#)

- [1. Paul De Braal, Parking Utility Manager, Department of Public Works](#)

Office 920-832-2330, Cell 920-419-6220, paul.debraal@appleton.org

2. Ross Buetow, Deputy Director of Public Works/City Engineer  
Office 920-832-6485, Cell 920-419-6408, ross.buetow@appleton.org

The following person is responsible for winter maintenance at city facilities:

1. Dean Gazza, Director of Parks, Recreation and Facilities Management  
Office 920-832-5572, Cell 920-419-0374, dean.gazza@appleton.org

#### **2.6.5.2 Description of the types of deicing products used.**

The Department of Public Works Operations Division (streets) uses the following:

Granular sodium chloride (road salt)

Liquid sodium chloride 28%, salt brine, prewet and anti-ice application

Liquid calcium chloride 42% prewet application

The Department of Public Works Parking Division uses the following:

“Meteor Melt”

Chemical components OSHA PEL ACGIH

Potassium chloride 10 mg/M3 7447-40-7

Sodium chloride 10 mg/M3 7647-14-5

Magnesium chloride 7786-30-3

Calcium chloride

The Parks, Recreation and Facilities Management Department uses the following:

Calcium chloride

Granular sodium chloride (road salt)

Liquid calcium chloride pre-wet for sidewalks and parking lots

#### **2.6.5.3 The amount of deicing product used per month.**

This information will be tracked through the City’s inventory system and reported annually.

#### **2.6.5.4 Description of the type of equipment used.**

The Department of Public Works Operations Division (streets) operates the following:

10 tri-axle plow trucks, wing and plow, tailgate salt spreader with prewet capabilities  
15 single axle plow trucks, wing and plow, tailgate salt spreader with prewet capabilities  
6 front end loaders with a wing and plow  
2 road graders with a wing and plow  
2 one ton plow trucks with a salt spreader  
3 sidewalk snow plows with a salt spreader

The Department of Public Works Parking Division uses the following:

1 truck spreader  
By hand with scoops

The Parks, Recreation and Facilities Management Department operates the following:

Four ¾ ton plow trucks with inbox salt spreaders  
Six Toro mower to snow conversion units with salt spreaders for sidewalk use  
One Liquid calcium chloride spray unit for sidewalks and parking lots

#### **2.6.5.5 Snow disposal locations, if applicable**

South side of the intersection of E. Glendale Avenue and N. Sandra Street  
Southeast corner of E. Milis Drive and S. Quest Drive  
701 S. Whitman Drive  
N. Kalata Place (Parking Division)

#### **2.6.5.6 Anti-icing, equipment calibration and salt reduction strategies considered.**

The Department of Public Works Operations Division (streets) considered all available technologies, currently owned equipment, locations of critical sites and available staff in the development of the current strategy. The current strategy is as follows:

The City applies liquid salt brine as an anti-ice agent prior to snow/ice storms and forecasted frost events on hills, bridges, curves and four lane roads. All equipment having a material spreader is equipped with prewet capabilities and an on-board computer system which regulates material application. This equipment is calibrated annually. The City also developed a snow and ice matrix that is used to evaluate impending storm conditions and helps determine the proper methodology for combating the snow event. The matrix is attached to this document. The City also subscribes to a weather service that helps establish duration, intensity and timing of a storm. In addition, the service forecasts present and future air and pavement temperatures and recommends material spreading applications.

The Department of Public Works Parking Division strategy includes plowing and scraping snow with a skid steer and also using a snow blower and hand shovels. Salt is typically only applied in areas prone to ice formation or where ice is present.

The Parks, Recreation, and Facilities Management Department strategy is similar to the DPW Parking Division strategy.

#### **2.6.5.7 Other measureable data or information that the permittee used to evaluate its deicing activities.**

The Department of Public Works Operations Division (streets): The primary focus of the program is to anti-ice instead of de-ice as much as possible. City staff stay current with the latest snow and ice technology by networking with vendors and other communities, attending American Public Works Association training on the topic, and sending various staff to UW-Madison and NEWSC sponsored classes regularly. New employees are trained on the program every fall. The City believes that it is using the latest technology.

The Department of Public Works Parking Division uses deicing materials on an as-needed basis only.

The Parks, Recreation and Facilities Management Department uses deicing materials on an as-needed basis only.

#### **2.6.5-6 Proper management of leaves and grass clippings, which may include on-site beneficial reuse as opposed to collection.**

This section is the responsibility of the Department of Public Works; Operations Division, Fire Department, ~~Facilities and~~ the Parks and Recreation and Facilities Management Department. Parks, Recreation and Facilities Management is responsible for yard care at approximately 144 public terraces and outlots, the Wastewater and Water Treatment Plants. ~~A~~ all City owned parks, Valley Transit, the Witzke Blvd Parks, Recreation and Facilities Management office, the Police Station and Fire Station 6. Fire Stations 1 through 5 have mulching mowers and leaf collection is addressed under the City-wide leaf collection program.

Parks, Recreation and Facilities Management -uses mulching mowers in the parks, public terraces, and at other city facilities that they maintain. No leaves or grass clippings are removed from these sites. At Reid Golf Course all material is mulched or composted and kept on-site.

Appleton has two yard waste drop off sites that collect grass clippings, brush, and yard waste, ~~and motor oil~~ from residents. A fee is charged for each bag of grass clippings as an incentive to mulch grass or compost at home.

Leaves are collected by the Department of Public Works Operations Division in the fall in approximately three (3) cycles through the city. Some leaves are ground and made available to residents as mulch. Other leaves are applied to farm fields, provided to landscapers used for berm construction at various city facilities and ~~in 2011 leaves will be~~ provided to the compost pilot program with Outagamie County and Appleton Utilities Department Biosolids Program. Grass clippings are currently mixed with other ground yard waste and taken to the compost project or provided to the public.



2.6.6-7 Stormwater pollution prevention planning for municipal garages, storage areas, and other sources of stormwater pollution from municipal facilities. Information on stormwater pollution prevention activities for municipal garages, storage areas, and other sources of stormwater pollution prevention from municipal facilities shall be submitted with the annual report under section 2.9 of this permit beginning with the annual report due March 31, 2016 and annually thereafter and include the information in sections 2.6.7.1 through 2.6.7.7. The Department may waive the requirements of this section on a case-by-case basis for a municipal facility provided the permittee certifies that the facility qualifies for a conditional no exposure exclusion pursuant to s. NR 216.21(3), Wis. Adm. Code and with the Department's written concurrence.

Information on stormwater pollution prevention activities shall include:

2.6.7.1 Location of each facility and contact information for the individual(s) with overall responsibility for each facility.

2.6.7.2 A map of each facility, drawn to scale, and including the following features:

2.6.7.2.1 The locations of major activities and storage areas.

2.6.7.2.2 Identification of drainage patterns, potential sources of stormwater contamination, and discharge points.

2.6.7.2.3 Identification of nearby receiving waters or wetlands.

2.6.7.2.4 Identification of connections to the permittee's MS4.

2.6.7.3 A description of good housekeeping activities and any best management practices installed to reduce or eliminate stormwater contamination.

2.6.7.4 Recommendations for improvements to current stormwater management practices at the facility and a timeline for installation and/or implementation of these recommendations.

2.6.7.5 Information on inspections of the facility to identify and address potential sources of stormwater contamination.

2.6.7.6 Employee training on stormwater pollution prevention at the facility.

2.6.7.7 Spills prevention and response procedures.

Earth Tech, Inc. prepared nine (9) site specific Stormwater Management Plans for the following City of Appleton facilities:

- Valley Transit [\(2004\)](#)
- Whitman Yard Waste Site (Department of Public Works - Operations Division) [\(2005\)](#)
- Municipal Services Building (Department of Public Works - Operations Division) [\(2005\)](#)
- Water Treatment Plant (Utilities Department) [\(2005\)](#)
- Wastewater Treatment Plant (Utilities Department) [\(2005\)](#)
- Fire Station No. 1 [\(2007\)](#)
- Fire Station No. 6 [\(2007\)](#)

- Facilities and Grounds Operations Center [on Witzke Blvd](#) (formerly Parks and Recreation Department Office and Storage yard) [\(2007\)](#)
- Reid Golf Course Maintenance Yard (Parks, ~~and~~ Recreation, [and Facilities Management Department](#)) [\(2007\)](#)

These plans are separate documents and not included in this program document. Each department is responsible for implementing the stormwater plan for their facilities, including: physical site changes, plan updates and amendments, facility inspections, and staff training. Earth Tech, Inc. provided training to each department on their completed plans. [Department of Public Works Engineering staff provide additional training to each department if requested. Beginning in 2016, the Department of Public Works will be performing site inspections for Parks, Recreation, and Facilities Management sites and assisting them with any necessary plan updates.](#)

#### **2.6.7 -Application of [lawn-turf](#) and garden fertilizers on -municipally controlled properties, with pervious surfaces over 5 acres each, in accordance with site-specific nutrient application schedule based on appropriate soil tests.**

City owned properties with over 5 acres of pervious area include most city parks, Reid ~~Golf Course~~, the Water Treatment Plant (WTP) and the Wastewater Treatment Plant (WWTP). The city also owns property with over 5 acres of pervious surface that is leased by USA Youth Sports ~~and the Gardens of the Fox Cities.~~

This section is the responsibility of ~~Facilities and~~ [The Parks, ~~and~~ Recreation \[and Facilities Management\]\(#\) Department.](#) ~~Facilities is responsible for yard care at the Wastewater and Water Treatment Plants.~~

The City has a Turf Management Policy for city parks and other City owned properties, except Reid Golf Course. There are also completed soil tests and Nutrient Management Plans for all city parks, Reid Golf Course, and the Water and Wastewater Treatment Plants. The site specific Nutrient Management Plans fall under the Turf Management Policy. Reid Golf Course has a stand alone Nutrient Management Plan, not under the Turf Management Policy. Reid Golf Course and [Parks, Recreation and Facilities Management](#) staff are certified for the proper application of lawn and garden fertilizers and follow the Nutrient Management Plans. The plans will be updated every five (5) years following new soil tests.

Lease agreements with USA Youth Sports ~~and the Gardens of the Fox Cities were amended to~~ [addressincludes](#) this requirement.

#### **[2.6.9 Consideration of environmentally sensitive land development designs for municipal projects, including green infrastructure and low impact development.](#)**

[The Parks, Recreation and Facilities Management Department will add this requirement to Requests for Proposals for designs of municipal building projects.](#)

[The Department of Public Works evaluates street width for every reconstruction project. Streets are narrowed, increasing terrace width for trees and grass, whenever possible. The Department](#)

[is also evaluating the various new pervious pavement technologies, including installation of two “Pavedrain” test areas, one in 2015 and one in 2016.](#)

**2.6.8–10 Education of appropriate municipal and other personnel involved in implementing this program.**

Each Department impacted by this section of the Permit is required to provide training to their own personnel regarding the implementation of this plan. However, some of the topics may be applicable to multiple departments and combined training efforts will be used whenever the time and topic are appropriate. Training will be incorporated into existing training programs.

**2.6.9–11 Measures to reduce municipal sources of stormwater contamination within source water protection areas.**

Small portions of the city are tributary to a Freedom municipal well, a Town of Menasha municipal well, and Lake Winnebago. The city will continue current practices within known source water protection areas.

|                                                                                                                                                                                                           |                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b><u>DES Permit Requirement: 2.6.1</u></b> An inventory of municipally owned or operated structural stormwater management facilities.                                                                    |                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                  |
| <b><u>Responsible Departments and Divisions:</u></b> Department of Public Works - Engineering Division                                                                                                    |                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                  |
| <b><u>Operation</u></b>                                                                                                                                                                                   | <b><u>BMP Description</u></b>                                                                                                                                                                                                                           | <b><u>Measurable Goals</u></b>                                                                                                                                                                                   |
| (1) <u>Maintain inventory of municipally owned or operated structural stormwater management facilities</u>                                                                                                | <ul style="list-style-type: none"> <li>• <u>Track construction projects by the Department of Public Works; Parks, Recreation and Facilities Management; and the Wisconsin DOT within the city limits for stormwater management practices</u></li> </ul> | <ol style="list-style-type: none"> <li>1. <u>Report inventory changes in the annual report.</u></li> <li>2. <u>Continue to add new DPW and DOT practices to the DPW GIS system on a yearly basis.</u></li> </ol> |
| <b><u>Potential Barriers to Implementation</u></b> <ul style="list-style-type: none"> <li>• <u>Staff availability</u></li> <li>• <u>Accurate reporting from other departments and agencies</u></li> </ul> |                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                  |

**WPDES Permit Requirement: 2.6.1-2** Routine inspection and maintenance of municipally owned or operated structural storm water management facilities to maintain their pollutant removal operating efficiency.

**Responsible Departments and Divisions:** Department of Public Works –Engineering and Operations Divisions [and Parks, Recreation and Facilities Management Department](#)

| Operation                                            | BMP Description                                                                                                                                                                                                    | Measurable Goals                                                               |
|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| (1) Inspect and Maintain Stormwater Ponds            | <ul style="list-style-type: none"> <li>Inspect City owned and maintained storm water ponds to identify erosion, sediment deposits, weed growths, private encroachments, and inlet and outlet condition.</li> </ul> | 1. Inspect 50% of the City-owned ponds annually (Y/N).                         |
| (2) Inspect and Maintain other Structural Facilities | <ul style="list-style-type: none"> <li>Inspect City owned and maintained water quality manholes with sumps and proprietary devices and follow operation and maintenance plans.</li> </ul>                          | 2. Check sediment and debris accumulation annually and remove as needed (Y/N). |
| (3) Inspect and Maintain Ditches and Ravines         | <ul style="list-style-type: none"> <li>Inspect City-maintained ditches and ravines for erosion and other damage.</li> <li>Perform necessary maintenance activities.</li> </ul>                                     | 3. Inspect 50% of the City-maintained ditches and ravines annually (Y/N).      |
| (4) Inspect Storm Sewer System                       | <ul style="list-style-type: none"> <li>Clean and televise storm sewer system on approximately a 10-year cycle.</li> </ul>                                                                                          | 4. Clean and televise 10% of storm system annually (Y/N).                      |

**Potential Barriers to Implementation**

- Lack of maintenance funds
- Staff training and availability
- Sewer cleaning / televising equipment availability

| <b>WPDES Permit Requirement: 2.6.2-3</b> Routine street sweeping and cleaning of catch basins with sumps <u>as-where</u> appropriate.                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Responsible Departments and Divisions:</b> Department of Public Works - Operations and Parking Divisions                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Operation                                                                                                                                                                                                                                                                               | BMP Description                                                                                                                                                                                                                                                                                                                                                              | Measurable Goals                                                                                                                                                                                                                                                                                                                                                                                                                             |
| (1) Sweeping - Streets                                                                                                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>• <u>Generally s</u>Sweep all City streets on <u>a 4 – 5</u> week cycle, April to October.</li> <li>• Sweep downtown area twice (2x) per week, April to October.</li> <li>• <del>Sweep parking lots in the City parks when in the area.</del></li> <li>• <u>Sweep arterial streets and industrial areas once per week.</u></li> </ul> | <ol style="list-style-type: none"> <li>1. Provide 2500 broom hours of street sweeping annually (Y/N).</li> <li>2. Sweep downtown streets two (2) times per week (Y/N).</li> <li>3. Evaluate the replacement of existing mechanical sweepers with high efficiency sweepers per established equipment replacement schedule (Y/N).</li> <li><del>4. In 2012 evaluate program change to intense spring sweeping schedule (Y/N).</del></li> </ol> |
| (2) Sweeping – <u>Downtown City</u> Parking Lots and Ramps                                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>• Sweep <del>Parking Division lots and parking ramps daily and downtown City parking lots ramps three to five times</del><u>once</u> -per week.</li> </ul>                                                                                                                                                                            | <ol style="list-style-type: none"> <li><u>4. Evaluate supplementing with private street sweeping and/or increasing sweeping frequency to a 3 week cycle by 2020.</u></li> </ol>                                                                                                                                                                                                                                                              |
| (3) Sweeping – Various City facilities                                                                                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>• Sweep <u>parks and</u> various city facilities if requested and as staff, equipment and time permit.</li> </ul>                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| (4) Catch basin cleaning                                                                                                                                                                                                                                                                | <ul style="list-style-type: none"> <li>• Inspect City owned and maintained water quality <u>manholes and</u> inlets with sumps and follow maintenance plans.</li> </ul>                                                                                                                                                                                                      | <ol style="list-style-type: none"> <li>5. Check sediment and debris accumulation annually and remove as needed (Y/N).</li> </ol>                                                                                                                                                                                                                                                                                                             |
| <b>Potential Barriers to Implementation</b> <ul style="list-style-type: none"> <li>• Funding <del>is an issue</del> to comply with current commitment</li> <li>• Equipment availability/reliability</li> <li>• Staff availability for sweeping</li> <li>• Weather conditions</li> </ul> |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                              |

**WPDES Permit Requirement: 2.6.3-4** ~~Routine-Proper~~ disposal of street sweeping and catch basin cleaning waste.

**Responsible Department and Division:** Department of Public Works - Operations Division

| Operation                                   | BMP Description                                                                                                                                                                                                    | Measurable Goals                                                                 |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| (1) Disposal of Street Sweepings            | <ul style="list-style-type: none"><li>Accumulate sweepings daily at city owned facility</li><li>Haul to Outagamie County landfill <del>twice weekly</del><u>as needed</u> during street sweeping cycles.</li></ul> | 1. Maintain regular disposal practices (Y/N) as tracked by tipping fee receipts. |
| (2) Disposal of catch basin cleaning wastes | <ul style="list-style-type: none"><li>Accumulate cleanings daily at City owned facility.</li><li>Haul with street sweepings to Outagamie County Landfill.</li></ul>                                                | 2. Maintain regular disposal practices (Y/N) as tracked by tipping fee receipts. |

**Potential Barriers to Implementation**

- Cost of tipping fees
- Loss of County-owned licensed landfill disposal option
- Staff availability for hauling

**WPDES Permit Requirement: 2.6.4-5** If road salt or other deicers are applied by the permittee, no more shall be applied than necessary to maintain public safety. ~~(Note: The DOT “Highway Maintenance Manual”, Ch 35, contains guidance on application deicers that can be used to determine whether no application is necessary and what application rate is appropriate for deicing and ice prevention. You can learn more about getting connected to this secured server at: <http://www.dot.wisconsin.gov/business/extranet/>. The Wisconsin Department of Transportation (DOT) highway salt storage requirements are contained in Ch. Trans 277, Wis. Adm. Code.)~~

**Responsible Department and Division:** Department of Public Works Department - Operations and Parking Divisions, [and Parks, Recreation and Facilities Management](#)

| <b>Operation</b>                                                                                            | <b>BMP Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>Measurable Goals</b>                                                                                                  |
|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| (1) Follow Snow and Ice Control Program for Streets                                                         | <ul style="list-style-type: none"> <li>• Apply salt per guidelines established for temperature, type of storm, and type of street.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1. Maintain fleet for proper calibrated application (Y/N). Supported by fleet vehicle maintenance records.               |
| (2) Apply minimum effective amount of deicer at city facilities and on city maintained sidewalks and trails | <ul style="list-style-type: none"> <li>• Remove snow and apply deicer to Parking Division lots and ramps as needed to maintain pedestrian and vehicle safety.</li> <li>• Remove snow and apply deicer on parking, traffic and pedestrian areas in City parks and on trails maintained for winter use.</li> <li>• Remove snow and apply deicer on pedestrian, parking and traffic areas at Water and Wastewater Treatment Plants and other various city facilities (lift stations, water towers, fire stations, police station, etc.) as necessary for winter access and use.</li> </ul> |                                                                                                                          |
| (3) Deicer Storage                                                                                          | <ul style="list-style-type: none"> <li>• Maintain salt storage shed.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 2. <del>Conduct a</del> Annual salt shed inspections (Y/N)                                                               |
| <a href="#">(4) Stay Current with snow and ice control technology</a>                                       | <ul style="list-style-type: none"> <li>• <a href="#">Review matrix and program document regularly and attend training as funds and staff time allow</a></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                      | <a href="#">3. Review Snow and Ice matrix yearly</a><br><a href="#">4. Review Snow and Ice Program every three years</a> |

**Potential Barriers to Implementation**

- Snow disposal site availability (long-term)
- Chloride residuals management
- Cost of alternative deicer materials
- Weather conditions and forecasting for application management/ timing
- Adequate funding for purchase and maintenance
- Availability of equipment and replacement parts



**WPDES Permit Requirement: 2.6.5-6** Proper management of leaves and grass clippings, which may include on-site beneficial reuse as opposed to collection.

**Responsible Department and Division:** Department of Public Works - Operations Division; [Parks, Recreation and Facilities Management](#) and Fire Department

| Operation                                                                                               | BMP Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Measurable Goals                                                                                                                  |
|---------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| (1) Leaf Collection Program – city-wide                                                                 | <ul style="list-style-type: none"> <li>Conduct three bi-weekly rounds of collection over a six-week period followed by one round of street sweeping and inlet cleaning prior to snowfall.</li> <li>Haul leaves from point of street collection to a city yard waste or storage facility for temporary storage.</li> <li><del>Use leaves to construct berms at city facilities</del> <a href="#">Take advantage of opportunities when they occur.</a></li> <li>Grind leaves into mulch and make available to city residents.</li> <li>Provide leaves to regional composting project <a href="#">and area landscapers.</a></li> </ul> | 1. Continue public leaf collection program (Y/N).                                                                                 |
| (2) Grass Clipping Management – city - wide                                                             | <ul style="list-style-type: none"> <li>Properly staff and maintain city-owned drop-off facilities for public use.</li> <li>Grind grass with other yard waste and take to private vendor.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2. Continue operation of yard waste drop-off sites (Y/N).                                                                         |
| (3) Parks and city properties maintained by <a href="#">Parks, Recreation and Facilities Management</a> | <ul style="list-style-type: none"> <li>Mulch leaves and grass on site.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 3. <a href="#">Parks, Recreation and Facilities Management</a> will continue to own, operate, and maintain mulching mowers (Y/N). |
| (4) Fire Department                                                                                     | <ul style="list-style-type: none"> <li>Mulch grass on site.</li> <li>Follow city-wide leaf collection program.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 4. The Fire Department will continue to own, operate, and maintain mulching mowers (Y/N).                                         |

**Potential Barriers to Implementation**

- Leaf [and grass clipping](#) disposal site availability
- [Grass clipping disposal site](#)
- Weather conditions/ timing of snowfall
- Changed regulatory requirements – redefinition of “proper management”

availability

**WPDES Permit Requirement: 2.6.7** Stormwater pollution prevent for municipal garages, storage areas, and other sources of stormwater pollution from municipal facilities.

**Responsible Department and Division:** Department of Public Works Operations Division, Parks, Recreation and Facilities Management Department, Fire Department, Utilities Department and Valley Transit.

| <b><u>Operation</u></b>                                                                                                                                              | <b><u>BMP Description</u></b>                                                                                                                                           | <b><u>Measurable Goals</u></b>                                                                                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>(1) Inspect municipal facilities per prepared plans.</u>                                                                                                          | <ul style="list-style-type: none"> <li>Each department will budget and make arrangements for required inspections.</li> </ul>                                           | <ol style="list-style-type: none"> <li>1. Perform inspections per prepared plans.</li> <li>2. Report inspections per permit requirements.</li> </ol>                                   |
| <u>(2) Periodically review and update plans.</u>                                                                                                                     | <ul style="list-style-type: none"> <li>Each department will budget and make arrangements for reviewing and updating their plans.</li> </ul>                             | <ol style="list-style-type: none"> <li>3. By December 31, 2016, complete initial update of all site pollution prevention plans.</li> </ol>                                             |
| <u>(3) Employee training on pollution prevention at each facility.</u>                                                                                               | <ul style="list-style-type: none"> <li>Each department will train or make arrangements to train their staff on pollution prevention practices for their site</li> </ul> | <ol style="list-style-type: none"> <li>4. Each department will provide one training opportunity per year for their staff as documented by an attendance sign-in and agenda.</li> </ol> |
| <b><u>Potential Barriers to Implementation</u></b> <ul style="list-style-type: none"> <li>Different priorities for each department</li> <li>Staff changes</li> </ul> |                                                                                                                                                                         |                                                                                                                                                                                        |

**WPDES Permit Requirement: 2.6.7-8** Application of [lawn-turf](#) and garden fertilizers on municipally controlled properties, with pervious surfaces over 5 acres each, in accordance with a site specific nutrient application schedule based upon appropriate soil tests.

**Responsible Departments and Divisions:** Parks, ~~and Recreation~~ ~~Department~~ and Facilities [Management Department](#)

| Operation                                                                              | BMP Description                                                                                                                                                                                                                                      | Measurable Goals                                                                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (1) <del>Facilities</del> Turf Management <del>at</del> parks, WTP and WWTP            | <ul style="list-style-type: none"> <li>Review and update Turf Management Policy and Nutrient Management Plans on a regular basis.</li> <li>Follow Turf Management Policy and Nutrient Management Plans.</li> </ul>                                   | <ol style="list-style-type: none"> <li>Review and update Turf Management Policy every 5 years (Y/N).</li> <li>Review and update Nutrient Management Plans every 5 years (Y/N).</li> <li>Follow Turf Management Policy and Nutrient Management Plans (Y/N).</li> </ol> |
| (2) <del>Parks and Recreation</del> Turf Management <a href="#">at leased property</a> | <ul style="list-style-type: none"> <li>Work with USA Youth Sports <del>and Gardens of the Fox Cities</del> to Follow Nutrient Management Plans for their sites.</li> <li>Properly maintain turf at Reid Golf Course per latest standards.</li> </ul> | <ol style="list-style-type: none"> <li>Monitor compliance with Nutrient. Management Plans (Y/N) for leased <del>properties</del><a href="#">property</a>.</li> </ol>                                                                                                  |

**Potential Barriers to Implementation**

- Committee/council approvals and adequate budget authorization

**WPDES Permit Requirement: 2.6.9 Consideration of environmentally sensitive land development designs for municipal projects, including green infrastructure and low impact development.**

**Responsible Departments and Divisions:** Department of Public Works Engineering Division and Parks, Recreation and Facilities Management Department

| <b><u>Operation</u></b>                                                                                          | <b><u>BMP Description</u></b>                                                                                                                                           | <b><u>Measurable Goals</u></b>                                                                                                                                                                                                                                            |
|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (1) <u>Consideration of environmentally sensitive designs for municipal building projects</u>                    | <ul style="list-style-type: none"> <li>• <u>Evaluate possible green infrastructure practices when planning and designing city facilities</u></li> </ul>                 | <ol style="list-style-type: none"> <li>1. <u>Include this requirement in RFPs issued by the Parks, Recreation and Facilities Management Department.</u></li> <li>2. <u>Public Works will begin discussions with other City departments that may issue RFPs</u></li> </ol> |
| (2) <u>Consideration of environmentally sensitive designs and green infrastructure for public works projects</u> | <ul style="list-style-type: none"> <li>• <u>Evaluate design options for Public Works street reconstruction and other projects</u></li> </ul>                            | <ol style="list-style-type: none"> <li>3. <u>Evaluate each street reconstruction project for pavement narrowing and opportunities for green infrastructure</u></li> </ol>                                                                                                 |
| (3) <u>Stay current on green infrastructure and low impact development technologies</u>                          | <ul style="list-style-type: none"> <li>• <u>Public Works staff will evaluate and look for opportunities to demonstrate green infrastructure technologies</u></li> </ul> | <ol style="list-style-type: none"> <li>4. <u>Evaluate one new green infrastructure technology per year</u></li> </ol>                                                                                                                                                     |

**Potential Barriers to Implementation**

- Staff availability
- Staff resistance
- Staff knowledge of low impact development and green infrastructure
- Chance of success of contractor implementation
- Level of green infrastructure industry development

| <b>WPDES Permit Requirement: 2.6.8-10</b> Education of appropriate municipal and other personnel involved in implementing this program.                                                                                                                                                                                                                                                    |                                                                                                                                                                    |                                                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| <b>Responsible Departments and Divisions:</b> Department of Public Works Department- Engineering, Operations, and Parking Divisions; <a href="#">Parks, Recreation and Facilities Management</a> , Fire Department, Utilities Department                                                                                                                                                   |                                                                                                                                                                    |                                                                                                    |
| Operation                                                                                                                                                                                                                                                                                                                                                                                  | BMP Description                                                                                                                                                    | Measurable Goals                                                                                   |
| (1) Operational Training:<br>Department of Public Works<br><a href="#">Parks, Recreation and Facilities Management</a>                                                                                                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>Conduct pollution prevention training on a seasonally relevant topic within existing training program structure.</li> </ul> | 1. Provide one training opportunity per department per year; document with training records (Y/N). |
| (2) Pollution Prevention Informational Posters:<br>Department of Public Works<br><a href="#">Parks, Recreation and Facilities Management</a>                                                                                                                                                                                                                                               | <ul style="list-style-type: none"> <li>Post pollution prevention program informational posters in appropriate workplace locations.</li> </ul>                      | 2. Acquire and post appropriate information posters (Y/N).                                         |
| <del>(3) Municipal Site Stormwater Management Plan Training:</del><br><del>All</del>                                                                                                                                                                                                                                                                                                       | <ul style="list-style-type: none"> <li><del>Conduct annual training for each site-specific Stormwater Management Plan listed in 2.6.6</del></li> </ul>             | <del>3. Provide annual training (Y/N).</del>                                                       |
| <b>Potential Barriers to Implementation</b> <ul style="list-style-type: none"> <li>Staff resistance</li> <li>Time availability</li> <li>Staff availability/ scheduling</li> <li>Trainer availability/ scheduling</li> <li>Cost of training and facility access</li> <li>Appropriate training methods/ techniques</li> <li>Multi-cultural issues (FVTC training support options)</li> </ul> |                                                                                                                                                                    |                                                                                                    |

**WPDES Permit Requirement: 2.6.9-11** Measures to reduce municipal sources of storm water contamination within source water protection areas. ~~Wisconsin's source water assessment program information is available at:~~  
<http://www.dnr.state.wi.us/org/water/dwg/swap/index.htm>

**Responsible Departments and Divisions: Department of Public Works, Engineering and Operation Divisions**

| Operation                                                                                                | BMP Description                                                                                                 | Measurable Goals                                                   |
|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| Reduce potential sources of contaminants with pathway to water resources used for municipal water supply | <ul style="list-style-type: none"> <li>Maintain BMP's in source areas as described within this plan.</li> </ul> | 1. Maintain existing BMP's in source water protection areas (Y/N). |

**Potential Barriers to Implementation**

- Available funding
- Available staffing