

**Village of Pewaukee
NR 216 Compliance Annual Report
For the Year 2014**

For WPDES Permit Issuance No. WI-S050105-2



March 2015

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1.0 BACKGROUND

The Village of Pewaukee (Village) submitted a NR 216 Permit Application on September 12, 2003. The application was part of a group application document titled "Upper Fox River Watershed NR 216 Stormwater Discharge Permit Application" (Application) submitted to Wisconsin Department of Natural Resources (WDNR) by Southeastern Wisconsin Regional Planning Commission (SEWRPC) on behalf of the Upper Fox River communities. As a result of that permit application, WDNR issued Permit No. WI-S050105-1 to the Village on November 1, 2004.

Permit No. S050105-1 expired on October 30, 2009. In accordance with State requirements a NR 216 permit re-application was submitted on March 27, 2009. As a result of this re-application, WDNR issued to the Village Permit No. S050105-2 with a term of October 30, 2009 through October 29, 2014.

The Village applied for continued coverage under the WPDES permit to retain authorization to discharge storm water through the municipal separate storm sewer system. As a result of this re-application, WDNR issued to the Village Permit No. S050105-3 with a term of December 1, 2014 through November 30, 2019.

As part of this 5 year permit, an annual report is required to be submitted to WDNR every year for the term of the permit. The information provided in the annual report shall be used to determine progress on implementation of the storm water management program and compliance with the conditions in the permit. This annual report covers the year 2014 (January 1- December 31, 2014). WDNR has outlined 11 items to be contained in this report as listed in section G(4)(a) through G(4)(k) of the WPDES permit. Each item that follows in this report is referenced to the appropriate section.

2.0 STORMWATER PERMIT REPORTING REQUIREMENTS

2.1 Status G(4)(a)

In 2014, the Village continued to implement the current permit and the following components:

- erosion control ordinance
- post construction storm water ordinance
- illicit discharge program
- street sweeping schedule
- spills program
- information and education program

2.2 Summary Of Revisions Made To The Storm Sewer Systems Map G(4)(b)

The storm sewer system map identifies drainage basins, all municipally owned and operated MS4s (including all storm water conveyance systems such as storm sewers, roadside ditches, roads, streets, inlets, curbs, gutters, constructed channels, etc.) urban storm water planning area, other major systems, location of all outfalls and which ones are considered major, WPDES permit holders, major structural

controls, public works facilities and parks/ open lands. 868 feet of new storm sewer and 16 catch basins were added to the storm sewer system in 2014.

3.0 SUMMARY OF POLLUTANT LOADING CALCULATIONS G(4)(c)

The Village's current Wisconsin Pollution Discharge Elimination System (WPDES) Stormwater Discharge Permit requires the Village to meet storm water quality management requirements and achieve compliance with the developed urban area performance standards of NR151. This includes reducing the annual average mass of **total suspended solids** (TSS) discharging from the municipality into rivers and lakes. In order to measure this reduction, the Wisconsin Department of Natural Resources (DNR) authorizes the use of the modeling software **Source Loading and Management Model (SLAMM)**. SLAMM calculates the pollutants generated in the runoff within the Village. It also calculates the reduction in pollutants based on the **best management practices** (BMPs) utilized by the Village to treat that runoff. When both items are calculated, an overall description of water quality is obtained.

The first Village SLAMM analysis was completed in September, 2006 which resulted in the total reduction of TSS of 21.1%. This amount met the original WPDES permit goal to achieve 20% reduction by 2008.

A revised Village SLAMM analysis was initiated in 2010 and completed in June 2011. This analysis collected information about Village structural and non-structural BMPs. Structural BMPs include stormwater ponds and swales while non-structural BMPs refers to activities such as street sweeping. Using SLAMM's version 9.4, results show that the Village achieved an updated calculated SLAMM reduction rate of 44.33%.

Under the new permit, if a municipality has achieved a reduction in TSS exceeding 20 % the municipality must, to the maximum extent practicable, continue to maintain all of the BMPs with regard to removing TSS from stormwater that it had implemented on or before July 1, 2011.

4.0 SUMMARY OF THE MONITORING DATA FOR REPORTING YEAR 2014 G(4)(d)

The Village along with the other upper Fox River basin communities has contributed to the funding of the "Downstream Defender" storm water monitoring project to evaluate the effectiveness of this storm water treatment device. This one-time contribution of \$3750 is in lieu of a storm water monitoring program for the term of the permit. This device is being evaluated at a site in Madison, WI with all of the necessary data collected from 20 rainfall events in 2006.

5.0 SUMMARY DESCRIBING THE NUMBER AND NATURE OF ENFORCEMENT ACTIONS, ILLICIT DISCHARGE, SCREENING RESULTS INCLUDING ANY CONNECTIONS IDENTIFIED AND REMOVED, INSPECTIONS, PUBLIC EDUCATION PROGRAMS, SPILL RESPONSES AND ANY OTHER ACTIVITIES IN THE STORM WATER MANAGEMENT PROGRAM THAT HAVE MEASURABLE RESULTS G(4)(f)

In accordance with WPDES Permit No. S050104-1, a revised erosion control ordinance was adopted in 2005. Pursuant to the erosion control ordinance, no enforcement actions were required in 2014.

In accordance with WPDES Permit No. S050104-1, an illicit discharge ordinance was adopted by the Village on May 17, 2005 with an Illicit Connection/ Discharge program proposal submitted to WDNR on September 28, 2005. WDNR approved the Illicit Connection/Discharge proposal on October 26, 2005. The permit requires the annual inspection of the major municipal storm water outfalls. Municipal storm sewer system outfalls are classified as "major" if the pipes meet the following criteria:

- 1) A single pipe with an inside diameter of 36 inches or more which is associated with a drainage area of more than 50 acres.
- 2) A municipal separate storm sewer that receives storm water runoff from land zoned for industrial activity and discharges from a single pipe with an inside diameter of 12 inches or more which is associated with a drainage area of more than 2 acres.

The Illicit Connection/Discharge program inspections of all 11 of the major outfalls were conducted in July of 2014. 7 outfalls were dry and 4 outfalls were found wet. No outfalls were determined to have illicit discharges as all water observed was determined to be sump pump discharge or ground water

In accordance with WPDES Permit No. S050104-1, an Information and Education program proposal was submitted to WDNR by March 31, 2005. WDNR approved the proposal on April 29, 2005. The I & E program is designed to coordinate efforts with Waukesha County and the other Upper Fox River watershed communities. Waukesha County held a seminar on storm water management during April 2014. This seminar was attended by local developers, engineers and elected officials. Numerous other educational activities were held as a part of this program and a summary of those is attached to this report.

In accordance with WPDES Permit No. S050104-1, a Spills program to prevent, contain and respond to spills that may discharge into the municipal separate storm sewer system was submitted on May 17, 2005. WDNR approved this proposal on September 29, 2005. No spills were reported in the Village in 2014. In accordance with WPDES Permit No. S050104-1, an Industrial/High Risk Runoff program to identify, monitor and address pollutants in storm water discharges from industrial facilities/high risk areas was submitted to WDNR by March 31, 2006

6.0 SUMMARY OF THE REVISIONS MADE TO THE STORM WATER MANAGEMENT PROGRAM

No revisions were proposed in 2014.

7.0 PROPOSED REVISIONS TO THE STORM WATER MANAGEMENT PROGRAM

None proposed in 2014.

8.0 SUMMARY OF THE ASSESSMENT CONTROLS G(4)(i)

8.1 Review of Monitoring Program Data

The Village along with the other upper Fox River basin communities has contributed to the funding of the "Downstream Defender" storm water monitoring project to evaluate the effectiveness of this storm water treatment device. This one-time contribution of \$3750 is in lieu of a storm water monitoring program for the term of the permit.

8.2 Estimate Of Expected Changes In Loading Of Pollutants Discharged From The Municipal Separate Storm Sewer System F(1)(b)

The annual pollutant loadings from each major outfall and the cumulative discharge of all known municipal separate storm sewer outfalls were calculated through the use of SLAMM in June 2011. Those results are summarized as follows:

<u>Drainage Basin</u>	<u>Percent Particulate Solids Removed</u>
Entire Village	44.33%
Pewaukee Lake Watershed	44.47%
Pewaukee River North Watershed	42.85%
Pewaukee River South Watershed	7.64%
Pewaukee River Tributary Watershed	53.85%

8.3 Estimate of Pollutant Removal Reductions of Management Practices F(1)(c)

Pollutant removal reductions achieved by management practices need to be estimated. The estimate of pollutant removal reductions of management practices can be assessed by indirect or programmatic measures. Statistical information shall be documented and reviewed which include the following:

Volume of Used Oil Collected

The Village contracts with and used oil and anti-freeze is picked up Safety Kleen. A summary of oil and antifreeze that was collected and recycled is provided in the following table:

Material	2010	2011	2012	2013	2014
Oil (gal)	1550	2747	1950	680	1810
Anti-freeze (gal)	NA	45	135	45	45

Quantity of Hazardous Household Wastes Collected

Hazardous household wastes are collected through the Waukesha County Department of Parks and Land Use Recycling and Solid Waste Office. Residents of the Village of Pewaukee and all of Waukesha County can drop off hazardous household wastes (except antifreeze and oil) at locations in Muskego, Waukesha and Menomonee Falls.

Number and Type of Illicit Connections Found and Eliminated

In accordance with WPDES Permit No. S050104-1, an illicit discharge ordinance was adopted by the Village on May 17, 2005 with an Illicit Connection/ Discharge program proposal submitted to WDNR on September 28, 2005. WDNR approved the Illicit Connection/Discharge proposal on October 26, 2005. The Illicit Connection/Discharge program inspection of all 11 of the major outfalls was conducted in July of 2014. No illicit discharges were found in 2014.

Number of Enforcement Actions

None

Description of Information and Education Programs

In accordance with WPDES Permit No. S050104-1, an Information and Education program proposal was submitted to WDNR by March 31, 2005. WDNR approved the proposal on April 29, 2005. The I & E program is designed to coordinate efforts with Waukesha County and the other Upper Fox River watershed communities. These events/activities were promoted throughout the entire County and have participants from all areas in the upper Fox River basin. Local information and education activities include website links to county site, brochure availability at Pewaukee Village Hall, posting of informational press releases.

Internal education was updated monthly with 9 public works staff members on proper equipment cleaning and proper outside storage of materials. The street sweeper operators were updated on the proper disposal of street sweepings each day that sweeping was performed. 1 public works employee attended a Waukesha County seminar on storm water management activities.

Number of Sewer Inlets Stenciled

No storm sewer inlets were stenciled in 2014 but 14 new catch basins were installed with the cast frames including the enviro-curb logos. Approximately 20 inlet frames were tagged in 2012 with a permanent steel marker as part of an experimental project initiated by Waukesha County. Catch basin frames installed on 2 new structures installed in 2012 have the cast enviro-curb logos.

Mass of Leaves Collected, Solids Captured from Street Sweeping, Solids removed from Catch Basins , Solids Removed from Structural Controls and Ditches maintained

Leaves were collected a minimum of 3 times throughout the Village from mid-October until Thanksgiving. Yard waste was dropped off by Village residents at the Village recycling center from March 1 to December 31 and all of the leaves and yard waste were transported to the Waukesha County

compost site on CTH C and to the new Waukesha County compost site off CTH ZZ in the Town of Genesee.

The Village sweeps all of the main Village streets weekly for the first 6 weeks in spring after the snow is gone. All streets are then swept monthly thru November. The street sweepings were transported by a commercial carrier to a licensed landfill.

The quantities of leaves, brush/yard waste and sweepings captured along with the lineal footage of ditches maintained are shown in the table below:

Removal Activity	2010	2011	2012	2013	2014
Leaves (tons)	216.51	328.53	234.94	222.10	303
Brush/Yard Waste (tons)	472.59	233.16	151.82	239.95	500
Woodchips (CY)	644	495	0	0	0
Roadside Ditches (LF)	0	0	0	700	2200
Solids Captured through Sweeping (tons)	74.54	50.82	48.35	78.05	76.18
Sweeper Engine Hours	229	306	231	193	188
Sweeper Mileage	1071	1358	1142	983	857

Number of Construction Erosion Control Plans Approved and Number of Construction Sites Inspected Each Year

The Village completed site inspections in accordance with the Village's erosion control ordinance. A summary of the Village's site inspections is provided in the following table.

Nature of Inspection	2012	2013	2014
Approved Post-Construction SW Management Plans	1	2	1
Grading and Erosion Control Permits	24	14	20
Plan Reviews	24	14	20
Commercial Construction Sites	1	2	3
Commercial Construction Site Inspections	8	13	16
Residential Construction Sites	21	10	20
Residential Construction Site Inspections	66	15	34
Institutional Construction Sites	2	2	0
Institutional Construction Site Inspections	6	8	0
Stop Work Orders/Citations	0	0	0
Written Orders/Verbal Contacts	4	0	0

Location and Effectiveness of any BMP's Applied

During 2012, 2 bio-infiltration basins were installed as part of a parking lot reconstruction project at the Village Public Works garage located at 1000 Hickory Street. Storm water runoff is now directed to the 2

bio-infiltration basins instead of draining directly to the Pewaukee River. Water quality modeling results indicate that these basins are expected to remove 849 pounds of total suspended solids and 0.92 pounds of phosphorus annually from the site storm water runoff. In 2013 plantings were established in the bio-infiltration basins.

Centerline Miles of Roads Maintained Under the Roadway Maintenance Program, and How Much Salt was Applied

The Village of Pewaukee maintains 33 centerline miles of streets that vary in width from 22 feet to 48 feet. The summary of winter salt application in the Village is shown the table below.

Application	2010	2011	2012	2013	2014
Salt (Tons)					
January 1-June 30	261	624	508	819	604
July 1 – December 31	313	23	139	453	165
Total	574	647	647	1272	769
Sand (Tons)					
January 1-June 30	0	0	0	0	0
July 1 – December 31	0	0	0	0	0
Total	0	0	0	0	0
Anti-Icing Brine (Tons)					
January 1-June 30	0	2500	3600	5700	11,100
July 1 – December 31	2360	0	2718	4800	0
Total	2360	2500	6318	10,500	11,100

8.3 A Strategy to Reduce the Pollutants of Concern Entering Local Impaired 303(d) Waterways

There are no impaired waterways located within the Village limits of the Village of Pewaukee. However, the Pewaukee River discharges to the Fox River which is a 303(d) listed waterway.

To address the impaired waters the village discharges to, the Village will comply with a future TMDL established for the Upper Fox River. Along with TMDL compliance, if the Village implements future BMP's, it will look to install these structures or practices in areas that will improve the water quality draining to the waterway that discharges to the Fox River. The Village will also use public education and events to work with the public to improve water quality draining from private property to impaired waterways. Possible events include stream bank cleanup along the Pewaukee River, installing rain gardens near the river, and educating residents on fertilizer use in areas draining to the Pewaukee River.

Any Other Measurable Activities

8.4 Identification of Known Impact of Storm Water Controls on Both Surface Water and Groundwater Quality

New developments are required to incorporate best management practices for construction and post-construction storm water, water quality based on the current Village Storm Water Management and Erosion Control Ordinance. The use of silt fences, hay bales, sedimentation devices, and fabrics over inlets during construction of new developments improves storm water quality by preventing soils from flowing into the municipal separate storm sewer system and area waterways.

9.0 FISCAL ANALYSIS OF THE MAJOR ELEMENTS OF THE STORM WATER PROGRAM

The Village created a storm water utility beginning in 2007 to fund storm water activities. The Village Storm Water Budget is shown in the table below.

VILLAGE OF PEWAUKEE
 ANNUAL STORM WATER BUDGET

Description	2013 Expenditures	2014 Expenditures	2015 Budget
Wages, Benefits and Expenses	\$97,035	\$90,853	\$83,424
Contracted Services	\$6217	\$5858	\$19,000
Equipment Maintenance & Fuel	\$9261	\$7450	\$9,700
Storm Sewer Maintenance	\$27,251	\$15,442	\$14,200
Street Sweeping Disposal	\$3981	\$4555	\$5000
Leaf Disposal	\$2632	\$1234	\$2000
Equipment Outlay	\$23,432	\$0	\$0
Storm Sewer Outlay	\$0	\$96,889	\$25,000
Debt Service	\$24,790	\$22,998	\$22,696
Total	\$194,599	\$245,279	\$182,020

10.0 IDENTIFICATION OF WATER QUALITY IMPROVEMENTS OR DEGRADATION

In December 2013, the Southeastern Wisconsin Regional Planning Commission (SEWRPC) issued the preliminary draft of a document titled "Pewaukee River Watershed Protection Plan." This watershed protection plan focuses on what can be done to continue to protect the existing high-quality area resources from human impacts and prevent future water pollution or resource degradation from occurring.

In 2011, Wisconsin Lutheran College published the "Pewaukee Lake Aquatic Plant Survey 2011."

SEWRPC published "A Lake Management Plan for Pewaukee Lake" in May, 2003 on local water quality. This plan is currently being updated.

11.0 PUBLIC REVIEW

Building public support and getting political consensus for storm water management programs requires planning, communication and perseverance. The Village realizes that public involvement is vital to the

success of a storm water management program. Involving members of various groups, as well as residents, helps to ensure that key groups feel involved in the decision making process. As a result, the Village storm water management programs will be more likely to receive widespread support and be implemented successfully. Also, elected officials will be more likely to receive programs that have extensive widespread support. The Village will allow and encourage public comment. No comments were received on the 2013 annual report that was available on the Village website and at Village Hall.

CERTIFICATION

The following certification is to comply with Section H(1) of the permit.

An authorized Village representative has reviewed the annual report and certifies that the information was gathered and prepared under their supervision and based on inquiry of the people directly under their supervision that, to the best of their knowledge, the information is true, accurate and complete. Furthermore, this representative certifies that the Village's governing body or designated representatives have reviewed or have been apprised of the content of the annual report.

David J. White, P.E., Director of Public Works

Date

2014 Activity Summary Report

Waukesha County Storm Water Education Program

As part of the agreements Waukesha County has with 25 participating communities, and as required in our storm water discharge permits from DNR, an annual report of storm water education activities is required. This report represents a summary of the activities Waukesha County has been involved with during 2014, sorted by the target audience.

Target Audience: Contractors, Developers, Consultants and Municipal officials

- Held annual storm water workshop in April, focused on storm water regulations, planning and BMP updates. Workshop was filled with 96 people and received very positive ratings in evaluations.
- Presented to 35 people statewide in Water Star webinar on BMP Maintenance.
- Presented to 1 municipal board meeting with 25 in attendance with information on the storm water program as well as recycling updates.
- Hosted national webinar for municipalities on BMP maintenance.

Target Audience: General Public

- One school group and one municipality stenciled storm drains with “dump no waste” message.
- Made one TV appearance on the Morning Blend promoting composting and recycling.
- Produced and released 8 different news articles or ads on various topics such as rain gardens, stream monitoring, rain barrels and water conservation.
- Distributed over 100,000 newsletters with recycling and storm water information
- Presented hands-on programs on storm water runoff and pollution prevention actions to 456 county residents at 13 different events/locations.
- Toured the display boards to 30 different community events/locations with an estimated audience of over 21,000 people. The display covers basic storm drain and runoff information as well as specific information on rain gardens, rain barrels, shoreland restoration, pet waste, car washing, fertilizer, chemical use and more.
- Gave 6 presentations on rain gardens and rain barrels to 138 people.
- Sold 53 rain barrels in promotional 1 day sale.
- Sold and distributed 3900 rain garden plants to 64 people through the Graham Martin Foundation grant program.
- Provided equipment and maintained 40 stream monitoring sites throughout the county. Of these, 34 sites were monitored at level 1 and 7 sites were monitored at level 2. Nineteen new volunteers were trained this year and a waiting list is established for 2015.
- Taught 21 yard care/composting classes to 498 people.
- Sold over 55 compost bins through special sales.
- Composted over 4200 tons of community yard waste at the Waukesha County Yard Waste Composting site in the Town of Genesee.

- Collected over 211,000 pounds of household and agricultural hazardous waste from 4 permanent county collection points and several seasonal sites with a total of nearly 4900 participants.
- Taught 3 Green Cleaning classes to 51 people.

Teachers and Students

- Trained 10 local teachers through a week-long Wisconsin Education Innovations Summer Academy course. Training included soils and erosion, natural resources, composting, water pollution, watershed management and groundwater protection.
- Trained 14 teachers/naturalists in Project WET (Water Education for Teachers), a hands-on supplement of water related educational activities.
- Presented at 16 schools to over 1400 students information on runoff pollution and how to prevent it.
- Provided field experience in water testing for 12 schools and over 660 students.
- Funded two water projects through the Green Schools program. Through this program, the county offers technical and financial assistance in recycling, waste reduction, water conservation and water pollution control activities. Projects included expanding a rain garden at St. Paul's in Genesee Depot and a rain barrel at Prairie Hill Waldorf School.

**VILLAGE OF PEWAUKEE
DEICING -ANTI-ICING ACTIVITIES
DECEMBER 2012 TO MARCH 2015**

DATE	TIME	EVENT OR SNOW AMOUNT (INCHES)	ACTION & MATERIAL APPLIED	AMOUNT OF MATERIAL (TONS)	AMOUNT OF MATERIAL (GALLON)	AIR TEMP	ROAD TEMP	DATE	TIME	EVENT OR SNOW AMOUNT (INCHES)	ACTION & MATERIAL APPLIED	AMOUNT OF MATERIAL (TONS)	AMOUNT OF MATERIAL (GALLON)	AIR TEMP	ROAD TEMP	DATE	TIME	EVENT OR SNOW AMOUNT (INCHES)	ACTION & MATERIAL APPLIED	AMOUNT OF MATERIAL (TONS)	AMOUNT OF MATERIAL (GALLON)	AIR TEMP	ROAD TEMP
2014-2015								2013-2014								2012-2013							
11/15/14	1:00AM	1.5" SNOW	SALT	16	0	25	22	11/25/13	7:00AM	2" SNOW	PLOW & SALT	49	0	25	12	12/17/12	7:00 AM	ANTI-ICE	BRINE	0	900	32	23
11/16/14	6:00AM	1" SNOW	SALT	17	0	22		NOVEMBER 2013 TOTALS				49	0			12/18/12	1:30 PM	1" SNOW	SALT	28	0	34	19
11/19/14	5:30AM	1" SNOW	SALT	21	0	15		12/6/13	7:00 AM	ANTI-ICE	BRINE	0	1600	17		12/19/12	7:00 AM	ANTI-ICE	BRINE	0	900	32	23
11/22/14	7:00PM	ICY ROADS	SALT	23	0	30	25	12/8/13	2:00 PM	1-1/2" SNOW	PLOW & SALT	24	0	24		12/20/12	4:30 AM	4" SNOW/ MIX RAIN	PLOW	0	0	32	23
11/25/14	4:00AM	2.5" SNOW	PLOW & SALT	34	0	26		12/9/13	8:30 AM	2-1/2" SNOW	PLOW & SALT	28	0	25		12/20/12	1:30 PM	0.25" SNOW	SALT	24	0	30	22
11/28/14	8:00PM	1" SNOW	SALT	20	0	20		12/9/13	7:00 AM	ANTI-ICE	BRINE	0	1500	25		12/21/12	3:30 AM	2" SNOW	PLOW & SALT	35	0	23	19
NOVEMBER 2014 TOTALS				134	0			12/11/13	5:00 AM	1/4" SNOW	SALT	9	0	10	2	12/27/12	7:00 AM	ANTI-ICE	BRINE	0	918		
12/3/14	8:30PM	0.5" SNOW	SALT	25	0	25	18	12/11/13	7:00 AM	1/4" SNOW	PLOW & SALT	21	0	10	2	12/28/12	11:00 AM	0.25" SNOW / MIX SLEET	SALT	20.5	0	31	24
12/10/14	10:00AM	1" SNOW	SALT	6	0			12/14/13	6:30 AM	1/2" SNOW	PLOW & SALT	23	0	24		12/29/12	8:00 AM	0.25" SNOW	SALT	32	0	27	19
DECEMBER 2014 TOTALS				31	0			12/14/13	1:30 PM	1/2" SNOW	PLOW & SALT	19	0	27		DECEMBER 2012 TOTALS				139.5	2718		
1/3/15	4:30AM	2.5" SNOW	PLOW & SALT	29	0	30	27	12/16/13	5:30 PM	2" SNOW	PLOW & SALT	28	0	18		1/6/13	9:30 AM	ICY ROADS	SALT	17	0	23	18
1/3/15	7:00PM	ICY ROADS	SALT	22	0	32		12/17/13	4:30 AM	1/2" SNOW	PLOW & SALT	17	0	14	-3	1/12/13	NOON	MIX ICY RDS	SALT	32	0		
1/4/15	5:00AM	2" SNOW	PLOW & SALT	29	0	18		12/19/13	10:00 PM	FREEZING RAIN	SALT	9	0	30		1/13/13	4:30 AM	ICY ROADS	SALT	22	0		
1/5/15	9:00PM	1" SNOW	SALT	27	0	9	12	12/20/13	4:00 AM	FREEZING RAIN	SALT	30	0	28	20	1/21/13	7:00 AM	ICY HILLS	SALT	1	0		
1/6/15	4:30AM	1.5" SNOW	PLOW & SALT	21	0	10		12/20/13	7:00 AM	ANTI-ICE	BRINE	0	1500	30		1/24/13	7:00 AM	ANTI-ICE	BRINE	0	900		
1/8/15	7:30PM	4" SNOW	PLOW & SALT	25	0	10		12/20/13	8:00 PM	FREEZING RAIN	SALT	9	0	30		1/25/13	5:00 AM	0.5" SNOW	SALT	32	0	22	
1/9/15	6:30AM	1" SNOW	CLEANUP & SALT	18	0	13		12/21/13	10:30 PM	FREEZING RAIN	SALT	18	0	31		1/27/13	2:30 PM	FREEZING RAIN	SALT	36	0	28	
1/13/15	5:00AM	0.5" SNOW	SALT	25	0	15		12/22/13	5:00 AM	6-1/2" SNOW	PLOW & SALT	33	0	28	18	1/28/13	5:00 AM	FREEZING RAIN	SALT	27.5	0	30	
1/21/15	6:00AM	1.5" SNOW	SALT	27	0	25		12/23/13	7:00 AM	1/4" SNOW	PLOW & SALT	18	0	23	15	1/30/13	8:30 AM	FREEZING RAIN	SALT	31	0	30	
1/26/15	5:00PM	1" SNOW	SALT	14	0	26	24	12/24/13	7:30 AM	1/4" SNOW	PLOW & SALT	18	0	14		1/30/13	12:30 PM	2" SNOW	PLOW & SALT	32	0	25	
1/27/15	5:00AM	FRZ RAIN	SALT	34	0	26		12/25/13	5:00 AM	1" SNOW	PLOW & SALT	34	0	21		1/31/13	7:00 AM	BLOWING SNOW	PLOW & SALT	17	0	15	
JANUARY 2015 TOTALS				271	0			12/26/13	7:00 AM	1/4" SNOW	SALT	18	0	25		JANUARY 2013 TOTALS				246.5	900		
2/1/15	5:30AM	4" SNOW	PLOW & SALT	24	0	20	18	12/31/13	5:30 AM	1/4" SNOW	SALT	18	0	5		2/2/13	4:00 AM	2" SNOW	PLOW & SALT	28	0	14	

**VILLAGE OF PEWAUKEE
DEICING -ANTI-ICING ACTIVITIES
DECEMBER 2012 TO MARCH 2015**

DATE	TIME	EVENT OR SNOW AMOUNT (INCHES)	ACTION & MATERIAL APPLIED	AMOUNT OF MATERIAL (TONS)	AMOUNT OF MATERIAL (GALLON)	AIR TEMP	ROAD TEMP	DATE	TIME	EVENT OR SNOW AMOUNT (INCHES)	ACTION & MATERIAL APPLIED	AMOUNT OF MATERIAL (TONS)	AMOUNT OF MATERIAL (GALLON)	AIR TEMP	ROAD TEMP	DATE	TIME	EVENT OR SNOW AMOUNT (INCHES)	ACTION & MATERIAL APPLIED	AMOUNT OF MATERIAL (TONS)	AMOUNT OF MATERIAL (GALLON)	AIR TEMP	ROAD TEMP
2014-2015							2013-2014							2012-2013									
2/1/15	11:00AM	3"SNOW	PLOW & SALT	15	0	21		12/31/13	5:30 PM	1/4" SNOW	SALT	18	0	7		2/4/13	4:30 AM	1" SNOW	SALT	35	0	17	
2/1/15	8:00PM	2"SNOW	MAIN	34	0	17		DECEMBER 2013 TOTALS				392	4800			2/5/13	7:00 AM	0.6" SNOW	SALT	25	0	12	
2/2/15	7:00AM	CLEANUP SIDE ROAD	PLOW	1	0	18		1/1/14	7:00 AM	1/4" SNOW	SALT	18	0	14		2/5/13	10:30 AM	1" SNOW	SALT	20	0	22	
2/3/15	3:30PM	1" SNOW	SALT	27	0	16		1/2/14	6:00 AM	1/4" SNOW	PLOW & SALT	18	0	7	0	2/7/13	1:00 PM	1" SNOW	PLOW & SALT	0	0	33	24
2/3/15	8:00PM	2"SNOW	PLOW & SALT	28	0	14	14	1/4/14	7:00 AM	1/4" SNOW	SALT	32	0	25		2/7/13	3:30 PM	4" SNOW/ MIX RAIN	PLOW & SALT	58	0	19	
2/4/15	7:00AM	CLEAN UP	SALT	2	0	12		1/10/14	4:30 PM	FREEZING RAIN	SALT	36	0	30		2/8/13	4:30 AM	1" SNOW	PLOW & SALT	41	0	26	
2/13/15	NOON	0.5" SNOW	SALT	32	0	17	2	1/10/14	7:30 PM	FREEZING RAIN	SALT	36	0	32		2/11/13	4:30 AM	ICY ROADS	SALT	21	0	31	
2/26/15	5:00 AM	0.5" SNOW	SALT	26	0	8	10	1/13/14	7:00 AM	ICY ROADS	SALT	9	0	32		2/14/13	5:00 AM	ICY ROADS	SALT	19	0	32	
FEBRUARY 2015 TOTALS				189	0			1/14/14	7:00 AM	ANTI-ICE	BRINE	0	1500	31		2/15/13	5:30 AM	0.25" SNOW	SALT	24	0	16	
3/3/15	5:30 AM	2.0" SNOW	SALT	45	0	26	13	1/14/14	10:00 AM	1/4" SNOW	SALT	16	0	31	24	2/19/13	4:00 AM	FREEZ RAIN	SALT	52	0	12	
MARCH 2015 TOTALS				45	0			1/14/14	5:30 PM	1/4" SNOW	SALT	31	0	24		2/21/13	7:00 AM	ANTI-ICE	BRINE	0	1500		
								1/16/14	4:30 AM	2" SNOW	PLOW & SALT	30	0	12	2	2/22/13	4:00 AM	4" SNOW	PLOW & SALT	30	0	28	
								1/16/14	4:00 AM	1/4" SNOW	SALT	18	0	24		2/25/13	7:00 AM	ANTI-ICE	BRINE	0	1500		
								1/16/14	5:30 PM	1/2" SNOW	SALT	24	0	26		2/26/13	5:00 AM	1" SNOW	PLOW & SALT	36	0	31	
								1/17/14	12:30 PM	1/4" SNOW	PLOW & SALT	18	0	19		2/27/13	4:00 AM	4" SNOW	PLOW & SALT	30	0	28	
								1/20/14	2:00 PM	1/4" SNOW	SALT	3	0	16	15	2/27/13	9:00 PM	ICY ROADS	SALT	9	0	28	
								1/20/14	7:00 AM	ANTI-ICE	BRINE	0	1500	10	-2	2/28/13	7:00 AM	BLOWING SNOW	PLOW & SALT	15	0		
								1/22/14	9:30 AM	1/4" SNOW	SALT	18	0	6	2	FEBRUARY 2013 TOTALS				443	3000		
								1/25/14	7:30 AM	1-1/2" SNOW	PLOW & SALT	26	0	16		3/4/13	7:00 AM	ANTI-ICE	BRINE	0	1200		
								1/26/14	6:30 AM	3" SNOW	PLOW & SALT	23	0	4		3/5/13	10:30 AM	0.6" SNOW	SALT	16	0	30	19
								1/29/14	7:00 AM	ANTI-ICE	BRINE	0	1200	5		3/5/13	12:30 PM	3" SNOW	PLOW & SALT	28	0	30	24
								1/30/14	7:00 AM	ANTI-ICE	BRINE	0	600	22		3/5/13	6:00 PM	3" SNOW	PLOW & SALT	37	0	28	19
								1/30/14	1:00 PM	1" SNOW	PLOW & SALT	21	0	25	16	3/12/13	5:00 AM	MIX ICY RDS	SALT	15	0	26	

2014 INFORMATION AND EDUCATION LEDGER OF ACTIVITIES

Target --from workplan		Date	What	Where	# People	Additional Description or Information
Contractors, Dev. & Consul	1. Workshop	4-9-14		Waukesha	96	annual stormwater workshop at Ruekert and Mielke hosted webinar on BMP maintenance--1 county staff and 4 other local staff
Contractors, Dev. & Consul	training	5-21-14		Waukesha County	5	
Contractors, Dev. & Consul	training	10-16-14		statewide	35	provided Water Star Webinar on BMP maintenance made supplies available to Menomonee Falls High School for end of school year activity
General Public	1. Storm Drain Stenciling	6-4-14		Menomonee Falls	30	
General Public	1. Storm Drain Stenciling	6-11-14		Brookfield	1	supplies for problem storm drain to be marked
General Public	10. Stream monitoring	5-3-14		Waterville field station	19	annual volunteer monitoring training
General Public	10 Stream Monitoring	5-8-14		Mill Creek	1	benchmark at Mill Creek from Big Bend Rd
General Public	10 Stream Monitoring	5-10-14		Hartland	2	benchmark for Bark River in Nixon Park
General Public	10 Stream Monitoring	5-23-14		Scuppernong Creek	1	benchmark for Scuppernong Creek at Highway 18
General Public	10 Stream Monitoring	5-24-14		Muskego	3	benchmark for creek
General Public	10. Stream Monitoring	1-25-14		Retzer Nature Center	24	annual volunteer appreciation event
General Public	10. Stream Monitoring	5-7-14		Pewaukee River	3	benchmark at Siepmann site
General Public	10. Stream Monitoring	5-19-14		Scuppernong River	1	benchmark for Hwy Z location
General Public	10. Stream Monitoring	6-10-14		Waukesha	1	Benchmark for Fox River at EB Shurts Bldg.
General Public	2. news releases/articles	2-27-14				press release for rain garden grant program
General Public	2. news releases/articles	6-2-14				Lawn Care/Follow the Flow article
General Public	2. news releases/articles	7-7-14		countywide		press release for oil filter and antifreeze recycling appearance on Morning Blend show to promote composting, recycling landscape pots and electronics
General Public	3. Presentation	3-12-13		TV		
General Public	3. Presentation	1-19-14		Retzer Nature Center	200	aquatic macros at Retzer Jan-boree event
General Public	3. Presentation	4-14-14		Menomonee Falls	22	speaking for "Newcomers" group at library
General Public	3. Presentation	4-24-14		Retzer Nature Center	17	Soil and Water Conservation merit badge clinic
General Public	3. Presentation	4-26-14		Waukesha	259	MRF open house
General Public	3. Presentation	4-27-14		Elm Grove	13	organic lawn care workshop
General Public	3. Presentation	5-3-14		Stone Bank	10	organic lawn care workshop
General Public	3. Presentation	5-6-14		Mukwonago	27	organic lawn care workshop
General Public	3. Presentation	5-13-14		North Prairie	21	presentation for girl scout troop at Prairieview Elementary
General Public	3. Presentation	6-18-14		Menomonee Falls	40	activities for Cub Scout Day Camp
General Public	3. Presentation	7-8-14		Muskego	13	power point presentation at public library
General Public	3. Presentation	7-24-14		Waukesha	28	program for Waukesha Public Library kids program
General Public	3. Presentation	11-15-14		Waukesha	252	used watershed model at Material Recycling Facility open house

2014 INFORMATION AND EDUCATION LEDGER OF ACTIVITIES

Target --from workplan

		Date	What	Where	# People	Additional Description or Information
General Public	3. Presentation	6-17/20-14		Retzer Nature Center	62	Environmental Science merit badge class
General Public	4. Displays and Handouts	9-20-14		Retzer Nature Center	5000	outreach booth at annual Apple Harvest Fest
General Public	4. Displays and Handouts	2-8-14		Elm Grove	70	display at sustainable living event at Sisters of Notre Dame
General Public	4. Displays and Handouts	2-9-14		Oconomowoc	200	display at winter farmers market
General Public	4. Displays and Handouts	3-15-14		Hamilton High School	2500	display at Sussex Spring Fest
General Public	4. Displays and Handouts	3-21-14		Burlington	140	display at Fox River Summit
General Public	4. Displays and Handouts	3-23-14		St. Bruno's, Dousman	110	display at St. Brunos to accompany special stewardship program display at recreation and education fair at WCTC downtown
General Public	4. Displays and Handouts	3-27-14		WCTC Waukesha campus	200	Waukesha Campus
General Public	4. Displays and Handouts	3-29-14		Arrowhead HS	2500	display at Lake Country Community Fest
General Public	4. Displays and Handouts	4-9-14		Waukesha	200	after school spring fair event--used watershed model
General Public	4. Displays and Handouts	4-17-14		Oconomowoc	11	Part of Chamber roundtable at Nature Hill Elementary
General Public	4. Displays and Handouts	5-3-14		Village of Merton	350	display at pancake breakfast at firestation
General Public	4. Displays and Handouts	5-20-14		Town of Lisbon	100	display at firehouse open house and blood drive
General Public	4. Displays and Handouts	5-31-14		Retzer Nature Center	100	set up Carry Creek display for one week in lobby of Retzer
General Public	4. Displays and handouts	5-31-14		Wales	50	display at Waukesha Co. Green Team Green Market in Wales used watershed model for outreach at Moonlit Movies in Fowler Park
General Public	4. Displays and Handouts	6-12-14		Oconomowoc	300	
General Public	4. Displays and Handouts	6-19-14		Sussex	50	display at Sussex Cruise Night
General Public	4. Displays and Handouts	6-21-14		Pewaukee	300	Carry Creek display for Clean Water Festival on the beach
General Public	4. Displays and Handouts	6-23-14		Hartland	400	display boards at Public library for one week
General Public	4. Displays and Handouts	7-2-14		Dousman	30	display at local Farmers Market
General Public	4. Displays and Handouts	7-12-14		Genesee Depot	120	watershed model at Depot Daze
General Public	4. Displays and Handouts	7-23-14		Pewaukee	30	watershed model at Waterfront Wednesday event
General Public	4. Displays and Handouts	7-30-14		Hartland	400	booth at Hartland Kids Fest
General Public	4. Displays and Handouts	8-5-14		Merton	300	display at annual night out event
General Public	4. Displays and Handouts	8-5-14		Mukwonago	300	staffed display at night out event
General Public	4. Displays and Handouts	8-8-14		Sussex	50	staffed display at movie night
General Public	4. Displays and Handouts	8-11-14		Lisbon	50	unmanned display at Soccer Camp in Lisbon
General Public	4. Displays and Handouts	8-19-14		Oconomowoc	500	display at kids fest in Roosevelt Park
General Public	4. Displays and Handouts	8-21-14		Hartland	50	aquatic bugs at movie night
General Public	4. Displays and Handouts	9-6-14		Oconomowoc	75	outreach booth at Farmers Market
General Public	4. Displays and Handouts	11-10-14		Hartland	40	handed out EE guides at Girl Scout leaders area meeting

2014 INFORMATION AND EDUCATION LEDGER OF ACTIVITIES

Target --from workplan

Target	What	Date	Where	# People	Additional Description or Information
General Public	4. Displays and Handouts	11-17-14	Mukwonago	20	handed out EE guides at Girl Scout leaders area meeting
General Public	4. Displays and Handouts	12-2-14	Merton	150	display at annual tree lighting and visit with Santa event
General Public	4. Displays and Handouts	10-3/10-14	Oconomowoc	420	display at public library for stormwater week
General Public	4. Displays and Handouts	12-19 to 1-2	Pewaukee	200	display at City Hall during tax time
General Public	4. Displays and Handouts	1-3 to 1-17-14	Muskego	500	display at Muskego City Library
General Public	4. Displays and Handouts	8-9/10-14	Lisbon	1500	unmanned display at Heritage Days in Lisbon
General Public	4. Displays and Handouts	9-12/14-14	North Prairie	4500	display at annual fall harvest event
General Public	6. rain garden and rain barrels	2-19-14	Oconomowoc	58	rain garden program in cooperation with County Green Team
General Public	6. rain garden and rain barrels	3-14-14	countywide	64	annual rain garden plant sale---64 orders received
General Public	6. rain garden and rain barrels	3-22-14	Retzer Nature Center	13	rain garden/rain barrel workshop
General Public	6. rain garden and rain barrels	4-26-14	Waukesha	9	rain garden/barrel program at Good Harvest Market
General Public	6. rain garden and rain barrels	4-29-14	Delafield	29	rain garden/barrel program with County Green Team at Delafield library
General Public	6. rain garden and rain barrels	5-10-14	Retzer Nature Center	50	sold 47 single barrels and 3 tandem barrels at Retzer spring sale
General Public	6. rain garden and rain barrels	5-17-14	Retzer Nature Center	57	plant pick up for Graham martin foundation program
General Public	6. rain garden and rain barrels	9-4-14	New Berlin	3	evening program at Poplar Creek Garden Center
General Public	6. rain garden and rain barrels	10-9-14	Oconomowoc	26	rain garden/barrel presentation for retired teachers group
General Public	8. Hazardous waste	3-25-14	Elm Grove	26	Green Cleaning program
General Public	8. Hazardous waste	8-5-14	Muskego	15	Green Cleaning program
General Public	8. Hazardous waste	11-10-14	New Berlin	10	Green Cleaning program
General Public	9. Composting	3-13-14	Hartland Library	17	composting class
General Public	9. Composting	3-19-14	Hartland	17	composting program at public library
General Public	9. Composting	3-22-14	Retzer Nature Center	17	organic lawn care workshop
General Public	9. Composting	4-3-14	New Berlin	9	composting class at New Berlin Public Library
General Public	9. Composting	4-8-14	Mukwonago	42	composting class at Mukwonago Public Library
General Public	9. Composting	4-14-14	Eagle	9	composting program at public library
General Public	9. Composting	4-17-14	Menomonee Falls	28	composting program at public library
General Public	9. Composting	4-22-14	Elm Grove	20	composting program at public library
General Public	9. Composting	4-29-14	Muskego	41	composting program at public library
General Public	9. Composting	5-8-14	Delafield	33	composting program at public library
General Public	9. Composting	5-10-14	Retzer Nature Center	45	composting class to go with compost bin sale
General Public	9. Composting	5-15-14	Chenequa	60	composting program at public library
General Public	9. Composting	9-16-14	Elm Grove	16	fall leaf and yard care class

2014 INFORMATION AND EDUCATION LEDGER OF ACTIVITIES

Target --from workplan		Date	What	Where	# People	Additional Description or Information
General Public	9. Composting	9-17-14		Menomonee Falls	8	fall leaf and yard care class
General Public	9. Composting	9-18-14		Waukesha	22	fall leaf and yard care class
General Public	9. Composting	9-22-14		Brookfield	31	fall leaf and yard care class
General Public	9. Composting	9-23-14		Delafield	24	fall leaf and yard care class
General Public	9. Composting	9-25-14		Mukwonago	22	fall leaf and yard care class
General Public	9. Composting	10-7-14		Pewaukee	20	fall leaf and yard care class
General Public	9. Composting	10-8-14		Muskego	12	fall leaf and yard care class
General Public	9. Composting	10-11-14		Retzer Nature Center	5	fall leaf and yard care class
Teachers and Students	1. training	4-8-14		Retzer Nature Center	14	Project WET for green schools training
Teachers and Students	1. training	7-28/31-14		Brookfield	10	4-day training class for teachers through WEI academy
Teachers and Students	3. Presentation	2-18-14		New Berlin	29	watershed model used for career day at New Berlin West H.S.
Teachers and Students	3. Presentation	3-7-14		Carroll University	13	water quality testing lab at Carroll
Teachers and Students	3. Presentation	4-2-14		Merton Intermediate	100	power point presentation for 5th grade followed by hands on break out sessions by class
Teachers and Students	3. Presentation	4-25-14		Genesse Depot	60	Magee Elementary Earth Day celebration program
Teachers and Students	3. Presentation	5-9-14		Menomonee Falls	335	7th grade students attending storm water expo
Teachers and Students	3. Presentation	5-13-14		Eagleville Elementary	97	Soils presentations for entire school activity
Teachers and Students	3. Presentation	5-16-14		Dixon Elementary	11	presentation to students at high interest day activities
Teachers and Students	3. Presentation	5-23-14		Pewaukee High School	240	powerpoint program for 5th grade in preparation for Camp Whitcomb outdoor program
Teachers and Students	3. Presentation	6-5-14		Waukesha	45	Butler Middle School presentation
Teachers and Students	3. Presentation	6-5-2014		New Berlin	44	Holy Apostles 5th grade class
Teachers and Students	3. Presentation	10-1-14		New Berlin	33	watershed model at Career Day
Teachers and Students	3. Presentation	10-7-14		Waukesha	66	presentation at career expo in Waukesha serving schools county-wide
Teachers and Students	3. Presentation	10-20-14		Prairie Elementary	127	Waukesha Schools soil program for 2nd and 3rd grades
Teachers and Students	3. Presentation	10-20-14		Nature's Classroom Institute	12	WAV training for 7/8 grade students
Teachers and Students	3. Presentation	4-16/17-14		Sussex	132	groundwater program using model for all 5th grade at Woodside Elementary
Teachers and Students	4. Displays and Handouts	1-15-14		Eagleville Elementary	75	watershed model at school event
Teachers and Students	4. Field Experience	5-20-14		Muskego High School	21	water testing with science class
Teachers and Students	4. Field Experience	5-22-14		Eagleville Elementary	103	water study for all students with jericho creek
Teachers and Students	4. Field Experience	5-29-14		Camp Whitcomb	150	lake study program for Pewaukee 5th graders
Teachers and Students	4. Field Experience	5-30-14		Camp Whitcomb	100	lake study program for Pewaukee 5th graders

2014 INFORMATION AND EDUCATION LEDGER OF ACTIVITIES

Target --from workplan		Date	What	Where	# People	Additional Description or Information
Teachers and Students	4. Field Experience	5-30-14		Bethesda Park, Waukesha	100	New Berlin 6th grade
Teachers and Students	4. Field Experience	6-6-14		Waukesha	50	Holy Apostles 5th grade class at Bethesda park for field experience
Teachers and Students	4. Field Experience	6-6-14		Mukwonago	8	trained 2nd Chance class to do monitoring at Jericho Creek monitoring with 5th and 6th grade summer school and storm drain activity with 3rd and 4th grades
Teachers and Students	4. Field Experience	6-16-14		Eagleville Elementary	60	provided soil probes for use in 5th grade class
Teachers and Students	4. Field Experience	9-15-14		Menomonee Falls	18	water testing with high school science class
Teachers and Students	4. Field Experience	9-23-14		Muskego	11	water testing with science class
Teachers and Students	4. Field Experience	9-23-14		Menomonee Falls	25	field experience in water testing for Field Biology class of Kettle Moraine Global school
Teachers and Students	4. Field Experience	11-14-14		UW-Waukesha Field Station	20	provided rain barrel and diverter for use at school through the green schools program for kindergarten project
Teachers and Students	4. green schools	4-30-14		Prairie Hill Waldorf		provided rain garden plants to expand rain garden
Teachers and Students	4. green schools	5-17-14		St. Paul's Genesee		