



MS4 Annual Report

Reporting on activities undertaken in the calendar year 2015.

I. Municipal Information

Name of Municipality City of Oconomowoc		Facility ID No. (FIN) 31284	
Mailing Address 174 E. Wisconsin Avenue	City Oconomowoc	State WI	Postal Code 53066
County(s) in which Municipality is located Waukesha	Type of Municipality (check one) <input type="checkbox"/> County <input checked="" type="checkbox"/> City <input type="checkbox"/> Village <input type="checkbox"/> Town <input type="checkbox"/> Other (specify)		

2. Municipal Contact Information

Name of Municipal Contact Person James Lamp		Title Engineering Operations Administrator	
Mailing Address 174 E. Wisconsin Avenue	City Oconomowoc	State WI	Postal Code 53066
Email Address jlamp@oconomowoc-wi.gov	Telephone No. (including area code) 262.569.2188	Fax No. (including area code) 262.569.3219	

3. Certification

<i>I hereby certify that I am an authorized representative of the municipality covered under WDNR's WPDES MS4 General Permit No. WI-S050075-2 for which this annual report is being submitted and that the information contained in this document and all attachments were gathered and prepared under my direction or supervision. Based on my inquiry of the person or persons under my direction or supervision involved in the preparation of this document, to the best of my knowledge, the information is true, accurate, and complete. I further certify that the municipality's governing body or delegated representatives have reviewed or been apprised of the contents of this annual report. I understand that Wisconsin law provides severe penalties for submitting false information.</i>		
Authorized Representative Printed Name James Lamp	Authorized Representative Title Engineering Operations Administrator	
Authorized Representative Signature	Date Signed 3/29/16	
Email Address jlamp@oconomowoc-wi.gov	Telephone No. (including area code) 262.569.2188	Fax No. (including area code) 262.569.3219

4. General Information

- a. Described are efforts that the City has undertaken to invite our municipal governing body, interest groups, and the general public to review and comment on the annual report.
 - o A copy of the annual report is provided to our governing body. The annual report also will be posted on the City's website. The governing body, general public, and interested groups will be encouraged to review and comment on this report.

- b. Described is how elected and municipal officials and appropriate staff have been kept apprised of the municipal storm water discharge permit and its requirements.
 - o Through the City's budget, annual report and implementation process of all the different sections.
- c. The City has prepared its own municipal-wide storm water management plan. Below are the titles and dates of the storm water management plans.
 - o "Storm Water Quality Assessment" February 2009 and revised June 2009. A new plan titled "Storm Water Quality Master Plan" completed December 2015
 - o "Storm Water Pollution Prevention Plan" SWPPP dated June 2009 and updated December 2015. Updated plan will be submitted with this report via a link to a FTP site at Ruekert – Mielke.
- d. The City has entered into a written agreement with Waukesha County to perform one or more of the conditions of the general permit as provided under Section 2.10 of the general permit. Below are the cooperative efforts.
 - o Through an intergovernmental agreement the City has participated in Waukesha County's Public Information and Education Program since January of 2009 and will be renewing the contract yearly. It is the City's intent that this agreement will be a major part of public education and outreach (Section 2.1) and public involvement and participation (Section 2.2) sections of the City's WPDES permit, along with using the County's current Work Plan as guidance for local activities.
- e. The City's internet website is www.oconomowoc-wi.gov and the following links gain access to general information pertaining to the storm water management program.
 - o Links: Departments - Public Works –Storm Water – Annual Reports
- f. Updated MS4 map for 2016 will be submitted with this report via a link to a FTP site at Ruekert – Mielke.

5. Permit Conditions

- a. Minimum Control Measures:
Listed below are the actions taken during the reporting year to implement each permit condition in section 3 of the MS4 general permit.
 - Public Education and Outreach

In 2015 the City successfully carried out a Storm Water Scavenger Hunt through social media during the months of August and early September. Starting on a Sunday, each week's activity and participation directions were posted on the City web site and face book page. Participates were asked to post a picture to the week's activity showing them performing the task at hand. For example, we placed storm drain medallions around the city and asked that they find a stenciled drain or a medallion and post a picture with the participant or their family in the photo showing the medallion or stencil. A weekly winner was drawn from those participating. At the end of the 8 weeks, during storm water week we gave away a rain barrel drawn from those weekly participants. We also had the City social media mascot (Griff) in most of the postings. We observed that when Griff was used it increased the number of people viewing the site significantly. In addition, the City also has a children's stormwater page with various activities from an assortment of coloring sheets to a rain chain project.
 - Public Involvement and Participation

Through the City's web site, face book page and other social media along with document stations at various locations throughout the City; pertinent information was provided for the public to furnish them with knowledge to help spread the message that change whether big or small, can make a difference in protecting our water ways. One of the City's largest participation events to help guard our water ways is our Household Hazardous Waste Day on the second Saturday in October. This allows the public a way to dispose to this waste other than illegally dumping. Below are some other activities that are offered to the community to initiate public involvement and participation.

 - Permeable Pavement Training (February) - Waukesha County
 - Free Workshop Tech Eco-Friendly Methods (March)
 - Recycling & Water Resources: In the Community (March)
 - Rain Garden Grant Deadline Press Release (March)
 - State of Waters (March)
 - Green Clean Workshop (April) – Oconomowoc Public Library
 - Stream Monitoring – Waukesha County (May)
 - Small Propane Cylinder Safety Alert Press Release (June)
 - Watershed Model at Moonlit movie night – Waukesha County

- Oconomowoc's Storm Water Week (October)
- News Article on Scavenger Hunt (October)
- Various storm water brochures from the UW Extension – Waukesha County

- Illicit Discharge Detection and Elimination

Under the Storm Water Pollution Prevention Plan; the goal of the illicit discharge detection program is to identify and eliminate illicit connections to the City's storm sewer system at all 29 major outfalls. The City screened 13 major outfalls and since 2010 the City was pleased to find no illicit discharges occurring at any of the 29 locations. The City will continue to perform on-going field screening at major outfalls during dry weather periods along with general maintenance at the outfalls.

- Construction Site Pollutant Control

Under the Storm Water and Erosion Control Ordinance; the City has developed a Construction Site Erosion Control section and will continue to administer, regulate, and enforce according to the standards and procedures contained within this ordinance. Approximately 17 developments/construction sites including the City's were inspected weekly and within 24 hours after each rain of 0.5 inches or more. The City continues to perform spot inspections to ensure compliance of each site. Minor repair needs were observed during inspections, immediate notification was given and corrective actions were performed to stay in compliance.

- Post-Construction Storm Water Management

Under the Storm Water and Erosion Control Ordinance; the City has developed a Post Construction Storm Water Management section and will continue to administer, regulate, and enforce according to the standard and procedures contained within this ordinance.

- Pollution Prevention

During the street sweeping season, April 13th to December 23rd, the City swept the downtown area approximately 25 times, main roads 21 times and all other roadways 8 times using high efficiency vacuum sweeping equipment. In 2015 we collected 313.8 tons of debris. There is no written salting policy but we do determine the salting patterns based upon each snow event. City used approximately 5900 gallons of salt brine. As another option we have used a mixture of 2 parts salt to 1 part sand with temperatures of zero or less. We used 1,125 tons of salt and 0 tons of mix. Page 5 of 6 is the Deicing Activities Information sheet. The City does not allow leaves to be stored in the terrace or roadway. Yard waste is picked up 20 times per year by John's Disposal. The Yard Waste information is on the City's website.

b. Storm Water Quality Management:

In 2015 the City completed two storm water quality studies designed to help the City meet the new Rock River TMDL limits as outlined in the City's MS4 storm water discharge permit. A summary of the two reports is as follows:

- Water Quality Calculation Update Project:

In 2015 the City's consultant finished the storm water project which involves performing an update to the City's 2009 Storm Water Quality Assessment consistent with the DNR's recently released "TMDL Guidance for MS4 Permits", including an in-depth expansion of the plan's alternative analysis and recommendations, bringing it into compliance with TMDL standards.

Project included:

- Update the water quality calculations using WinSLAMM Version 10.1 and consistent with the DNR's "TMDL Guidance for MS4 Permits" to determine the City's current status relative to the Rock River TMDL sediment and phosphorus limits.
- Complete in-field pond and swale infiltration testing to determine actual infiltration rates throughout the City.
- Analyze the pollutant removal effectiveness of alternative best management practices to allow the City to comply with the TMDL goals.
- Prepare a recommended plan, corresponding exhibits and summary report that comply with the City's current WPDES permit and TMDL requirements. Results for TSS and phosphorous reduction for each recommended practice will be summarized by percent reduction as well as total pounds removed.

- Water Pollutant Reduction Project:

In 2015 the City's consultant finished the project which involves addressing known water quality problems at three high profile locations in the City. Determine the causes of existing water quality concerns along the Thackeray Trail, Forest Street and Summit Avenue corridors and analyze multiple alternatives in each corridor, to improve local stream/lake health while also moving the City closer to compliance with TMDL requirements.

Project included:

- Conduct preliminary site investigation in each of the three drainage basins.
- Identify several locations where facilities could be constructed or on-site practices could be implemented.
- Analyze several storm water facility configurations for each of the three drainage basins.
- Pollutant reductions were modeled for each proposed storm water facility.
- Inventory and description of the City's existing storm water quality management system.
- Description of existing municipal storm water permit requirements, anticipated future permit requirements and subsequent water quality improvement efforts.
- Present alternative water quality best management practices which meet the requirements.
- Provide a comparative evaluation of the technical, economic and environmental features of the alternative best management practices.
- Recommend a cost-effective, comprehensive storm water quality master plan for the City.

The City was also the first community within Wisconsin to integrate the Water Quality Calculation Update study with the City's Adaptive Management Plan. Phosphorous limits for both the MS4 and the wastewater treatment plant are being addressed by a combined effort of City projects and other efforts throughout the watershed by means of the Adaptive Management Plan.

c. Best Management Practices Maintenance:

- The City has a model Storm Water Maintenance Agreement for all privately owned permanent storm water management BMPs/facilities. New developments have been satisfying the requirements of recording the agreements. The City has obtained the older subdivision BMPs/facilities Declaration of Restrictions to add to our data base for each facility. The City assisted another 3 older subdivisions to bring their ponds into compliance. The City will continue to work with the Homeowner Associations to educate and go over any needed maintenance on their ponds

d. Storm Sewer System Map:

The City continues to update the storm sewer system map with all the new and modified storm sewer information including asbuilts from street projects.

6. Fiscal Analysis

General funds are used to implement the requirements of the general permit. A fiscal analysis that includes the annual expenditures for 2015 and the budget for 2016 is provided on page 5.

7. Adopted Ordinances, Inspections and Enforcement Action Summary

Our Chapter 19, Storm Water and Erosion Control Ordinance have been previously submitted. Incorporated in the City's ordinance are sections relating to construction site pollutant control, post-construction storm water management and illicit discharge elimination. This ordinance can be found on the City's website. As of the date of this annual report, no additional ordinances have been adopted. However the City will have an updated storm water management ordinance to match recent changes to Chapters NR 151 and NR 216 of the Wisconsin Administrative Code adopted by May 7, 2016. The City will use the County ordinance as a model.

Ruekert and Mielke, our consulting engineers, have performed weekly site inspections on our street construction sites along with once a month on residential developments. City staff has also performed some weekly site inspections on our street projects along with one separate site. Contractors performed weekly site inspections on 14 construction sites. In addition City staff performs various spot inspections on all sites. Minor repair needs were observed during inspections and corrective actions were performed immediately to stay in compliance.

8. Water Quality Concerns

- a. No part of the MS4 discharges to outstanding resource water (ORW) however some of the MS4 discharges into the Oconomowoc River which falls under the exceptional resource water (ERW). This was verified by the list of ORWs and ERWs found on the DNR's Internet site.
- b. Lac La Belle is an impaired waterbody in which a portion of the MS4 area discharges to. It is impaired primarily due to contaminated PCBs. No known water quality degradation or improvements were made during the reporting period. No testing was needed at this time. Lac La Belle was verified by the list of the most current Wisconsin impaired waterbodies found on the DNR's Internet site.

2015 Deicing Activities Information

2.6.5.1 Contact Information

1. Mark Frye 262.569.2184 Mfrye@oconomowoc-wi.gov
2. Brian Steinke 262.569.2191 Bsteinke@oconomowoc-wi.gov

2.6.5.2 Types of Deicing Products Used

1. Salt Brine
2. Beet Juice
3. Road Salt

2.6.5.3 Amount of Product Used

1. Salt Brine 4,864 gallons
2. Beet Juice 1,519 gallons
3. Road Salt 1,125 tons

2.6.5.4 Description and Type of Equipment

1. Spray on salt at spinner

2.6.5.5 Snow Disposal Locations

1. City Parking Lot at 425 E Jefferson Street
2. City storage area at Roosevelt Park, located at the end of Main Street

2.6.5.6 Anti-icing, Equipment Calibration, and Salt Reduction Strategies

1. For 2015 we did not have the equipment for spraying the streets with brine in advance of a snow event. We did utilize prewetting of the salt to increase its efficiency. For the spraying at the spinner, crews use eight gallons of brine per ton of salt spread on the streets. By doing this we ensure all salt leaving the truck is wet to activate faster and eliminate the 30% loss attributed to the bounce factor.
2. Our calibration too date has not been based on testing to see what each truck lays down for salt on the different settings. We have gone by the effectiveness of the salt for melting the snow or ice. We start with a low setting to determine what level of melting is achieved; if necessary we do areas a second time. Our directive is for the drivers to use the least amount of salt necessary to make the streets safe for travel.
3. Each snow event is evaluated using the factors listed in 2.6.5.7. We do not use a one size fits all approach. Salting operations are designated as light, medium and heavy based on the forecast and other weather variables. Our Street Superintendent checks the streets to ensure adequate melting and provides addition salting instructions to the drivers as needed. Each year we refine our operations based on the experienced obtained by using new products and strategies.

2.6.5.7 Other Measurable Data or Information Used to Evaluate Deicing Activities

1. Time of day
2. Future weather projections
3. Air temperatures
4. Surface temperatures
5. Amount of traffic that drives on the street
6. Time of year

Fiscal Analysis Table. Complete the fiscal analysis table provided below.

Program Element	Annual Expenditure	Budget		Source of Funds
	2015	2015	2016	
Public Education and Outreach	\$2,605.00	\$2,600.00	\$2,605.00	City of Oconomowoc's General Fund
Public Involvement and Participation	\$3,250.00	\$3,000.00	\$3,000.00	Same
Illicit Discharge Detection and Elimination	\$1,300.00	\$1,500.00	\$1,500.00	Same
Construction Site Pollutant Control	\$14,900.00	\$11,000.00	\$14,000.00	Same
Post-Construction Storm Water Management	\$12,210.00	\$14,000.00	\$13,000.00	Same
Pollution Prevention	\$ 90,679.00	\$124,000.00	\$122,990.00	Same
Storm Water Quality Management (including pollutant-loading analysis)	\$19,278.24	\$18,600.00	\$21,000.00	Same
Storm Sewer System Map	\$3,135.00	\$3,500.00	\$3,500.00	Same
Other				