State of Wisconsin
Department of Natural Resources

Biennial Report
Group Municipal Storm Water Discharge Permit
WPDES Permit No. WI-S058416-3 (Rev. 12/12)

2011-2012 (Due by March 31, 2013)

For the Cities of Fitchburg, Madison, Middleton, Monona, Sun Prairie, and Verona; the Villages of DeForest, Maple Bluff, McFarland, Shorewood Hills, and Waunakee; the Towns of Blooming Grove, Burke, Madison, Middleton, Westport, and Windsor; 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 Chapter 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 year. 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, 2013, 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 City of Fitchburg	Contact person and title Rick Eilertson, Environmental Engineer
Mailing Address 5520 Lacy Road Fitchburg, WI 53711	Telephone no. (608) 270-4264
	Fax no. (608) 270-4275
	E-mail address rick.eilertson@city.fitchburg.wi.us

Does the municipality have an internet website? ☒ Yes ☐ No
If yes, provide internet address:
http://www.city.fitchburg.wi.us

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://www.city.fitchburg.wi.us/public_works/stormwater.php

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 Paul Q. Woodard, P.E.	Authorized representative title Director of Public Works
Authorized representative signature for Paul Woodard	Date signed March 22, 2013

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 year.

Name	Title	Affiliation
Rick Eilertson	Environmental Engineer	City of Fitchburg
Felipe Avila	GIS Engineering Specialist	City of Fitchburg

c. Quarterly meetings represented: ☒ February 2011* ☒ May 2011 ☒ August 2011 ☒ November 2011
☒ February 2012 ☒ May 2012 ☒ August 2012 ☒ November 2012
*Note: The February 2011 MAMSWaP Quarterly meeting was handled via electronic correspondence vs. in person

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. Has the municipality prepared its own municipal-wide storm water management plan? ☐ Yes ☒ No

If yes, date of storm water management plan:

g. Describe in **Appendix A** how the requirements of the municipal storm water discharge permit are incorporated into master planning activities, neighborhood plans, development plans, or other comprehensive planning activities.

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 year(s), 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 year, 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):
Fitchburg's Resource Conservation Commission (RCC)

3. Date(s) of meeting(s) to discuss the biennial report:
RCC: March 18, 2013. Electronic copies will also be sent to the Board of Public Works and Council in April 2013.

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 year. 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 and 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 year? ☒ 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 Subchapter III of Chapter 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.

This notification is incorporated into the Erosion Control & Stormwater Management Permit Application checklist and discussed with the applicant during the permit review process.

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.

Rick Eilertson, P.E. Environmental Engineer, 5520 Lacy Road, Fitchburg, WI 53711 608 270-4264
- Plan Review, Site Inspections

Felipe Avila, GIS Engineering Specialist, 5520 Lacy Road, Fitchburg, WI 53711 608 270-4277
- Plan Review, Site Inspections

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 Subchapter III of Chapter NR 216, Wis. Adm. Code, *Construction Site Storm Water Discharge Permits*, where applicable.

Rick Eilertson, P.E. Environmental Engineer. 5520 Lacy Road, Fitchburg, WI 53711 608 270-4264
Felipe Avila, Engineering/GIS Specialist. 5520 Lacy Road, Fitchburg, WI 53711 608 270-4277

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 year. 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): 30 yds. 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: 8,260 miles approximate amount of solids collected (tons or cubic yards): 8,001 cubic yards . 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 Chapter 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): 2,093 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.

g. Developed Urban Area Standard
1. Has the municipality completed a pollutant-loading analysis to assess compliance with the TSS reduction developed urban area performance standard? ☒ Yes ☐ No
Model used: SLAMM Version: 9.3 Reduction %: ~42% as of Sep 2012

In **Appendix B, please list or reference all practices that are currently in place that will be used to meet the TSS reduction percentage reported above. Additionally, please describe any maintenance activities that have occurred for these practices in 2011-12.**

2. Has the municipality completed an evaluation of all municipal owned or operated structural flood control facilities to determine the feasibility of retrofitting to increase TSS removal? ☒ Yes ☐ No If yes, describe in **Appendix B**.

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, 2013?
☐ 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 an 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/org/water/wm/wqs/orwers/) ☐ 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/org/water/wm/wqs/303d/303d.html). ☒ 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 Subchapter 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	2011 Annual Expenditure	2012 Annual Expenditure	2013 Budget	2014 Budget	Source of Funds
Public Education and Outreach	$30,000	$45,000	$40,000	$3,500	Stormwater Utility, DNR Planning Grants during 2011-2013
Public Involvement and Participation	$5,000	$5,000	$10,000	$1,500	Stormwater Utility, DNR Planning Grants during 2011-2013
Illicit Discharge Detection and Elimination	$3,000	$3,000	$3,000	$3,000	Stormwater Utility
Construction Site Pollution Control	$9,000	$9,000	$9,000	$9,000	Stormwater Utility
Post-Construction Site Storm Water Management	$2,000	$2,000	$4,000	$6,000	Stormwater Utility
Municipal Pollution Prevention	$200,000	$410,000	$110,000	$185,000	Stormwater Utility, DNR Const. Grant during 2011-2012

e. What is the overall estimated annual cost to the municipality for compliance with the permit in 2011? $249,000 2012? $474,000

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
General Information

III.a. Fitchburg's most recent revision to its Erosion Control and Stormwater Management Ordinance (ECSWM - previously Chapter 27, but now Chapter 30, Article II after recodification of Fitchburg's Municipal Code) was adopted by the Common Council at their January 23, 2007 meeting and went into effect on February 2, 2007. Draft copies of this ordinance were sent to Eric Rortvedt (WisDNR) and Jeremy Balousek (Dane County Land & Water Resources Department) for review prior to adoption. WisDNR and Dane County agreed that this ordinance met the requirements of NR 151, NR 216, and Dane County Chapter 14. Fitchburg's ECSWM ordinance can be viewed on Fitchburg's web site at: http://www.city.fitchburg.wi.us/departments/cityHall/cityClerk/Ordinances.php. Fitchburg staff is currently in the process of preparing suggested revisions to Fitchburg's ECSWM ordinance to reflect changes to NR 151, NR 216, and Dane County's ECSWM ordinance since 2007. This update is anticipated prior to the end of 2013.

III.d. The "Information on Applicability and Filing" flyer for the Erosion Control and Stormwater Management Permit Process available at: http://www.city.fitchburg.wi.us/departments/cityHall/publicWorks/stormwater/documents/ECSWMApplicabilityInfo2012.pdf describes Fitchburg's erosion control and stormwater permit requirements and the process followed for obtaining the applicable permits. The Public Works Department coordinates permit reviews and construction inspections for these permits. Erosion control inspections for single family residential dwellings are handled by the Building Inspection Department via Uniform Dwelling Code (UDC) guidelines.

III.e. Key Fitchburg staff members (City Engineer, Environmental Engineer, and GIS Engineering Specialist) are all included in the e-mail correspondence related to the Madison Area Municipal Stormwater Partnership (MAMSWaP) quarterly meetings. Fitchburg's Environmental Engineer is the primary Fitchburg contact attending the quarterly meetings; however the GIS Engineering Specialist also attends occasionally depending on the meeting agenda topics. Copies of the past Annual Reports (2006 to 2008) and the 2009-10 Biennial Report have been submitted to Fitchburg's Resource Conservation Commission (RCC), Board of Public Works (BPW), and Common Council. The current Biennial Report (2011-2012) was reviewed during RCC's March 18, 2013 meeting. This report will also be sent to BPW and Common Council in April 2013. Copies of the 2006, 2007, and 2008 Annual Reports, as well as the 2009-10 and 2011-12 Biennial Reports are posted on the City of Fitchburg's web site at: http://www.city.fitchburg.wi.us/departments/cityHall/publicWorks/stormwater/DischargePermit.php .

III.g. Developers are notified of construction stormwater performance standards by Public Works in preliminary meetings and plan reviews. The Planning Department works closely with Public Works to incorporate storm water management plans in planning studies, plat development, and land use planning.

APPENDIX B

Storm Water Management Program

IV.a.1 (Dane County only)
IV.a.2 (Dane County only)

IV.a.3 & 4. The following articles provided by Dane County or created in house were incorporated into Fitchburg's bi-monthly newsletter, called the *Fitchburg Update:*

- "Planning for 2011 Earth Day Events" – Jan 2011
- "Recharging Dane County's Groundwater: Public Information Meeting" – Jan 2011
- "2011 Stormwater Projects" – Mar 2011
- "Springtime Brings more than Flowers with those Showers" – Mar 2011
- "Spring Waterway Cleanup and Bicycle Tour" – Mar 2011
- "9Springs Recharge Project: 2nd Public Information Meeting" – May 2011
- "Apache Pond Update" – Jul 2011
- "May 22 Rain Garden Planting Thank you" – Jul 2011
- 'Spring 2011 Waterway Cleanup Thank you" – Jul 2011
- "Apache Pond Planting Party" – Sep 2011
- "Storm Sewers: Highways to Our Lakes and Streams" – Sep 2011
- "Thank You Apache Pond Planting Party Volunteers!" – Nov 2011
- "Planning for 2012 Earth Day Events" – Jan 2012
- "2012 Spring Waterway Cleanup" – Mar 2012
- "2012 Stormwater Projects" – Mar 2012
- "Springtime Brings more than Flowers with those Showers" – Mar 2012
- "Aldo Leopold Rain Garden" – May 2012
- "Spring 2012 Waterway Cleanup Thank you" – May 2012
- "Aldo Leopold School Rain Garden Project a Success" – Jul 2012
- "Algae in Stormwater Ponds" – Sep 2012
- "NS Public Ed and Outreach Grant" – Sep 2012
- "Nine Springs Creek Master Plan" – Sep 2012

These articles are attached at end of Appendix B.

A total of 22 Fitchburg newsletter articles related to water quality were published in the 2011 and 2012 *Fitchburg Updates*. The *Fitchburg Update* newsletters are distributed to all Fitchburg residents and are also placed on Fitchburg's web site. The Fitchburg web site averages 300,000 hits per month, and the newsletter is mailed to all homes, apartments and businesses in Fitchburg approximately 11,000 addresses.

IV.b.4. The Fitchburg Resource Conservation Commission (RCC) meets monthly and the meeting agenda includes public appearances which are open to discussion on stormwater or water quality issues. There are occasional public appearances on water quality issues.

Spring waterway clean ups were held on April 23, 29, and 30 2011 and April 21 and 22, 2012. In 2011 38 volunteers removed over 58 large garbage bags of refuse and 21

bags of recycling from these areas, helping clean up our waterways and improve ecosystem health. Some of the more interesting items collected from these areas include 3 paint cans, 5 tires, oil containers, 6 hubcaps, a bumper, a cell phone, a license plate, an artificial Christmas tree, a children's slide, and a parking meter. In 2012, 70 volunteers including All Saints Lutheran Church members, Seminole Village Condominium Association members, Girl Scout Troop 2085, and other waterway neighbors helped Fitchburg staff remove over 20 large garbage bags of trash, 7 bags of recyclables, and ~1200 cubic feet of brush. Altogether, seven areas were cleaned up, including: Apache Pond, Dunn's Marsh, Seminole Village Pond, Pine Ridge Pond, Lacy Heights Pond, McKee Farms Greenway, and Yarmouth Creek.

On April 23, 2011 a bike tour of the Nine Springs E-way was held to show residents Fitchburg's water features, natural areas and demonstrate the function and importance of these storm water facilities.

On May 22, 2011 volunteers from All Saints Lutheran Church helped plant a rain garden near Fitchburg's recycling drop-off site. Steve Banovetz from Stantec informed the volunteers of the hydrologic benefits of rain gardens and the reasons behind using native vegetation.

From December of 2011 through March of 2012, City of Fitchburg employees coordinated with UW-Madison student, Peter Bergquist, and teacher, Nancy Werlein, to work with students at Leopold School to learn about and create a raingarden.

IV.c.1. Stormwater outfalls, release structures, and culverts were inspected for illicit discharges during dry weather periods, May to August. The inspections involved commercial, industrial, and environmentally sensitive areas. Throughout the year the outfall and basin inspections involved a thorough look for evidence of illicit discharge. A computer database holds inspection forms for all outfalls and pond release structures inspected by the City. The form evaluates any discharge observations, outlet conditions, outlet area, and a picture of the structure. A reported illicit discharge will be processed as a work order and attended to by the Public Works Department in a timely manner. Overall, the illicit discharge detection and elimination program has had consistent results in the detection, elimination, prevention, and enforcement of illicit discharges and improper dumping in 2011-2012.

IV.c.2. In 2011, a total of 367 stormwater outfalls and 45 pond release structures were inspected for flow and maintenance problems. Of these 2 outfalls and 1 pond release structure had oil sheen while 2 outfalls and 1 pond release structure had bacterial slime. The quantities of oil or bacterial slime were so small that there was no evidence to suggest whether they were caused by anything other than normal rainwater flowing off the street.

In 2012, 110 stormwater outfalls and 35 pond release structures were inspected. Inspectors looked for flow from outfalls and release structures and compared flow to recent precipitation events. Flow was observed in 3 outfalls and 4 release structures, but was attributable to recent precipitation events. It is notable that this particular summer

season experienced a heavy drought. Oil sheen was minimal in all cases and likely the result of street runoff. The largest source of required maintenance was due to excessive vegetation and associated debris buildup.

IV.c.3. In the event of general public calls or e-mails reporting improper disposal of waste or dumping, City staff makes follow-up inspections and/or makes contact with the property owner to verify the issue and identify the appropriate action to be taken. In 2011 and 2012, the city investigated and assisted in addressing 4 instances related to potential illicit discharge concerns:

- *Pool Discharge from Seminole Pool and Tennis Association (5948 Schumann Drive) into Seminole Glen Ponds* - On January 8, 2011, a Seminole Forest Neighborhood resident contacted Fitchburg Public Works staff regarding concerns of discharge of pool water from the Seminole Pool and Tennis Association's property. Rick Eilertson forwarded communication on January 9, 2011 that he had with representatives from the Seminole Pool and Tennis Association and the DNR wastewater specialist who manages swimming pool facility permits. Further information on DNR's permit process for swimming pool facilities can be found at: http://dnr.wi.gov/topic/wastewater/GeneralPermits.html.
- *Manure runoff into Seminole Forest Neighborhood and Schumann Drive* - On February 19, 2011 and March 1, 2011 a local farm operation spread ~125,000 gallons of liquid manure on ~19 acres of frozen land south of the Seminole Forest Neighborhood. The farmers, Fitchburg Fire and Public Works staff, Public Health Madison & Dane County staff, Dane County Land & Water Resources staff, and DNR staff worked together to clean up the manure runoff and keep affected residents informed of the health hazards and cleanup response activities. A follow-up public meeting was held on March 24, 2011. Copies of the public information letter, drainage map, and meeting notes are included at the end of Appendix B.
- *Concrete Washwater allowed to enter Traceway Drive storm system* – On June 16, 2011, Fitchburg Public Works noticed a trail of concrete washwater leaving the Fitchburg Ridge Shopping Center and entering a storm inlet at the intersection of Traceway Drive and Fish Hatchery Road. Poblocki Paving coordinated cleanup of the concrete residue and conducted a special training for the responsible crews to ensure proper disposal of concrete washwater so that future chances for environmental contamination are eliminated.
- *Degreaser use on drive-through car pads at McDonald's (2845 Fish Hatchery Rd)* – Public Health Madison & Dane County informed Fitchburg Public Works staff on October 11, 2012 of contacts made with Missoula Mac, owner of this restaurant to inform them of the concerns related to the specific degreaser they were using on the concrete pad. Missoula Mac indicated they would make the appropriate changes to a more environmentally friendly method for cleaning oil/grease from these concrete car pads.

IV.c.4. The city website, newsletter, and cable access channels all have contact information for residents to report spills or illicit discharges.

IV.d.2. For all developments, the City requires an erosion control plan submittal, review, and approval before a Building Permit or Erosion Control & Stormwater Management

(ECSWM) Permit is issued. The review process includes a check for compliance with NR 151 standards.

IV.d.3. The City inspects construction sites weekly to monthly depending on scope and disturbance schedule of each project. Developments not in compliance with erosion control measures are contacted by the City with a Notice of Non-compliance of the Erosion Control Permit via e-mail or direct phone call to the contractor on site. The contractor is notified that, if the non-compliance is not corrected within three days, a stop work notice will be issued.

IV.d.5. In 2011 and 2012, the City issued approximately 15 notices of non-compliance for insufficient erosion control practices and/or incomplete weekly construction inspection forms. No Stop work orders were issued during 2011 and 2012.

IV.e.1. For all construction projects adding over 20,000 sf of new impervious area, the City requires a stormwater management plan submittal, review, and approval before construction may commence. The review process includes a check for compliance with NR 151 standards.

IV.e.2. Stormwater maintenance agreements are prepared and reviewed prior to construction. The agreements are recorded with the Dane County Register of Deeds and copies are maintained by the Public Works Department. In the event that maintenance or repair complaints are raised or if staff notices that stormwater facilities aren't being maintained properly, the PW Department has the authority to order the property owner to maintain or repair the facility(ies).

IV.e.4. If developments do meet post-construction stormwater management standards per the approved plans, a work list with due date is issued to the developer.

IV.f.1. In 2011, 367 stormwater outfalls and 45 pond release structures were inspected during dry weather periods, May to August. In 2012, 110 stormwater outfalls and 35 pond release structures were inspected. The inspections involved commercial, industrial, and environmentally sensitive areas. Throughout the year the outfall and basin inspections involved a thorough look for evidence of illicit discharge. A computer database holds inspection forms for all outfalls and pond release structures inspected by the City. The form evaluates any discharge observations, outlet conditions, outlet area, and a picture of the structure. The Streets Division generally maintains all basins by mowing at least once a year. If erosion control or maintenance problems are found at the basins during mowing operations, the Streets Division will schedule and perform the repair work for the Stormwater Utility. Approximately 30 cubic yards of solids were collected from basin outlet structures cleaned out in 2011 and 2012

IV.f.2. The City standard stormwater collection structures are inlets and are not built with a sump. If plugging or debris problems are found during sweeping operations, the Streets Division will collect the material with the sweeper vacuum or schedule and perform the maintenance work. The Streets Division also responds to resident calls on inlet maintenance problems. Approximately 30 cubic yards of solids were collected from approximately 35 inlets cleaned in 2011 and 2012.

IV.f.3. The City maintains 125 inventory miles of streets swept approximately 8,260 street miles during 2011 and 2012 with a Regenerative Air Street Sweeper (Schwarze A7000). Approximately 8,001 cubic yards of solids were collected (5,754 cy sand/dirt, 2,093 cy leaves and grass, 154 cy stone from chip sealing work) from streets in 2011 and 2012. The Streets Division operates the sweeper from approximately March through December. All urban streets (~80 miles of 2-lane streets and ~10 miles of 4-lane roadways) are swept a minimum of 2 times each in the Spring, and as needed through the Summer and Fall. The sweeper is also sent to urban and rural streets with debris problems as notices by staff or called in by residents.

IV.f.4. The snow removal plan consists of pretreatment with a brine solution, and plowing with minimal use of salt. Sand for traction is only used on hills and intersections on an as needed basis. Approximately 1,481 tons of salt and 0 tons of sand were used in 2011. Approximately 870 tons of salt and 0 tons of sand were used in 2012.

IV.f.6. The City salt storage facility is located at 2373 S. Fish Hatchery Road.

IV.f.8. In 2009 and 2010, the City collected leaves, yard waste, brush and grass clippings curbside under contract with Pellitteri Waste Systems. Four yard waste collection weeks, two each in the Spring and Fall of 2009 and 2010. 14 brush collection weeks from April through November were provided in 2011. 14 brush collection weeks from April through November were provided in 2012. Residents may also dispose of yard waste at the Fitchburg Recycling Drop Off Site at 2373 S. Fish Hatchery Road. Residents are instructed on disposal, composting, or grass cycling methods annually by the City newsletters and the City website. Fitchburg collected 630 tons of yard waste and brush curbside and 712 tons of yard waste from the Recycling Drop-Off Site for a total of 1,342 tons of yard waste collected in 2011. In 2012, 529 tons of yard waste and brush curbside and 1,404 tons of yard waste from the Recycling Drop Off Site were collected, for a total of 1,933 tons of yard waste.

IV.f.9. Fitchburg staff crews only use fertilizer on newly restored areas. The crews minimize the use of fertilizer at medians, athletic fields, and municipal building grounds. Fertilizer is not used on general park land. The crews do not use pesticides. Occasionally, the crews use herbicide to treat buckthorn, honeysuckle, black locust, and/or box elder stumps following removal of these species in order to reduce the likelihood of regeneration of these invasive woody species. The crews minimize the use of herbicides at medians, athletic fields, and municipal building grounds. Herbicide is not used on general park land, but may occasionally be used to treat invasive plants and/or undesirable aggressive weeds.

IV.f.10. The City does not have local ordinances to regulate the private use of fertilizer, pesticides, and herbicides. Fitchburg's website and Fitchburg Update newsletter articles and both contain information for the responsible use of these items if necessary. The Public Works Department promotes the use of a soil test before applying fertilizer during the Erosion Control & Stormwater Management Permit review process. The City also provides a credit on stormwater utility fees for property owners who voluntarily limit or eliminate the use of lawn and garden fertilizers through the Fitchburg Creek Supporter Pledge Program.

IV.f.11. Fitchburg's website and Fitchburg Update newsletters appear to be doing a good job of keeping residents, businesses, and contractors informed of Fitchburg's pollution prevention program. Participation in education and outreach activities is very good. Residents with questions are generally complimentary on staff's response to their questions and concerns.

IV.g.1. Please list or reference all practices that are currently in place that will be used to meet the TSS reduction percentage reported above. Additionally, please describe any maintenance activities that have occurred for these practices in 2011-12. Fitchburg public stormwater facilities include: Arrowhead Park and Wet Ponds, Ashbourne Wet Pond and Greenway, Bosshard Drive Wet Pond, Briarwood Park, Business Park Ponds A (Market/Badger) & B (Market/Executive), Byrne Park and Dry Pond, Cinque Terra Dry Ponds, Commerce Park Pond, Dunn's Marsh – North, Dunn's Marsh- The Preserve, Fitchburg Business Park Ponds A and B, Fitchburg Technology Campus Temporary Wet Pond, Gunflint Trail Pond, Harlan Hills Prairie, Natural Area, Ponds and Greenway, Hatchery Hill Park and GHC Dry Ponds, Longford Terrace Detention Pond, McGaw Park and Ponds, McKee Farms Park, Ponds, McKee Greenway, and Tower Hill Greenway, Nesbitt- Bavaria Pond, Nesbitt Heights Pond and Infiltration Cells, Nesbitt – Limestone Pond, Persimmon Drive Pond, Pine Ridge Pond, Quarry Hill Park, Pond and Trail, Quarry Ridge Recreation Area and Pond, Renaissance on the Park Pond, Seminole Hills Pond, Seminole Village Pond, Swan Creek Park, Ponds and Greenways. Other Non-Fitchburg owned properites include: , Aleo Court Dry Pond, Braeger Court Dry Pond, Casa De Sol Wet Pond, Chapel Valley East Pond, Chapel Valley West Pond, Dunn's Marsh – South (City of Madison and Dane County), Nesbitt – Jung's Pond, Oak Bank Wet Pond, Savannah Oaks Dry Pond2, Swan Pond, Syene D Wet Pond (Downtown Fitchburg II LLC), The Crossing Wet Ponds, Waterford Glen Temporary Dry Ponds.

IV.g.2. The Stormwater Detention Basin Inventory and Analysis, dated December 1997, provided recommendations on various retrofits to existing facilities. Recommendations from this report (Longford Pond enlargement, Seminole Hills Pond conversion to wet pond, Bosshard Pond conversion to wet pond, WIBA dry pond conversion to wet pond (now referred to as Oak Meadow Pond), and McKee Farms West Pond enlargement) have all been completed. The only remaining dry ponds are: Aleo Court dry pond on private property, Lacy Heights dry pond, Pine Ridge dry pond, and Byrne Park dry pond. The city will continue evaluating these and other public properties for conversion or enlargement as it creates the Fitchburg Stormwater Master Plan during the upcoming years. This will begin with the Nine Springs Creek Watershed Stormwater Master Plan currently under way which covers roughly 70% of the Fitchburg urbanized area. From this plan, recommendations can be made for an eventual city-wide Stormwater Master Plan.

<u>Stormwater Articles appearing in the 2011 *Fitchburg Update*</u>

Planning for 2011 Earth Day Events

April 22, 2011 marks the 41st Anniversary of Earth Day and April 29, 2011 is the 139th year of celebrating Arbor Day. To commemorate these anniversaries, staff is beginning

planning early for the following anticipated events between mid-April and early May 2011:

- Annual Waterway Cleanups of Fitchburg's stormwater facilities and creeks
- Biking and Walking Tours through the Nine Springs Creek Watershed
- Electronics Recycling Event for computers, monitors, etc.
- Shred Day Event for shredding and recycling confidential paper documents
- Spring Community Cleanup Day of Fitchburg Parks and City Hall
- Arbor Day / Earth Day Celebration - Tree Planting in Fitchburg Parks(Saturday, April 30, 2011)
- McKee Farms Park Tree Walk

If you have ideas on any of these activities that you or your neighborhood association can get involved, please contact Rick Eilertson, Fitchburg Environmental Engineer, at 270-4264, rick.eilertson@city.fitchburg.wi.us; Ed Bartell, Fitchburg Urban Forester/Naturalist, 270-4289, ed.bartell@city.fitchburg.wi.us; or Scott Endl, Director of Parks, Recreation & Forestry, 270-4288, scott.endl@city.fitchburg.wi.us.

Further information on the 2011 Earth Day Events will be included in the March 2011 Fitchburg Update. Final details will be posted at www.city.fitchburg.wi.us closer to the event.

Recharging Dane County's Groundwater: Public Information Meeting - January 27, 2011, 6:30-8:30pm

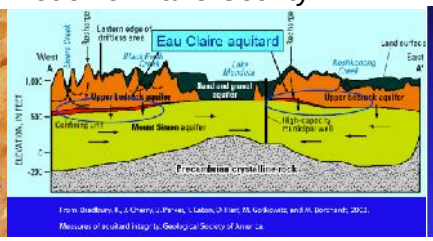
Madison Metropolitan Sewerage District (MMSD), the City of Fitchburg and its residents, and UW-Madison Water Resources Management (WRM) graduate students are working together on a project to evaluate the potential for using recycled treated water from the Nine Springs Wastewater Treatment Plant to recharge groundwater in the City of Fitchburg. The project is following up on concerns throughout Dane County that the groundwater table has dropped significantly over the past few decades following increased population growth and demand for water. Water recycling and subsequent recharge is one potential practice that could be used to address groundwater quantity issues.

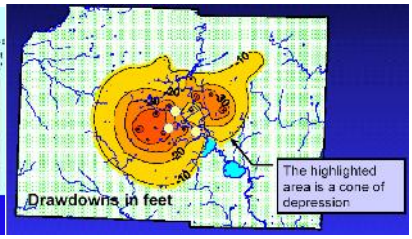
Please join us in a public discussion on **Thursday, January 27th, 2011 from 6:30-8:30PM in the**
Fitchburg Room of the Community Center to learn more about this important issue and to voice your comments, concerns, and ideas in small discussion groups facilitated by the WRM graduate students.

Draft Agenda:
6:30 – **Welcome and Introductions**

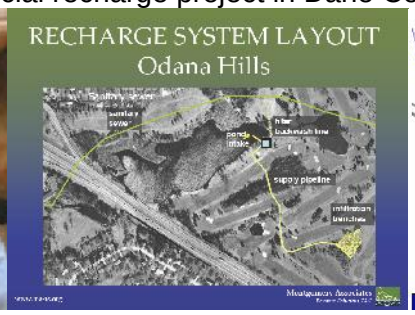
6:40 – **Where's Dane County's Groundwater Going?** – Hydrogeologist Ken Bradbury of Wisconsin Geological and Natural History Survey will provide an overview of the general hydrogeology of the Fitchburg area and how past groundwater use has affected groundwater levels. He will also report on progress in the ongoing project to develop a

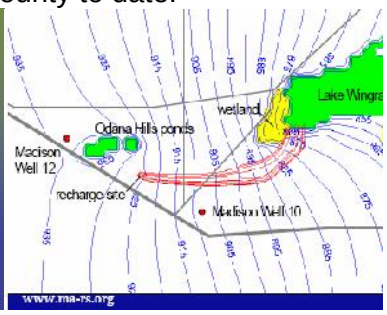
new groundwater flow model for Dane County.





6:55 – **Who's been doing Recharge Projects so far in Dane County?** – Hydrologist Steve Gaffield of Montgomery Associates: Resource Solutions, LLC will highlight details about the Odana Hills Golf Course groundwater recharge system installed by MG&E – The most significant artificial recharge project in Dane County to date.





7:10 – **What's an Effluent Return Line and How can it be used for Recharge Projects?** –
Environmental Scientist Dave Taylor of Madison Metropolitan Sewerage District (MMSD) will give us background on MMSD's effluent return line installed for the Sugar River Basin Water Restoration Project, update us on the Nine Springs Golf Course Irrigation Project, and provide food for thought on how this pipe could be utilized for potential groundwater recharge.

7:30 – **Small Group Discussion** – led by the WRM graduate students

8:00 – **Summary and Wrap Up** – Group leaders will summarize discussions from each group

Please contact Rick Eilertson @ 270-4264 or rick.eilertson@city.fitchburg.wi.us if you have any comments, questions, or suggestions.

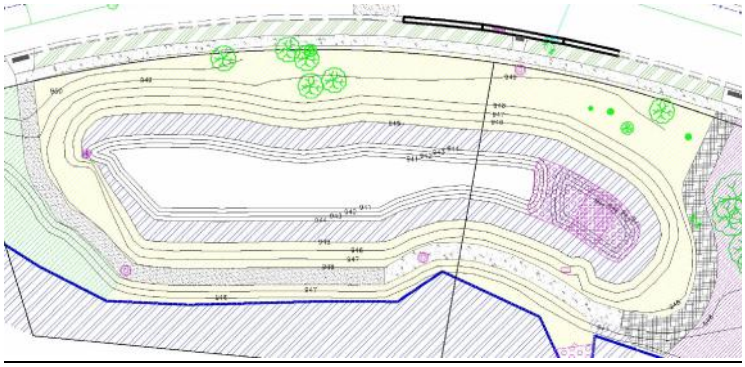
2011 STORMWATER UTILITY PROJECTS

Apache Drive Wet Pond Construction

This project entails the construction of a stormwater detention pond, native plant restoration, and the construction of a sidewalk and multi-use path along the perimeter of the pond. The pond will treat the stormwater runoff in the Belmar neighborhood. The area was developed in the late 1960's when little attention was given to stormwater management. The pond will reduce the amount of sediment and phosphorous draining into Dunn's Marsh by ~70% and ~53%, respectively. The pond will enable the city to meet DNR requirements for stormwater pollutant reduction by the 2013 deadline established by the DNR. This project is being funded by a $100,000 grant from DNR.

A walking path will surround the pond and new sidewalk will be placed along Crescent Road. The path will be a combination of limestone screenings, asphalt, and a concrete section. The concrete section doubles as an overflow spillway for the pond. The asphalt section is for a planned future connection to the Cannonball Path along Dunn's Marsh. The city is currently applying for grant money to build a boardwalk to minimize the impact on the adjacent wetland and complete the connection from the asphalt part of the walking path to the proposed Cannonball Path.

Design for the pond began in the fall of 2010. Bids for the work were taken February 4, 2011 and the low bid will formally be accepted in March. Construction is expected to start in late March or early April depending on weather and soil conditions. Substantial completion is anticipated by late June. The vegetation restoration will involve seeding with native plants including shortgrass prairie, wet sedge meadow, and mesic prairie seed mixes. A small rain garden and water tolerant woodland trees are also planned for the site. Ongoing vegetation management (eg: routine mowing, herbicide treatments, and prescribed burning) is anticipated for the next 3 to 5 years until the native vegetation is well established. For updates on the construction schedule and progress reports on the project please check our website at:
http://www.city.fitchburg.wi.us/departments/cityHall/publicWorks/ApacheDrivePondConstruction.php



Nine Springs Creek Watershed – Public Education and Outreach Plan

Fitchburg received a $33,200 grant from DNR for the following stormwater public education and outreach activities within the Nine Springs Creek Watershed:

1. Class Talks and On-site Tours w/ schools in the watershed
2. Biking and Walking Tours throughout the watershed
3. Design and Installation of Stormwater Information Signage
4. Stormwater Brochures and Web Site Enhancements

These activities began in January 2010 and are expected to continue through December 2011. In 2010, Public Works staff met with Leopold School 3rd graders to discuss the watershed and conducted a watershed walk down to the Nine Springs Creek in the Nine Springs Golf Course, picking up trash and recyclables along the way. We also conducted biking tours of the watershed in Spring and Fall and held several walk-throughs with interested neighbors while we were designing the Apache Drive Wet Pond. In 2011, we started meeting with a Stormwater Signage Steering Group to get input on identification and informational signs for stormwater facilities in Fitchburg. One outcome from the January 2011 meeting was to explore the opportunity of "Adopt-A-Trail" signs, pet waste signs and/or pet waste stations with biodegradable bags and pet waste repositories.

Anyone with questions or comments on any of these projects may contact Rick Eilertson, Fitchburg Environmental Engineer at rick.eilertson@city.fitchburg.wi.us or 270-4264.

SPRINGTIME BRINGS MORE THAN FLOWERS WITH THOSE SHOWERS

Whether March comes in like a lion or a lamb, it also brings spring showers and melting snow. When snow melts and rain falls, it flows across streets, driveways, parking lots and rooftops and transports sand, salt, leaves, oil, trash and many other pollutants directly to storm drains, which eventually ends up in our lakes and streams.

Some folks mistakenly think that water running off streets goes into a sewage treatment plant. But the truth is that it goes right to our lakes and streams.

You Can Help

There are many things each of us can do to prevent storm water pollution.

- Use salt sparingly during the winter.
- Sweep up any excess sand left over from the snow shoveling season.
- Clean up pet waste year round–flush it down the toilet or collect it in a bucket until you can bury it properly.
- Keep cars well maintained and repair fluid leaks; but consider walking, public transportation or riding a bike whenever you can.
- Direct rainwater away from paved areas to lawns or gardens where it can soak in.
- Keep leaves and grass clippings out of the street. Compost yard waste, debris and leaves.
- Get a soil test before applying fertilizer to your lawn. Don't pay for something you don't need. If a test shows that your lawn does need fertilizer, apply it according to directions and carefully clean up any spills on paved surfaces.
- Wash your car on the lawn or at a car wash that sends its used water to the sewage treatment plant.

- Prevent soil erosion.
- Don't let anything but rain go down the storm drain or into the ditch.

Go to www.myfairlakes.com for more ideas on how you can help our lakes and streams.

Spring 2011 Waterway Cleanup and Watershed Biking Tour

Fitchburg's Spring Waterway Cleanup for 2011 is tentatively planned for Saturday, April 23rd from 8:30am until noon, rain or shine.*

This year's plan calls for three or more groups of volunteers strategically located on the Nine Springs Creek waterway from Dunn's Marsh to Fish Hatchery Road and along Syene Road. In addition, there may be a cleanup group in your area, coordinated by your neighborhood association. Anyone interested in being a group leader may contact Rick Eilertson, Fitchburg Environmental Engineer, at (608) 270-4264 or rick.eilertson@city.fitchburg.wi.us to coordinate a cleanup in your neighborhood.

Fitchburg will provide refreshments and a tote bag or T-shirt to participants. Volunteers are encouraged to wear boots and bring work gloves. Be forewarned: Restroom facilities are often not convenient to the planned cleanup locations.

At 1pm on April 23rd, the Public Works Department will host a Watershed Bicycle Tour beginning on the Capital City State Trail at the Syene Road Trail Head.* A state trail pass is required for the ride. Daily trail passes are available for purchase at the Syene Road Trail Head for $4. Riders needing to purchase a Trail Pass should bring a check or exact change.

Rick Eilertson, City of Fitchburg Environmental Engineer, will lead the tour and provide information on stormwater management facilities and natural springs on the route. Possible sites for recharging treated wastewater may also be explored during the tour. The tour will be an easy ride, approximately 5 miles in length and 2 hours long.

*Further details on the Waterway Cleanup and Watershed Biking Tour Maps will be posted at www.city.fitchburg.wi.us closer to the events.

For more information and to RSVP for either event, please contact:

Rick Eilertson, City of Fitchburg Environmental Engineer
Rick.eilertson@city.fitchburg.wi.us
608-270-4264

9Springs Recharge Project: 2nd Public Information Meeting – May 18, 2011, 6:00-8:00pm

Madison Metropolitan Sewerage District (MMSD), the City of Fitchburg and its residents, and UW-Madison Water Resources Management (WRM) graduate students are working together on a project to evaluate the potential for using recycled treated water from the Nine Springs Wastewater Treatment Plant to recharge groundwater in the City of Fitchburg. The project is following up on concerns throughout Dane County that the groundwater table has dropped significantly over the past few decades following

increased population growth and demand for water. Water recycling and subsequent recharge is one potential practice that could be used to address groundwater quantity issues.

The WRM students have set up a web page at: https://sites.google.com/site/9springsrecharge/ for interested residents to get more information on details about the project.

The first public information meeting was held January 27, 2011 and the 2nd meeting is tentatively scheduled for Wed., May 18th from 6:00pm to 8:00pm in the Fitchburg Room of the Community Center at 5510 Lacy Road, Fitchburg. Please check the web link above for more details as the event approaches.

Please contact Rick Eilertson @ 270-4264 or rick.eilertson@city.fitchburg.wi.us if you have any comments, questions, or suggestions on this project.

Apache Drive Stormwater Pond Progress

Fitchburg recently started construction on a new stormwater detention pond in the Belmar neighborhood, just north of Dunn's Marsh. The Belmar neighborhood was developed in the 1960's when little thought was given to stormwater management. Untreated stormwater runoff carries sediment, phosphorus, road salt, and any other pollutants it collects on its way downstream in the watershed. This leads to a decline of water quality in Dunn's Marsh, further downstream in Nine Springs Creek, and eventually Lake Waubesa. The new pond will reduce the amount of sediment leaving the drainage area by approximately 70% and phosphorus by 50%.
In addition to the pond a sidewalk, paved bike path and gravel walking path will be constructed as well. The gravel walking path and sidewalk will encircle the pond to allow users a better view of the wetlands next to Dunn's Marsh and the stormwater pond itself. When the construction is complete the vegetation will be restored by using native wetland and prairie plants.
Completion of grading is expected in July 2011, with restoration of vegetation being conducted during the upcoming two to three years. For more information and project updates please check the Fitchburg website at:
http://www.city.fitchburg.wi.us/departments/cityHall/publicWorks/ApacheDrivePondConstruction.php

Thank You Volunteer Rain Garden Planters!

The City of Fitchburg would like to thank the volunteers from All Saints Lutheran Church who
helped plant a portion of the rain garden near Fitchburg's recycling drop-off site on May 22nd. This rain garden will increase infiltration, helping control stormwater runoff.

Steve Banovetz, a consultant from Stantec, provided native vegetation to be planted in the garden, which will allow more water to infiltrate than turf grasses alone. Altogether, the volunteers filled the rain garden with 100 plants! They also spread a native grass seed mix over the planted area, followed by a thin layer of straw.

The City would like to continue to expand and maintain this newly planted rain garden. If you would like to be involved in this or a similar project, please contact Rick Eilertson at 270-4264 or rick.eilertson@city.fitchburg.wi.us. Volunteers are always appreciated!

Thank You Fitchburg Waterway Cleanup Volunteers!

The City of Fitchburg and the Fitchburg Resource Conservation Commission (RCC) would like to thank all the volunteers who helped with Fitchburg's Annual Waterway Cleanups this year. Six different groups of volunteers helped collect trash and recyclables over three days (April 23, 29, and 30th). The 38 volunteers included community members, City of Fitchburg staff, RCC members, a local Girl Scout troop, graduate students from UW-Madison, and Placon employees. Altogether, six areas were cleaned up, including:

- Dunn's Marsh
- Syene Rd. & McCoy Rd.
- A portion of McKee Rd. and the Cannonball Path near Placon
- Nine Springs Creek and Yarmouth Creek through Highlands of Seminole Neighborhood
- Lacy Heights Pond
- Byrne Rd. (from Syene Rd. to CTH MM)

Volunteers removed over 58 large garbage bags of refuse and 21 bags of recycling from these areas, helping clean up our waterways and improve ecosystem health. Some of the more interesting items collected from these areas include 3 paint cans, 5 tires, oil containers, 6 hubcaps, a bumper, a cell phone, a license plate, an artificial Christmas tree, a children's slide, and a parking meter.

Don't worry if you missed out on this event - there are plenty of other opportunities to help around the community! We welcome any other volunteers interested in helping to keep these and other waterways clean throughout the year to contact Rick Eilertson, Fitchburg's Environmental Engineer, at rick.eilertson@city.fitchburg.wi.us or 270-4264 for more information.

Utility customers who complete and submit a Fitchburg Creek Supporter Pledge Form (available at: http://www.city.fitchburg.wi.us/public_works/CreditRebateOpportunities.php) may be eligible for a reduction in their stormwater utility bill for pledging to help keep Fitchburg's waterways clean.

Apache Pond Volunteer Planting Party – Sat., Sept. 17, 9am to Noon

This summer, Fitchburg installed a new stormwater pond at the intersection of Apache Drive and Crescent Road to help reduce erosion and sediment runoff into Dunn's Marsh. The pipe installation, grading, and temporary seeding was completed by Iverson Construction in June.
Stantec is continuing with vegetation management activities around the pond and will be helping with coordination of a volunteer planting party on Saturday, September 17, from 9am to Noon.

Volunteers for the planting party will include neighborhood residents, Dunn's Marsh Neighborhood Association members, the Boys & Girls Club, local service groups, and any other interested parties. Work efforts will include planting 200 native plants around the pond edge, 200 native plants in an adjacent rain garden, and 18 trees at various locations around the pond.

The Apache Pond Volunteer Planting Party will culminate in a Grand Opening Celebration to be held at Noon in front of the pond, followed by a lunch by the pond. Pizza and beverages will be provided; however, participants are invited to bring a dish to pass if they'd like. Donations for memorial benches and/or stormwater information signage will also be welcomed.

If you are interested in volunteering for this event or have any questions, comments, or suggestions on the Apache Pond project, please contact Rick Eilertson at rick.eilertson@city.fitchburg.wi.us or 270-4264.

Storm Sewers: Highways to Our Lakes and Streams

Storm sewers are designed to safely transport stormwater away from city streets. Storm sewers and inlets should not be used as a place to dump yard waste and refuse.

Leaves, grass clippings, and trash in streets can clog storm sewer pipes, resulting in street flooding that can damage property and make street driving hazardous. Debris and contaminants in the sewers also harm downstream environments. Most city storm sewers discharge to ponds and tributaries of the Yahara River basin, which ultimately flow into Lake Waubesa. Nutrients found in yard waste encourage the growth of aquatic plants and algae, contributing to the unappealing smell and color of local ponds, lakes and streams.

To help keep trash out of the sewer pipes and waterways, Fitchburg cleans streets in the urban service area with a high-powered street sweeper.

An important contribution everyone can make to prevent water pollution is to keep yard waste and other contaminants out of the City streets. If you live near a storm sewer inlet and see something that shouldn't be there, lend a hand and pick it up. Let's keep our City streets clean and the downstream ponds and tributaries both pleasing to the eye and environmentally healthy.

www.city.fitchburg.wi.us/stormwater and www.myfairlakes.com both have additional information on stormwater efforts in Fitchburg and throughout Dane County.

Thank You Apache Pond Planting Party Volunteers!

The City of Fitchburg would like to thank all the volunteers who helped with Fitchburg's Apache Pond Planting Party. It was a perfect day to work outside and plant a rain garden, clear some brush and plant other native plants around the new pond. Volunteers from the Boys and Girls Club of Dane County, the Dunn's Marsh Neighborhood Association, UW-Madison and neighbors surrounding the pond joined Stantec and Fitchburg staff on September 17th to help beautify the pond area.

Volunteers removed over two truckloads of brush and planted over 400 native plants around the Apache Pond perimeter and in the adjacent rain garden. A video of the planting party and dedication ceremony is now available by visiting the Fitchburg Access Community Television (FACTv) Public channel: http://factv.city.fitchburg.wi.us/Cablecast/Public/Show.aspx?ChannelID=1&ShowID=1165.

The Apache Pond is a facility that treats storm water before it enters Dunn's Marsh and Nine Springs Creek. The pond removes 70% of Total Suspended Solids and 53% of phosphorous, pollutants that result in algae blooms and other problems. Thanks to the effort of these volunteers, the new pond will be a beautiful place as well. Great job Volunteers!

We welcome any other volunteers interested in helping to keep these and other waterways clean throughout the year to contact Rick Eilertson, Fitchburg's Environmental Engineer, at rick.eilertson@city.fitchburg.wi.us or 270-4264 for more information. Volunteers who complete and submit a Fitchburg Creek Supporter Pledge Form (available at: http://www.city.fitchburg.wi.us/public_works/CreditRebateOpportunities.php) may be eligible for a reduction in their stormwater utility bill by pledging to help clean up Fitchburg's waterways.

Stormwater Articles appearing in the 2012 *Fitchburg Update*

Planning for 2012 Earth Day Events

April 22, 2012, marks the 42nd Anniversary of Earth Day and April 27, 2012, is the 140th year of celebrating Arbor Day. To commemorate these anniversaries, staff is beginning planning for the following events expected to be held between mid-April and early May 2012:

- Annual Waterway Cleanups of Fitchburg's stormwater facilities and creeks
- Biking, Walking, and/or Paddling Tours through the Nine Springs Creek Watershed
- Electronics Recycling Event for computers, monitors, etc.
- Shred Day Event for shredding and recycling confidential paper documents
- Spring Community Cleanup Day of Fitchburg Parks and City Hall
- Arbor Day / Earth Day Celebration - Tree Planting in Fitchburg Parks (Saturday, April 28, 2012)
- McKee Farms Park Tree Walk

If you have ideas on any of these activities that you or your neighborhood association can get involved in, please contact Rick Eilertson, Fitchburg Environmental Engineer, at 270-4264, rick.eilertson@city.fitchburg.wi.us or Ed Bartell, Fitchburg Urban Forester/Naturalist, 270-4289, ed.bartell@city.fitchburg.wi.us.

Further information on the 2012 Earth Day Events will be included in the March 2012 Fitchburg Update. Final details will be posted at www.city.fitchburg.wi.us closer to the event.

Spring 2012 Waterway Cleanup

Fitchburg's Spring Waterway Cleanups for 2012 are tentatively planned for Saturday, April 21st from 9am until noon, rain or shine.*

This year's plan calls for cleanups on the north side of Dunn's Marsh along Crescent Road as well as at the Pine Ridge Pond, Pine Ridge greenway and Seminole Village Pond. In addition, there may be a cleanup group in your area, coordinated by your neighborhood association. Anyone interested in being a group leader may contact Rick Eilertson, Fitchburg Environmental Engineer, at (608) 270-4264 or rick.eilertson@city.fitchburg.wi.us to coordinate a cleanup in your neighborhood.

Fitchburg will provide refreshments and a tote bag or T-shirt to participants. Volunteers are encouraged to wear boots and bring work gloves. Be forewarned: Restroom facilities are often not convenient to the planned cleanup locations.

*Further details on the Waterway Cleanups will be posted at www.city.fitchburg.wi.us closer to the events.

For more information and/or to RSVP for the waterway cleanup events, please contact:
Rick Eilertson, Fitchburg Environmental Engineer
Rick.eilertson@city.fitchburg.wi.us
608-270-4264

2012 Stormwater Utility Projects

Tower Hill Greenway – This project includes regrading the greenway within the Tower Hill neighborhood from S. Fish Hatchery Road to McKee Farms Park South Pond. A low flow storm pipe is being considered for installation parallel to the greenway to keep the bottom of the greenway channel drier and less susceptible to erosion. A short segment of storm sewer is also being designed from the greenway to the intersection of Lyman Lane and Jacqueline Drive to improve drainage and reduce ice build-up in the intersection during winter conditions. Once the preliminary design is completed, letters will be sent to adjacent neighbors and a Public Information Meeting will be scheduled.

Valley View / Post Road Pond(s) – This project includes the addition of one or more stormwater ponds downstream of the Valley View apartment complexes, where currently there are no stormwater facilities to control water quantity or improve water quality prior to discharging into Nine Springs Creek. The pond(s) are currently being designed in conjunction with the Post Road extension from Fish Hatchery Road to the existing Post Road to the east. DNR has awarded up to $100,000 in grant funding for this project.

Red Arrow Pond – This project includes the rerouting of existing storm sewer from the intersection of Red Arrow Trail and Crescent Road, easterly ~150' to the east side of the Megan's Bay Condominiums and installation of a small stormwater pond. This project will help alleviate current flooding concerns as well as control water quantity and improve water quality prior to discharging stormwater into Dunn's Marsh. Honeysuckle, buckthorn, and box elder were removed from the project area in late February to allow for final surveying and design of the project. DNR has awarded up to $60k in grant funding for this project.

Anyone with questions or comments on any of these projects may contact Rick Eilertson, Fitchburg Environmental Engineer at rick.eilertson@city.fitchburg.wi.us or 270-4264.

SPRINGTIME BRINGS MORE THAN FLOWERS WITH THOSE SHOWERS

Whether March comes in like a lion or a lamb, it also brings spring showers and melting snow. When snow melts and rain falls, it flows across streets, driveways, parking lots and rooftops and transports sand, salt, leaves, oil, trash and many other pollutants directly to storm drains, which eventually ends up in our lakes and streams.

Some folks mistakenly think that water running off streets goes into a sewage treatment plant. But the truth is that it goes right to our lakes and streams.

You Can Help

There are many things each of us can do to prevent storm water pollution.

- Use salt sparingly during the winter.
- Sweep up any excess sand left over from the snow shoveling season.
- Clean up pet waste year round–flush it down the toilet or collect it in a bucket until you can bury it properly.
- Keep cars well maintained and repair fluid leaks; but consider walking, public transportation or riding a bike whenever you can.
- Direct rainwater away from paved areas to lawns or gardens where it can soak in.
- Keep leaves and grass clippings out of the street. Compost yard waste, debris and leaves.
- Get a soil test before applying fertilizer to your lawn. Don't pay for something you don't need. If a test shows that your lawn does need fertilizer, apply it according to directions and carefully clean up any spills on paved surfaces.
- Wash your car on the lawn or at a car wash that sends its used water to the sewage treatment plant.
- Prevent soil erosion.
- Don't let anything but rain go down the storm drain or into the ditch.

Go to www.myfairlakes.com for more ideas on how you can help our lakes and streams.

Aldo Leopold Rain Garden

Since the fall of 2011, Peter Bergquist, senior civil engineering student at UW-Madison, has worked in collaboration with REACH Science teacher, Nancy Werlein, and City of Fitchburg Engineer, Rick Eilertson to bring stormwater and water resource management concepts to the classroom at Aldo Leopold Elementary School. Over the course of the fall and spring semesters students have engaged in a variety of hands-on environmental research activities that have focused on the design and construction of a rain garden on the school campus.

Students attended field trips to Fitchburg's community rain garden and the Promega bioswale where they collected seeds that were brought back to the classroom. Students participated in laboratory activities to prepare the seeds for germination and are growing over 500 small seedlings in their classroom. REACH science students have helped plan and design a rain garden through various field activities, such as measuring the soil

properties around the campus, site slope, and boundaries for the rain garden. The rain garden will be installed below the bus parking lot facing Post Road.
Work on the rain garden installation will start on May 11th, and we anticipate the garden will be finished before the end of May. If you would like to get involved, we will be removing sod, excavating the site, adding soil for the plants, and finally planting and mulching the garden.
Volunteers, please RSVP to pbergquist@wisc.edu for more updates and how you can contribute to this event.

Thank You Fitchburg Waterway Cleanup Volunteers!
The City of Fitchburg and the Fitchburg Resource Conservation Commission (RCC) would like to thank all the volunteers who helped with Fitchburg's Earth Day Waterway Cleanups this year. Five different groups of volunteers helped collect trash, recyclables and brush over two days (April 21, and 22nd). Over 70 volunteers including All Saints Lutheran Church members, Seminole Village Condominium Association members, Girl Scout Troop 2085, and other waterway neighbors helped Fitchburg staff clean these areas. Altogether, seven areas were cleaned up, including: Apache Pond, Dunn's Marsh, Seminole Village Pond, Pine Ridge Pond, Lacy Heights Pond, McKee Farms Greenway, and Yarmouth Creek.

Volunteers removed over 20 large garbage bags of trash, 7 bags of recyclables, and ~1200 cubic feet of brush from these areas, helping clean up our waterways and improve ecosystem health.

Don't worry if you missed out on this event - there are plenty of other opportunities to help around the community! We welcome any other volunteers interested in helping to keep these and other waterways clean throughout the year to contact Rick Eilertson, Fitchburg's Environmental Engineer, at rick.eilertson@city.fitchburg.wi.us or 270-4264 for more information.

Utility customers who complete and submit a Fitchburg Creek Supporter Pledge Form (available at: www.city.fitchburg.wi.us/stormwater) may be eligible for a reduction in their stormwater utility bill for pledging to help keep Fitchburg's waterways clean.

Aldo Leopold School Rain Garden Project a Success

Since the Fall 2011, Peter Bergquist, senior civil engineering student at UW-Madison, has worked in collaboration with Nancy Werlein, Leopold School's Science teacher, Rick Eilertson, Fitchburg's Environmental Engineer, and Steve Banovetz, Field & Stream Restorations, LLC., to bring stormwater and water resource management concepts to the classroom at Aldo Leopold Elementary School. Funding for the project came from the Morgridge Center for Public Service. Over the course of the fall and spring semesters, students engaged in a variety of hands-on environmental research activities that have focused on the design and construction of a rain garden on the school campus.
Students attended field trips to Fitchburg's community rain garden and the Promega bioswale where they collected seeds that were brought back to the classroom. Students participated in laboratory activities to prepare the seeds for germination and grew over 500 small seedlings in their classroom. They also helped plan and design a rain garden

through various field activities, such as measuring the soil properties around the campus, site slope, and boundaries for the rain garden.
Construction of the Leopold rain garden started on May 11th and the final plantings were finished on May 25th. The watering and maintenance of the rain garden has been taken over by Leopold's Parent Faculty Organization (PFO) who may be looking to expand the rain garden with science classes in the future. Videos conducted by FACTv and a full report of the rain garden project can be accessed from www.city.fitchburg.wi.us/stormwater. Special thanks go out to Peter Bergquist, Leopold School staff, the Leopold School PFO, Promega, Oak Hill Correctional Facility's Horticultural staff, Fitchburg Public Works staff, and Field and Stream Restorations, LLC. for all their help in making this a successful project.

Algae in Stormwater Ponds

With summer sun and heat in full swing, another side-effect becomes apparent: algae. Algae refers to a large group of plant-like organisms that undergo photosynthesis and grow in water. Common in many of our lakes and ponds, algal blooms are accelerated by nutrient loads of nitrogen and phosphorus found in fertilizers. Not all algae are harmful, but some varieties do produce certain risks. One of the largest offenders in Wisconsin is "blue-green algae". Blue-green algae, though technically photosynthetic bacteria called cyanobacteria, grows in nutrient rich lakes and ponds between mid-June and late-September. They are not part of the natural food chain and decrease oxygen levels when they breakdown causing issues for aquatic life. In some cases, blue-green algae produce toxins that can affect the skin, liver, internal organs, respiratory, and nervous systems. Not all blue-green algae produce these toxins, and it is difficult to distinguish when the toxins are being released. Exposure can come from skin contact, inhalation, and/or ingestion. The City of Fitchburg has actively tested algae samples on stormwater ponds for the last two years with help from Professor Linda Graham at the University of Wisconsin. While certain algae sampled was harmless and actually beneficial, we did find some toxic cyanobacteria in some ponds during some of the sampling efforts. Stormwater ponds are not designed for public recreation and should be treated with caution, specifically for children and pets.

Nine Springs Creek Watershed Public Education & Outreach Grant

Work has been completed on the Nine Springs Public Education and Outreach Grant originally rewarded to the City of Fitchburg by the WDNR in 2010. The purpose of the grant was to improve public knowledge and involvement with stormwater issues in the Nine Springs Creek Watershed. Projects were focused in four areas: class talks and on-site tours in schools Earth Day cleanups and tours through the Nine Springs Creek watershed design and installation of stormwater signage and stormwater brochures and website enhancements. City of Fitchburg staff, led by Environmental Project Engineer, Rick Eilertson, were able to coordinate a variety of successful projects including Earth Day community cleanups, stormwater facility identification signs, website improvements, classroom presentations, pet waste sign and bag dispensers and informational stormwater signs located near ponds in the watershed. Progress reports were completed once every three months and posted on the City of Fitchburg stormwater webpage which can be found at: www.city.fitchburg.wi.us/stormwater

Nine Springs Creek Watershed Master Plan

The City of Fitchburg has received a grant from the WDNR in order to improve the quality of water within the Nine Springs Creek Watershed. The scope of the project consists of six activities, completed by Fitchburg staff and consultants, aimed towards producing an overall strategy for water quality improvement and protection. These activities are:

1. Compiling historical information on stormwater facilities in the watershed
2. Holding public involvement meetings
3. Creating a Nine Springs Creek Watershed Master Plan including…
    a. Necessary maintenance and management projects
    b. Nutrient management plan for the Nine Springs Golf Course
    c. Pollutant-reduction strategies
    d. Updates to water-resource related ordinances
    e. Site reviews for clean wastewater re-use
4. Updating Fitchburg stormwater mapping
5. Making financial recommendations for the Fitchburg Stormwater Utility
6. Creating stormwater management plan for Dunn's Marsh

The Nine Spring Master Plan Kick-Off Meeting was held **Thursday, August 16** at **9am** at 5520 Lacy Rd. at City Hall. The meeting was held to introduce and define the scope of the project, brainstorm issues, obstacles, and benefits, as well as plan for future meetings and work flow. More information and project updates can be found on the City of Fitchburg Stormwater page at:
http://www.city.fitchburg.wi.us/departments/cityHall/publicWorks/stormwater/NineSpringsMasterPlan.php

Public Health
MADISON & DANE COUNTY
Healthy people and places

Thomas L. Schlenker, MD, MPH, Director

City-County Building, Room 356
210 Martin Luther King, Jr. Boulevard
Madison, WI 53703

608 266-4821
608 267-2522 fax
www.publichealthmdc.com

March 18, 2011 – Updated Letter – replaces the letter issued on March 04, 2011

Avoid contacting manure from recent runoff in your neighborhood

Please keep your children and pets away from manure tainted runoff or snow stained with manure found on neighborhood streets, yards and parks.

On Saturday February 19, Tuesday March 1, and Wednesday March 2, 2011 a local farm operation spread an estimated 125,000gallons of liquid manure on about 19 acres of farmland. The manure was spread in accordance with a Dane County approved winter land management plan. After the manure was applied it began to run off the farmland and onto adjacent residential properties. The manure crossed several properties and into the street and storm sewer system. This occurred on Sunday February 20 and Wednesday March 2, 2011.

The farm became aware of the problem on Wednesday March 2 and contacted the Dane County Land & Water Resources Department, who notified the other parties.

Representatives from the Department of Natural Resources, the City of Fitchburg and Dane County have been working with the farm to respond to the runoff incident and assist in cleaned up efforts. On Wednesday, the local farm operator placed straw bales and installed a sand berm along the property boundary to reduce off site flow and capture and haul the ponded runoff to other fields for land application. In addition, they took measures to increase infiltration of the manure remaining on the field. By Thursday, these containment measures effectively stopped the meltwater and manure runoff from leaving the field. On Friday, clean up in the neighborhood consisted of scraping, flushing and collecting accumulated piles of manure and manure-stained snow from affected lawns and along the street. However, not all of the manure or tainted snow could be removed. The manure that remains on these properties and in the street poses a potential public health risk.

Public health officials recommend that residents avoid or minimize contact with runoff coming from fields where manure was spread. Cow manure can contain pathogens which are very harmful to humans. Residents are cautioned to keep young children and pets away from manure-stained snow or runoff because of the potential to ingest it or track it into the house and/or vehicle. Before entering your house, vehicle, or garage, wash off shoes or car tires that pass through manure runoff. Regularly washing hands is an important measure for preventing the spread of infectious diseases.

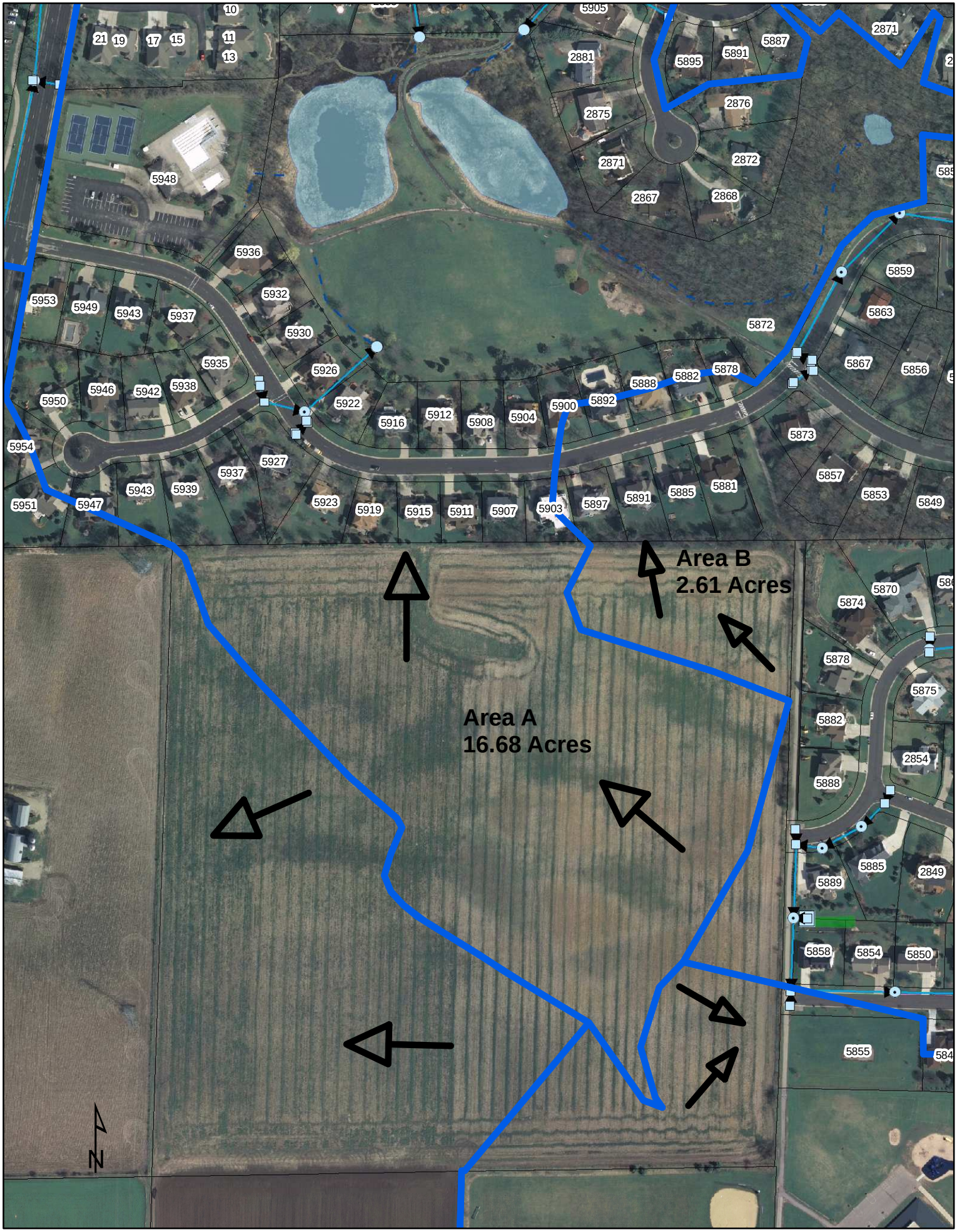
The situation was monitored over the weekend and follow-up actions will continue until state and local health and environmental agencies are convinced the problem has been addressed. For additional information regarding potential health risks contact:

Jeff Lafferty, Public Health Madison & Dane County 608-242-6491

For additional information regarding the spill response and clean-up please contact:

Duane Wagner, Dane Co Land & Water Resources Department 608-224-3742
Mark Cain, Wisconsin Department of Natural Resources at 608-275-3252
Rick Eilertson, Fitchburg Environmental Engineer 608-270-4264

To report spills please contact the 24 Hour State of Wisconsin Emergency Hotline at 800-943-0003



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Meeting Notes

(last updated April 7, 2011)

Schumann Drive Runoff Meeting
Date: Thursday, March 24, 2011
Place: Stoner Prairie Dining Hall, Fitchburg Community Center, 5510 Lacy Road
6:30 pm to 9 pm

1. Maps available for viewing (starting at ~6pm)

2. Welcome & Introductions

Approximately 15 people were in attendance, the group introduced themselves and the events of the last month were briefly reviewed. On March 2nd approximately 16,666 gallons of manure were spread on the northern portion of the "Back 60". The operator spreading the manure noticed that it was running off the "Back 60". Pat O'Brien initiated calls to Dane County (Duane Wagner) and the City of Fitchburg, notified affected homeowners, and coordinated installation of diversion berms. The berms were constructed of a combination of hay bales and soil to control further runoff. On March 3rd Kavon excavating came out with a bulldozer with a ripping tooth to break up the frost layer and let the manure soak into ground. After the ground was broken up the runoff was stopped. On March 4th the City of Fitchburg Fire Department and Honey Wagon (a septic removal company) cleaned the affected residents' yards and the public streets.

3. Overview of land management of the "Back 60" - Pat O'Brien

The O'Brien family has owned land in the area since 1893 and farming the land since 1899. Pat and Tom are the 4th generation of O'Briens to farm the land. Currently the O'Briens manage over 200 dairy cows and are producing roughly 85 lbs (10 gallons) of milk per cow per day. The area of concern, the "Back 60", is in a trust that is owned by the cousins of Pat and Tom. The land is rented from the O'Brien Trust by Pat and Tom. This area is primarily planted with silage corn, with soy beans and alfalfa also rotated in. With the climb in oil prices since the mid 2000's, using manure as fertilizer is a cost effective means of priming the land for the crops and provides a means of disposal for the waste from the dairy operation. The O'Briens applied for a manure spreading permit in November of 2006. The management plan was approved by the county and has been followed since acceptance. The area is not considered steeply sloped and the plan calls for a maximum of 7000 gallons of manure per acre to be spread.

4. Overview of Ag runoff standards and manure management regulations – Duane Wagner (Dane County) and Mark Cain (DNR)

Duane Wagner described that Dane County's regulation of manure spreading began in 2006 after a large manure spill in the Southeastern part of the county resulted in a major fish kill of a trout stream. A task force was created to create a process in which manure storage and disposal could be undertaken more uniformly while protecting the waters of the state. A manure spreading permit in reality is more of a management plan on how, when, and how much manure can be spread on the land. Soil tests are required every three years to determine nutrient levels in the soil and detailed written records must be maintained. As a part of the county's standard compliance checks, the O'Brien farm

was selected to be reviewed in January of 2011. All records and practices were found by Dane County to be in compliance with the permit. The DNR in their statewide role is more concerned with larger farms (>1,000 animal units per farm) and leaves permit regulation of smaller farms up to Dane County. Manure runoff and management is not just a Dane county issue it is something that is dealt with across the state.

The major contributing factor to the manure run off was a layer of ice that had formed from rainfall in the last weeks of February. On March 2nd, the icy conditions allowed the manure to flow off the fields and north onto and across several residential properties along Schumann Drive.

5. Overview of drainage patterns for the watershed - Rick Eilertson

Rick showed a map of the watershed and described drainage patterns both before and after the development of the 6th Addition to Seminole Forest (platted in September 1986). Approximately 17 acres of the "Back 60" (Area A) drains to the north onto and across Steve Smith's property (5915 Schumann Drive and flows westerly to the inlets near 5927 Schumann Drive, then northeasterly between 5926 and 5922 Schumann Drive, discharging into a drainageway in Seminole Glen Park. This drainageway flows into the west pond, then through a culvert under the bike path into the east pond and finally southeasterly through a natural drainageway into the Seminole Glen Kettle. A smaller subwatershed (~3 acres) from the "Back 60" (Area B) immediately to the east of the previously described subwatershed drains northerly onto and across 5891 and 5897 Schumann Drive, then easterly down Schumann Drive into inlets at the intersection of Park Hill Circle and Schumann Drive. Water entering these inlets then travels ~3,000 feet in storm sewer piping that discharges into the McKee Farms Park Drainageway. Preliminary plans for Seminole Forest showed a proposed street (labeled Green Crest Lane) at the location of 5915 Schumann Drive. It wasn't clear why the street was eliminated from the final plat. Rick noted that no stormwater easements were dedicated for the flow of water from these 2 subwatersheds, creating challenges for dealing with stormwater conveyance through these private properties.

Land management practices can attempt to maximize the amount of water that infiltrates into the ground and minimize Total Suspended Solids (TSS) or sediment runoff, however best management practices can not prevent all water flow in the area.

6. Next Steps - All

- In the near future, the berm will be removed. The berm served to stop the immediate problem but it is not a long term solution and it has the potential to cause a catastrophic failure if a large amount of water ponds behind the berm and a breach occurs in the berm.

- The O'Briens will no longer spread manure during the winter on the subwatersheds draining to Schumann Drive. This spring they will look to establish a more permanent cover crop (grasses and alfalfa) to reduce TSS runoff. They will farm the "Back 60" using low or no till plowing techniques which

will reduce runoff. Fertilization through the use of chemical fertilizers will be explored due to the limited application of manure..

- Engineering solutions to moving the water include adding storm sewer piping and a release structure at the back end of the drainage channel. Easements would have to be obtained from the property owners where the pipe will run. A shallow dry detention pond with a release structure and pipe could be built as well. The costs, coordination, design, and management of engineered solutions are all questions that would need to be answered before these steps could take place

- Long term solutions are dependant on how and when the land gets developed in the future. Given the current economic climate, development may likely take some time.

- Pat O'Brien will provide contact information for the owners of the O'Brien Family Trust to Rick. Rick will contact the owners to discuss any short and long term plans they have for the property.

Appendix C
Storm Sewer System Map

Fitchburg staff submitted revisions to its storm sewer system map to the City of Madison. The City of Madison includes a copy of the updated storm sewer system map in its Biennial Report for compliance with WPDES Permit No. WI S058416-3.

Appendix D
Water Quality Concerns

VI.b. Impaired Waterbody: Nine Springs Creek. The following practices were used to improve the water quality discharging into the creek: detention ponds, street sweeping, and public education and outreach for the Nine Springs Creek watershed. A Stormwater Master Plan for Nine Springs Creek was being created until grant funding was removed by the DNR in 2009. A new grant for the Stormwater Master Plan was awarded by DNR in 2010 and subsequently defunded. This grant was awarded again in 2012 and work has begun on the six tasks outlined in the grant application. These tasks include compiling historical information on stormwater facilities in the Nine Springs Creek Watershed, holding public involvement meetings, creating the Nine Springs Creek Watershed Master Plan, updating the stormwater system mapping, proposing financial recommendations for the Fitchburg Stormwater Utility, and creating the Dunn's Marsh Stormwater Management Plan.

VI.c. Identify any known water quality improvements in the receiving water to which the MS4 discharges during the reporting period: Apache Pond was constructed in 2011 (4% TSS reduction to 67% TSS reduction in that subwatershed. Valley View Pond was constructed in 2012 (0.43% TSS reduction to 30% TSS reduction in that subwatershed)

VI.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: The City's Stormwater Utility Credit and Rebate program, municipal stormwater facility retrofits (Apache Pond construction in 2011, Valley View Pond construction in 2012, Nine Springs Creek Stormwater Master Planning process began in 2012), and improved public education and outreach are actions being taken to improve water quality for receiving waters within and downstream of Fitchburg.

APPENDIX E
Additional Information

VII.a. Description of any revisions or proposed revisions to any element of the municipality's storm water management program. The City is currently working on the Nine Springs Creek Stormwater Master Plan to guide future improvements to water quality and hopes to conduct a similar planning process in other urban stormwatersheds.

VII.b. Updated listing and contact information for any new industrial facilities that may be regulated under Subchapter II of NR 216, Wis. Adm. Code, and that have commenced operation during the reporting period. Public Works staff is not aware of any new facilities that would pertain to this section.

VII.c. 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: The City created a Stormwater Utility in 2002 to fund stormwater activities. The Stormwater Utility is responsible for maintaining and upgrading the City stormwater management facilities. Services include street sweeping, stormwater pond and streambank improvements, and public education and outreach.

Property owners within the Fitchburg urban service area are charged a quarterly fee, based on the impervious area of the property. Property owners within the rural service area are charged an annual fee, based on the impervious area of the property. Credits and Rebates to this stormwater utility fee are available to property owners.