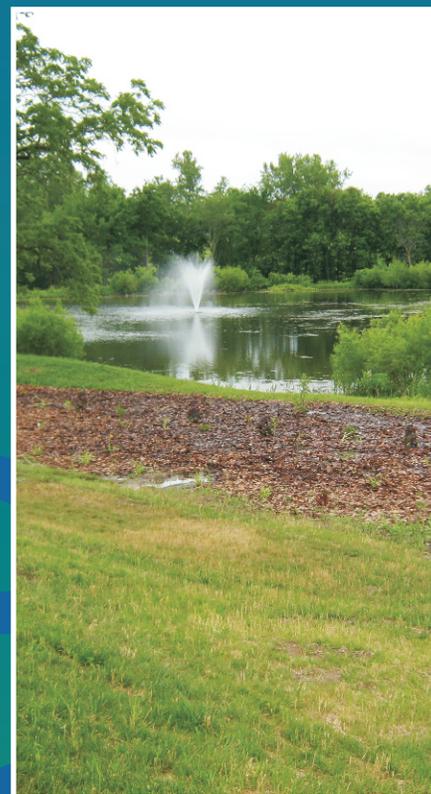
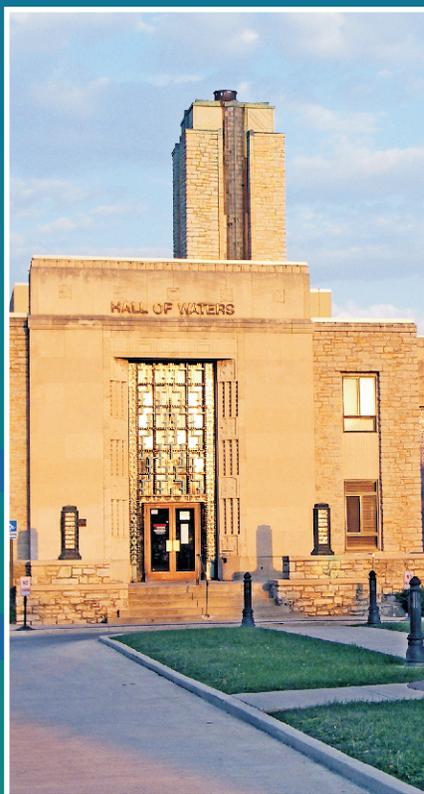


NPDES Phase II Stormwater Annual Report

Municipal Separate Sewer System
Permit MO R-040074
June 2009 - June 2010



Presented By:
City of Excelsior Springs, Missouri
July 2010





MISSOURI DEPARTMENT OF NATURAL RESOURCES
 WATER PROTECTION PROGRAM
STORM WATER ANNUAL REPORT – SMALL MS4 PERMITS
 (MUNICIPAL SEPARATE STORM SEWER SYSTEMS)

This form may be reproduced. Additional copies may be printed at www.dnr.mo.gov/forms/index.html.
 Each section **must** be completed. Please print or type.

A. PERMITTEE INFORMATION

1. PERMITTEE (AGENCY NAME) CITY OF EXCELSIOR SPRINGS	CHECK BOX IF THIS IS A NEW NAME <input type="checkbox"/>
2. NAME OF CONTACT PERSON CHAD BIRDSONG	
3. MAILING ADDRESS 201 E. BROADWAY	CHECK BOX IF THIS IS A NEW ADDRESS <input type="checkbox"/>
4. CITY, STATE AND ZIP CODE EXCELSIOR SPRINGS, MO 64024	CHECK BOX IF THIS IS A NEW CITY, STATE, ZIP <input type="checkbox"/>
5. FACILITY TELEPHONE NUMBER WITH AREA CODE 816-630-0755	CHECK BOX IF THIS IS A NEW NUMBER <input type="checkbox"/>
6. PERMIT NUMBER MO-40074	
7. HAVE ANY AREAS BEEN ADDED OR REMOVED FROM THE MS4 DUE TO ANNEXATION OR OTHER LEGAL MEANS SINCE THE MOST RECENT PERMIT APPLICATION WAS SUBMITTED? IF YES, INCLUDE UPDATED MAP. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
8. WHAT IS THE CURRENT ESTIMATED POPULATION OF YOUR MS4 THIS REPORTING PERIOD? 12,002 (EST. 7/08)	
9. IF COUNTY MS4, WHAT IS THE CURRENT POPULATION OF YOUR MS4 WITHIN THE URBANIZED AREA? N/A	

B. REPORTING PERIOD

(CHECK ONE) REPORT IS DUE BY JULY 28 OF EACH YEAR

- Jan. 01, 2008 to June 12, 2009
 June 13, 2009 to June 12, 2010
 June 13, 2010 to June 12, 2011
 June 13, 2011 to June 12, 2012 or alternative/agreed upon reporting period: _____ - _____
 June 13, 2012 to June 12, 2013
 June 13, 2013 to June 12, 2014

C. PROGRAM AREAS (ATTACHMENT)

As an attachment to this form, address each of the following items for **each** of the six program areas (public education, public participation/involvement, illicit discharge detection and elimination, construction, post-construction and good housekeeping for municipal operations.) The status of each program area must be addressed, even if the program area was completed and fully implemented in a previous reporting year. It is important to report on activity and task commitments identified in the Storm Water Management Program Plan, or SWMP, and provide an explanation for any changes to those commitments.

If another entity is a co-permittee, the annual report information under sections C and D of this form must also be provided for each such entity.

(Depending on the size of the municipality and the complexity of the programs, the attachments for this section will likely contain one to five pages per program area.)

1. Implementation status.
 - a. General summary
 - b. SWMP elements changed or refined since previous report or permit application. Include a summary of any changes made in accordance with Section 4.4 of the permit that have already been submitted to the Department, and any additions made in accordance with Section 4.4 of the permit.
 - c. Status of Measurable Goals
 - d. Provide:
 1. The completion date for any measurable goals completed during the reporting period.
 2. An explanation for any measurable goals scheduled for completion during the reporting period that were not completed. (Any modified goals/deadline should be listed in item 5, below.)
2. Overall compliance with permit conditions and SWMP.
 - a. Assessment of the appropriateness of the identified Best Management Practices, also known as BMPs. Factors to consider in determining appropriateness include, but are not limited to, effectiveness for local population, pollution sources, receiving water concerns and integration with local management procedures.

- b. Progress to achieve the statutory goal of reducing the discharge of pollutants to the maximum extent practicable. Include a general discussion on your assessment of the overall program effectiveness at protecting water quality. See Small MS4 Annual Report Addendum Water Quality Program Assessment for recommendations on completing this section. The form is available online at www.dnr.mo.gov/forms/780-2049.
- 3. Results of information collected and analyzed, if any, during the reporting period, including any monitoring data used to assess the success of the program at reducing the discharge of pollutants to the maximum extent practicable. Discharge monitoring is not a requirement under the general permit, unless otherwise directed by the Department (e.g. TMDL monitoring). However, if you did collect any monitoring data for storm water discharges within your jurisdiction, or if any program element included data collection of some sort, submit a short summary of the information and any analysis completed. Examples of data sources include survey or polling results, miles of riverbank cleaned up, number of hits on a Web site before and after a public education campaign, etc. (Data recorded under Item 1.c, Measurable Goals, does not need to be repeated here.)
- 4. Brief summary of storm water activities you plan to undertake during the next reporting cycle (including an implementation schedule). Provide a short summary based on your existing Missouri State Operating Permit Storm Water Management Program implementation schedule. If any changes are planned from the original descriptions provided in the SWMP or previous reports, they should be summarized in item 5.
- 5. Proposed changes to the program area and documented SWMP.
 - a. Changes to BMPs
 - b. Changes to Measurable Goals
Provide a summary of proposed changes or additions to information previously submitted in reports or the permit application. Significant changes that involve replacing or deleting an ineffective or unfeasible BMP may require program review as outlined in Section 4.4 of the permit.

D. CERTIFICATION

I certify under penalty of law this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SIGNATURE OF PERMITTEE (LEGALLY RESPONSIBLE PERSON)	DATE SIGNED
NAME (PRINTED or TYPED) CHAD BIRDSONG	TITLE DIRECTOR

MO Form 780-1846 (Stormwater Annual Report - Small MS4s Permits)

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Good Housekeeping Efforts

Goals not completed

Overall Compliance with Permit Conditions

Results of information collected and analyzed during reporting period

Summary of stormwater activities planned for next reporting cycle

**MO Form 780-2049 (Stormwater Annual Report - Small MS4s Permits
Addendum – Water Quality Program Assessment)**

Executive Summary:

The City of Excelsior Springs received its first Municipal Separate Storm Sewer Permit in 2007 (MO R-040074). This permit was renewed in June 2008. The Director of Public Works is responsible for implementing the stormwater program. The City recently hired a Stormwater Coordinator to carry out many of the day to day activities associated with the stormwater program including working with a consultant to move priority issues forward. At this time, the City's stormwater program is primarily funded through the sewer fund with participation in the MARC water quality program funded from the Transportation Trust Sales Tax.

The City of Excelsior Springs worked with its consultant to write its Stormwater Management Plan (SWMP) in 2007 which was written to also cover the second general permit term (2008-2013). This plan was submitted with the application for a permit that year. The City utilizes this plan as a guidance document to work towards compliance with all six minimum control measures. No program elements within the Stormwater Management Plan are being substantially modified at this time.

The purpose of this report is to provide information related to the efforts of the City of Excelsior Springs to reduce nonpoint source pollution through public education and participation, illicit discharge detection and elimination, construction site runoff control, post-construction runoff control and good housekeeping in municipal operations. It is the City's intent to be as compliant as possible with the state and federal requirements set forth under NPDES Phase II.

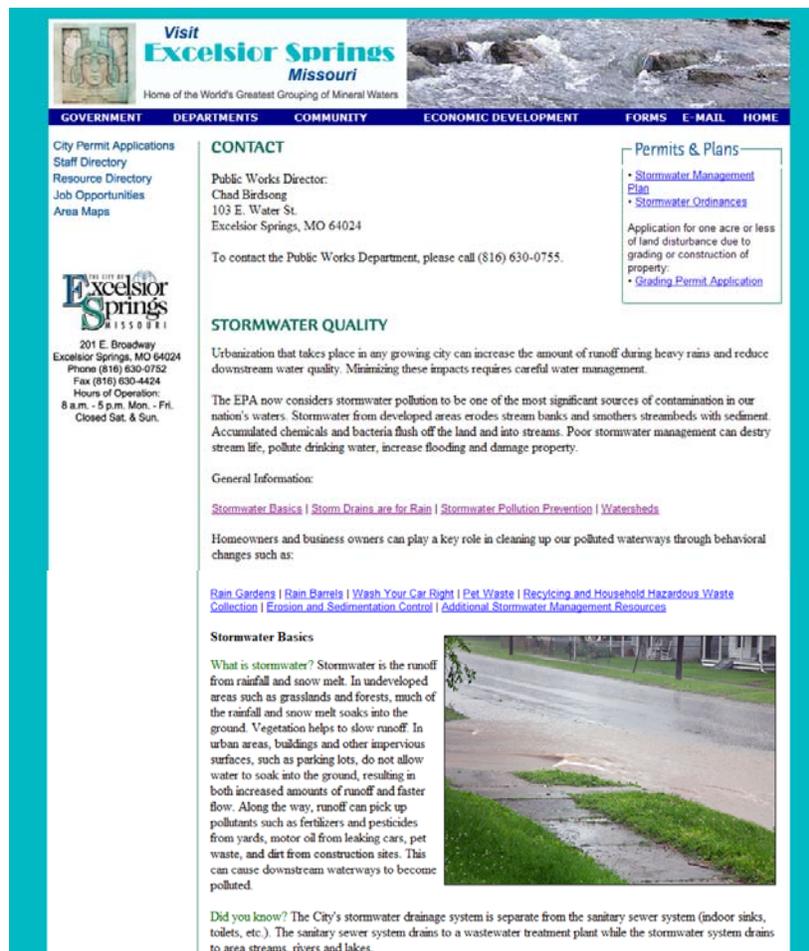


Minimum Control Measure #1 – Public Education

Summary: Excelsior Springs is striving to develop a public education program through distribution of educational materials to the community and conducting outreach activities. The focus of these efforts is to educate the public with activities discussing the impact of storm water discharges on water bodies and the steps the public can take to reduce pollutants in storm water runoff.

Public Education Efforts:

- Distributed MARC water quality information brochures at City Hall, Public Works, and the library. Recently, a display with brochures was added at the City golf course.
- Maintained a page on the City’s web site with stormwater quality information and links to MARC web page; made updates as necessary.



The screenshot shows the website for the City of Excelsior Springs, Missouri. The page is titled "Stormwater Quality" and contains the following information:

- Navigation:** GOVERNMENT, DEPARTMENTS, COMMUNITY, ECONOMIC DEVELOPMENT, FORMS, E-MAIL, HOME
- Left Sidebar:** City Permit Applications, Staff Directory, Resource Directory, Job Opportunities, Area Maps. Contact info: 201 E. Broadway, Excelsior Springs, MO 64024. Phone: (816) 630-0752. Fax: (816) 630-4424. Hours: 8 a.m. - 5 p.m. Mon. - Fri., Closed Sat. & Sun.
- CONTACT:** Public Works Director: Chad Birdsong, 103 E. Water St., Excelsior Springs, MO 64024. To contact the Public Works Department, please call (816) 630-0755.
- Permits & Plans:** Stormwater Management Plans, Stormwater Ordinances. Application for one acre or less of land disturbance due to grading or construction of property. Grading Permit Application.
- STORMWATER QUALITY:** Urbanization that takes place in any growing city can increase the amount of runoff during heavy rains and reduce downstream water quality. Minimizing these impacts requires careful water management. The EPA now considers stormwater pollution to be one of the most significant sources of contamination in our nation's waters. Stormwater from developed areas erodes stream banks and smothers streambeds with sediment. Accumulated chemicals and bacteria flush off the land and into streams. Poor stormwater management can destroy stream life, pollute drinking water, increase flooding and damage property.
- General Information:** Stormwater Basics | Storm Drains are for Rain | Stormwater Pollution Prevention | Watersheds
- Homeowners and business owners can play a key role in cleaning up our polluted waterways through behavioral changes such as:** Rain Gardens | Rain Barrels | Wash Your Car Right | Pet Waste | Recycling and Household Hazardous Waste Collection | Erosion and Sedimentation Control | Additional Stormwater Management Resources
- Stormwater Basics:** What is stormwater? Stormwater is the runoff from rainfall and snow melt. In undeveloped areas such as grasslands and forests, much of the rainfall and snow melt soaks into the ground. Vegetation helps to slow runoff. In urban areas, buildings and other impervious surfaces, such as parking lots, do not allow water to soak into the ground, resulting in both increased amounts of runoff and faster flow. Along the way, runoff can pick up pollutants such as fertilizers and pesticides from yards, motor oil from leaking cars, pet waste, and dirt from construction sites. This can cause downstream waterways to become polluted.
- Image:** A photograph showing a paved area with a storm drain and runoff water.
- Did you know?** The City's stormwater drainage system is separate from the sanitary sewer system (indoor sinks, toilets, etc.). The sanitary sewer system drains to a wastewater treatment plant while the stormwater system drains to area streams, rivers and lakes.

- Issued press release(s) highlighting stormwater issues (Century Park rain garden articles July and October 2009; Lawn care pollution prevention article published May 2010)
- Advertised household hazardous waste drop-off
- Distributed information and demonstrated rain barrel usage at local community event, Waterfest – June 26 & 27, 2009
- Distributed information at local community event, Tiny Town for Tots with PAT – Sept 2009
- Presentation and field trip for St. Luke’s science week; Fourteen students educated about stormwater quality issues; field tour included detention basins, outfalls and rain garden
- Lawn care pollution prevention informational flyer distributed as part of ordinance enforcement activities (4 commercial lawn care businesses and 29 homeowners)
- Staff trained at workshop about “Protecting Urban Soil” (Feb 2010)
- Student presented powerpoint about pollution to her classmates and handed out 25 each of 4 different MARC brochures (May 2010)
- Distributed 33 informational door hangers in neighborhoods where 60 storm drains were stenciled.
- Installed rain garden with informational signage at Century Park.
- Continued participating in **MARC** water quality program. MARC issues metro-wide PSAs, educational displays at community events, giveaway items with NPS message, and hosted extensive educational resources via the web. MARC’s extensive accomplishments in public education included (per 2009 annual report which covered Feb-Dec 2009, 2010 activities unavailable at this time):

Soil Testing

- Distributed 45 soil test vouchers in cooperation with regional Extension offices during native plant workshops in 2009.
- Survey participants from across the region redeemed 88 soil test vouchers.
- Conducted follow-up survey in summer 2009 targeted at residents who redeemed the 2008 soil test vouchers. Received 78 follow-up survey responses, which provided feedback on the soil testing program processes.

Native Plants

- Organized three regional rain garden workshops for municipal and county employees (77 attendees) and three public workshops (70 attendees).
- Reprinted 2,500 “10 Natives for Kansas City” posters for distribution.



Pet Waste

- Purchased 52 pet waste bag dispensers and distributed them to local municipalities.
- Reprinted and distributed 40 NPS-based signs for new and existing pet waste bag dispensers.
- Reprinted 10,000 “Pick Up After Your Pet” brochures for distribution.

Lawn Care

- Reprinted 8,000 “How to Build a Rain Barrel” brochures for distribution.

Build your own Rain Barrel

Tools	Supplies		
<ul style="list-style-type: none"> -7/8" spade drill bit -Electric jigsaw -Electric drill -Utility knife -Marker 	<ul style="list-style-type: none"> 1 - 55-gallon plastic barrel 2 - ¾" plastic faucets 1 - ¾" female coupling 1 - Skimmer basket like those found in garden ponds and pools 1 - Roll of teflon tape 1 - All purpose caulk or plumbing sealant 1 - 5-ft. section of garden hose 4 - Hose couplers 1 - 12" x 12" piece of fiberglass window screen 	 <p style="font-size: 8px; color: #FFC107;">Hose and Coupler</p>	 <p style="font-size: 8px; color: #FFC107;">55-Gallon Barrel</p>
 <p style="font-size: 8px; color: #FFC107;">Cutting the top hole</p>	 <p style="font-size: 8px; color: #FFC107;">Skimmer Basket</p>		

Collaborated with other MARC Environmental Services programs to produce “Healthy Yard Card” with eco-friendly lawn care tips (rain barrels, rain gardens, composting, reduced fertilizer use, etc.).

Brochure Translations

- Continued to use existing supply of Spanish-language brochures in 2009.

Additional Work

- Created “Protect Our Streams” vinyl pop-up banner for use at public events
- Worked with local artist to produce new interactive water quality youth educational display for use at public events. Display includes information on watersheds, sources of water pollution and runoff, native plants, etc.
- Created new water quality wristbands as youth giveaway item (“From Rain to River, Keep Water Clean”). Ordered 3,500 in 2009.
- Ordered 1,000 youth activity workbooks “Discover Stormwater” and “Healthy Water, Healthy People” from Project Wet for distribution at public events.
- Held regional turf management workshop “Sustainable Lawn and Turf: Managing Public, Private and Commercial Green Spaces” in Feb. 2009. Audiences included commercial and private lawn care specialists, golf course superintendents, grounds maintenance staff (school districts, government facilities, corporate campuses, etc.).
- Ordered 400 water faucet aerators (15/16 female water-saving aerator) for giveaways at events.

- Ordered 3,500 native plant seed mix packets from Missouri Wildflower Nursery for giveaways at events. Packets include customized WQEC illustration and contact information.
- Completed the fourth in a series of public attitude surveys on water quality, which was administered in winter 2009.
- Developed regional rain garden informational BMP signs, produced 150 for initial run MARC will continue working with the WQEC to develop additional signage for BMP's that address each community's regulations and ordinances.

Goals Not Completed: During this reporting cycle, no utility bill announcements, postings to the local access cable channel or direct mail to target audiences was completed. These methods of information delivery will be evaluated for their potential effectiveness in the coming year and the SWMP modified as necessary.

Overall Compliance with Permit Conditions:

The BMPs in the City's SWMP seem to be effective for local population. They appear to address some of the City's larger potential pollution sources. They have integrated well with local management procedures.

The City continues to make progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP. They have begun to make the public more aware of storm water quality issues. As part of the Kansas City metro area, Excelsior Springs was included in the 2009 MARC Water Quality survey for public attitudes towards storm water information. These surveys help gauge the effectiveness of stormwater public education throughout the area.

Brief summary of storm water activities you plan to undertake during the next reporting cycle:

- Update web page as necessary
- Restock MARC brochures at City Hall, Public Works, the library and golf course as necessary.
- Issue press release(s) highlighting storm water issue(s).
- Give presentation to local community group or school.
- Advertise household hazardous waste drop-offs as available (local and metro).
- Continue participating in MARC water quality program. MARC will continue to issue metro-wide PSAs, educational displays at community events, giveaway items with NPS message, and hosts extensive educational resources via the web.

Reliance on Other Entities: The City of Excelsior Springs is utilizing the MARC Water Quality Program for assistance with meeting this control measure through radio and television announcements in addition to written and on-line materials this organization provides to its members for distribution.



Clean Water. Healthy Life.

Minimum Control Measure #2 – Public Participation/Involvement

Summary: Excelsior Springs is striving to actively involve the public in the development and implementation of the storm water program.

Public Involvement Efforts:

- Followed standard notice requirements for public meetings.
- Allowed for public input on storm water issues at Planning and Zoning hearings as applicable.
- Allowed for public input on storm water issues at City Council meetings.
- Included information on web site about how citizens could report water pollution problems and other actions they could take to improve water quality
- Developed standard recording form for receipt of information from the public and employees
- Local Boy Scouts assisted with City-wide trash cleanup
- Stenciled storm drains as part of St. Luke's science week
- Developed community group contact list for stream clean up activities and Boy Scouts
- Began planning stream cleanup activity for summer 2010
- Student presented powerpoint about pollution to her classmates and handed out MARC brochures (May 2010)
- MARC's extensive accomplishments in public participation (per the 2009 annual report – See MCM #1)
- Reviewed results of MARC attitude survey.



Goals not completed: None

Overall Compliance with Permit Conditions:

The BMPs in the City's SWMP seem to be effective for local population. They appear to address some of the City's larger potential pollution sources. They have integrated well with local management procedures.

The City continues to make progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP. They have begun to make the public more aware of storm water quality issues and how they can participate in the implementation and development of the program. As part of the Kansas City metro area, Excelsior Springs was included in the 2009 MARC Water Quality survey for public attitudes towards storm water information. These surveys help gauge the effectiveness of stormwater public participation throughout the area.

Brief summary of storm water activities you plan to undertake during the next reporting cycle:

- Continue to include the request for information from the public regarding illicit discharges and construction site runoff control problems
- Request public input on storm water issues at Planning and Zoning hearings as applicable.
- Request public input on storm water issues at City Council meetings as applicable
- Continue to follow standard notification requirements for public meetings.
- Hold stream cleanup event
- Work with volunteers and staff to stencil and re-stencil storm drains

Reliance on Other Entities: The City of Excelsior Springs is utilizing the MARC Water Quality Program for assistance with meeting this control measure through opportunities for citizens to become involved in regional water quality activities.

Minimum Control Measure #3 – Illicit Discharge Detection and Elimination

Summary: Excelsior Springs is striving to develop, implement and enforce a program to detect and eliminate illicit discharges into the MS4.

Illicit Discharge Detection and Elimination Efforts:

- GIS storm water layer continually updated.
- Dry weather field screening
- City inspected sanitary sewers with closed circuit TV to identify any points for possible exfiltration or direct connection to the City's storm water collection system.
- Hosted a HHW collection event with MARC in May 2010
- Investigated illicit discharge complaints
- Continued storm drain stenciling with door hangers in the areas where completed.



Goals not completed: None.

Overall Compliance with Permit Conditions:

The BMPs in the City's SWMP seem to be effective for local population. They appear to address some of the City's larger potential pollution sources. They have integrated well with local management procedures.

The City continues to make progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP. They have begun to make the public more aware of storm water quality issues and how illicit discharge and connections affect the water quality.

Results of information collected and analyzed during reporting period:

- CCTV inspection/smoke testing of nearly 2800 feet of sanitary sewers
- Citizen reporting (via phone call or email) resulted in 2 investigations.
- Stenciled 60 storm drains and distributed 30 door hangers with illicit discharge-related information.
- Thirty-one outfalls (all identified in last year's desktop exercise) screened during dry weather – inspection form completed, pictures taken

Brief summary of storm water activities you plan to undertake during the next reporting cycle:

- Update storm water collection system mapping to add any new facilities and correct as necessary. Ongoing.
- Complete field screening of major outfalls.
- Continue developing standard procedures for receipt of information from staff and public and for enforcement actions.
- Host HHW event with MARC
- Continue storm drain stenciling program.
- Continue targeting portions of the outreach and education/public participation efforts toward IDDE.
- Continue CCTV to reduce exfiltration of wastewater system to stormwater system.

The City of Excelsior Springs is utilizing the MARC Water Quality Program for assistance with meeting this control measure through use of educational materials targeted toward IDDE.

A summary of the number and nature of inspections and formal enforcement actions performed:

Two investigations were conducted following complaints. Both were resolved without formal enforcement actions.



Minimum Control Measure #4 – Construction Site Storm water Runoff Control

Summary: Excelsior Springs is striving to develop, implement and enforce a program to reduce pollutants in storm water runoff from construction activities that result in disturbance of greater than one acre.

Construction Site Runoff Control Efforts:

- Construction plans for both residential and non-residential construction were reviewed.
- Staff inspected construction sites and enforced their construction site runoff control ordinance.
- Staff attending training at MFSMA conference (April 2010)



Goals not completed: None.

Overall Compliance with Permit Conditions:

The BMPs in the City's SWMP seem to be effective for local population. They appear to address some of the City's larger potential pollution sources. They have integrated well with local management procedures.

The City continues to make progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP. They have begun to make the public more aware of storm water quality issues as related to the construction industry.

Brief summary of storm water activities you plan to undertake during the next reporting cycle:

- Educate public, employees and developers regarding requirements for construction site runoff control.
- Continue to receive public input via public meetings (i.e. Planning and Zoning hearings and City Council meetings), email, phone, mail, walk-in or phone.
- Document all inspections and enforcement actions.

Summary of the number and nature of inspections and formal enforcement actions performed:

- City staff reviewed 9 residential building permit applications making comments regarding storm water controls where feasible.
- Staff reviewed storm water quantity and quality designs for 4 commercial, industrial, institutional and multi-family developments.
- One City road improvement project was under construction. It had its own SWPPP and land disturbance permit. It was inspected regularly for control of construction site runoff.
- Fourteen inspections completed on non-residential construction sites. Four Notices of Violation were issued. All were resolved prior to re-inspection.
- Seventeen inspections completed on residential construction sites. Only informal enforcement was needed. No NOVs were issued.

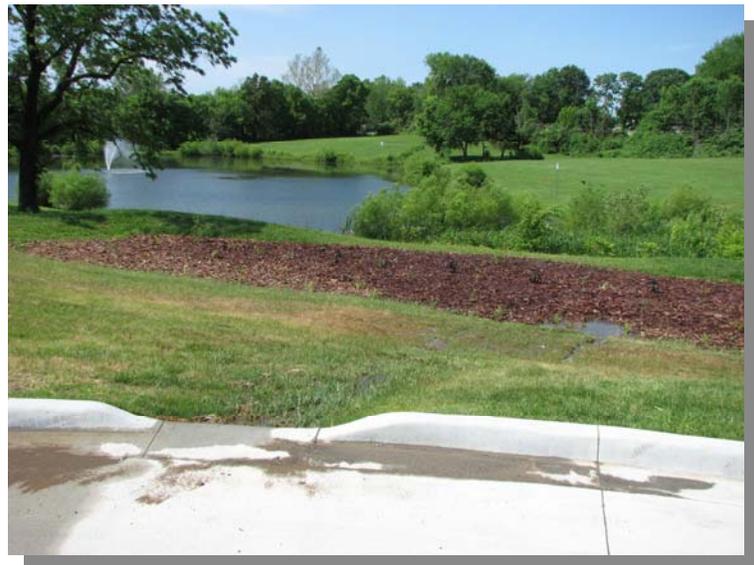


Minimum Control Measure #5 – Post-Construction

Summary: Excelsior Springs is striving to develop, implement and enforce a program to address storm water runoff from development and redevelopment projects that disturb greater than one acre.

Post-Construction Runoff Control Efforts:

- Completed the inspection of the remaining privately owned BMPs and met with responsible parties to notify of results of inspections.
- Worked with property owners to provide guidance for operation and maintenance of detention basins.
- Constructed rain garden at Century Park to treat runoff from new parking area.
- Reviewed two developments – one was subject to a pre-ordinance stormwater plan for the overall development and one was a redevelopment of an entirely impervious property.



Goals not completed: None.

Overall Compliance with Permit Conditions:

The BMPs in the City's SWMP seem to be effective for local population. They appear to address some of the City's larger potential pollution sources. They have integrated well with local management procedures.

The City continues to make progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP. They have begun to make the public more aware of storm water quality issues as they relate to the post-construction environment.

Results of information collected and analyzed during reporting period:

- 15 letters/meetings with property owners
- Major rehab of existing basin (Price Chopper) including removal of trash, invasive vegetation, repair of erosion, etc.

Brief summary of stormwater activities you plan to undertake during the next reporting cycle:

- Continue filtration of runoff and stabilization of stream banks through use of stream buffers for new and redevelopments.
- Continue BMP inventory and maintenance inspection program.

Summary of the number and nature of inspections and formal enforcement actions performed:

- 17 basin inspections; met with each of the responsible parties to discuss findings and corrective actions needed (if any)

Minimum Control Measure #6 – Good Housekeeping for Municipal Operations

Summary: Excelsior Springs is striving to develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.

Good Housekeeping Efforts:

- Employee trained at MFSMA (April 2010).
- Trained employees utilizing Excal Visual's video and quiz (Aug 2009)
- Employees trained at Jackson County Stormwater Meeting (Feb 2010)
- Monthly (or more often) street sweeping in business district except during winter months. Annual sweeping of all curb and gutter streets.
- Used oil recycling. Ongoing.
- Continued vehicle maintenance BMPs – fueling under cover, washing discharged to sanitary sewer, maintenance under cover
- Continued salt storage under cover
- Continued removal of trash from City right-of-way
- Continued discussion of stormwater issues at all foreman meetings



Goals not completed: None.

Overall Compliance with Permit Conditions:

The BMPs in the City's SWMP seem to be effective for local population. They appear to address some of the City's larger potential pollution sources. They have integrated well with local management procedures.

The City continues to make progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP. They have begun to make the staff and contractors more aware of storm water quality issues as they relate to municipal operations.

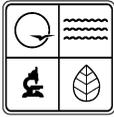
Results of information collected and analyzed during reporting period:

- Approximately 1315 miles of streets swept
- Approximately 420 inlets/catch basins cleaned and inspected
- Approximately 600 gallons of used oil recycled
- 1396 bags of trash removed from City right-of-way
- Three staff trained at MFSMA conference
- Three staff trained at Jackson County Stormwater meeting “Protecting Urban Soil”
- Twenty-three staff trained with Excal Visual Video/Quiz
- Nine employees involved in regular foreman meetings where stormwater information discussed

Brief summary of storm water activities you plan to undertake during the next reporting cycle:

- Improve documentation of various metrics.
- Draft SOPs and begin training.
- Continue street sweeping efforts.
- Continue CCTV of sanitary sewer looking for cross-connections.
- Install construction BMPs as necessary for City capital projects based on each site’s conditions.
- Identify any outside training opportunities for staff and send appropriate representatives.





MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM

**STORM WATER ANNUAL REPORT – SMALL MS4 PERMITS ADDENDUM - WATER
QUALITY PROGRAM ASSESSMENT (MUNICIPAL SEPARATE STORM SEWER SYSTEMS)**

INSTRUCTIONS

You are not required to complete this ADDENDUM. However, the Department of Natural Resources strongly recommends this form as a way to satisfy Section 2b of the Small MS4 Annual Report, or at a minimum thoroughly address the items included in this addendum.

The purpose of this report is to contribute information to an evaluation of the National Pollutant Discharge Elimination System, or NPDES, small municipal separate storm sewer system (MS4) permit program. Consistent with Missouri storm water regulations 10 CSR 20-6.200 and federal regulations 40 CFR §9, 122, 123, 124 the Department is evaluating the status of your program. A “no” answer to a question does not necessarily mean noncompliance with your permit or with the state and federal regulations. In order to establish the range of variability in the program, it is necessary to ask questions along a fairly broad performance continuum. The Department of Natural Resources may use some of this information as one component of compliance evaluation.

A. WATER QUALITY PRIORITIES

1. Does your MS4 discharge to waters listed as impaired on Missouri’s most recently approved 303(d) list or to waters for which a TMDL has been approved by EPA and is currently in effect? For more information visit www.dnr.mo.gov/env/wpp/waterquality/303d.htm.
 Yes No

2. If yes, identify each impaired water, the impairment(s), whether a TMDL has been approved by EPA for each, and whether the TMDL identifies your MS4 as a source of the impairment.

Impaired Water	Impairment	Approved TMDL		MS4 Assigned to WLA	
N/A		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. What specific sources of these pollutants of concern are you targeting? **N/A**

4. Do you have discharges to any Wild and Scenic Riverways, drainages thereto, or Outstanding State Resource Waters? (a list of these waters can be found in 10 CSR 20-7.031 tables D and E).
 Yes No

5. Are you implementing additional specific provisions to ensure their continued integrity?
 Yes No

B. PUBLIC EDUCATION AND PUBLIC PARTICIPATION

1. Is your public education program targeting specific pollutants and sources of those pollutants?
 Yes No

2. If yes, which of the following pollutants did your public education program target this reporting period?

<input checked="" type="checkbox"/> Suspended Solids	<input checked="" type="checkbox"/> Pesticides	<input checked="" type="checkbox"/> Temperature
<input checked="" type="checkbox"/> Nutrients/Fertilizers	<input checked="" type="checkbox"/> Oils and Greases	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> Chlorides	<input type="checkbox"/> Polycyclic Aromatic Hydrocarbons (PAHs)	

3. What sources of pollution did you target for these pollutants (for education) this reporting period? **HOMEOWNERS, BUSINESSES, STAFF**

4. Note specific successful outcome(s) (e.g., quantified reduction in fertilizer use; NOT tasks, events, publications) fully or partially attributable to your public education program during this reporting period.

NO BASELINE DATA AVAILABLE

5. Do you have an advisory committee or other body comprised of the public and other stakeholders that provides regular input on your storm water program?
 Yes No

C. CONSTRUCTION

1. Do you have an ordinance or adopted policies stipulating:

a. Erosion and sediment control requirements?

Yes No

b. Other construction waste control requirements?

Yes No

c. Requirement to submit construction plans for review?

Yes No

d. MS4 inspection authority?

Yes No

e. MS4 enforcement authority?

Yes No

C. CONSTRUCTION (CONTINUED)

2. Do you have written procedures for:
- a. Reviewing construction plans that include erosion and sediment control?
 Yes No
- b. Performing erosion and sediment control inspections?
 Yes No
- c. Responding to erosion and sediment control violations?
 Yes No

3. Identify the number of active construction sites ≥ 1 acre in operation in your jurisdiction at any time during the reporting period.

13 Non-municipal **1** Municipal

4. How many of the sites identified in # 3 did you inspect this reporting period?

13 Non-municipal **1** Municipal

5. Describe, on average, the frequency with which your program conducts construction site inspections.

BIWEEKLY WHEN ACTIVE Non-municipal **N/A** Municipal

6. Do you prioritize certain construction sites for more frequent inspections? Yes No

If Yes, based on what criteria? **SIZE OF DISTURBANCE/KNOWLEDGE OF CONTRACTORS**

7. Do you require development of a storm water pollution prevention plan, or SWPPP, for construction activities, and ensure standards comply with NPDES Phase II requirements?

Yes No

8. Do your municipal projects comply with state and local requirements for erosion and sediment control?

Yes No

9. Identify which of the following types of enforcement actions you used during the reporting period for construction activities; indicate the number of actions or note those for which you do not have authority:

<input checked="" type="checkbox"/> Yes	Notice of Violation	#4	No Authority <input type="checkbox"/>
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<input type="checkbox"/> Yes	Administrative Fines	# _____	No Authority <input checked="" type="checkbox"/>
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<input checked="" type="checkbox"/> Yes	Stop Work Orders	#0	No Authority <input type="checkbox"/>
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<input checked="" type="checkbox"/> Yes	Civil Penalties	#0	No Authority <input type="checkbox"/>
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<input checked="" type="checkbox"/> Yes	Criminal Actions	#0	No Authority <input type="checkbox"/>
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<input type="checkbox"/> Yes	Administrative Orders	# _____	No Authority <input checked="" type="checkbox"/>
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<input checked="" type="checkbox"/> Yes	Other NUISANCE DECLARATION/ABATEMENT	#0	
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10. Do you use an electronic tool (e.g., GIS, data base, spreadsheet) to track the locations, inspection results and enforcement actions of active construction sites in your jurisdiction?

Yes No

11. What are the three most common types of violations documented during this reporting period?

- a. **MUD ON STREET**
- b. **FAILURE TO MAINTAIN BMPS**
- c. **NO BMPS INSTALLED**

12. How often do municipal employees receive training about the construction program? **AT LEAST ANNUALLY**

D. ILLICIT DISCHARGE ELIMINATION

1. Have you completed a map of all outfalls and receiving waters of your storm sewer system?

Yes No

2. Have you completed a map of all storm drain pipes of your storm sewer system?

Yes No

3. Identify the number of outfalls in your storm sewer system. **19 MAJOR**

4. Do you have documented procedures, including frequency, for screening outfalls and open conveyances?

Yes No

5. Of the outfalls identified in # 3, how many have been screened for dry weather discharges at any time since you obtained MS4 permit coverage? **17**

6. What is your frequency for screening outfalls for illicit discharges? **ONCE/PERMIT CYCLE.**

a. Describe any variation based on size/type. **SOURCES TO MAJOR OUTFALLS**

7. Describe your approach to screening open conveyances for illicit discharges. **COMPLAINT DRIVEN EXCEPT IN AREA OF SEPTIC TANKS**

8. Do you have an ordinance or other regulatory mechanism that effectively prohibits illicit discharges?
 Yes No

9. Do you have an ordinance or other regulatory mechanism that provides authority for you to take enforcement action or recover costs for addressing illicit discharges?
 Yes No

D. ILICIT DISCHARGE ELIMINATION (CONTINUED)

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During the reporting period, how many illicit discharges or illegal connections have you discovered? **2**

11. Of those illicit discharges and illegal connections discovered or reported, how many have been eliminated? **2**

12. How often do municipal employees receive training about the illicit discharge program? **At least annually**

E. STORM WATER MANAGEMENT FOR MUNICIPAL OPERATIONS

1. Have storm water pollution prevention plans (or an equivalent plan) been developed for:

- a. All public parks, ball fields, other recreational facilities and other open spaces.
 Yes No
- b. All municipal construction activities, including those disturbing less than 1 acre.
 Yes No
- c. All municipal turf grass/landscape management activities.
 Yes No
- d. All municipal vehicle fueling, operation and maintenance activities.
 Yes No
- e. All public works, parks and other municipal maintenance yards.
 Yes No
- f. All municipal waste handling and disposal areas.
 Yes No
- g. Other municipal operations.
 Yes No

2. Are storm water inspections conducted at these facilities?
 Yes No

3. If Yes, at what frequency are inspections conducted? **N/A**

4. List activities for which operating procedures or management practices specific to storm water management have been developed? (such as road repairs, catch basin cleaning, landscape management, etc.)
 Yes No

5. Do you prioritize certain municipal activities or facilities for more frequent inspections?
 Yes No

a. If Yes, at what frequency are inspections conducted? **N/A**

6. On average, how frequently are catch basins and other inline treatment systems inspected? **AT LEAST ONCE/PERMIT CYCLE**

7. Do all municipal employees overseeing planning and implementation of storm water-related activities receive comprehensive training about storm water management?
 Yes No

8. If yes, do you also provide regular updates and refreshers?
 Yes No

a. If so, how frequently or under what circumstances? **AT LEAST ANNUALLY**

9. How often do other municipal employees and contractors performing duties that can impact storm water receive training about storm water management?
ANNUALLY

F. NEW AND REDEVELOPMENT (POST-CONSTRUCTION) STORM WATER MEASURES

1. Do you have ordinances or other mechanisms to require:

- a. Pre-site design meetings with developers?
 Yes No
- b. Site plan reviews for storm water quality of all new and re-development projects of an acre or more?
 Yes No
- c. Reasonable mimicking of pre-construction storm water runoff quality in all new development projects of an acre or more?
 Yes No
- d. An incremental improvement of existing storm water runoff quality in redevelopment projects of an acre or more?
 Yes No
- e. Long-term operation and maintenance of storm water management controls?
 Yes No
- f. Retrofitting to incorporate long-term storm water management controls?
 Yes No

2. If you have retrofit requirements, what are the circumstances or criteria? **N/A**

3. What are your criteria for determining which new/re-development storm water plans you will review for water quality? (such as all projects, projects disturbing greater than

one acre, etc.) **ALL DISTURBANCES OVER 1 AC; DISTURB 10% OF THE SITE/LESS THAN AN ACRE**

4. Do your ordinance(s) or other regulatory mechanism(s) allow for:
- a. Non-structural site design options to allow for optimal water quality management in long-term storm water runoff? (such as minimized/disconnected impervious surfaces, cluster housing in exchange for green space, resource protection boundaries, etc.)
 Yes No
 - b. Structural contemporary, dispersed micro-infiltration/filtration practices such as grassed swales, sand filters, neighborhood roundabouts with rain gardens, etc.?
 Yes No

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REDEVELOPMENT (POST-CONSTRUCTION) STORM WATER MEASURES (CONTINUED)

Do your water quality design standards or performance standards, either directly or by reference, be met for new development and re-development?

Yes No

6. Do these design standards/performance measures require pre-construction runoff conditions in new development be met for:

- a. Flow volumes.
 Yes No
- b. Peak discharge rates.
 Yes No
- c. Discharge frequency.
 Yes No
- d. Flow duration.
 Yes No
- e. Water quality.
 Yes No

7. Please provide the Web address/reference where all post-construction storm water management standards are located. **APWA SECTION 5600**

8. Do your zoning bylaws, ordinances or other regulatory processes allow or enable:

- a. Flexible site design criteria such as smaller lot sizes, reduced setbacks and narrow streets in exchange for functional green space and optimal water quality management in storm water runoff.
 Yes No
- b. Established regulatory controls over tree clearance and removal of mature trees or forest stands?
 Yes No
- c. Green space residential developments (cluster development or conservation subdivision design)?
 Yes No
- d. The location of bioretention areas, rain gardens, filters strips, swales and constructed wetlands in required setback areas?
 Yes No
- e. Construction of low impact development, or LID, storm water management techniques (bioretention, swales, filter strips) on land held in common (when appropriate)?
 Yes No
- f. Use of permeable paving for parking stalls and spillover parking areas?
 Yes No
- g. Limited clearing within the right-of-way to the minimum necessary to construct roadway, drainage, sidewalk and utilities, and to maintain site lines?
 Yes No

9. Does your review and approval process include using a water quality checklist?

Yes No

10. If yes to # 9, please check all of the following checklist items that apply:

a. Existing and proposed mapping and plans (recommended scale of 1" = 50'.) which illustrate:

1. Existing and proposed topography (minimum of 2-foot contours recommended).
 Yes No
2. Compatibility with watershed plans, land use plans, comprehensive plans, (contemporary street standards) etc.
 Yes No
3. Perennial and intermittent streams.
 Yes No
4. Mapping of predominant soils from USDA soil surveys as well as location of any site-specific borehole investigations that may have been performed.
 Yes No
5. Boundaries of existing predominant vegetation and proposed limits of clearing.
 Yes No
6. Location and boundaries of resource protection areas such as wetlands, lakes, ponds and other setbacks (e.g., stream buffers, drinking water well setbacks, septic setbacks).
 Yes No
7. Grading plan with location of existing and proposed roads, buildings and other structures.
 Yes No
8. Location of existing and proposed utilities (e.g., water, sewer, gas, electric) and easements.
 Yes No
9. Location of existing and proposed conveyance systems such as grass channels, swales and storm drains.
 Yes No
10. Flow paths.
 Yes No
11. Location of floodplain/floodway limits and relationship of site to upstream and downstream properties and drainages.
 Yes No
12. Location and dimensions of proposed channel modifications, such as bridge or culvert crossings.
 Yes No
13. Location, size, maintenance access and limits of disturbance of proposed structural storm water management practices.
 Yes No

NEW AND REDEVELOPMENT (POST-CONSTRUCTION) STORM WATER MEASURES (CONTINUED)

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14. Location of proposed community recreation/green space areas.

Yes No

15. Functional landscape plan.

Yes No

b. Narrative and supporting calculations describing:

1. Representative low-impact development techniques (with supporting evidence that technique is compatible with site characteristics) such as on-lot bioretention, tree clearing minimization, minimizing directly connected impervious surfaces, open section roads (also called roadside swales), etc.

Yes No

2. Zoning, acreage, types and amounts of land uses. (e.g., parking spaces, density, green areas, building footprint areas)

Yes No

3. Traffic analysis estimating average daily trips for street network and parking requirements.

Yes No

4. Site impervious area (including effective disconnections).

Yes No

5. Reforestation and/or resource conservation protection measures.

Yes No

6. Comparison of proposed development data with allowable density, land use, etc.

Yes No

7. Development phasing or implementation sequence.

Yes No

8. Other? **N/A**

11. How many development and redevelopment project plans were reviewed during the reporting period to assess impacts to water quality and receiving stream protection? **4**

12. How many of the plans identified in # 11 were approved? **4**

13. How many privately owned permanent storm water management practices/facilities were inspected during the reporting period? **17**

14. How many of the practices/facilities identified in # 13 were found to have inadequate maintenance? **1**

15. How long do you give operators to remedy any operation and maintenance deficiencies identified during inspections? **7 DAYS/MORE IF MAJOR REPAIRS**

16. Do you have authority to take enforcement action for failure to properly operate or maintain storm water management practices/facilities? Yes No

17. How many formal enforcement actions (i.e., more than a verbal or written warning) were taken for failure to adequately operate or maintain storm water management practices/facilities? **0**

18. Do you use an electronic tool (e.g., GIS, database, spreadsheet) to track post-construction BMPs, inspections and maintenance? Yes No

19. Do all municipal departments or staff (as relevant) have access to this tracking system? Yes No

20. How often do municipal employees receive training about the post-construction program? **AT LEAST ANNUALLY**

G. PROGRAM RESOURCES

1. What was the annual expenditure to implement MS4 NPDES permit requirements this reporting period? **±25,000**

2. What is next year's budget for implementing the requirements of your MS4 NPDES permit and SWMP? **±50,000**

3. This year what is your source(s) of funding for the storm water program and annual revenue (amount or percentage) derived from each?

Source: GENERAL FUND	Amount \$:	OR %: 25%
Source: SALES TAX	Amount \$:	OR %: 15%
Source: SEWER FUND	Amount \$:	OR %: 60%

4. How many full time equivalent employees does your municipality devote to the storm water program (specifically for implementing the storm water program versus municipal employees with other primary responsibilities)? **1**

5. Do you share program implementation responsibilities with any other entities?
 Yes No

Entity: MARC	Activity/Task/Responsibility: OUTREACH & EDUCATION	Your Oversight/Accountability Mechanism: WATER QUALITY COMMITTEE ANNUAL REPORT; FEE FOR PARTICIPATION
Entity:	Activity/Task/Responsibility:	Your Oversight/Accountability Mechanism:
Entity:	Activity/Task/Responsibility:	Your Oversight/Accountability Mechanism:

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H. EVALUATING AND MEASURING PROGRESS

1. What indicators do you use to evaluate the overall effectiveness of your storm water management program? How long have you been tracking them and at what frequency? These are not measurable goals for individual management practices or tasks, but large-scale or long-term metrics for the overall program, such as in-stream macroinvertebrate community indices, measures of effective impervious cover in the watershed, indicators of in-stream hydrologic stability, etc.

Indicator	Began Tracking (year)	Frequency	Number of Locations
<i>Example: E. coli</i>	2003	Weekly April–September	20
NOT AVAILABLE			

2. What environmental quality trends have you documented over the duration of your storm water program? Reports or summaries can be attached electronically, or provide the Web address where they are located. **MARC WATER QUALITY ATTITUDE SURVEY 2009**

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