



Village of Shorewood

2012 NR216 Annual Report

This report is submitted in compliance with provisions of WPDES Permit No. WI-S061565-1 by the co-permittees of the North Shore Group comprised of the City of Glendale and the Villages of Bayside, Brown Deer, Fox Point, River Hills, Shorewood and Whitefish Bay.

March 2013

INTRODUCTION

Located between the shores of Lake Michigan and the banks of the Milwaukee River, the Village of Shorewood was incorporated in 1900. Today, Shorewood is a fully-developed community of approximately 14,000 people served by an urban infrastructure which dates to the early 1900's.

The Village is comprised of primarily medium to high density residential development with urban cross-section streets. Commercial development is concentrated along the Oakland Avenue and Capitol Drive arterials. There is no industrial development within the Village. Open space and parkland comprise approximately 130 acres or 13% of the Village land area.

The Village is served by two distinct methods of sewage conveyance. The area approximately east of Oakland Avenue is served by a combined sewer system. This area does include overlays of storm sewer which convey only water collected from street drains. Separate storm and sanitary systems serve the area generally west of Oakland Avenue. In total, the Village of Shorewood maintains approximately 86,877 lineal feet of storm sewer. The NR 216 storm water permit issued to the Village of Shorewood regulates the separated area of the Village.

1. CURRENT STATUS/COMPLIANCE

Action to be Taken	Due Date	Status	Comments
Revised Monitoring Program	3/31/01	Complete	
Catch Basin Summary	3/31/01	Complete	
Roadway Deicing Report	3/31/01	Complete	
Illicit Discharge Program Proposal	3/31/01	Approved	
Legal Authority	9/30/01	Approved	
Storm Water Ordinance	9/31/01	Approved	
Initiate Monitoring Program	1/1/02	Complete	
Catch Basin Increased Cleaning	1/1/02	On-going	Implemented 2002
Increased Street Sweeping	1/1/02	On-going	Implemented 2002
Illicit Discharge Program	1/1/02	On-going	Implemented 2002
Information & Education Program	1/1/02	On-going	Implemented 2002
Pollutant Loading Report	3/31/02	Complete	2001 Report
Evaluation of Public Works Yard	3/31/02	Complete	2001 Report
Industrial/High Risk Runoff Proposal	3/31/02	Complete	2001 Report
Spills Program Proposal	3/31/02	Complete	2001 Report

2. STORM SEWER SYSTEM MAPS

No revisions were made to the storm sewer system map during the reporting period. The map will be updated in 2014 following the completion of that year’s sewer improvement program. At that time system updates will reflect constructed improvements from the Village’s 2011, 2012 and 2014 sewer programs. The Village of Shorewood has a storm sewer system map available for viewing by the public at www.villageofshorewood.org/dpw

3. SUMMARY OF ACTIVITIES

Inspections and Enforcement Actions

Each residential property is inspected at the time of sale for code compliance, including inspection for possible cross connections. A total of 104 such inspections were conducted in 2012. Field inspections for illicit connections are also conducted during water meter replacements. No such connections were found.

Public Education Programs

Each of the eight components of the public education program is addressed below:

- *Promote detection and elimination of illicit discharges and water quality impacts*

In 2002, Shorewood began a program to stamp or install a reflective medallion into the concrete curb behind the catch basin or inlet which reads “dump no waste drains to river” or “dump no waste drains to lake”. This permanent marking of the curb is done in conjunction with the biennial street program. Construction delays in the 2012 program did not allow for the installation of the medallions in the new curb areas. Medallions will be installed in the 2012 construction areas in 2013.

o *Proper materials management education*

Activities included the distribution of MMSD materials regarding hazardous waste disposal and information regarding storm water management in the Village’s newsletter, mailed three times yearly to each Shorewood resident.

The Village of Shorewood implemented an electronic recycling program in early 2009. Resident of the Village of Shorewood may properly dispose of electronic materials at the DPW twice annually at nominal or no cost (fee charged only for television sets). The Village’s website includes additional information about electronics recycling.

In addition, the Village of Shorewood collects used motor oil at its Public Works Yard. The oil is used to fuel a waste oil furnace which heats the DPW garage building.

o *Promote reuse of yard waste and proper use of landscape chemicals*

In 2009, the Village of Shorewood implemented a natural turf management pilot program at three locations within the Village. Private contractors were utilized at these locations to develop natural practices and management strategies. Information was distributed to all residents and business regarding the no-chemical strategy and the Village’s Conservation Committee was utilized to further educate residents. This program was formalized in 2010 and extended to all turf areas maintained by the Village.

The Shorewood DPW supports the Village Conservation Committee’s ongoing efforts to educate and encourage residents regarding the ecological and economic benefits of on-site reuse of leaves and grass clippings.

o *Promote management of streambanks and shorelines*

In 2006, the Village of Shorewood adopted a River Shoreland Ordinance governing parcels adjacent to the Milwaukee River. Among other things, the ordinance restricts the removal of natural shoreline cover, controls shoreline alterations, regulates pollution sources and reduces effluent and controlling nutrients.

In response to development proposals for the only privately held parcels abutting the Milwaukee River in Shorewood, the Village in 2009 adopted a Conceptual Plan for the B-4 River District Riparian Restoration and Trail Planning and Design Project. This management plan is available for public viewing on the Village’s web site.

○ *Promote infiltration of residential storm water runoff*

In 2009, the Village of Shorewood amended its ordinance to allow for the disconnection of downspouts and the discharge of water to the finished grade. Previous to that time, downspout disconnections were allowed only within the combined sewer area a part of the Wet Weather Management Program in partnership with MMSD.

In 2012, one resident obtained a permit to disconnect downspouts. Information regarding disconnection and rain barrels is available on the Village's website and from handouts available from at the building inspection office.

○ *Construction Site Erosion Control Practices*

A total of five construction site erosion control permits were issued by the Village in 2012. Inspectors receive regular training regarding erosion control practices.

○ *Storm water pollution prevention education*

In late 2010, the Village of Shorewood received a U.S. EPA Great Lakes Restoration Initiative Grant for a program related to Lake Michigan's Atwater Beach. As a part of this grant, the Village launched an extensive stormwater education and outreach program related to the impacts of stormwater on Shorewood's water resources – both Lake Michigan and the Milwaukee River. A small sampling of the literature produced in 2012 is included as an attachment to this report (Appendix A).

○ *Promote environmentally sensitive land development*

The Village currently works with developers to incorporate green features on any proposed spot or in-fill redevelopment. In 2012 a "green" alley was constructed for a commercial development in the 4500 block of Oakland Avenue.

The DPW has developed a catalog of stormwater BMP designs for future road programs. It is attached as Appendix B.

Spill Responses

No spills were reported or discovered in 2012.

Street Sweeping

The Village began its current street sweeping program, as outlined in the permit, in the spring of 2001. Along with the Village of Whitefish Bay, Shorewood co-owns a 2012 model year TYMCO 600BAH Regenerative Air street sweeper. A system has been designed to track the sweeping times and amount of debris collected during each shift.

In the year 2012, 191.4 tons of material was collected and disposed.

Catch Basin Cleaning Activities

The Village of Shorewood is served by two separate methods of conveyance of sewage. The area approximately west of Oakland Avenue has separate storm and sanitary systems while the area generally east of Oakland Avenue is served by a combined system. The NR 216 storm water permit issued to the Village of Shorewood regulates the separated area of the Village.

This area contains 79 catch basins with sumps and 364 storm inlets. In 2012, our records show eight sumps were cleaned. Just over 25 tons of material was collected from the catch basins and hauled to the Veolia Water facility for treatment.

DPW Yard Inspections

The 2012 reports are included in Appendix C.

Pollutant Loading

A SLAMM model was completed and included with the 2001 report. Pollutant loading data from major outfalls located in the Village of Shorewood was analyzed in 2001 using Source Loading and Management Model (SLAMM). A 2006 update of the SLAMM analysis was submitted with that year’s annual report.

Other activities

o *Leaf, Brush and Yard Waste Collection*

Village of Shorewood crews collect bagged yard waste on a weekly basis and chip brush curbside on a monthly route. All material collected is compacted into a transfer trailer and hauled to a compost site operated by Waste Management.

During the peak fall season, residents rake leaves to the curb for vacuum collection by DPW personnel. Leaves are compacted into transfer trailers and hauled for compost. Vacuum collection is generally conducted from the latter part of October through the first week in December. During the remainder of the year, leaves must be bagged for collection on a regular weekly yard waste route.

2012 Collections	Pounds
Leaves	1,027,286
Chipped Brush	244,335
Bagged Yard Waste	836,720

o *Waste Oil Collection*

Approximately 500 gallons of waste oil was collected from Shorewood residents in 2012. This oil is utilized along with the waste oil generated by the Shorewood DPW and Police Department fleets in a waste oil unit which provides heats for the mechanic garage area.

4. STORM WATER MANAGEMENT PLAN REVISIONS SUMMARY

In 1997, Shorewood contracted with Rust Environmental to develop a comprehensive Storm Water Management Plan. No formal changes have been made to the plan; however stormwater management issues were addressed in three studies conducted or adopted in 2009: Conceptual Plan for the B-4 River District Riparian Restoration and Trail Planning and Design Project, an Ecological Study and Management Plan for Atwater Park Beach and the Atwater Park Master Plan. All documents are available for review on the Village’s web site. Implementation of recommendations is dependent upon construction/development schedules and funding.

5. STORM WATER MANAGEMENT PLAN PROPOSED REVISIONS

In 2011, the Village of Shorewood completed its Sanitary Sewer, Combined Sewer and Storm Sewer Improvements Comprehensive Facility Plan. Storm water-related recommendations contained within the plan were incorporated in the Village’s 2011 Street Reconstruction Program as noted above and in the design of the Basin SH5001 Street and Utility Improvements and Basin 6 Phase I Sewer Improvements programs which were constructed in April 2012.

6. FISCAL ANALYSIS

2012 Expenditures

Activity	Actual Cost
Leaf, brush and yard waste collection (labor)	55,845.23
Yard Waste material disposal	19,277.83
System maintenance labor (inc. catch basin cleaning)	25,818.07
System supplies & parts (inc. material disposal fees)	21,423.80
Street sweeping labor	14,997.82
Total	\$137,362.75

2013 Adopted Budget

Activity	Adopted Budget
Leaf collection (labor)	44,944
Yard waste & brush collection (labor)	10,301
Yard Waste material disposal	23,436
System maintenance labor (inc. catch basin cleaning)	29,270
System supplies & parts (inc. material disposal fees)	30,000
Street sweeping labor	5,791
Total	\$143,742

7. IDENTIFICATION OF WATER QUALITY IMPROVEMENTS

As noted previously, the Village of Shorewood completed three management plans which made recommendations related to water quality improvements on public properties along both the Milwaukee River and the Lake Michigan shoreline. Implementation of recommendations from the Atwater Ecological Study and the Comprehensive Park Plan began in 2011.

In 2009, the Village of Shorewood developed a treatment plan for selected ash trees against Emerald Ash Borer. The Village currently has over 1,800 street trees of the ash variety. The trees provide significant contributions to controlling or enhancing both the quantity and quality of stormwater runoff. In 2010, approximately 200 trees were treated with a trunk injection method. No trees were treated in 2011 and approximately 60 trees were treated in 2012.

As noted previously, 11 stormwater biofiltration devices were installed as part of the 2010 Capitol Drive Reconstruction program. The intent of these devices is to provide water quality improvements and their placement in prominent locations within a heavily travelled corridor provides significant education opportunities. A biofiltration swale was also installed at the intersection of N. Wilson Drive and E. Olive Street as a part of Shorewood's 2012 Basin 1 Sanitary Sewer Improvement Project.

8. CERTIFICATION

I certify that the material contained in this report is, to the best of my knowledge, true, accurate and complete, and that in accordance with Section 1G(3) of the North Shore Group Permit, elected officials of the Village of Shorewood have been appraised of the contents of this report.



Leeann Butschlick
Director of Public Works
Village of Shorewood, WI