

2015-2016 (Due by March 31, 2017)

For the Cities of Fitchburg, Madison, Middleton, Monona, Sun Prairie, and Verona; the Villages of DeForest, Maple Bluff, McFarland, Shorewood Hills, Waunakee, and Windsor; the Towns of Blooming Grove, Burke, Madison, Middleton, and Westport; Dane County; and the University of Wisconsin – Madison.

This document is for the purpose of biennial reporting on activities undertaken pursuant to WPDES Permit No. WI-S058416-3 for the above listed municipalities. An owner or operator of a municipal separate storm sewer system covered by a municipal storm water discharge permit under ch. NR 216, Wis. Adm. Code, is required to submit a biennial report to the Department of Natural Resources by March 31 of every odd numbered year to report on activities for the previous two (2) calendar years. Information in the biennial report will be used by the Department of Natural Resources to assist with assessing permit compliance. Use of this specific form is optional. The Department of Natural Resources has created this form for the user's convenience and believes that the information requested on this form meets the reporting requirements for an owner or operator of a municipal separate storm sewer system covered by WPDES Permit No. WI-S058416-3. However, an owner or operator of a municipal separate storm sewer system that uses and completes this form will not automatically be deemed to be in compliance with other requirements of WPDES Permit No. WI-S058416-3.

Complete and submit the biennial report by March 31, 2017, to the following address: Storm Water Management Specialist, Wisconsin Dept. of Natural Resources, South Central Region, 3911 Fish Hatchery Rd., Fitchburg, WI 53711

I. MUNICIPAL INFORMATION

Name of municipality Dane County	Contact person and title Jeremy Balousek, WRE Division Manager
Mailing Address 5201 Fen Oak Dr., Room 208 Madison, WI 53718	Telephone no. 608-224-3730
	Fax no. 608-224-3745
	E-mail address Balousek@countyofdane.com

Does the municipality have an internet website? Yes No

If yes, provide internet address:

www.countyofdane.com, www.countyofdane.com/lwrd

If the municipality has an internet website, is there current information posted about or links provided to the municipal storm water discharge permit and the municipality's storm water management program? Yes No

If yes, provide internet address:

<http://danewaters.com/Management/Erosion-Control-and-Stormwater-Management>

II. CERTIFICATION

I certify 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 the biennial report.

Authorized representative printed name Jeremy Balousek	Authorized representative title Water Resource Engineering Division Manager
Authorized representative signature 	Date signed 6-15-2017

III. GENERAL INFORMATION

a. Has the municipality made any changes under its legal authority that affects implementation of the requirements of the municipal storm water discharge permit (e.g., changes to ordinances)? Yes No
 If yes, describe the changes in **Appendix A**.

b. List the people who attended quarterly meetings on behalf of the municipality and indicate the quarterly meetings in which the municipality was represented for the reporting years.

<u>Name</u>	<u>Title</u>	<u>Affiliation</u>
Susan Jones	Watershed Mgt. Coord.	DC Lakes and Watersheds
Christal Campbell	Stormwater Ed. Coord.	DC Water Resource Engineering
Jeremy Balousek	WRE Division Manager	DC Water Resource Engineering
Kevin Connors	Director	DC Land and Water Resources Department

c. Quarterly meetings represented: February 2015 May 2015 August 2015 November 2015
 February 2016 May 2016 August 2016 November 2016

d. Describe in **Appendix A** how the municipality internally coordinates implementation of the requirements of the municipal storm water discharge permit between the municipality's agencies, departments, and programs. Provide any documentation on how this was accomplished, such as meeting agendas, minutes, memos, etc.

e. Describe in **Appendix A** how elected and municipal officials and appropriate staff are kept apprised of the municipal storm water discharge permit. Provide any documentation on how this was accomplished, such as meeting agendas, minutes, memos, etc.

f. What is the date of the latest municipal-wide storm water management plan update? June 2, 2016

The Dane County Board completed and adopted a comprehensive plan, as defined in WI state statutes, on October 18, 2007 and it went into effect with the County Executive's signature on October 25, 2007. The plan, including amendments adopted in 2012 and 2016, is found on Dane County's comprehensive planning home page: <http://www.daneplan.org/plan#history>.

Dane County's permit specifically applies to county-owned and operated MS4s. Those facilities are not specifically addressed in the county comprehensive planning process. However, several goals and objectives in the Agricultural, Natural and Cultural Resources portions of the plan (not amended since initial adoption in 2007) address stormwater management. See Chapter 5 of the adopted plan, including the water resources objectives and policies.

IV. Permit Conditions

a. Public Education and Outreach

Dane County only:

1. Has any municipality failed to submit its financial contribution in accordance with the *Intergovernmental Agreement to Create and Fund a Position Responsible for Storm Water Management Education and Outreach*? Yes No

If yes, list municipalities:

2. Describe in **Appendix B** the Information and Education plan implementation and activities for the reporting years, including any materials produced and their distribution. Provide examples. Include an assessment of the effectiveness of reaching targeted audiences and delivery of intended messages.

All municipalities:

3. Describe in **Appendix B** how any materials produced by Dane County on behalf of the municipality have been used and/or distributed. Provide examples.

4. Describe in **Appendix B** any individual information and education activities undertaken for the reporting years, including any materials produced and their distribution. Provide examples. Include an assessment of the effectiveness of reaching targeted audiences and delivery of intended messages.

b. Public Involvement and Participation

1. The group permit requires that the information in this biennial report be an agenda item for discussion before the appropriate governing board(s) or council(s) contemporaneous with the submittal of the biennial report to the Department of Natural Resources. Accordingly, please provide the following information:

2. Name of board(s)/council(s):
Dane County Board

3. Date(s) of meeting(s) to discuss the biennial report:
July 16, 2015 and August 18, 2016
(www.dane.legistar.com)

4. Describe in **Appendix B** the opportunities and types of forums for public involvement and participation in permit related activities that occurred during the reporting years. Include an assessment of the effectiveness of efforts to involve the public and the level of participation.

c. Illicit Discharge Detection and Elimination

1. Describe in **Appendix B** the illicit discharge detection and elimination program developed to comply with the permit. Include information on the municipality's strategy to prevent, detect, and eliminate all types of illicit discharges; how priorities are established for field screening and the methodologies to be used for field screening; and procedures for responding to and rectifying illicit discharges to the MS4, including spills, improper disposal of waste or dumping. Also include an assessment of the effectiveness of detection and elimination of illicit discharges, prevention of improper disposal of waste and dumping, the handling of spills, and any enforcement efforts involving these activities.

2. Has the municipality performed any field screening for the reporting years? Yes No
If yes, please provide documentation in **Appendix B** the results of the field screening.

3. Has the municipality investigated any instances of spills, improper disposal of waste or dumping? Yes No
If yes, please provide documentation in **Appendix B** the results of the investigations.

4. Describe in **Appendix B** how the municipality facilitates public reporting of illicit discharges.

d. Construction Site Pollution Control

1. Does the municipality notify landowners who apply for local construction or land disturbing permits of the possible applicability of subch. III of ch. NR 216, Wis. Adm. Code, *Construction Site Storm Water Discharge Permits*, to the landowners' construction projects? Yes No

If yes, please explain the process for providing this notification. If no, please explain why this notification is not provided.

Proof of notification to the DNR is a requirement of county erosion control and stormwater management permits. The county also coordinates review with local DNR staff.

2. Describe in **Appendix B** the procedures the municipality employs to incorporate timely consideration of potential water quality impacts from construction sites and that ensure implementation of the standards of ss. NR 151.11 and 151.23, Wis. Adm. Code, or equivalent local standards. Be specific of when in the review and approval process this is done, and how the municipality ensures compliance with the standards.

3. Describe in **Appendix B** the procedures the municipality employs for the inspection of construction sites and enforcing erosion control standards. Provided documentation of any enforcement actions taken that resulted in the issuance of a stop work order, citation, or summons for a construction site where one or more acre of land is disturbed. Include the name and address of the landowner, the site name and location, date(s) of violation(s), type of violation(s), and the status of resolution of the enforcement action.

4. List the name, title, address, telephone number, e-mail address, and duties of all persons designated with the responsibility to ensure implementation of the standards of ss. NR 151.11 and 151.23, Wis. Adm. Code, or equivalent local standards.

See Appendix B.

5. Include in **Appendix B** an assessment of the municipality's construction site pollution control program effectiveness in meeting the standards of ss. NR 151.11 and 151.23, Wis. Adm. Code, including enforcement efforts.

e. Post-Construction Site Storm Water Management

1. Describe in **Appendix B** the procedures the municipality employs to incorporate timely consideration of potential water quality impacts from construction sites and that ensure implementation of the standards of ss. NR 151.12 and 151.24, Wis. Adm. Code, or equivalent local standards. Be specific of when in the review and approval process this is done, and how the municipality ensures compliance with the standards.

2. Describe in **Appendix B** the procedures the municipality employs for inspecting the construction and installation of storm water best management practices and enforcement actions to ensure compliance with post-construction storm water management standards. Provided documentation of any enforcement actions taken that resulted in the issuance of a stop work order, citation, or summons for non-compliance with post-construction storm water management standards for sites where one or more acre of land is disturbed. Include the name and address of the landowner, the site name and location, date(s) of violation(s), type of violation(s), and the status of resolution of the enforcement action.

3. List the name, title, address, telephone number, e-mail address, and duties of all persons designated with the responsibility to ensure implementation of the standards of ss. NR 151.12 and 151.24, Wis. Adm. Code, or equivalent local standards, and the requirements of subch. III of ch. NR 216, Wis. Adm. Code, *Construction Site Storm Water Discharge Permits*, where applicable.

See Appendix B.

4. Include in **Appendix B** an assessment of the municipality's post-construction site storm water management program effectiveness in meeting the standards of ss. NR 151.12 and 151.24, Wis. Adm. Code, including enforcement efforts.

f. Municipal Pollution Prevention

1. List in **Appendix B** an inventory of long-term storm water best management practices owned, operated, managed, or maintained by the municipality. Include storm water basins, infiltration practices, treatment structures, and other practices for long-term water quality treatment. For each best management practice, provide the name, location, type of practice, and any maintenance activities undertaken for the practice during the reporting years. Also in **Appendix B**, provide a description of the maintenance procedures used and schedules for each long-term storm water best management practice and the approximate amount of solids collected (tons or cubic yards) from any structural control receiving maintenance.

2. Does the municipality perform catch basin cleaning? Yes No

If yes, approximate amount of solids collected (tons or cubic yards): 0.5 ton. Describe in **Appendix B** the procedures used and schedules for catch basin cleaning. If no, explain:

3. Does the municipality perform street sweeping? Yes No

If yes, approximate number of street miles swept: NA; approximate amount of solids collected (tons or cubic yards): 550 tons. Describe in **Appendix B** the procedures used and schedules for street sweeping. If no street sweeping is performed, explain:

4. Describe in **Appendix B** the municipality's procedures for roadway snow removal and de-icing. Provide information on what practice and procedures the municipality has implemented in consideration of water quality impacts from snow removal and de-icing. Include an estimate of the annual amount of salt and/or sand used for roadway de-icing.

5. Does the municipality haul snow to off-site disposal locations? Yes No

If yes, provide in **Appendix B** the location of all off-site snow disposal locations and describe what practices and procedures are used to protect water quality from snow and ice melt from the disposal site.

6. Does the municipality own or operate salt storage facilities? Yes No

If yes, provide in **Appendix B** the locations of all salt storage facilities. Are all salt storage facilities managed in accordance with ch. Trans 277, Wis. Adm. Code? Yes No

7. Does the municipality provide curbside pickup service for leaves, yard waste, and grass clippings? Yes No
If yes, approximate amount of material collected (tons or cubic yards): _____

8. Describe in **Appendix B** the municipality's procedures for the collection of leaves, yard waste, and grass clippings, and/or instruction to citizens for on-site management of these items. Provide the location of sites used by the municipality or citizens for the disposal of leaves, yard waste, and grass clippings.

9. Describe in **Appendix B** the municipality's policies and procedures for the use and application of lawn and garden fertilizers on municipally controlled properties. Include information on how these policies and procedures address pollution prevention efforts.

10. Describe in **Appendix B** any local program the municipality employs to regulate the private use of lawn and garden fertilizers.

11. Include in **Appendix B** an assessment of the effectiveness of the municipality's pollution prevention efforts through the municipal pollution prevention program.

V. STORM SEWER SYSTEM MAP

City of Madison only:

a. Has any municipality failed to submit its hard copy changes for the storm sewer system map by January 31, 2017?
 Yes No If yes, list municipalities:

b. Attach in **Appendix C** a copy of the updated storm sewer system map.

All municipalities:

c. Has the municipality updated and maintained documentation of all storm sewer outfalls from its MS4 to waters of the state?
 Yes No

VI. Water Quality Concerns

a. Does any part of the MS4 discharge to outstanding resource water (ORW) or exceptional resource water (ERW) listed under s. NR 102.10 or 102.11, Wis. Adm. Code? A list of ORWs and ERWs may be found on the Department's Internet site at: <http://dnr.wi.gov/topic/SurfaceWater/orwerw.html>

Yes No

If yes, list:

b. Does any part of the MS4 discharge to an impaired waterbody listed in accordance with section 303(d)(1) of the federal Clean Water Act, 22 USC § 1313(d)(1)(C)? A list of the most current Wisconsin impaired waterbodies may be found on the Department's Internet site at: <http://dnr.wi.gov/topic/impairedwaters/> Yes No

If yes, identify the following information in **Appendix D**:

- Impaired Waterbody to which the MS4 discharges.
 - Description of actions municipality has taken to comply with section A(13) of the MS4 permit for discharges of pollutant(s) of concern to an impaired waterbody.
- c. In **Appendix D**, identify any known water quality improvements in the receiving water to which the MS4 discharges during the reporting period.
- d. In **Appendix D**, identify any known water quality degradation in the receiving water to which the MS4 discharges during the reporting period and what actions are being taken to improve the water quality in the receiving water:

VII. ADDITIONAL INFORMATION

- a. Provide in **Appendix E** a description of any revisions or proposed revisions to any element of the municipality's storm water management program.
- b. Provide in **Appendix E** an updated listing and contact information for any new industrial facilities that may be regulated under subch. II of NR 216, Wis. Adm. Code, and that have commenced operation during the reporting period.
- c. Provide in **Appendix E** a summary of any other activities undertaken to comply with the conditions of this permit or other information you feel the Department of Natural Resources should be aware of.

d. Complete the fiscal analysis table provided below.

Program Element	2015 Annual Expenditure	2016 Annual Expenditure	2017 Budget	2018 Budget	Source of Funds
Public Education and Outreach	\$74,536	\$121,712	\$125,716	\$127,714	County
Public Involvement and Participation	\$40,506	\$43,226	\$44,876	\$46,065	County
Illicit Discharge Detection and Elimination	NA	NA	NA	NA	County
Construction Site Pollution Control	\$261,659	\$282,829	\$342,905	\$347,075	County
Post-Construction Site Storm Water Management	\$784,273	\$1,485,980	\$1,602,985	\$1,605,755	County
Municipal Pollution Prevention	\$85,000	\$100,000	\$105,000	\$110,000	County

e. What is the overall estimated annual cost to the municipality for compliance with the permit in 2015? \$1,160,974 2016? \$1,933,747

f. Has the municipality implemented a storm water utility? Yes No, but considering No, and not considering
 If yes, provide a description of the storm water utility in **Appendix E** and any additional information that will assist the Department of Natural Resources in understanding how the utility works in your municipality.

Appendix A

III. General Information

NOTE: Dane County's permit obligations are linked to the Alliant Energy Center and Dane County Highway facilities. However, DNR has requested that county staff also report on county-wide stormwater and erosion control programs. Therefore this report reflects a mix of information about facilities covered in the permit and county pollution control activities outside of the central Dane County area of the Madison Area Municipal Stormwater Partnership (MAMSWaP).

III.a.

In the spring of 2015 the county adopted ordinance amendment 15-002 to update the county's stormwater ordinance requirements for storm hydrology. This amendment updated the precipitation and storm distribution data that is used for stormwater management design through the National Oceanic and Atmospheric Administration (NOAA) Atlas 14 project. This is the first update to the data in 50 years. Design precipitation depths were modified and a new MSE4 (Midwest-Southeast 4) storm distribution was developed for Dane County. Federal, state, and municipal governments follow these criteria in their stormwater regulations, so county standards were revised to reflect the updated data.

To be consistent with other local municipalities and to provide better flood protection, the ordinance amendment also required that peak flow rates be maintained for the 100-year, 24-hour storm event.

The amendment language is shown below:

Strike 14.51(2)(cm) and replace with the following language:

(cm) Runoff rate control - design standards. Except for redevelopment projects, all stormwater facilities shall be designed, installed and maintained to effectively accomplish the following:

- 1. Maintain predevelopment peak runoff rates for the 1-year, 24-hour storm event (2.49 inches over 24-hour duration using the NRCS MSE4 storm distribution).*
- 2. Maintain predevelopment peak runoff rates for the 2-year, 24-hour storm event (2.84 inches over 24-hour duration using the NRCS MSE4 storm distribution).*
- 3. Maintain predevelopment peak runoff rates for the 10-year, 24-hour storm event (4.09 inches over 24-hour duration using the NRCS MSE4 storm distribution).*
- 4. Safely pass the 100-year, 24-hour storm event (6.66 inches over 24-hour duration using the NRCS MSE4 storm distribution).*

Revise 14.51(2)(cm)4. to state:

- 4. Maintain predevelopment peak runoff rates for the 100-year, 24-hour storm event (6.66 inches over 24-hour duration using the NRCS MSE4 storm distribution).*

III.d.

County leadership and coordination is by the Dane County Land and Water Resources Department (LWRD) staff. Staff also coordinated annual reporting requirements with affected Departments.

- Coordination of county stormwater and erosion control minimum standards occurs through meetings of relevant county staff, primarily through the Urban Staff Meetings of the Water Resource Engineering Division and Dane County LWRD. All aspects of the Erosion Control and Stormwater Management permitting program were transferred to LWRD as of January 1, 2007.
- LWRD stormwater staff team meetings address permit-related work and county-wide stormwater program implementation.
- County staff also are active participants in the MAMSWAP I&E Subcommittee.

III.e.

The county's permit requirements and reporting were discussed as part of Sue Jones' State of the Waters Report to the County Board on June 16, 2015 and August 18, 2016. Visit www.dane.legistar.com for meeting agendas.

Appendix B

IV. Permit Conditions

IV.a.2.

MAMSWAP 2015 I&E WORK PLAN

The Madison Area Municipal Stormwater Partnership (MAMSWaP), under the auspices of a five-year MOU through 2018, currently consists of 21 entities that have agreed to jointly implement stormwater outreach to reduce negative stormwater impacts. Members include cities of Fitchburg, Madison, Monona, Middleton, Stoughton, Sun Prairie and Verona; the villages of Cottage Grove, DeForest, Maple Bluff, McFarland, Shorewood Hills and Waunakee; and the towns of Burke, Blooming Grove, Madison, Middleton, Westport and Windsor; Dane County and the University of Wisconsin–Madison. The MAMSWaP I&E Committee assists the Dane County Stormwater Education Coordinator (SWEC) with review of the annual I&E work plan. Regular participation on the I&E Committee has included representatives from the cities of Fitchburg, Madison, and Stoughton, town of Westport and University of Wisconsin-Madison. Representation from other municipalities, especially villages and townships on the I&E Committee is strongly encouraged.

Madison Area Municipal Storm Water Partnership: 2013 Stormwater Related Perceptions, Knowledge and Practices Survey Report and 2014 Online Survey Summary was conducted in 2013/14 and was based on the 2009 survey in order to compare responses and analyze implementation of the 2003 plan. The *Final Report* was then used to develop appropriate outreach activities for the 2014–2018 outreach plan. Annual work plans are also developed with this data in mind. The entire report can be found at

http://www.ripple-effects.com/documents/pdf/MAMSWaP_Report_2013-2014.pdf .

The I&E Work Plan takes into account not only the results of the 2013/14 survey, but also experiences from implementation of previous work plans and activities. It also lists ongoing actions that consume a considerable amount of the part-time hours available.

For more information, contact the Dane County Stormwater Education Coordinator (SWEC) at 608-224-3746 or campbell.christal@countyofdane.com .

2015 I&E WORK PLAN ACTION LIST

C.(1)(b)(1). Promote detection and elimination of illicit discharges and water quality impacts associated with such discharges from municipal separate storm sewer systems.

- Develop and distribute articles and brochures to municipalities, friends groups, community groups and neighborhood association newsletters regarding illicit discharges.
- Develop and distribute simple written materials to help the public understand illicit discharge prevention and control, in cooperation with Public Health—Madison-Dane County. Use materials as part of a broader outreach focus using multiple methods.

C.(1)(b)(2). Inform and educate the public about the proper management of materials that may cause storm water pollution from sources including automobiles, pet waste, household hazardous waste and household practices.

- Develop environmental action list (storm drain marking, leaf management, rain garden installation, lake and stream clean up, etc.) with specific tasks for citizens, groups and others to implement.
- Seek existing BMP and other technical educational videos to demonstrate ways to minimize storm water impacts, and link to videos available on YouTube from myfairlakes.com.
- Collaborate with external partners to offer an impervious surface workshop for municipal staff, and a related campaign for the public.
- Develop and distribute articles focusing on “green developments” in central Dane County and how stormwater is managed at these sites. Develop and promote self-guided tours of some of the public sites to share these case studies, and make special efforts to reach new audiences for this material.

C.(1)(b)(3). Promote existing City of Madison Google map of all rain barrel/rain garden locations, and direct people to public property locations of these water management features.

- Promote beneficial onsite reuse of leaves and grass clippings and proper use of lawn and garden fertilizers and pesticides.
- Continue to implement the Love Your Lakes and Rivers, Don’t Leaf Them Program.
- Continue to implement the Plant Dane Program.
- Monitor leaf campaigns by other organizations include the Clean Lakes Alliance; monitor USGS/City of Madison/Dane County leaf research; share information about both as appropriate.

C.(1)(b)(4). Promote the management of streambanks and shorelines by riparian landowners to minimize erosion and restore and enhance the ecological value of waterways.

- Continue to implement the Plant Dane Program.
- Develop a streambank and shoreland restoration demonstration program with related training workshops for riparian landowners. Promote programs through riparian organization communications.

C.(1)(b)(5). Promote infiltration of residential storm water runoff from rooftop downspouts, driveways and sidewalks.

- Continue to implement the Plant Dane Program.
- Continue to promote rain barrels, including many options for purchase and installation.
- Coordinate with impervious surface action items from C(1)(b)2.

C.(1)(b)(6). Inform and where appropriate educate those responsible for the design, installation and maintenance of construction site erosion control practices and storm water management facilities on how to design, install and maintain the practices.

- Publicize trainings for contractors, inspectors and staff, highlighting incentives for participation (including certification).
- Publicize the Dane County Erosion Control and Stormwater Management Manual.
- Promote the Wisconsin Chapter of the North American Stormwater and Erosion Control Association's events.
- Develop and offer local training for all MAMSWaP members, so that those not able to attend NASECA training can benefit.

C.(1)(b)(7). Identify businesses and activities that may pose a storm water contamination concern, and where appropriate, educate specific audiences on methods of storm water pollution prevention.

- Distribute letters and articles to businesses and associated groups.
- Promote the Wisconsin Chapter of the North American Stormwater and Erosion Control Association's events.

C.(1)(b)(8). Promote environmentally sensitive land development designs by developers and designers.

- Promote the Wisconsin Chapter of the North American Stormwater and Erosion Control Association's events.
- Develop and distribute articles focusing on "green developments" in central Dane County and how stormwater is managed at these sites. Develop and promote self-guided tours of some of the public sites to share these case studies, and make special efforts to reach new audiences for this material.
- Promote local lectures and topics that could benefit developers and designers.
- Promote participation in Wisconsin Water Star webinars focused on stormwater management, and advocate to organizers that stormwater topics continue to be included.

Municipal Responsibilities

It is not enough for municipalities to merely be an actively paying contributor to the Partnership. There are specific actions each municipality must do. For example, while MAMSWaP has created a useful website, each municipality needs to link to www.myfairlakes.com. Other examples include:

- using the articles and other information developed for municipalities in municipal newsletters or utility bill inserts,
- using displays developed for municipalities,
- providing information on municipal web sites,
- issuing press releases to local newspapers, and
- implementing storm drain marking programs.

Municipalities must document in their reports to DNR how they have used the materials developed by the I&E Committee.

Ongoing Tasks

The following actions are completed and/or implemented annually by the SWEC and consume a considerable amount of the half-time hours available.

1. Quarterly reporting to member municipalities.
2. Biennial reporting to DNR.
3. Bill municipalities and track payments.
4. Develop annual work plan.
5. Update/maintain website. Add significant new material in 2015 (using suggestions provided by I&E Committee members). Monitor analytics and try to boost hits and time on site.
6. Continue salt/deicing education materials and program.
7. Continue to work with the Earth Gauge Partnership.
8. Continue to promote NASECA events.
9. Develop and distribute articles to municipalities, friends groups, community groups and neighborhood association newsletters.
10. Develop/provide presentations (PowerPoint, slides, overheads, etc.) focused on audience interests/concerns.
11. Continue maintenance and use of existing list serves and distribution lists to disseminate info.
12. Continue providing organizations and community groups' assistance and collaborating with projects (presentations, displays etc. for communities).
13. Continue promoting storm drain stenciling and marking programs.
14. Promoting the storm water curriculum developed for MAMSWaP.
15. Maintain distribution lists.
16. Publicize training for building inspectors, contractors and staff.
17. Publicize availability of the Dane County Erosion Control and Stormwater Management Manual.
18. Promote and distribute DVD and CD.
19. Promote use of Enviroscape model including finding instructional how-to video for potential demonstrators.
20. Continue to coordinate outreach with the Rock River Stormwater Group.
21. Coordinate efforts with MMSD as appropriate regarding the adaptive management pilot project in the Yahara Watershed.

2016 I&E WORK PLAN ACTION LIST

[HTTP://WWW.RIPPLE-EFFECTS.COM/DOCUMENTS/PDF/2016-MAMSWAP-IE-WORK-PLAN.PDF](http://www.ripple-effects.com/documents/pdf/2016-MAMSWAP-IE-work-plan.pdf)

C(1)(b)(1). Promote detection and elimination of illicit discharges and water quality impacts associated with such discharges from municipal separate storm sewer systems.

- Develop and distribute articles and messages to municipalities, friends groups, community groups and neighborhood association newsletters regarding illicit discharges.
- Begin to develop a web-based interactive map of MAMSWaP area watersheds and sewersheds including: municipal boundaries, control practices, and stormwater drainage networks. Use map to develop an online tool to encourage better reporting of illicit discharges.

C(1)(b)(2). Inform and educate the public about the proper management of materials that may cause stormwater pollution from sources including: automobiles, pet waste, household hazardous waste and household practices.

- Promote storm drain marking program and lake/stream clean-up efforts.
- Research existing Adopt a Storm Drain programs and use Community Based Social Marketing approach to design a program pilot.
- Search existing technical educational videos to demonstrate ways to minimize stormwater impacts, and link to videos available on YouTube from myfairlakes.com.
- Develop additional MAMSWaP area specific videos, as needed that explain the role of MAMSWaP, the TMDL, and BMPs.
- Collaborate with external partners to offer a pervious surface workshop for municipal staff, consultants, and developers.
- Begin to develop a web-based interactive map of MAMSWaP area watersheds and sewersheds including: municipal boundaries, control practices, and stormwater drainage networks. Add locations and descriptions of “green developments and infrastructure”. Use to promote self-guided tours of some of the public sites, share case studies, and make efforts to reach new audiences.
- Collaborate with WI Salt Wise (www.wisaltwise.com) partners to promote, develop and distribute publications and web content focusing on reducing use of deicers containing chloride, and applying only the right amount of deicers needed for safety.
- Collaborate with WI Salt Wise partners to ensure a winter maintenance training is regularly offered in the Dane Co. area.

C(1)(b)(3). Promote beneficial onsite reuse of leaves and grass clippings and proper use of lawn and garden fertilizers and pesticides.

- a. Continue to implement the leaf management program to reduce leaves in streets and storm drains.
- b. Continue to implement the Plant Dane Program.
- c. Monitor leaf campaigns by other organizations (e.g. Clean Lakes Alliance, Friends of Lakes Wingra, USGS/City of Madison/Dane County leaf study, etc.) and share information as appropriate.

C(1)(b)(4). Promote the management of streambanks and shorelines by riparian landowners to minimize erosion and restore and enhance the ecological value of waterways.

- a. Continue to implement the Plant Dane Program.
- b. Begin to develop a web-based interactive map of MAMSWaP area watersheds and sewershed including: municipal boundaries, control practices, and stormwater drainage networks. Add locations and descriptions of successful streambank and shoreland restoration projects and promote through riparian organization communities.
- c. Promote WDNR Healthy Lakes Initiative workshops and grants through riparian organization communication.

C(1)(b)(5). Promote infiltration of residential stormwater runoff from rooftop downspouts, driveways and sidewalks.

- a. Continue to implement the Plant Dane Program.
- b. Continue to promote rain barrels, including many options for purchase and installation.
- c. Coordinate with pervious surface action items from C(1)(b)(2).
- d. Begin to develop a web-based interactive map of MAMSWaP area watershed, sewersheds including: municipal boundaries, control practices, and stormwater drainage networks. Add locations and descriptions of rain barrels and rain gardens to promote self-guided tours of these site, share case studies, and reach new audiences.

C(1)(b)(6). Inform and where appropriate educate those responsible for the design, installation and maintenance of construction site erosion control practices and stormwater management facilities on how to design, install and maintain the practices.

- a. Publicize trainings for consultants, contractors, inspectors and municipal staff, highlighting incentives for participation (including certification).
- b. Publicize the Dane County Erosion Control and Stormwater Management Manual.
- c. Promote the Wisconsin Chapter of the North American Stormwater and Erosion Control Association's (NASECA) events.
- d. Develop and offer local training for all MAMSWAP members so that those not able to attend the NASECA training can benefit.

C(1)(b)(7). Identify businesses and activities that may pose a stormwater contamination concern, and where appropriate, educate specific audiences on methods of stormwater pollution prevention.

- a. Distribute letters and articles to businesses and associated groups.
- b. Promote the Wisconsin Chapter of the NASECA events.
- c. Collaborate with WI Salt Wise (www.wisaltwise.com) partners to promote, develop and distribute publications and web content focusing on reducing use of deicers containing chloride, and applying only the right amount of deicers needed for safety.
- d. Collaborate with WI Salt Wise partners to ensure a winter maintenance training is regularly offered in the Dane Co. area.

C(1)(b)(8). Promote environmentally sensitive land development designs by developers and designers.

- a. Promote the Wisconsin Chapter of the NASECA events.
- b. Begin to develop a web-based interactive map of MAMSWaP area watersheds and drainage networks. Add locations and links to articles on "green developments" in central Dane County and promote self-guided tours of some of the public sites, case studies, and make special efforts to reach new audiences.
- c. Promote local lectures and topics that could benefit developers and designers.
- d. Promote participation in webinars focused on stormwater management and advocate to organizers that stormwater topics of local interest be included.

Municipal Responsibilities

It is not enough for municipalities to merely be an actively paying contributor to the Partnership. There are specific actions each municipality must do. For example, while MAMSWaP has created a useful website, each municipality needs to link to www.myfairlakes.com. Other examples include:

- using the articles and other information developed for municipalities in municipal newsletters or utility bill inserts,
- using displays developed for municipalities,
- providing information on municipal web sites,
- issuing press releases to local newspapers, and
- implementing storm drain marking programs.

Municipalities must document in their reports to WDNR how they have used the materials developed by the I&E Committee.

Additional Activities and Ongoing Tasks

Create a new brand to replace My Fair Lakes. The goal of the rebranding effort will be to develop an overarching brand that can be customized by partners, but provide some visual/message consistency to tie all MAMSWaP stormwater education efforts together.

The following actions are completed and/or implemented annually by the SWEC and consume a considerable amount of the half-time hours available.

22. Quarterly reporting to member municipalities.
23. Biennial reporting to the WDNR.
24. Bill municipalities and track payments.
25. Develop annual work plan.
26. Update/maintain website. Add significant new material in 2016 (using suggestions provided by I&E Committee members). Monitor analytics and try to boost hits and time on site.
27. Continue salt/deicing education materials and program.
28. Continue to work with the Earth Gauge Partnership.
29. Continue to promote NASECA events.
30. Develop and distribute articles to municipalities, friends groups, community groups and neighborhood association newsletters.
31. Develop/provide presentations (PowerPoint, slides, overheads, etc.) focused on audience interests/concerns.
32. Continue maintenance and use of existing list serves and distribution lists to disseminate information
33. Continue providing organizations and community groups' assistance and collaborating with projects (presentations, displays etc. for communities).
34. Continue promoting storm drain stenciling and marking programs.
35. Promoting the stormwater curriculum developed for MAMSWaP.
36. Maintain distribution lists.
37. Publicize training for building inspectors, contractors and staff.
38. Publicize availability of the Dane County Erosion Control and Stormwater Management Manual.
39. Promote and distribute DVD and CD.

40. Promote use of Enviroscape model including finding instructional how-to video for potential demonstrators.
41. Continue to coordinate outreach with the Rock River Stormwater Group.
42. Coordinate efforts with MMSD as appropriate regarding the Yahara WINS adaptive management program in the Yahara Watershed.

I&E Plan Implementation and Activities (on behalf of MAMSWaP communities) in 2015 – 2016

MAMSWaP I&E Staffing

Stormwater Education Coordinator Marcia Hartwig's last day of work with MAMSWaP was May 9, 2014. She had been with the MAMSWaP since its inception in the early 2000s. During the long vacancy of May 2014 through May 2015, Sue Jones and other Dane County Office of Lakes and Watersheds staff implemented the most important MAMSWaP I&E program elements. Christal Campbell was hired on in June 2015 as the new Stormwater Education Coordinator.

I&E Committee Membership

The Intergovernmental Agreements to Fund a Position Responsible for Stormwater Information, Education and Outreach Coordination for the Madison Area Municipal Stormwater Partnership January 1, 2014-December 31, 2018 specify the membership of the I&E Committee in order to represent the interests of each level of government (town, village, city, Dane County, UW-Madison) within the Partnership. The Committee generally meets a week or two in advance of the large quarterly meetings.

The 2015 and 2016 I&E Committee included: Tom Wilson (Town of Westport), Allan Coville (Village of McFarland), Phil Gaebler (City of Madison) Rick Eilertson (City of Fitchburg), Rodney Scheel (City of Stoughton), Marisa Trapp (UW-Madison), and Sue Jones and Jeremy Balousek (Dane County). In 2015 and 2016, the committee was ably advised by regular attendees Kathy Lake and Kim McCutcheon (WDNR).

Annual Workplans

In preparing annual workplans, I&E Committee members consider: 1) required elements of the annual workplan in the 2009-2016 permit, 2) 2013 to 2018 MAMSWaP I&E Plan goals and desired outcomes, 3) 2013-2014 knowledge and behavior survey results, and 4) previous workplans. Sue Jones developed the 2015 annual work plan and Christal Campbell developed the 2016 annual work plan for the I&E Committee's review and approval as required by the intergovernmental agreement and submitted the final plan to all MAMSWaP members.

Annual Plant Dane! Cost-Share Program

Through cost-sharing from the Graham-Martin Foundation, the Plant Dane! Program coordinated by MAMSWaP's Stormwater Education Coordinator provides native plants, at a greatly-reduced price, for use in rain gardens and native plantings that improve the quality of stormwater runoff. The program is open to schools, non-profit organizations (lake and neighborhood associations, youth groups, faith centers, clubs, etc.), municipalities and individual residents in Dane County.

Interested parties complete an online order form and mail in their payment for native plants for rain gardens and other projects.

2015

MAMSWaP members were asked to help promote the Plant Dane native plant cost-share program using flyers and pertinent website links. Order deadline was March 16. Plants were delivered on Saturday, May 30, 2015. Participants totaled 270 and total number of plants sold was 5000.

2016

MAMSWaP partnered with Agrecol to host a Rain Garden Workshop on March 12th at Lussier Heritage Center. The cost of workshop was \$5 and 39 people attended. Participants used Eventbrite to register and pay for the workshop which proved to be very efficient. Bryant Moroder of Rain Reserve also shared information on rain harvesting. Overall the workshop was well received, but there was interest by some to hold more of an advanced workshop where participants could leave with an actual plan to implement as this was more of an introduction.

SWEC Campbell provided partners with a communications toolkit that included: a press release, website links, graphics, flyers and brochures to promote both the Rain Garden workshop and the native plant cost-share program. Radio advertising and an ad in the Isthmus was also purchased. 2016 was a record-breaking year, with more than 13,700 plants sold to 280 participants. This is the first year participants were able to pay via credit card through the PayPal system and more than 80 opted to use the online payment system. Amy Callis, Christal Campbell, Angie Mayr from Dane County LWRD staffed the plant delivery day on June 4th.

Fall Leaf Campaign

MAMSWaP launches a leaf management campaign each fall to encourage residents to keep leaves out of the street and reduce a primary source of urban dissolved phosphorus to area waters. The messaging and campaign tools varied from 2015 to 2016, but included template articles, graphics for social media posts, print and web ads, flyers, yard signs and coasters. Staff encouraged each member municipality to use the materials and resources provided to spread the message in their communities.

2015

MAMSWaP continued to use the Love Your Lakes and Rivers, Don't Leaf Them Media Campaign in 2015 and ran ads in area newspapers in late Sept./early Oct. The 2015 Campaign included: yard signs, coasters, a template article for municipalities and watershed groups, flyers, and both web and print advertisements. 2015 Campaign Tools were shared via email with MAMSWaP partners on Sept. 10th. Newspaper inserts were sent to approximately 119,000 households throughout the MAMSWAP area through Isthmus Publishing, Capital Newspapers, News Publishing, Inc., Unified News Group and Hometown News Group. (printed by Dane County Printing and Services) in their newspapers during the height of leaf fall in October and November: Isthmus, Wisconsin State Journal, Middleton Times Tribune, Stoughton Hub, Oregon Observer, Verona Press, Sun Prairie Star, Herald Independent (Cottage Grove/Monona), McFarland Thistle, DeForest Times, and Waunakee Tribune. Print leafism ads along with online ads appeared in the Isthmus and State Journal encouraging citizens to keep leaves out of the street and to visit the myfairlakes.com web site. Coasters and yard signs were also made

available to municipal partners to distribute locally. The total estimated campaign costs for 2015 was \$14,067.

2016

Building on results of the USGS/City of Madison Leaf Research Project showing a clear connection between high phosphorus levels at outlets and leaves on streets MAMSWaP tweaked its messaging for the 2016 leaf campaign. The new goal was to be more direct in our ask of residents. The new message asked residents to remove leaves from the streets before the rain “Rain on the Way? Please remove leaves from the street today.” A leaf management toolkit was built with this new focus. The toolkit included: a template article, graphics with the new message for social media and newsletters, and a new print ad with the “Rain on the Way? Please remove leaves from the street today.” message. The ads ran in all local newspapers within the MAMSWaP area with the exception of Verona. Verona asks its residents to actually place leaves in the street. The ad also ran in the State Journal and Isthmus in October/early November. 2016 Campaign Tools were shared via email with MAMSWaP partners on Sept. 14th. Total estimated campaign costs for 2016 was \$4413. MAMSWaP I&E members decided to scale back on the leaf media effort in 2016 to devote more time to coordination of a neighborhood leaf pilot.

MAMSWaP partnered with the Friends of Pheasant Branch (FOPB) and the City of Middleton on a neighborhood leaf pilot in 2016. The goal of the pilot was to enlist help of residents to remove leaves from street in front of home prior to a rain event. 95 residents along Hubbard and Elmwood Ave. were mailed an information letter, flyer and pre-stamped commitment postcard in September. Friends of Pheasant Branch followed up with site visits to all potential participants and either talked to the resident about the pilot or left a packet of information with another commitment card. Visit <https://drive.google.com/drive/folders/0B6IN0xfndLr9WDNxR2p1OGZrMUK?usp=sharing> for outreach materials used in the pilot.

Residents were asked to complete and return the commitment card, sign up to receive text or email alerts prior to a rain event and remove leaves from their street after an alert is issued in advance of the storm between Oct. 1st and Nov. 30th. The FOPB conducted pre and post-storm observational surveys to measure changes in the amount of leaves on the street.

Highlights-

- 7 rain event action alerts issued between 10/1 and 11/30
- 6 pre/post storm observational surveys conducted
- 39% participation in pilot (37 residents)
- 59% (22) return rate for participant follow-up survey
- 36% (20) return rate for control follow-up survey

Key Results:

- No significant difference in the amount of leaves pre and post-observational survey between participants and non-participants in pilot area.
- Approximately 25% less leaves in streets in pilot area compared to control. -Main reason residents signed up for pilot was to improve water quality (63%)
- Half of residents who participated mentioned that the visit from Friends of Pheasant Branch made a difference in their decision to sign on.

- 100% of participants report that they are likely or somewhat likely to removed leaves from streets next fall, up from 25% pre-pilot (did not or sometimes removed leaves).
- 76% of participants report that they would be likely or somewhat likely to sign up for rain event alerts again next year.

Observations/Issues:

- No rain events during first two weeks in Nov. when many leaves fell.
- Evidence that some residents are removing leaves-small leaf piles on terrace/residents out raking streets.
- Difficult to determine if people are taking action based off of pre and post-surveys, leaves drop quickly and parked cars in the way collecting leaves, leaves blow around a lot.
- Parked cars were a huge issue. Residents couldn't remove leaves and streets wouldn't pick up if cars in the way.
- Volunteers felt that residents that didn't sign up for pilot were removing leaves from the streets after seeing neighbors remove leaves.
- Residents want the city to pick up more often.

Storm Drain Marking

MAMSWaP partners with the UW Extension Water Resource Education Center (coordinated by Mindy Habecker, Dane County UW-Extension) to promote and loan out materials for groups to participate in storm drain marking. In 2015, 357 storm drains were marked by 182 volunteers and 67 storm drains were marked by 32 volunteers in 2016.

Reducing Salt Usage

2015

Campbell worked with partners to raise awareness on the impacts of salt to our waterways and actions people can take to reduce their salt diet through the WI Salt Wise campaign. Printable pdf versions of flyers targeting each audience were added to the website along with a Shovel, Scatter, Switch message outlining the recommended actions. Dane Co. hosts the WI Salt Wise website and Campbell coordinates any changes to the site.

Campbell also served on a team to create a Retailer Toolkit aimed at getting the WI Salt Wise message to consumers who purchase road salt at area retailers. The toolkit included a letter and signage with the new "Shovel, Scatter, Switch" message for retailers to post near road salt, shovels and other winter maintenance equipment. WI Salt Wise partners targeted more than 100 area retailers who sell salt to ask if they'd be willing to participate in the pilot and post signs. MAMSWaP partners with independently owned retailers in their communities were asked to approach retailers and distribute materials. Participating retailers were recognized on the WI Salt Wise web site.

In addition a WI Salt Wise Communications Toolkit was shared with MAMSWaP partners via email on Jan. 14th and included: key messages to share on salt reduction practices, graphics, and links to articles and resources on WI Salt Wise web site. MAMSWaP partners were encouraged to use the resources and share through local communication channels.

Winter Maintenance Workshops 2015

Campbell worked with the MAMSWaP I&E Committee to plan and implement two workshops aimed at training local salt applicators on best practices to reduce salt use and keep roadways and parking lots safe. The trainings were held on Oct. 14th (Roadways) and Oct. 15th (Parking Lots) at the Dane Co. Lussier Heritage Center. The workshops were led by Connie Fortin (Fortin Consulting) and Chris Walsh (City of Beloit) and included: information on the impacts of excessive road salt to area waters, guidance on how to select the right tool and amount for the job and best management practices to keep area roadways, parking lots, and sidewalks safe. 47 people attended the Roadway training, mostly comprised of municipal staff. 27 people attended the Parking Lot training with representation from municipalities, parks, many local school districts and Homburg Construction. Feedback from participants was very positive-most indicated that they found the workshops useful and that they will or might try new practices learned during the workshop. Channel 27 covered the workshop on the 10/15 evening news.

2016

Campbell worked with WI Salt Wise partners to continue to expand the reach of WI Salt Wise. The main goals for 2016 were to: receive more earned (free) media (TV/newspaper) around the issue, engage local watershed groups and develop short videos targeting specific audiences (pet owners, motorists, municipalities, homeowners). A media kit, community engagement toolkit, and several short videos identifying actions specific audiences can take to minimize salt use were developed. As a result several TV news stations and newspapers covered the issue and broadcast recommended actions to reduce salt use pointing people to the WI Salt Wise web site for more information. Videos were uploaded to the WI Salt Wise YouTube channel and shared via social media. Videos were viewed more than 300 times over the course of the winter season.

In addition a WI Salt Wise Communications Toolkit was shared with MAMSWaP partners via email on Dec. 6th and included: a template article, graphics, key messages, sample social media post, resources to reach out to local businesses and links to WI Salt Wise videos. MAMSWaP partners were encouraged to use the resources and share through local communication channels.

Winter Maintenance Workshops 2016

MAMSWaP partnered with MMSD, the Dane Co. Office of Lakes and Watersheds and Madison Water Utility to hold two half-day Winter Maintenance Workshops at Madison Metro. Sewerage District (MMSD) on Oct 25th (Managers) and 26th (Field Staff). Based on input from partners and past workshop participants MAMSWaP held separate trainings for managers and field staff this year. Campbell coordinated both workshops. Trainings covered case studies from MMSD Salt Reduction Grant recipients, impacts of excessive road salt to area waters, guidance on how to determine the right amount of salt to use, best management practices to keep area roadways, parking lots, and sidewalks safe, ideas on how to transition to liquids and an equipment show and tell. 31 people attended the Manager-focused training. 38 people attended the Field Staff-focused training. Most participants were from municipalities, UW system and Epic Corp. Overall surveys responses were very positive and participants appreciated tailored workshops for managers and field staff. Most indicated that they found the workshops useful and that they will or might try new practices learned during the workshop. There was lots of interest in the MMSD Road Salt Program.

Partnerships and Projects Not Already Reported

North American Stormwater and Erosion Control Association (NASECA)

The I&E Committee promoted participation at NASECA training events over 2015-16, including:

- Fall Field Event in Rice Lake (Sept. 2015)
- Erosion Control Site Inspector/Installer Training (Nov 2015) and offered MAMSWaP members a \$100 discount to attend.
- Fall Field Event in Rice Lake (Sept. 2016)
- Construction Site Erosion Control and Stormwater Permit Training (Dec. 2016)

Earth Partnership for Schools (EPS)

The I&E committee agreed to support the 2016 Latino Earth Partnership program with \$1,150 in MAMSWaP programmatic funds.

Clean Lakes Alliance (CLA)

Stormwater Education Coordinator Campbell meets quarterly with the Clean Lakes Alliance to share projects and initiatives in an effort to reduce duplication and uncover partnership opportunities. In 2016, CLA and MAMSWaP have met and discussed opportunities to partner on street leaf projects and will likely produce a Community Engagement Toolkit. This toolkit will include lessons learned from recent leaf pilots along with outreach tools and best management practices aimed at engaging the public in street leaf removal efforts. Campbell also sat in on an input session in late 2016 to provide input on the 2017 CLA Strategic Plan.

Other ongoing partnerships:

- City of Madison on leaf, phosphorus and chloride outreach
- Dane County Lakes & Watershed Commission
- Rock River Coalition
- Rock River Recovery Education and Outreach Team (TMDL I&E implementation)

Communications and Articles

Stormwater Education Coordinator Campbell monitored and responded to myfairlakes email correspondence, posted to the Facebook account, promoted partners' stormwater training opportunities, gave presentations to school, civic and other groups and developed articles on many topics for member municipalities' use.

2015

Stormwater Education Coordinator Campbell developed communication toolkits on leaf management and salt reduction and distributed them to MAMSWaP members for use. Details listed above.

2016

Campbell developed communication toolkits on native plants/rain gardens (Plant Dane), spring/summer BMPs, leaf management, and salt reduction and distributed them to MAMSWaP members for use. Details listed above.

Enviroscape

The “Enviroscape” watershed model, donated for broader use by the City of Sun Prairie, is available to be checked out within the MAMSWaP area to educate area residents about watersheds and urban and rural runoff, and ways to prevent water pollution.

2015

- March 17, 2015 – Madison Country Day School STEAM (Science-Technology-Engineering-Arts-Math) presented to 50 kids by Greg Fries (City of Madison)
- April 12, 2015 – used by Rock River Coalition at the First Unitarian Society
- August 24 week, 2015 – Farm Technology Days

2016

- March 11, Madison Country Day School STEAM Fair presented by Greg Fries (City of Madison)
- April 17, Bird and Nature Fest, Warner Park
- June 13-18, UW Madison Arboretum Master Naturalist Training
- July 16, Master Naturalist Training, Warner Park

Website

SWEC Campbell maintained both the myfairlakes.com and wisaltwise.com websites and requested content and format changes through the Dane Co. web service request system.

Facebook Page

SWEC Campbell developed and posted content on the My Fair Lakes Facebook page on a regular basis to promote events, campaigns and best management practices. Campbell posted content 36 in 2015 and 77 times in 2016. Partners were encouraged to “Like” the My Fair Lakes Facebook page and share content. Likes increased from 110 in Feb. 2015 to 150 by Dec. 2016.

Ripple Effects Rebranding

SWEC Campbell and I&E Committee launched a rebranding effort in early 2016 to replace My Fair Lakes. The goal of the rebranding effort was to develop a recognizable action brand that could be customized by partners, but provide some visual/message consistency to tie all our current and future stormwater efforts together. A rebranding team made up of partners from within and outside the I&E Committee was formed to help with the process and represent the needs of the partnership. The team worked with a branding expert, Sarah Wortham from May-October to provide input and feedback on a potential brand. Three brand concepts/initial designs were shared with Campbell and the rebranding team at a meeting on Sept. 12th. Feedback was collected and a revised Ripple Effects concept was presented to Campbell in Oct. for final input. Ripple Effects was finalized and shared with all the partners at the November 1st MAMSWaP large group meeting. A design guide with specifications on colors, fonts, and overall guidance on how the brand is to be used and not used was completed in Dec 2016 and shared with partners.

Campbell will be working to transition from My Fair Lakes to Ripple Effects over the next year with Plant Dane being the first campaign to reflect the new brand. This will include a new Ripple Effects web site and modifications to existing and future campaign to reflect the new brand.

www.ripple-effects.com

Other Tasks Performed by the Stormwater Education Coordinator

- Sent annual invoices to member municipalities
- Led quarterly I&E Committee meetings
- Attended and provided quarterly I&E Updates to MAMSWaP members. 2015-16 I&E Updates are available at <http://www.ripple-effects.com/mamswap>
- Attended webinars to increase knowledge of stormwater management and outreach practices and evaluation of their effectiveness
- Provided reminders to MAMSWaP members in each quarterly report and at quarterly meetings, for members to:
 - Link municipality's website to myfairlakes.com and to use updated myfairlakes logos.
 - Follow myfairlakes.com on Facebook! "Like" and "share" posts to help spread the word.

Assessment of Effectiveness

At a minimum of every five years coinciding with permit reissuance, the MAMSWaP I&E Committee conducts surveys to determine the effectiveness of the program in reaching target audiences and changes in knowledge and behavior that occur in the target audiences. This survey was completed in 2014 and results are available at http://www.ripple-effects.com/documents/pdf/MAMSWaP_Report_2013-2014.pdf. The next survey is scheduled to be completed in 2018.

In addition, MAMSWaP used other tools such as workshop evaluations and number of participants to measure success. Details on workshop evaluations, number of participants, orders, etc. are available in the quarterly I&E Updates <http://www.ripple-effects.com/mamswap>.

IV.a.3. (Dane County implementation)

1. Linked from Office of Lakes and Watersheds (OLW) website (<https://olw-lwrd.countyofdane.com>) to MAMSWaP website (www.myfairlakes.com) and its information about the permit and actions that individuals can take to reduce stormwater runoff.
2. Promoted the Plant Dane! program from the Office of Lakes and Watersheds website, Facebook page (<https://www.facebook.com/dane.county.waters>), and newsletter (500+ subscribers) as well as Dane County's home page (www.countyofdane.com) (/)
3. Developed and staffed a display for Farm Tech Days during the week of August 24, 2015 to share information about stormwater management practices and MAMSWaP. The display was staffed in part by OLW and groups from the Dane County Watershed Network.
4. Featured stormwater posters in first and second floor lobbies of the Lyman Anderson Agriculture and Conservation Center (the Fen Oak offices housing Dane County Land and Water Resources Department, U.S. Department of Agriculture agencies, and Dane County UW Extension), where hundreds of people visit each month for business with county and federal agencies, and for purchase of park and lake access permits, construction permits, 4H meetings, cooking classes, and other club, church, and civic meetings.
5. Promoted and distributed MAMSWaP publications in the first and second floor lobbies of the Lyman Anderson Agriculture and Conservation Center (the Fen Oak offices housing Dane

County Land and Water Resources Department, U.S. Department of Agriculture agencies, and Dane County UW Extension), the Lussier Family Heritage Center and various other venues

6. Issued press releases to promote various campaigns and messages -
<https://www.countyofdane.com/press/details.aspx?id=3770>,
<https://www.countyofdane.com/press/details.aspx?id=3707>
7. Promoted MAMSWaP articles and events via Dane Stewards, the email distribution list of the Dane County Office of Lakes and Watersheds and the Dane County Watershed Network
8. Promoted the 2015/16 Winter Maintenance Workshops via Dane Stewards and Facebook.
9. Encouraged the Lakes and Watershed Commission (which includes four County Board Supervisors) to participate in MAMSWAP campaigns, including Plant Dane!, LYLDLT, as well as the WI Salt Wise partnership effort and to promote these programs to their constituents and networks.
10. Hosted 2016 Rain Garden and 2016 Winter Maintenance Workshops at Dane Co. Lussier Heritage Center.
11. Dane County hosted the meetings of the MAMSWaP I&E Committee.
12. Dane County staff have assisted with each of the Plant Dane! plant delivery dates.
13. Dane County Information Management staff have provided extensive support in revamping the MAMSWaP (myfairlakes) and WI Salt Wise web sites and Plant Dane! ordering system.

IV.a.4. (Dane County individual information and education activities)

1. Started a new volunteer growing program to provide free native plants for school and community projects. A volunteer training workshop was held on Oct. 23, 2016. In 2016, 13 volunteers provided over 1,500 free plants to the following groups: Sennett Middle School, Midvale Elementary School, Catholic Multicultural Center, Goodman Community Center, Centro Hispano, Commonwealth Community Pollinator Project, and Dane County Parks. Funding and support for this program provided by Office of Lakes and Watersheds and Take A Stake program.
2. Hosted a Yahara Watershed Partnerships Summit April 9, 2016 to bring together water-related groups in the Yahara River basin in order to share knowledge, encourage collaboration, and align our efforts around phosphorus, chloride, and other water pollutant priorities.
3. Finalized the Door Creek Watershed Management Action Plan Dec 2016. This is a 10-year implementation plan for addressing phosphorus impairments and habitat improvements in the Door Creek watershed. Community engagement components of the plan that were implemented in 2016 include: (1) Meeting with Door Creek Landowners (hosted by Land Conservation Division and supported by OLW) to introduce new county staff, give an overview of the management plan, and promote harvestable buffers and other conservation practices that reduce water and nutrient runoff; (2) Installation of an educational kiosk at Fish Camp County Park highlighting watershed features, the management plan, and actions that individuals can take to help reduce runoff and improve water quality; (3) Door Creek Aquatic Tour in conjunction with Friends of Lake Kegonsa (Sept. 23, 2016) to raise awareness of the management plan and strategies to improve water quality.
4. OLW hosted four Watershed Network Gatherings in 2015 (90 individuals and 48 groups participated) and five in 2016 (69 individuals and 37 groups participated). Gatherings focused on topics of interest to the network focusing on capacity building topics, networking opportunities, and programs that reduce stormwater runoff and promote pollution prevention

techniques. Gathering program descriptions and materials available at:
<http://danewaters.com/Watershed-Network/Dane-County-Watershed-Network>

5. Conducted surveys of the Watershed Network to evaluate OLW's community engagement program, assess water-related group needs, and determine Network priorities. Surveys included (1) 2015 Community Engagement Survey; (2) 2016 Budget and Database Needs Assessment; (3) Dane Stewards Email List Evaluation; (4) 2016 Community Engagement Survey
6. Dane County Office of Lakes and Watersheds (OLW) and MAMSWAP gave several educational presentations and/or distributed information on stormwater, water pollution, best management practices, and other topics to the following groups:
 - UW-Madison Sierra Student Coalition - 2016
 - New Century School - 2016
 - Rock River Coalition Annual Stream Monitor Gathering- 2016
 - Bayview Foundation Youth Summer Program - 2016
 - St. Mary's Adult Day Health Center - 2016
 - Waunona Garden Club – 2016
 - Friends of Badfish Creek board meeting – 2016
 - Latino Earth Partnership summer teacher institute - 2016
7. In 2015, OLW piloted after-school educational programs in partnership with Dane County UW-Extension and local watershed groups, in two racially diverse areas of Madison. Stormwater runoff quality was among the topics taught to middle school students.
8. OLW, with Wisconsin Salt Wise partners, contributed content to the WISaltWise website (<https://www.wisaltwise.com/>) launched in 2015 and hosted by Dane County. OLW distributed Wisconsin Salt Wise signs to partner businesses and organizations in 2015 and 2016. OLW developed several videos on salt reduction to the partnership's YouTube channel. OLW also purchased cups that homeowners can use to measure and scatter the appropriate amount of salt for safety.
9. OLW annually contributes funding to the Natural Resources Education Center, which loans water education models, water monitoring equipment, and storm drain marking kits to groups and individuals. In 2015, 114 storm drains were marked using materials from the Center.
10. In 2016, OLW developed a bilingual (Spanish and English) door hanger to be used in conjunction with storm drain marking educational programs.
11. OLW contributes funding and support to the annual winter maintenance training sessions provided to those who apply chloride deicers to roads, driveways, sidewalks and parking lots.
12. The Dane County Land and Water Resources Department Annual Reports include updates on stormwater and erosion control within the county. The reports are distributed to county committees and commissions, and are available for the general public here: <https://www.countyofdane.com/lwrdr/reports.aspx>
14. Insert presentations by WRE staff; training provided locally through NASECA. Also list the WRE stormwater & erosion control newsletter, with links to copies online (if they are posted there) and topics addressed.
 - February 5, 2015 NASECA Annual Conf. - Using Spatial Rainfall Distribution to Drive Hydraulic Models; <http://www.nasecawi.org/events/past-naseca-wi-events/>
 - April 28, 2015 – Parkwood Hills Garden Club
 - September 24, 2015 – NASECA Rice Lake – Porous Pavement Presentation; <http://www.nasecawi.org/events/past-naseca-wi-events/>

- September 24, 2015 – NASECA Rice Lake – Engineered Soil Infiltration Rates;
<http://www.nasecawi.org/events/past-naseca-wi-events/>
- December 4, 2015 – Town and Country Engineering Workshop

IV.b.1 – 3

The county's permit requirements and reporting were discussed as part of Sue Jones' State of the Waters Report to the County Board on July 16, 2015 and August 18, 2016.

IV.b.4.

Public information and outreach activities are described in IV.a.3-4. There were no specific public involvement activities related to Dane County facility compliance with permit requirements—all of those were internal meetings (see III.d). For the stormwater and erosion control ordinance amendments described in section III, public informational meetings and hearings were held by the Dane County Lakes and Watershed Commission, and by the County Board and its committees.

Dane County staff led four to five technical stormwater and erosion control presentations per year to various groups, in addition to the one-on-one guidance given to permit applicants about the requirements and benefits of controlling stormwater and construction runoff. Two urban engineers on the Dane County WRE staff are board members of the Wisconsin chapter of the North American Stormwater and Erosion Control Association (NASECA; <http://www.nasecawi.org/>), and guide the development of technical programs twice a year that are open to municipal staff and consultants serving MAMSWaP communities. LWRD staff also maintains the Dane County Erosion Control and Stormwater Management Manual as a resource for complying with countywide standards. The manual was last updated in 2014-
https://lwr.d.countyofdane.com/wred/Assistance/ec_manual.aspx .

Assessment of Effectiveness

Dane County did not have the resources to conduct a county-specific effectiveness assessment in 2015-16.

IV.b.1 – 3

The county's permit requirements and reporting were discussed as part of Sue Jones' State of the Waters Report to the County Board on July 16, 2015 and August 18, 2016.

IV.b.4.

Public information and outreach activities are described in IV.a.3-4. There were no specific public involvement activities related to Dane County facility compliance with permit requirements—all of those were internal meetings (see III.d). For the stormwater and erosion control ordinance amendments described in section III, public informational meetings and hearings were held by the Dane County Lakes and Watershed Commission, and by the County Board and its committees.

IV.c.1.

Illicit discharge is defined as any discharge to a municipal separate storm sewer (MS4) that is not composed entirely of stormwater except discharges authorized by a WPDES permit or other discharge not requiring a WPDES permit such as landscape irrigation, individual residential car washing, fire fighting, diverted stream flows, uncontaminated groundwater infiltration, uncontaminated pumped groundwater, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, lawn watering, flows from riparian habitats and wetlands, and similar discharges.

Storm sewer maps for the Alliant Energy Center and Highway Department were reviewed in 2005 for potential cross connections of sanitary and storm sewers. This review and additional field investigations determined that there were no visible cross connections. Manhole locations were noted as were outfalls for field screening activities. The AEC map is a CAD file and provides adequate detail. To date, maps for the County Highway facility have not been updated.

Field screening for illicit discharges may occur two times per year on county facilities covered by this permit. These investigations will be done during dry weather periods (at least 72 hours after a measurable rainfall event of 0.1 inches or more). The inspection shall be recorded on the Visual Inspection Form (see below). Should the sampling crew identify a potential source, page two of the form shall be filled out immediately. In the event of a spill or discharge on county-owned property, the Illicit Discharge Notification Form (also included below) shall be filled out as well. Highway personnel are also encouraged to examine outfalls during their routine maintenance activities on roads maintained in the centralized urban area covered by this permit. As part of tracking requirements, the Visual Inspection Form shall be filled out and be made available to the Water Resource Engineering Division for NR 216 reporting requirements.

In the event that the crew identifies the presence of a flow, the following procedures will occur:

1. Follow the storm drain system upstream to the next available manhole/location to isolate the area contributing the flow.
2. Make an attempt to determine the source of the flow.
3. If the source of the flow is determined to originate on the county facility, complete the Illicit Discharge Notification Form.
4. If the source of the flow cannot be determined, notify the Land and Water Resources Department (LWRD).

Spills, dumping, or improper disposal of wastes into the storm sewer shall be investigated and reported on the Illicit Discharge Notification Form. The appropriate actions identified in the Department spill response plan shall also be adhered to. In the event that a spill poses an imminent threat to receiving waters, notify the LWRD staff immediately.

Section 41.80(4) Dane County Code of Ordinances prohibits placement of any hazardous wastes or any toxic waste on any lands designated as a county owned or operated landfill site, unless prior written permission is obtained from the Committee.

Educational training on the Illicit Discharge Detection and Elimination strategy occurs on an annual basis or as determined by the designated county department staff. Pamela Dunphy, P.E.,

Assistant Highway Commissioner and Daniel Behrend, Highway Operations Manager, (608) 266-4011 are the contacts for the Dane County Highway and Transportation Department. Mark Clarke-AEC Director, (608) 267-3982 is the contact for the Alliant Energy Center.

**VISUAL INSPECTION FORM
 FOR ILLICIT DISCHARGE INSPECTIONS FOR STORMSEWERS AND OUTFALLS**

Dane County Highway and Transportation Facility: Fish Hatchery Road/City of Sun Prairie
 (Please circle appropriate facility)

Dane County Alliant Energy Center

Name of Staff Person Performing the Inspection: _____

Date test is performed: _____

Date of last rainfall: _____

Amount of last rainfall: _____ in.

Field Screening Form

Storm Sewer/Outfall Location	Pipe Size	Drainage Area	Receiving Waterbody	Notes/Observations

For any storm sewer/outfall that is active or has flow present, please complete the following:

Water Depth in pipe: ft.

Total Depth (from water surface to pipe invert): ft.

Flow Velocity: ft./sec.

Ambient Temperature: °F

Water Temperature: °F

pH: _____

Color: Clear Yellow Grey Brown Green
Other __

Turbidity: Clear Slightly Cloudy Cloudy Opaque

Surface Sheen: None Oil Gasoline Scum Unknown

Odor: None Oil Paint SO₂ Fuel
 Sewage Decaying Vegetation Unknown

Additional Comments/Observations: _____

Please contact Pete Jopke in the LWRD at 224-3733 or jopke@co.dane.wi.us upon completing this form.

Illicit Discharge Notification Form

For use by the Dane County Highway and Transportation Department and the Dane County Alliant Energy Center

This form is to be completed by the investigating Department as a follow-up to any illicit discharge that is detected.

Notifying Entity: <input type="checkbox"/> Highway & Transportation: Fish Hatchery Road/Sun Prairie <input type="checkbox"/> Alliant Energy Center <input type="checkbox"/> Other (<i>please specify</i>)
Details of Discharge:
Action Taken:
Proposed Corrective Measures:
Additional Comments:

Please submit form to the Land & Water Resource Department, 5201 Fen Oak Ct. Room 208.
Questions can be directed to Pete Jopke at 224-3733.

Completed By: _____ Date: _____

Name and Title: _____
(*please print*)

IV.c.3.

None of these occurrences were reported to LWRD in 2013-14.

IV.c.4.

All spills are to be reported to the Dane County LWRD. Please see section c.1. above.

IV.d.1.

Applicants are notified verbally if sites disturb more than one acre and they are given the proper contact at DNR for more information. In addition, the county enforces standards more restrictive or equivalent to NR216 through the Dane County Erosion Control and Stormwater Management Ordinance.

IV.d.2.

Prior to any land disturbance occurring on a site subject to NR 151, an erosion control permit is required. This permit is applied for and reviewed at the Dane County Water Resource Engineering Division (WRE). The Water Resource Engineering Division comments on any plan deficiencies and works with the applicant to ensure that all standards are being met. Once the WRE is confident the requirements have been addressed, a review letter is drafted identifying the permit conditions. An erosion control permit is then issued, which must be posted on the project site.

IV.d.3.

The WRE Division enforces the county’s erosion control permits. In 2015, WRE staff reviewed - 936 permit applications and conducted 2020 inspections on 620 active sites. Reference the table below for additional statistics.

2015 Sites	Submittals Reviewed	Active Sites	Inspections Performed	Contacts Initiated	Noncompliance Notices Issued	Stop Work Orders Issued	Citations Issued
County Administration	546	799	1214	570	6	12	2
Local Administration with Intergovernmental Cooperative Agreements ¹	74	137	806	68	0	-	-
TOTAL	620	936	2020	638	1	12	2

1. Municipalities with intergovernmental cooperative agreements with Dane County to provide plan review and site inspection services included: the Villages of Cambridge, Deerfield, Oregon and Waunakee and the cities of Middleton, Stoughton, and Sun Prairie.

In 2016, WRE staff reviewed 1038 permit applications and conducted 2674 inspections on 676 active sites. Reference the table below for additional statistics.

2016 Sites	Submittals Reviewed	Active Sites	Inspections Performed	Contacts Initiated	Noncompliance Notices Issued	Stop Work Orders Issued	Citations Issued
County Administration	554	879	1251	1195	10	23	0
Local Administration with Intergovernmental Cooperative Agreements ¹	122	159	1423	192	11	-	-
TOTAL	676	1038	2674	1387	21	23	0

1. Municipalities with intergovernmental cooperative agreements with Dane County to provide plan review and site inspection services included: the Villages of Cambridge, Deerfield, Oregon and Waunakee and the cities of Middleton, Stoughton and Sun Prairie.

For specific information on sites, please contact the Water Resource Engineering Division.

IV.d.4.

1. Jeremy Balousek, WRE Division Manager, 5201 Fen Oak Drive, 224-3747, balousek@countyofdane.com, Plan review, inspection, technical support
2. Christal Campbell, Stormwater Education Coordinator, 5201 Fen Oak Drive, 224-3746, campbell.christal@countyofdane.com, information and education, outreach
3. Josh Harder, Erosion Control Engineer, 5201 Fen Oak Drive, 224-3748, harder@countyofdane.com, Plan review, inspection, technical support
4. Angela Mayr, Conservation Specialist, 5201 Fen Oak Drive, 224-3737, mayr@countyofdane.com, Plan review, Ordinance Enforcement
5. John Reimer, Stormwater Engineer, 5201 Fen Oak Drive, 224-3612, reimer.john@countyofdane.com Plan review, lake levels, modeling
6. Jim Neidhart, Urban Erosion Control Analyst, 5201 Fen Oak Drive, 224-3738, neidhart@countyofdane.com, Plan review, Ordinance enforcement
7. Jessica Starks, Erosion Control Specialist, 5201 Fen Oak Drive, 224-3647, starks@countyofdane.com, Plan review, Ordinance enforcement
8. Jason Tuggle, Urban Erosion Control Analyst, 5201 Fen Oak Drive, 224-3735, tuggle.jason@countyofdane.com, Plan review, Ordinance enforcement
9. Elliot Mergen, LTE Conservation Engineer, 5201 Fen Oak Drive 221-7213 Mergen.elliott@countyofdane.com , Plan review, Ordinance enforcement

IV.d.5.

One hundred percent of erosion control plans meet the requirements of NR 151. Implementation and maintenance drop off significantly as a function of the amount of enforcement time that is available. For enforcement efforts, please see d.(3) above.

IV.e.1.

Process is the same as d.(1) above.

IV.e.2.

Process is the same as d.(3) above, although the stormwater inspection is typically the last erosion control inspection. The WRE Division enforces the county's erosion control permits. In 2015 and 2016, 4694 site inspections were conducted resulting in the issuance of 37 enforcement actions (stop-work orders and citations), including referrals to corporation counsel for erosion control violations countywide. Several were NR216 permitted sites. For specific information on sites, please contact the Water Resource Engineering Division.

IV.e.3.

Same staff and duties as in d.(4) above.

IV.e.4.

Since October of 2004 the county has been enforcing all of the requirements of NR 216. Compliance with the county's standards is very good and is improving as more emphasis is being placed on site inspections and technical assistance.

IV.f.1.

Pollution Prevention Policy and Management for Dane County Facilities

Pollution Prevention- Source reduction and other practices that reduce or eliminate the creation of pollutants.

The two county facilities covered by this permit are:

Dane County Highway Garage-Fish Hatchery Road Site

This site serves as the central operations unit for various satellite locations throughout Dane County.

Alliant Energy Center (AEC)

There are over 500 events held at the Alliant Energy Center every year, attracting more than one million visitors. The center consists of multiple venues, mainly the Veterans Memorial Coliseum, the Exhibition Hall and the New Holland Pavilions.

Stormwater BMPs/Management

Overall, operations at all facilities appear to meet the general requirements for pollution prevention per NR 216 requirements. Staff from Water Resource Engineering and the affected entities continue to address runoff concerns and coordinate on annual reporting requirements. A sediment basin has been designed for the area between the cattle barns.

Dane County Highway and Transportation construction and maintenance projects follow best management practices and are permitted through the following agencies as appropriate: Dane County Land Conservation, Wisconsin DNR, and US Army Corps of Engineers.

Highway equipment purchases include specifications for pollution control devices and staff applies yearly for upgrades to these devices through state and federal grants. In the past, Highway received grant funding to add upgraded and innovative pollution control devices on its equipment.

Field crews who maintain the roadways also collect trash and other debris on a routine basis. The material is brought back to the Highway Garage site and placed in collection facilities for disposal in the landfill. The amount of trash collected from the county highways is not quantified.

Vehicle maintenance procedures are performed at the Fish Hatchery Road site. All waste fluids are placed in a double-walled containment facility. There are no other materials onsite in quantities that would require hazardous material handling/storage certification.

Through November 1, 2012, the Dane County/City of Madison recycling and drop off center (Clean Sweep) was located on the north end of the Fish Hatchery Road property (2302 Fish Hatchery Road). The facility was monitored via a security camera and is secured via a chain link fence. Hours for drop off were posted at the site in addition to a sign referencing Chapter 41 Dane County Code of Ordinances relating to illegal dumping. As of November 1, 2012 the Clean Sweep facility located on Fish Hatchery Road was permanently closed and cannot accept any materials. On May 1, 2013 Dane County opened a new year-round facility located at 7102 US Hwy 12, Madison WI 53718, (Beltline/12/18 East toward Cambridge) across from the Yahara Hills Golf Course at the Dane County Landfill.

The AEC grounds and associated parking lots are swept as needed. The solids and trash are landfilled. Manure collected during events involving animals is collected and placed in dumpsters, and then is either applied to local farm fields or composted. One hundred five tons of salt/sand mix were used and in 2015-2016.

AEC fleet maintenance is performed onsite. Waste fluids are disposed of onsite in a collection facility. This facility will be upgraded to a double walled tank as soon as the budget allows.

Various hazardous materials are used at AEC, but the majority are considered household type and are kept in small quantities. There is an ammonia plant, which requires an EPCRA plan.

IV.f.2.

Various maintenance is performed at a few locations on the AEC grounds after each event. Most material is considered to be trash with limited amount of solids. An estimated 1/2 ton of trash is collected each year as part of cleanup efforts on the grounds.

IV.f.3.

Street sweeping is done on the Beltline Hwy. Spring and fall collection is performed by a private contractor. Street sweeping occurs up to two times per year (spring/fall) on the major highways located within the centralized urban area covered by this permit. The collected material is hauled to the Dane County Landfill. State Highway sweeping includes Beltline to Middleton to I 39/90, USH 18/151-Midvale Blvd to CTH PD, USH 14-Badger Road to McCoy Road, STH 30-Packers Ave. to I39/90, USH 51-McFarland to I39/90/94, USH 151 East Springs Drive to Sun Prairie, and I39/90-USH 12/18 to STH 30 (median wall).

An estimated 550 tons of solids is collected annually and disposed of at Rodefild Landfill (7102 USH 12&18, Madison, WI 53718). Field crews who maintain the roadways also collect trash

and other debris on a routine basis. The material is brought back to the Highway Garage site and placed in collection facilities for disposal in the landfill. The amount of trash collected from the county highways is not quantified.

IV.f.4.

From January 1, 2015 through December 31, 2015, 41,957 tons of salt was used county-wide. 349,353 gallons of salt brine and 794 tons of sand were used during that same period. From January 1, 2016 through December 31, 2016, 39,343 tons of salt was used county-wide. 535,206 gallons of salt brine and 690 tons of sand were used during that same period.

The county tracks salt usage and reports it annually. NOTE-Salt usage within urbanized areas is not calculated. All rates/tons used are reported as a county-wide use. Salt applications are computer-calibrated to minimize overuse.

Dane County Highway follows the procedures and guidelines set forth in the Wisconsin Department of Transportation Highway and Maintenance Manual for both WisDOT and County Highways.

IV.f.5.

On occasion snow will be hauled offsite from the Fish Hatchery shop location and roadways to improve visibility and safety. The material is hauled to Aces Pit (adjacent to the Town of Oregon Recycling Center) located at 1067 Storytown Road, Oregon, WI 53575 (¼ mile south of Lincoln Road in the Town of Oregon). On occasion, snow may also be hauled to the Badger Salt Shed site at 3650 CTH T, Madison, WI 53596 when removed from USH 51.

IV.f.6

Salt is stored at the following sites around the county. All sites have salt stored undercover and are managed according to Trans 277 Wis. Adm. Code.

Madison
 2302 Fish Hatchery Rd
 Madison, WI 53713

Mt. Horeb
 9932 USH 18/151 Bus.
 Mount Horeb, WI 53572

Stoughton
 2520 CTH B
 Stoughton, WI 53589

Springfield
 6159 USH 12 53529
 Dane, WI 53529

I-39 Shed
 I-39 WB MM 149.5
 Stoughton, WI 53589

River Road Shed
 4587 STH 19
 DeForest, WI 53532

Siggelkow Shed
 2831 USH 12
 McFarland, WI 53558

Badger Shed
 3650 CTH T
 Madison, WI 53596

York Shed – CTH V
 1274 Greenway Rd
 Columbus Wi 53925

IV.f.8.

To provide a method of recycling yard waste, Dane County operates a yard waste compost site located across the street from Yahara Hills Golf Course, 7102 Hwy. 12 & 18 one-half mile east of I-90. The compost site is available for Dane County residents to bring **non-woody** yard waste.

All material must be removed from bags prior to dumping. There is no charge for dropping off material.

IV.f.9.

The county complies with the county-wide ordinance (Ch. 80, Dane County Code of Ordinances) banning unnecessary use of phosphorus in lawn fertilizer. Nitrogen-based pellets are used as a fertilizer at AEC. The statewide ban on phosphorus in lawn fertilizer, modeled on Dane County's ordinance, went into effect on April 1, 2010.

IV.f.10.

Herbicides are used in limited quantities on the AEC grounds. Annual training is provided for the groundskeeper and all manufacturers' instruction for use and disposal are followed. Herbicides are used to control weed and grasses on the paved areas.

There is limited use of pesticides or herbicides to control vegetation that has been cut by the Dane County Highway and Transportation Department. Department staff responsible for this work have been trained and taken the licensure test.

Of note is also a county-wide policy: Dane County Parks' Integrated Pesticide Management Plan (available from Parks staff).

IV.f.11.

See IV.f.9 and 10.

IV.g.1.

Although the county is currently meeting the 40% TSS reduction on its permitted properties, additional sediment control practices have been installed at the Alliant Energy Center. Several sediment basins have been constructed as part of facility upgrades.

IV.g.2.

The county has inventoried its sites and has a plan to improve the efficiency of the stormwater facilities as funding or renovations allow.

V.c. (storm sewer outfall documentation)

LWRD has documentation for the Highway Garage and AEC storm sewer systems, and they are maintained by other county staff. A CAD specialist at Dane County Public Works keeps the official records.

Appendix D

Water Quality Concerns

VI.a. None.

VI.b. The Yahara River Watershed is impaired for phosphorus.

VI.c In 2015 and 2016 Dane County provided more than \$1.8 million dollars of funding to local municipalities to cost share the construction of stormwater facilities in areas of existing development where no controls are in place through the Urban Water Quality Grant Program (UWQG).

VI.d. None

Appendix E Additional Information

VII.a.

In the spring of 2015 the county adopted ordinance amendment 15-002 to update the county's stormwater ordinance requirements for storm hydrology. This amendment updated the precipitation and storm distribution data that is used for stormwater management design through the National Oceanic and Atmospheric Administration (NOAA) Atlas 14 project. This is the first update to the data in 50 years. Design precipitation depths were modified and a new MSE4 (Midwest-Southeast 4) storm distribution was developed for Dane County. Federal, state, and municipal governments follow these criteria in their stormwater regulations, so county standards were revised to reflect the updated data.

To be consistent with other local municipalities and to provide better flood protection, the ordinance amendment also required that peak flow rates be maintained for the 100-year, 24-hour storm event.

The amendment language is shown below:

Strike 14.51(2)(cm) and replace with the following language:

(cm) Runoff rate control - design standards. Except for redevelopment projects, all stormwater facilities shall be designed, installed and maintained to effectively accomplish the following:

- 1. Maintain predevelopment peak runoff rates for the 1-year, 24-hour storm event (2.49 inches over 24-hour duration using the NRCS MSE4 storm distribution).*
- 2. Maintain predevelopment peak runoff rates for the 2-year, 24-hour storm event (2.84 inches over 24-hour duration using the NRCS MSE4 storm distribution).*
- 3. Maintain predevelopment peak runoff rates for the 10-year, 24-hour storm event (4.09 inches over 24-hour duration using the NRCS MSE4 storm distribution).*
- 4. Safely pass the 100-year, 24-hour storm event (6.66 inches over 24-hour duration using the NRCS MSE4 storm distribution).*

Revise 14.51(2)(cm)4. to state:

- 4. Maintain predevelopment peak runoff rates for the 100-year, 24-hour storm event (6.66 inches over 24-hour duration using the NRCS MSE4 storm distribution).*

VII.b.

None.

VII.c.

Dane County continued to provide cost-sharing grants to municipalities via the Urban Water Quality Grant Program in 2015 and 2016. The goals of the Dane County Urban Water Quality Grant (UWQG) Program are to improve the quality of urban stormwater runoff entering Dane County lakes, rivers and streams, increase public awareness of urban water quality issues, and provide public education for urban stormwater quality improvement practices. This program provides incentives to municipalities to install best management practices that will provide efficient, cost effective treatment of urban runoff. Financial assistance is available in the form of

cost sharing up to 50 percent of the total project cost, not to exceed \$100,000. In 2015, the county awarded five UWQG projects: \$601,545 in cost shared dollars, which will result in the removal of an estimated 500,000 pounds of sediment and 2,000 pounds of phosphorus. In 2016, the county awarded three UWQG projects and additional funds for previous projects; \$1,289,250 in cost-shared dollars, which will result in the removal of an estimated 82,861 pounds of sediment and 194 pounds of phosphorus annually, once constructed.