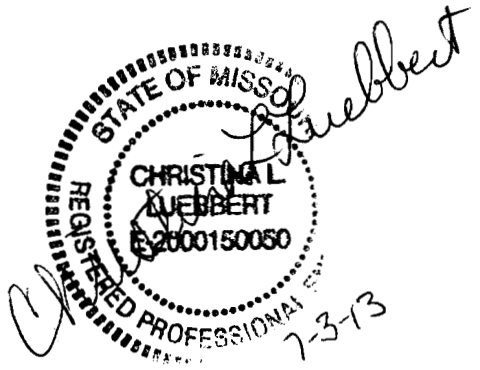
RECEIVED

JUL 3 2013

WATER PROTECTION PROGRAM

STORMWATER MANAGEMENT PLAN EXCELSIOR SPRINGS, MO

June 2013 – June 2018



Signed: Christina L. Luebbert, P.E., CFM, LEED AP
E-2000150050
Luebbert Engineering
304 Travis Court
Jefferson City, MO 65101
573-291-6567

TABLE OF CONTENTS
SMALL MS4 STORMWATER MANAGEMENT PROGRAM
FOR EXCELSIOR SPRINGS, MO

PART I
CITY OF EXCELSIOR SPRINGS
BACKGROUND

City of Excelsior Springs Background

Information on the Permittee:

Name of the Permittee: City of Excelsior Springs, Missouri
Type of Entity: City – Municipality
Total Area: 10.4 sq. miles
Mailing Address: 103 E. Water Street, Excelsior Springs, MO 64024
Primary Contact: Brent Bishop, Stormwater Coordinator
Phone Number: 816-630-0755
Secondary Contact: Chad Birdsong, Public Works Director
Phone Number: 816-630-0755
Population (2011): 11,234

Information on the Municipal Separate Storm Sewer System:

MS4 System Location: Excelsior Springs, Missouri
Name of Organization: City of Excelsior Springs, Missouri
County Permitee Resides: Clay/Ray County
The major receiving waters within the permitted area include: Dry Fork, Williams Creek, Gold Mine Creek, Lick Creek, Fishing River
None of the receiving waters are on the latest CWA's list of impaired waters.

Information on Adjacent Waterways:

The Permittee is within 100 feet of: Dry Fork, Williams Creek, Gold Mine Creek, Fishing River
The Permittee is not within 100 feet of waters classified as major reservoirs.
The Permittee has some area defined as wetlands as identified by the National Wetland Inventory. See attached map.
Stormwater from Excelsior Springs does not discharge to a sinkhole.

PART II
MINIMUM
CONTROL
MEASURES

1. Public Education and Outreach

1.1 Regulatory Requirement

40 CFR 122.34 (b)(1) – Implement a public education program to distribute educational materials to the community of contact, equivalent outreach activities about the impacts of Stormwater discharges on water bodies and the steps the public can take to reduce pollutants in stormwater runoff.

Section 4.2.1.1 of the Missouri general permit for small municipal separate storm sewer systems ("Permit") requires that the City implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and steps the public can take to reduce pollutants in storm water runoff. This section describes the program elements intended to meet this requirement.

1.2 Target pollutants

Section 4.2.1.1.1 of the Permit requires that the public outreach and education program identify the target pollutant sources the City's public education program is designed to address. The following is a list of the leading pollutants, experienced in the permitted area, that are carried by stormwater runoff into water bodies:

1. Suspended solids
2. Oil and grease
3. Pesticides/Herbicides
4. Bacteria/Nutrients/Oxygen-depleting substances
5. Habitat alterations
6. Salinity (salt)
7. Litter/Trash

1.3 Target audiences

Section 4.2.1.1.2 of the Permit requires that the public outreach and education program identify the target audiences for the City's education program who are likely to have significant storm water impacts (including commercial, industrial and institutional entities). During the development of the proposed education program, Excelsior Springs identified the sources of stormwater pollutants that needed to be reduced to improve overall water quality. The target audiences were selected because changing their behavior would have a significant stormwater quality impact on the target pollutants. The target audiences for the public education program are:

1. Citizens (Homeowners)
2. Developers and Home Builders
3. Business Owners
4. Children
5. Elected Officials
6. City Staff

1.4 Selected BMPs for Public Education and Outreach

Sections 4.2.1.1.3 through 4.2.1.1.5 of the Permit requires that the public outreach and education program include a plan to inform individuals and households about steps they can take to reduce storm water pollution, how to become involved in the SWMP (with activities such as local stream and lake restoration activities) and describe the outreach strategy, including the mechanisms (e.g., printed brochures, newspapers, media, workshops, etc.) to reach target audiences, and how many people expected to be reached over the permit term. The following Best Management Practices were selected to meet these requirements:

1.4.1 Participate in the Mid-America Regional Council's (MARC) water quality public education programs and integrate them into the City's local SWMP

The City of Excelsior Springs will continue the utilization of the MARC water quality public outreach and education programs for implementation as part of this Stormwater Management Program. This BMP will allow the City to continue leveraging their paid membership in MARC to better meet their SWMP goals. The City will continue to integrate the MARC water quality information into the local program by posting information on the City web site, making the various informational materials available at the library, golf course and the Hall of Waters (City Hall). Staff will distribute additional informational materials as opportunities arise. Included with the materials will be information about how the public can get involved with the stormwater program. This is further discussed in Section 2.

In addition to these more local efforts, MARC is continuing to promote public education on steps that can be taken to reduce stormwater pollution through radio PSAs, educational displays at community events, giving away items with a NPS pollution reduction message, hosting workshops and training seminars for businesses and homeowners and providing extensive educational resources via their web site. MARC also performs a water quality attitude survey approximately every other year which provides "measurement" of changes in the metro area. The City of Excelsior Springs will continue to review the results of previous and future surveys to evaluate the progress of this BMP.

1.4.2 Stormwater Web Page

The City of Excelsior Springs has selected the use of a web page for implementation as part of this Stormwater Management Program.

The City maintains a web page with stormwater education information on the City's web site. The page includes general stormwater information, conveys actions citizens can take to improve stormwater quality, solicits input on the program plan, and has direct links to the stormwater ordinances and guidance documents. The website will be reviewed annually to determine if any updates are needed.

1.4.3 Brochures

The City of Excelsior Springs has selected brochures for implementation as part of this Stormwater Management Program.

The City distributes a wide range of stormwater education brochures available through their MARC membership. These educational materials are available at the library, golf course and the Hall of Waters. They will be replenished as needed. The approximate number of flyers and brochures printed and distributed will be reported annually.

1.4.4 Press Releases

The City of Excelsior Springs has selected press releases for implementation as part of this Stormwater Management Program.

The City will submit press releases to media outlets semi-annually. The results of these press releases (month/year and subject of article) will be reported annually.

1.4.5 Public Access Television (Channel 2)

The City of Excelsior Springs has selected posting information on the public access television station for implementation as part of this Stormwater Management Program. This will allow messages to get out to a wider variety and potentially larger volume of people.

The measurable goal for implementation of this BMP is to post information to the cable channel at least twice a year. Staff may tailor messages to tie into different education and outreach activities. The type of information posted will be reported annually.

1.4.6 Public Presentations

The City of Excelsior Springs has selected public presentations for implementation as part of this Stormwater Management Program. During the last permit cycle, staff developed a somewhat "canned" presentation for youth audiences that included the use of the "Fred the Fish" Youtube video and a handout with a picture of the Cuyahoga River on fire with the

theme "Things YOU can do to keep our waterways clean!" Staff also developed a general message for adult audiences about the City's stormwater program and often includes information about how attendees can get involved in the SWMP.

The measureable goal for implementation for this BMP is to present an educational program to at least one school-aged group and one adult audience each year. In the past, these presentations have been coordinated with education and outreach for community involvement activities like storm drain marking and stream cleanups.

1.4.7 Direct Mail to Target Audience(s)

The City of Excelsior Springs has selected direct mailing to target audience(s) for implementation as part of this Stormwater Management Program. This will allow the City to target specific actions or behaviors desired from the target audience.

The measureable goal for implementation for this BMP is to send direct mail to a target audience at least once each year.

1.4.8 Household Hazardous Waste program

The City of Excelsior Springs has selected continuing the household hazardous waste collection program for implementation as part of this Stormwater Management Program. HHW is collected in Excelsior Springs biannually and in other drop-off locations around the Kansas City metro area on a regular basis. Citizens may also make appointments to drop off HHW at other Kansas City metro area locations.

The measurable goal for implementation of this BMP is to advertise and promote this existing program locally through the web site, News Flash, press releases, brochures, etc.

1.4.9 Dog Waste Disposal Program

The City of Excelsior Springs has selected using a dog waste disposal program as part of this Stormwater Management Program. Currently, there are nine dog waste stations with associated educational signage in Excelsior Springs's parks and trail system.

The City will continue to maintain these stations for the public's education and use.

1.4.10 Social Media

The City of Excelsior Springs has selected the use of social media such as Twitter or Facebook as part of their public education and outreach program.

The measurable goal for implementation of this BMP is to include NPS pollution prevention information on social media at least twice a year.

1.5 Evaluation of Public Education and Outreach Program

Section 4.2.1.1.6 of the Permit requires the City to develop a plan to evaluate this minimum control measure. The City of Excelsior Springs will attempt to capture metrics related to the success of their public education and outreach program. These metrics will be reported in their annual reports. These might include the number of printed materials distributed, the number of articles or advertisements in local print media, the number of days information ran on the local cable access channel, the number of News Flash articles distributed (including the approximate number of citizens receiving this information), the approximate amount of HHW collected, the number of presentations made (and approximate audience size), etc. Additionally, the City will collect and report on anecdotal evidence that the educational message is being received.

The City will also summarize in their annual reports the information from the MARC water quality committee annual report on public outreach and education efforts throughout the Kansas City metro area. The City will review trends in water quality attitude awareness reflected in MARC's biannual survey.

2. Public Involvement in Stormwater Management Program Development

2.1 Regulatory Requirement

> **40 CFR 122.34 (b)(2) -At a minimum, comply with state, tribal, and local public notice requirements when implementing a public involvement/participation program. *EPA recommends that the public be included in developing, implementing, and reviewing your stormwater management program and that the public participation process should make efforts to reach out and engage all economic and ethnic groups.***

Section 4.2.2.1 of the Missouri general permit for small municipal separate storm sewer systems ("Permit") requires that the City implement a public participation/involvement program that complies with State and local public notice requirements, and involves the public in the development and oversight of the SWMP, policies and procedures. This section describes the program elements intended to meet this requirement.

2.2 Selected BMPs for Public Involvement

Section 4.2.2.1.3 requires the City to describe the types of public involvement activities included in the program. Specific BMPs selected for this minimum control measure include:

2.2.1 Encourage local public participation in the Mid-America Regional Council's (MARC) water quality programs.

The City of Excelsior Springs has selected encouragement of local public participation in the MARC water quality programs for implementation as part of this Stormwater Management Program. This BMP will allow the City to leverage their paid membership in MARC to better meet their SWMP goals. Information on activities citizens and businesses can participate in through the MARC program will be disseminated through the channels described in Section 1.4.

The measurable goal for implementation of this BMP is to have information about participation in MARC sponsored programs available at City Hall, the Library, and on the web site while directing the public to this information through press releases and utility bill announcements. See Section 1.4 for details.

2.2.2 Invite public input through existing meetings

City of Excelsior Springs has selected inviting public input through existing mechanisms for implementation as part of this Stormwater Management Program. This BMP allows public involvement and participation to be integrated into existing activities through open public comment at the City

Council meetings and discussion of development and redevelopment issues as they relate to stormwater at the Planning and Zoning hearings. The draft SWMP will be presented at a City Council meeting (and posted to the City web site) in order to request public comment on the plan. The number of inputs received through these mechanisms will be reported annually.

2.2.3 Work with community groups to perform stormwater quality related activities.

City of Excelsior Springs has selected working with community groups to perform stormwater quality related activities for implementation as part of this Stormwater Management Program. This BMP allows for direct public involvement and participation in program implementation. The City will do at least one activity each year with volunteers from community groups. The City will look for ways that citizen volunteers can educate others in the course of these activities.

2.2.4 Receipt of information from the public

City of Excelsior Springs has selected receipt of information from the public for implementation as part of this Stormwater Management Program. This includes information collected in phone calls, emails, letters or walk-in verbal information.

The City has included policies and procedures related to the collection of public input in their Enforcement Response Plan.

2.2.5 Public attitude survey

MARC performs a public attitude survey throughout the Kansas City metropolitan area approximately biannually. The City of Excelsior Springs will review the results of these surveys as they are available as part of this Stormwater Management Program.

2.3 Evaluation of Public Involvement Program

Section 4.2.2.1.5 of the Permit requires the City to develop a plan to evaluate the success of this minimum control measure. The City of Excelsior Springs will attempt to capture metrics related to the success of their public involvement program. These metrics will be reported in their annual reports. These might include the number of public meetings where stormwater issues were discussed, the number of stormwater issues submitted via any avenue (web, phone, written, in person), the number of volunteers involved in the program, etc.

3. Illicit Discharge Detection and Elimination

3.1 Regulatory Requirement

40 CFR 122.34 (b)(3) -Develop, implement, and enforce a program to detect and eliminate illicit discharges into your small MS4. Develop a storm sewer system map, showing the location of all outfalls and the names and locations of all water of the U.S. that receive discharges from those outfalls. To the extent allowable under state, tribal or local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-stormwater discharges into your storm sewer system and implement appropriate enforcement procedures and actions. Develop and implement a plan to detect and address non-stormwater discharges including illegal dumping to your system. Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste. Address categories listed in 122.34(b)(3)(D)(iii) if you determine they are significant contributors of pollutants to MS4.

Section 4.2.3.1 of the Missouri general permit for small municipal separate storm sewer systems ("Permit") requires that the City develop, implement and enforce a program to detect and eliminate illicit discharges (as defined in 10 CSR 20-6.200) into the City's regulated small MS4.

3.2 Selected BMPs for Illicit Discharge Detection and Elimination

3.2.1 Storm Sewer Map

Section 4.2.3.1.1 of the Permit requires the City of Excelsior Springs to develop a storm sewer map, showing the location of all outfalls and the names and locations of all water of the U.S. that receive discharges from those outfalls. The City has developed this map. It is GIS-based and integrates additional GIS data such as aerial photography, contour data, etc. This information was originally collected in 2007 by City staff and incorporated into the GIS by Shafer, Kline and Warren.

The GIS data is reviewed and updated as new additions to the MS4 are constructed. Additionally, corrections are made whenever a discrepancy is discovered in the field.

3.2.2 Illicit Discharge Ordinance

Section 4.2.3.1.2 of the Permit requires the City of Excelsior Springs to effectively prohibit, through ordinance, or other regulatory mechanism, non-storm water discharges into their storm sewer system and implement

appropriate enforcement procedures and actions. The City passed the illicit discharge detection and elimination ordinance on May 5, 2008. The City Code, Sections 407-160 through 407-200 relate to this minimum control measure. Section 407-170 is related to discharge and connection prohibitions. And Section 407-180 is related to the requirements related to the notification of spills. Copies of the code can be found on the City's web site. During the permit cycle, the ordinance will be reviewed to determine if any updates are needed.

3.2.3 Program to Detect and Address Illicit Discharges

Section 4.2.3.1.3 of the Permit requires the City of Excelsior Springs to develop a plan and implementation schedule to detect and address non-storm water discharges, including discharges from illegal dumping and spills, to the City's system. The plan must include dry weather field screening for non-storm water flows and field tests of selected chemical parameters as indicators of discharge sources. The plan shall also address on-site sewage disposal systems that flow into the City's storm drainage system.

The City of Excelsior Springs has identified priority areas for investigations, developed a methodology and determined locations for dry weather field screening, performed dry weather field screening, developed written procedures and techniques to detect and investigate sources of illicit discharges, prepared a written IDDE response plan, and evaluated the effectiveness of the IDDE program. See additional details below:

3.2.3.1 Identification of Priority Areas (per Section 4.2.3.1.3.1 of the Permit)

The City of Excelsior Springs has identified three broad source categories of potential illicit discharges. These are industrial, commercial and residential. The industrial category is a priority because of the higher concentrations of pollutants that may be handled and stored at an industrial site. However, many industrial locations have their own NPDES discharge permits. The City is not currently required to perform the compliance inspections on these permits. Commercial areas are a priority because of the potential for high concentrations of vehicle-related pollutants that accumulate on and around parking lots. Some commercial businesses can also handle and store larger amounts of potential pollutants outside or near doors (such as service stations, home improvement stores, etc.). Residential areas are priority areas because of the use of lawn and pest control chemicals, pet waste, owner vehicle maintenance (washing and "shade tree" mechanics), and home improvements (painting).

While each category has pollutants of concern, each and every outfall from each of these areas would be cumbersome and prohibitive to inspect. As the contributing watershed area increases, the higher the

likelihood is of finding a significant illicit discharge. Therefore, priority areas for screening will be representative of each of these categories with the majority at the end of an enclosed system resulting in at least a 36" pipe. This methodology carries over to the identification of locations for dry weather field screening discussed below.

3.2.3.2 Dry Weather Field Screening

Dry weather field screening is defined as a visual inspection of the location to determine if illicit discharges exist or have occurred in the recent past. If an illicit discharge is present at the time of inspection, the enforcement response plan will be utilized to investigate the source and remove the discharge. If one is not present, the inspector simply documents the condition of the outfall and makes any notes for follow up actions. If an outfall consistently falls in this latter category, the City may choose to discontinue the inspection of this location.

Following the prioritization concepts outlined in 3.2.3.1, City staff and their stormwater consultant reviewed the major outfalls listed in the MS4 permit. For each of these, the contributing watershed area was reviewed for the land use. Larger watersheds were further broken down into subwatersheds. The end of the enclosed system above open channels is the inspection location where the contributing drainage area is large enough to be representative of a priority area.

Upon completion of this exercise, 31 screening locations were selected for initial dry weather field screening. The notes documenting the selection process are available from the City Stormwater Coordinator. The locations were mapped in the GIS in 2012. Inspections began in Spring 2010 and each site is inspected on an annual basis. Records of these inspections are kept in the Stormwater Coordinator's office. A summary of these inspections will be reported annually.

3.2.3.3 Written Procedures and Techniques for Detecting and Tracing Sources of Illicit Discharges (per Section 4.2.3.1.3.2 of the Permit)

The City of Excelsior Springs developed written procedures and techniques for detecting the sources of illicit discharges. These can be described in two broad categories: transient discharges and recurring discharges. Transient discharges may be discovered through complaints or by city employees performing other routine duties. Recurring discharges may be located through dry weather field screening, complaints from neighbors or through discovery by city employees performing other routine duties.

Regardless of the method of discovery, the investigation will move forward by tracing the discharge to its point of origin utilizing the GIS map of the stormwater conveyance system. Once the investigator establishes the point of origin, he/she will need to determine if the

discharge is an imminent threat to the public's health, safety and welfare. Imminent threats will need to be contained by the appropriate personnel. Depending on the nature of the pollutant, this may be the Hazmat team from the Fire Department or Public Works staff. This may include emergency removal of access to the MS4.

Once an emergency response has been handled, the investigator will attempt to determine the responsible party. In some cases, such as dumping, a responsible party may not be determined. Public education in the area may be the only available response to these events. When a responsible party can be determined and the party is willing and able to remediate the problem immediately, the only follow up action required will be a reinspection of the outfall after the cleanup. If the responsible party is not willing or able to remediate the problem immediately, the inspector shall issue a notice of violation outlining the required actions, alternatives and consequences of inaction as set forth in the illicit discharge ordinance.

3.2.3.4 Enforcement Response Policies and Procedures
(per Section 4.2.3.1.3.3 and 4.2.3.4.3.4 of the Permit)

The City of Excelsior Springs developed an IDDE plan. This plan includes policies and procedures for investigating and removing illicit discharges. A copy of the IDDE plan is located in the Stormwater Coordinator's office.

3.2.4 Public Education on Illegal Discharges and Improper Disposal
(per Section 4.2.3.1.3.5 of the Permit)

The City of Excelsior Springs developed a public education effort to inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste. (This BMP also addresses the minimum control measure for public education.)

The City of Excelsior Springs acquired public education materials and distributes them to the appropriate target audiences. City employees are given specific instructions on how to report signs of illicit discharge. See Section 1.4 for additional details.

3.2.5 Investigate cross-connection of sanitary and storm sewer systems

The City of Excelsior Springs will continue to investigate cross-connection of the sanitary and storm sewer systems through CCTV inspection.

The City of Excelsior Springs developed a prioritization for investigation for cross-connections in conjunction with the wastewater program utilizing all the resources available for inspection.

3.2.6 Continue Household Hazardous Waste (HHW) Collection Program

The City of Excelsior Springs will continue to encourage its citizens to participate in the HHW collection program. This program currently allows for local dropoff biannually, but citizens may also drive to other communities within the Kansas City metro area and dropoff at a variety of times. The public education program will further advertise these options for proper disposal of HHW.

The City of Excelsior Springs will document the collection activities and report annually as applicable.

3.2.7 Storm drain marking program

The City of Excelsior Springs will continue to work with community groups to stencil existing stormwater inlets with "Dump No Waste, Drains to Stream".

The number of inlets stenciled will be reported annually.

3.2.8 Receipt of information from the public

See Section 2.2.5

3.2.9 Addressing Non-Stormwater Flows
(per Section 4.2.3.1.4 of the Permit)

The City of Excelsior Springs does not currently see the need to address the following non-stormwater flows into their MS4: landscape irrigation, rising ground waters, uncontaminated ground water infiltration, uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, springs, water from crawl space pumps, footing drains, lawn watering, flows from riparian habitats and wetlands, flows from street wash water, and flows from emergency fire fighting activities. These flows are not considered significant contributors of pollutants to the MS4.

3.2.10 Addressing Incidental Non-Stormwater Flows
(per Section 4.2.3.1.5 of the Permit)

The City of Excelsior Springs does not currently see the need to address incidental non-stormwater flows into their MS4 (such as non-commercial or charity car washes). These flows are not considered significant contributors of pollutants to the MS4.

3.2.11 Inventory and Inspection of Industrial/Commercial Facilities

Section 4.2.3.1.6 of the Permit states that the City "should inventory, inspect and have enforcement authority for industries and commercial enterprises within their boundary that may contribute pollutants via storm

water to the MS4." The City of Excelsior Springs is not currently required to inventory and inspect industrial or commercial facilities. However, the illicit discharge ordinance gives them the authority to do so if this becomes a permit requirement.

3.3 Evaluation of Illicit Discharge Detection and Elimination Program

Section 4.2.3.1.3.6 of the Permit requires the City to develop a plan for program evaluation and assessment of this minimum control measure. The City of Excelsior Springs will attempt to capture metrics related to the success of their illicit discharge detection and elimination program. These metrics will be reported in their annual reports. These might include the number of outfalls screened, number of illicit discharge reports received and investigated, the number of enforcement actions taken, the number of illicit discharges removed and/or remediated, the number of sanitary and storm sewer lines inspected with CCTV, etc.

4. Construction Site Stormwater Controls

4.1 Regulatory Requirement

40 CFR 122.34 (b)(4) -Develop, implement and enforce a program to reduce pollutants in any Stormwater runoff to your small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Program must include: the development and implementation of (at a minimum) and ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, requirements for construction site operators to implement appropriated erosion and sediment control BMPs, requirements for construction site operators to control waste at the construction site, procedures for site plan review which incorporate consideration of potential water quality impacts, procedures for receipt and consideration of information submitted by the public.

Section 4.2.4.1 of the Missouri general permit for small municipal separate storm sewer systems ("Permit") requires that the City develop, implement, and enforce a program to reduce pollutants in any storm water runoff to their regulated small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of storm water discharges from construction activity disturbing less than one acre shall be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more.

4.2 Selected BMPs for Construction Site Stormwater Controls

4.2.1 Construction Site Runoff Control Ordinances
(per Section 4.2.4.1.1)

The City of Excelsior Springs passed an erosion and sediment control ordinance on May 5, 2008. The ordinance sets forth land disturbance permitting requirement for any development project. It also has requirements for notification of the City staff at various stages of construction and an enforcement procedure. The code also referenced the design standards. A copy of this code can be found on the City's web site.

During the first year of the permit cycle, the ordinance will be reviewed to determine its effectiveness and if any additional changes are needed. It is

expected that modifications will be made to clarify the mandate of a SWPPP that meets the Missouri General Permit requirements. The ordinance will also be reviewed if any changes to the Missouri General Permit are made during the term of the MS4 permit.

4.2.2 Construction Site Waste Control Requirements (per Section 4.2.4.1.2)

The City of Excelsior Springs recently reviewed its Construction Site Runoff Control ordinance and determined there was no specific requirements related to non-sediment construction site waste control. The City's stormwater consultant provided draft language to be incorporated into the existing ordinance to address this issue. The amendment to the ordinance will be completed in the first year of the permit cycle.

At least once during the permit cycle, the ordinance will be reviewed to determine its effectiveness and if any additional changes are needed. The ordinance will also be reviewed if any changes to the Missouri General Permit are made during the term of the MS4 permit.

4.2.3 Pre-Construction Plan Review

Section 4.2.4.1.3 of the Permit requires the City to develop procedures to consider and review all pre-construction site plans for potential water quality impacts.

The measurable goal for implementation of construction plan review is to complete the reviews of new and redevelopment projects disturbing more than one acre in a timely manner ensuring that selected BMPs are appropriate for the site. This is an ongoing program. The number of plans reviewed will be documented annually.

The City contracts with an engineering firm for the plan reviews on all projects. The consultant follows established procedures (via checklist) for plan review. At least once during the permit cycle, these procedures will be reviewed to determine if any additional changes are needed.

4.2.4 Public Education on Construction Site Stormwater Control Requirements

The City includes education on construction site runoff control as a component of their general public education program. (This BMP also addresses the minimum control measure for public education.)

The City of Excelsior Springs acquired public education materials and distributes them according to goals set forth in Section 1.4. Target audiences will include developers and contractors. Also, City staff receives training in proper inspection techniques for erosion and sediment control. Staff will continue to seek opportunities for education in this area.

4.2.5 Receive public input on proposed and current construction projects

Section 4.2.4.1.4 of the Permit requires the City to develop procedures to receive and consider information submitted by the public, including coordination with the City's public education program. This BMP coordinates with MCM #2 and can be integrated into existing activities through receipt of information from the public at the existing Planning and Zoning hearings and City Council meetings. Additional input can be received less formally through the City web site and at the designated phone number and mailing address.

The measurable goal for implementation of receiving public input on proposed and current construction projects is to log the receipt of this information, respond within 1 business day where applicable and to document any complaint inspection or enforcement actions taken.

4.2.6 Maintain design criteria, standard details and specifications for BMPs in City standards

City of Excelsior Springs has selected utilization of design criteria, standard details and specifications for BMPs for implementation as part of this Stormwater Management Program.

The measurable goal for implementation of this BMP is to review existing design criteria, standard details and specifications in the first, third and fifth year of the permit cycle to ensure that any new technologies or practices are included.

4.2.7 Construction Site Inspections

Section 4.2.4.1.5 of the Permit requires the City to develop procedures to inspect sites and enforce control measures, including prioritization of site inspections.

The measurable goal for implementation of construction site inspections is for all new and re-development projects to be inspected at least monthly ensuring that selected BMPs are installed and functioning at the site. This is an ongoing program. The number of inspections completed will be documented annually.

The City inspector follows established procedures (via checklist) for site inspections. All inspections will be documented in PermitrackESC.

4.2.8 Plan to Ensure Compliance

Section 4.2.4.1.6 of the Permit requires the City to develop a plan to ensure compliance with the ordinance, including the sanctions and enforcement mechanisms the City will use to ensure compliance and

procedures for when certain sanctions will be used. Section 407-280 of the City Code has enforcement procedures including escalation of enforcement based on the number and types of violations.

At least once during the permit cycle, the ordinance will be reviewed to determine its effectiveness and if any additional changes are needed. They will also be reviewed if any changes to the Missouri General Permit are made during the term of the MS4 permit.

4.3 Evaluation of Construction Site Runoff Control Program

Section 4.2.4.1.7 of the Permit requires the City to describe how they will evaluate the success of this minimum control measure. The City of Excelsior Springs will capture metrics related to the success of their construction site runoff control program. These metrics will be reported in their annual reports. These metrics include the number of construction plans reviewed, the number of inspections conducted and the number of enforcement actions taken.

5. Post Construction Stormwater Management for New Development/ Redevelopment

5.1 Regulatory Requirement

40 CFR 122.34 (b)(5) –Develop, implement and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects that are less than one acre that are part of a larger common plan of development or sale, that discharge into your small MS4. Develop and implement strategies which include a combination of structural and/or non-structural BMPs appropriate for your community. Use an ordinance or other regulatory mechanism to address post-construction runoff. Ensure adequate long-term operation and maintenance of BMPs.

Section 4.2.5.1 of the Missouri general permit for small municipal separate storm sewer systems ("Permit") requires that the City develop, implement, and enforce a program to address the quality of long-term storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the City's regulated small MS4. The City's program shall ensure that controls are in place that have been designed and implemented to prevent or minimize water quality impacts by reasonably mimicking pre-construction runoff conditions on all affected new development projects and by effectively utilizing water quality strategies and technologies on all affected redevelopment projects, to the maximum extent practicable. The City shall assess site characteristics at the beginning of the construction design phase to ensure adequate planning for storm water program compliance. The purpose for this approach is to arrive at designs and practices that provide for most effective water quality treatment through infiltration, flow rates and similar site-design opportunities.

5.2 Priority Areas for Post-Construction Program

Section 4.2.5.1.4 of the Permit requires the City of Excelsior Springs to specify priority areas for this program. The City considers any area that may be developed or re-developed a "priority area" for the post-construction stormwater management program. The closer that the site is to a perennial or intermittent stream and/or wetland, the higher the priority within the program. Additionally, large tracts of undeveloped or agricultural land that may become developed in the near future (near the bleeding edge of the more suburban land uses), are of particular concern.

5.3 Selected BMPs for Post Construction Stormwater Management for New Development/Redevelopment

Per Section 4.2.5.1.1 of the Permit, the City of Excelsior Springs is working toward a strategy to minimize water quality impacts of new and redevelopment (disturbing greater than one acre) by reasonably mimicking pre-development condition to the maximum extent practicable. This plan includes the following structural and non-structural Best Management Practices:

5.3.1 Post-Construction Ordinance

Section 4.2.5.1.2 of the Permit requires the City of Excelsior Springs to develop an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State, or local law. The City of Excelsior Springs passed a stormwater ordinance on May 5, 2008. The ordinance included a requirement for control of the peak discharge rate of stormwater on any new developments to the pre-development rate. In addition, the City adopted the KC APWA Section 5600 Stormwater Design Criteria.

During the first year of the permit cycle, the ordinance will be reviewed and amendments made to better address the permit requirement for post-development runoff to mimic the pre-development condition. It is expected that the revision will include the adoption of the latest edition of the MARC Manual of Best Management Practices for Stormwater Quality (October 2012). This manual outlines the treatment of the water quality volume (defined as the "...storage required to capture and treat 90 percent of the average annual stormwater runoff volume." The manual provides extensive information to developers regarding the design and implementation of a variety of non-structural (per permit requirement 4.2.5.1.5) and structural (per permit requirement 4.2.5.1.6) post-construction BMPs.

The revision to the ordinance will indicate a mandate that the water quality volume be treated to a level of service commensurate with the type of development (ie. new or redevelopment). The City will also review existing ordinances and standards that may conflict with the post-construction requirements and make modifications as necessary.

The revisions of the ordinance will likely require a revamping of the pre-construction plan review process. This will be coordinated with the contract plan review engineer. As the MARC manual is fairly consistently used throughout the metro area, this shouldn't be a significant burden for the review engineer to implement.

The City of Excelsior Springs will utilize information in the Missouri Guide to Green Infrastructure to ensure that the permit requirements are met by these revisions to the ordinance, design standards and plan review process.

5.3.2 Stream Buffer Requirements

The City of Excelsior Springs passed a stormwater ordinance on May 5, 2008. The ordinance included a requirement for stream buffers on any development platted after May 10, 2008. The ordinance will be reviewed once during the permit cycle to evaluate any needed amendments.

5.3.3 Open Space Requirements

The City of Excelsior Springs will continue to re-evaluate the effectiveness of their open space requirements. Planning staff will be integrally involved with the decision-making process.

5.3.4 Wetland Protection

The stormwater ordinance passed on May 5, 2008, prohibits the disturbance of wetlands except as allowed within the chapter. The City cooperates with the Army Corps of Engineers regulation of jurisdictional wetlands. The site plan requirements set forth in the APWA standards requires the identification of wetlands on any proposed development plans. During the first year of the permit cycle, the stormwater ordinance will be reviewed to determine if any amendments to the ordinance are necessary to provide more comprehensive wetland protection.

5.3.5 City Comprehensive Plan

The City's Comprehensive Plan will be reviewed each permit cycle to verify it reflects current water quality policies and goals.

5.3.6 Ensure ongoing effectiveness of existing and future post-construction structural BMPs

Section 4.2.5.1.3 of the Permit requires the City of Excelsior Springs to have a plan to ensure adequate long-term operation and maintenance of selected BMPs, including types of agreements between the City and other parties such as the post-development landowners or regional authorities.

The City of Excelsior Springs passed a stormwater ordinance on May 5, 2008. This ordinance included specific requirements for owners of BMP's related to ongoing operation and maintenance. These requirements can be found in Section 407.120(B) of the City Code. During the first year of the permit cycle, this ordinance will be reviewed and any necessary amendments made.

The City utilizes an inspection checklist for inspection of the existing detention basins. Currently, there are no other types of post-construction BMPs within the MS4 jurisdictional area. The unwritten policy is that these basins are inspected annually with the records kept in the Stormwater Coordinator's office.

However, the City of Excelsior Springs has not developed a comprehensive written policy and procedure for the inspection of post-construction best management practices. This document will be developed in the first year of the permit cycle and thereafter be available in the Stormwater Coordinator's office. Generally, it will require annual inspections of the BMPs and outline what the inspector will look for based on the type of BMP being inspected.

All inspections will be documented on a written form with sufficient photographs attached. A summary of these inspections and any resulting enforcement actions taken will be provided annually.

5.4 Evaluation of Post-Construction Stormwater Management Program

Section 4.2.5.1.7 of the Permit requires the City to describe how they will evaluate the success of this minimum control measure. The City of Excelsior Springs will capture metrics related to the success of their post-construction stormwater management program. These metrics will be reported in their annual reports. These metrics include the number of post-construction plans reviewed, the number of post-construction BMP inspections conducted and the number of enforcement actions taken.

6. Pollution Prevention/Good Housekeeping for Municipal Operations

6.1 Regulatory Requirement

> **40 CFR 122.34 (b)(6) 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.**

Section 4.2.6.1 of the Missouri general permit for small municipal separate storm sewer systems ("Permit") requires that the City 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.

6.2 Municipal Operations

Section 4.2.6.1.1 of the Permit requires the City to list of all municipal operations that are impacted by this operation and maintenance program. The City shall also include a list of industrial facilities the City owns or operates that are subject to NPDES permits for discharges of storm water associated with industrial activity that ultimately discharge to their MS4. The City shall include the permit number or a copy of the industrial application form for each facility.

The City has created a list of municipal operations that are relevant to the MS4 program. This list includes: street, sidewalk and parking lot operation and maintenance (including maintenance yards and salt/sand storage); storm sewer operation and maintenance; wastewater treatment; wastewater collection system operation and maintenance; potable water treatment; potable water distribution system operation and maintenance; parks operation and maintenance; maintenance of city buildings and other facilities; fire department field operations; police department field operations; municipal airport operation; and all city vehicle and equipment maintenance. This document is available in the Stormwater Coordinator's office.

6.3 Selected BMPs for Municipal Operations

6.3.1 Maintenance BMPs, schedules and inspection procedures for MS4

Section 4.2.6.1.2 of the Permit requires the City of Excelsior Springs to identify maintenance BMPs, maintenance schedules, and long-term inspection procedures for controls to reduce floatables and other pollutants to the City's regulated small MS4.

The City of Excelsior Springs has established Standard Operating Procedures (SOPs) related to the inspection and maintenance of its MS4. These SOPs include:

- Catch Basin/Storm Drain System/Outfall Repair
- Catch Basin/Inlet Cleaning
- Vactor Truck Waste Handling/Storage
- Erosion and Sediment Control
- Illicit Discharge Detection and Elimination

Metrics related to these municipal operations will be tracked and reported on annually. Catch basin/inlet inspections and cleaning will be tracked by the number of inlets inspected and reported for cleaning each year.

6.3.2 Pollution control for streets/parking lots

Section 4.2.6.1.3 of the Permit requires the City of Excelsior Springs to implement controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots.

The City of Excelsior Springs has established SOPs related to the control of pollutants generated on publicly owned streets and parking lots. These SOPs include:

- Street Sweeping
- Salt/Sand Storage and Application

Metrics related to these municipal operations will be tracked and reported on annually. Street sweeping will be tracked by the number of lane miles swept each year.

6.3.3 Pollution control for maintenance/storage yards, waste transfer stations, fleet and maintenance shop, outdoor storage, salt/sand storage

Section 4.2.6.1.3 of the Permit also requires the City of Excelsior Springs to implement controls for reducing or eliminating the discharge of pollutants from maintenance and storage yards, waste transfer stations, fleet and maintenance shop, outdoor storage, salt/sand storage areas. The City of Excelsior Springs has established Standard Operating Procedures (SOPs) related to the pollution control from municipal maintenance facilities. These SOPs include:

- Good Housekeeping (General SOP)
- Building Maintenance
- Vehicle/Equipment Storage
- Vehicle/Equipment Washing
- Salt/Sand Storage and Application
- Weed and Pest Control
- Mowing and Irrigation

The following facilities will have a site-specific SWPPP developed in the first permit year that will include the applicable SOPs. The SWPPP will also

identify areas with pollution potential and inspections sheets for the facility. Each site will be inspected annually for pollution control issues:

- Public Works (103 E. Water Street/1300 S. Marietta)
- Golf Course (1201 E. Golfhill Drive)

Inspections and activities related to the control of pollutants from City-owned maintenance facilities will be reported annually.

6.3.4 Solid waste control

Section 4.1.5 of the Permit requires the City of Excelsior Springs to implement good housekeeping practices at facilities under their control in order to keep solid waste from entry into waters of the state to the maximum extent practicable.

The City of Excelsior Springs has established Standard Operating Procedures (SOPs) related to solid waste control/garbage handling. These SOPs direct employees to manage solid waste through proper collection, storage and disposal of waste materials.

6.3.5 Fueling facilities

Section 4.1.6 of the Permit requires the City of Excelsior Springs to adhere to applicable federal and state regulations concerning underground storage, above ground storage, and dispensers, including spill prevention, control and counter measures at all fueling facilities under their control. The City of Excelsior Springs has established Standard Operating Procedures (SOPs) related to pollution prevention as it relates to fueling of City vehicles and equipment.

Fueling operations generally take place at the following locations:

- Public Works (1300 S. Marietta): 1 – 12,000 gallon underground diesel tank, 1 – 12,000 gallon underground gasoline tank; SPCC in place
- Golf Course (1201 E. Golfhill Drive): 1 – 500 gallon above ground diesel tank; 2 – 500 gallon above ground gasoline tanks; SPCC may need to be developed during first permit year if one cannot be located
- Airport (1203 E. Golfhill Drive): 1 – 3000 gallon (double wall tank) high octane fuel for airplanes; SPCC may need to be developed during first permit year if one cannot be located

6.3.6 RCRA/CERCLA substances

Section 4.1.7 of the Permit requires the City of Excelsior Springs to manage all substances regulated by federal law under the Resource Conservation and Recovery Act (RCRA) or the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) that are transported, stored, or used for maintenance, cleaning or repair by the City according to the provisions of RCRA and CERCLA.

The City of Excelsior Springs has established Standard Operating Procedures (SOPs) related to management of materials that fall under the RCRA and CERCLA standards.

6.3.7 Paints/Solvents/Petroleum/Petroleum Waste Products (besides fuel)

Section 4.1.8 of the Permit requires the City of Excelsior Springs to store all paints, solvents, petroleum products and petroleum waste products under their control so that these materials are not exposed to storm water. Sufficient practices of spill prevention, control, and/or management will be provided to prevent any spills of these pollutants from entering a water of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater.

The City of Excelsior Springs has established Standard Operating Procedures (SOPs) related to the management of paints, solvents and non-fuel petroleum products (including waste products). These SOPs include:

- Painting
- Parts Cleaning and Storage
- Petroleum and Chemical Handling, Storage and Disposal
- Spill Prevention and Control

6.3.8 Procedures for proper disposal of waste removed from MS4

Section 4.2.6.1.5 of the Permit requires the City to adopt procedures for the proper disposal of waste removed from the City's MS4 and area of jurisdiction, including dredged material, accumulated sediments, floatables, and other debris.

The City of Excelsior Springs has established Standard Operating Procedures (SOPs) related to the proper disposal of waste removed from the MS4. These SOPs are covered in the Garbage Handling/Storage and Vactor Truck Waste Handling/Storage.

6.3.9 Procedures to ensure flood control projects are evaluated for water quality impacts and existing projects are assessed for retrofit

Section 4.2.6.1.6 of the Permit requires the City of Excelsior Springs to adopt procedures to ensure that new flood management projects are assessed for impacts on water quality and existing projects are assessed for incorporation of additional water quality protection devices or practice.

The City of Excelsior Springs has a procedure to ensure new flood management projects are assessed for impacts on water quality and existing projects are assessed for incorporation of additional water quality protection devices or practices. New flood management projects completed by private developers must follow the MARC BMP Manual which requires the treatment of the water quality storm (aka "first flush"). The contract review engineer determines whether or not the development plans submitted accomplish this goal. The City of Excelsior Springs rarely completes new flood management projects. However, in the event that one is scheduled on the capital projects list, the engineer hired to design such a project will be required to review the plans to determine if the water quality storm has been effectively treated.

The City has developed a list of existing flood control projects (detention basins). At this time, all of these projects are privately owned and there is no enforcement mechanism to require retrofitting unless a redevelopment occurs in the contributing watershed. However, when such a redevelopment occurs, treatment of the water quality storm will be required.

6.3.10 Employee training program

Section 4.2.6.1.7 of the Permit requires the City of Excelsior Springs to implement a government employee training program to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance. The City shall describe any existing, available materials it plans to use such as those available from EPA, State or other organizations. The City shall describe how this training program will be coordinated with the outreach programs developed for the public information minimum measure and the illicit discharge minimum measure.

The City of Excelsior Springs has a policy and procedure for employee training. A copy of this document can be found in the Stormwater Coordinator's office. It outlines how employees will receive initial training, ongoing public education, training related to specific standard operating procedures, and training on specialized tasks (such as inspection and enforcement for selected staff).

The annual report will contain a summary of training received by City employees each year.

6.4 Evaluation of Good Housekeeping Program

Section 4.2.6.1.8 of the Permit requires the City to describe how they will evaluate the success of this minimum control measure. The City of Excelsior Springs will capture metrics related to the success of their good housekeeping in municipal operations program. These metrics will be reported in their annual reports. These metrics include the number of lane miles of street swept, number of catch basins inspected/cleaned, the number of employees trained and the type of training received, the lineal feet of sanitary and storm sewers inspected with CCTV, etc.

7. General Rationale

7.1 Decision Process

Section 4.1.9 of the Permit requires the City to document the decision process for each minimum control measure and include rationale statements for each BMP and measurable goal defined. Excelsior Springs reviewed the General Permit requirements and selected each of the BMPs after reviewing research from notable sources such as the EPA and the Center for Watershed Protection. Programs from other communities were also examined. Various BMPs were selected based on the evidence that they will have a positive impact on targeted pollutants. City also examined each BMP for how it could fit into existing activities and mechanisms. The SWMP will be made available for public inspection and comment upon completion.

7.2 Responsible Person

Section 4.1.3 of the Permit requires the City to identify the person primarily responsible for the SWMP, and the person(s) responsible for each minimum control measure if different from the primary responsible person. The person responsible for the overall management and implementation of the permittee's stormwater management program is the Public Works Director. He currently delegates a lot of the daily operations of the program to the Stormwater Coordinator. Others will be involved in the execution of each of the individual activities in the program.

7.3 Evaluation

The City of Excelsior Springs will report annually on the level of achievement toward all measurable goals. Where applicable, metrics will be documented. Qualitative anecdotal evidence will also be documented where possible. Additionally, MARC performs a biannual water quality survey that is funded through their water quality program membership that can serve as a measurement in the change of the public's attitudes and behaviors.

7.4 Modifications and Updates

The City of Excelsior Springs understands that this plan is intended to be a "living document" with measurable goals and objectives. However, it is difficult to speculate the resources that will be available from year to year. Therefore, the annual report will provide an opportunity to improve the specificity of the goals and objectives set forth in more general terms within this plan. Each year, the annual report will include details of the progress made under each minimum control measure as well as details of the proposed activities for the coming year towards each goal. The annual reports will be added as appendices to this plan and act as interim updates as such.

8. Implementation Schedule Summary

Minimum Control Measure #1 – Public Outreach and Education

BMP	Responsible Party	Schedule
MARC Water Quality Program	Stormwater Coordinator	Ongoing – Annual payment due each February
Brochures	Stormwater Coordinator	Ongoing – Restock golf course, library & Hall of Waters
Press Releases	Stormwater Coordinator	Ongoing – Issue at least 2x/year
Public Access Television	Stormwater Coordinator	Ongoing – Post information at least 2x/year
Public Presentations	Stormwater Coordinator	Ongoing – At least 2x/year
Direct Mail to Target Audiences	Stormwater Coordinator	Ongoing – At least 1x/year
Household Hazardous Waste Program Information	Stormwater Coordinator	Ongoing – Publish information about biannual events
Dog Waste Disposal Program Signage	Stormwater Coordinator/Parks Maintenance Supervisor	Ongoing – Maintain signs and replace if damaged or removed
Social Media	Stormwater Coordinator	Ongoing – Post information to social media (ie. Facebook, Twitter, etc.) at least 2x/year
Evaluation of MCM #1 Program	Stormwater Coordinator/SW Consultant	Ongoing – Complete evaluation and include in annual report

Minimum Control Measure #2 – Public Involvement

BMP	Responsible Party	Schedule
Encourage Local Participation in MARC Water Quality Programs	Stormwater Coordinator	Ongoing – Include information as part of MCM #1
Invite Input through Existing Meetings (w/ Public Notice)	Stormwater Coordinator/City Council/ Planning and Zoning	Ongoing – All Council Meetings and P&Z Hearings – Provide annual summary of input received
Community Group Activities	Stormwater Coordinator	Ongoing – Provide annual summary of volunteer activities
Information From Public	Stormwater Coordinator	Ongoing – Provide annual summary of information received

MARC Public Attitude Survey	Stormwater Coordinator/MARC Water Quality Committee	Approximately Biannual – Review findings of water quality survey conducted by MARC
Evaluation of MCM #2 Program	Stormwater Coordinator/SW Consultant	Ongoing – Complete evaluation and include in annual report

Minimum Control Measure #3 – Illicit Discharge Detection and Elimination

BMP	Responsible Party	Schedule
Storm Sewer Map	Stormwater Coordinator/GIS Coordinator	Ongoing – Updated as new construction occurs or when discrepancies discovered
IDDE Ordinance	Stormwater Coordinator/SW Consultant	Ongoing – Review at end of permit cycle
Priority Areas Identified	Stormwater Coordinator	Completed – Review at end of permit cycle
Dry Weather Field Screening	Stormwater Coordinator	Ongoing – Annually
Procedures for Detecting and Tracing Illicit Discharges	Stormwater Coordinator/SW Consultant	Completed – Review at end of permit cycle
Enforcement Response Plan	Stormwater Coordinator/SW Consultant	Completed – Review at end of permit cycle
Public Education on IDDE	Stormwater Coordinator	Ongoing – Part of MCM #1
Investigate Cross-Connection with Sanitary Sewers (CCTV)	Stormwater Coordinator/Wastewater Collections Supervisor	Ongoing – Report on footage inspected annually
HHW Program	Stormwater Coordinator	Ongoing – Biannual collection
Storm Drain Stenciling	Stormwater Coordinator	Ongoing – Report on annual number of storm drains stenciled
IDDE Information from Public	Stormwater Coordinator	Ongoing – Part of MCM #2
Addressing Non-Stormwater Flows	Stormwater Coordinator/SW Consultant	Ongoing – Review need (or lack thereof) to address these flows at the end of the permit cycle
Addressing Incidental Non-Stormwater Flows	Stormwater Coordinator/SW Consultant	Ongoing – Review need (or lack thereof) to address these flows at the end of the permit cycle
Commercial/Industrial Facilities Inventory and	Stormwater Coordinator	Not required at this time – Review need for this at the

Inspections		end of the permit cycle
Evaluation of MCM #3 Program	Stormwater Coordinator/SW Consultant	Ongoing – Complete evaluation and include in annual report

Minimum Control Measure #4 – Construction Site Runoff Control

BMP	Responsible Party	Schedule
Construction Site Runoff Control Ordinance	Stormwater Coordinator/SW Consultant	Ongoing – Review/amend year one and at the end of the permit cycle
Construction Site Waste Ordinance	Stormwater Coordinator/SW Consultant	Ongoing – Review/amend year one and at the end of the permit cycle
Pre-Construction Plan Review	Contract Review Engineer/ Stormwater Coordinator	Ongoing – Summarize number of plans reviewed annually
Public Education on Construction Site Runoff Control	Stormwater Coordinator	Ongoing – Part of MCM #1
Public Input on Construction Projects	Stormwater Coordinator/City Council/ Planning & Zoning Commission	Ongoing – Part of MCM #2
Maintain Design Criteria and Standard Details	Stormwater Coordinator/APWA/MARC	Ongoing – Review any time new metro area standards are introduced and at end of permit cycle
Construction Site Inspections	Stormwater Coordinator/ Building Inspectors	Ongoing – Summarize number of inspections completed annually
Ensure Compliance - ERP	Stormwater Coordinator/Building Inspectors	Ongoing – Summarize number of enforcement actions taken and results of these actions annually
Evaluation of MCM #4 Program	Stormwater Coordinator/SW Consultant	Ongoing – Complete evaluation and include in annual report

Minimum Control Measure #5 – Post-Construction Runoff Control

BMP	Responsible Party	Schedule
Post-Construction Ordinance/Design Guidance	Stormwater Coordinator	Ongoing – Review/amend year one and at the end of the permit cycle – Annual Summary of Developments Reviewed and BMPs utilized
Ordinance/Design Guidance – Stream Buffers	Stormwater Coordinator	Ongoing – Review at the end of the permit cycle -

		Annual Summary of Developments Reviewed that Utilized Stream Buffers
Ordinance/Design Guidance – Open Space	Stormwater Coordinator	Ongoing – Annual Summary of Developments Reviewed that Protected/Increased Open Space
Ordinance/Design Guidance – Wetland Protection	Stormwater Coordinator	Ongoing – Review at the end of the permit cycle - Annual Summary of Developments Reviewed that Protected Wetlands
City Comprehensive Plan	Stormwater Coordinator/Planning Staff	Ongoing – Review at the end of the permit cycle or any time plan updated
Ensure Ongoing Effectiveness of Long-Term BMPs – O&M Ordinance	Stormwater Coordinator/SW Consultant	Ongoing – Review at the end of the permit cycle
Ensure Ongoing Effectiveness of Long-Term BMPs – Inspections	Stormwater Coordinator	Ongoing – Annual summary of inspections completed
Priority Areas Determination	Stormwater Coordinator/SW Consultant	Ongoing – Review at the end of the permit cycle
Evaluation of MCM #5 Program	Stormwater Coordinator/SW Consultant	Ongoing – Complete evaluation and include in annual report

Minimum Control Measure #6 – Good Housekeeping in Municipal Operations

BMP	Responsible Party	Schedule
List of Municipal Operations	Stormwater Coordinator/SW Consultant	Completed – Review at the end of the permit cycle
MS4 Maintenance Operations	Stormwater Coordinator/Street Maintenance Crews	Ongoing – Provide annual summary of catch basins and pipes inspected and cleaned
Streets/Parking Pollution Control	Stormwater Coordinator/Street Maintenance Crews	Ongoing – Provide annual summary of street and parking lot sweeping/ cleaning
Storage/Maintenance Facility/Salt & Sand Storage Pollution Control	Stormwater Coordinator/SW Consultant/Street Maintenance Supervisor/	Year One – Develop site specific SWPPPs for Public Works and Golf Course; Ongoing – Provide annual

	Parks Maintenance Supervisor	summary of inspections of storage and maintenance yards/shops
Solid Waste Control	Stormwater Coordinator/Street Maintenance Supervisor/ Parks Maintenance Supervisor	Ongoing utilization of solid waste related SOPs
Fueling Facilities	Stormwater Coordinator/Street Maintenance Supervisor/ Parks Maintenance Supervisor	Ongoing utilization of fueling related SOPs including use of fuel card system
RCRA/CERCLA	Stormwater Coordinator/Street Maintenance Supervisor/ Parks Maintenance Supervisor	Ongoing utilization of SOPs related to spill prevention, control and countermeasure and proper disposal of RCRA/CERCLA regulated products
Paints/Solvents/Petroleum/ Petroleum Waste Products	Stormwater Coordinator/Street Maintenance Supervisor/ Parks Maintenance Supervisor	Ongoing utilization of SOPs related to spill prevention, control and countermeasure and proper disposal of these products
Disposal of Waste Removed from MS4	Stormwater Coordinator/Street Maintenance Crews	Ongoing utilization waste related SOPs (including Vactor waste SOP)
Review of Flood Control Projects	Stormwater Coordinator	Ongoing – Provide annual summary of any flood control projects (existing or proposed) reviewed for incorporation of water quality objectives
Employee Training	Stormwater Coordinator/Street Maintenance Supervisor/ Parks Maintenance Supervisor	Ongoing – Provide annual summary of the type of training provided and the number of employees trained
Evaluation of MCM #6 Program	Stormwater Coordinator /SW Consultant	Ongoing – Complete evaluation and include in annual report

Luebbert Engineering

304 Travis Court
Jefferson City, MO 65101
573-291-6567

July 3, 2013

Missouri Department of Natural Resources
Water Protection Program
Attn: Ruth Wallace
Jefferson City, Missouri 65101

Re: Revised SWMPs for Excelsior Springs, Marshall and Holts Summit

Dear Ms. Wallace:

Please find enclosed the revisions to the above referenced Stormwater Management Plans. Each has been amended to more completely reference the permit requirements. Additionally, areas of program deficiencies were more fully addressed or clarified. I did not reprint the appendices to the Marshall plan so I would appreciate it if you would simply swap out the enclosed plan with the body of the original plan.

I also worked with Liberty to amend their plan. Brian Hess indicated he would be sending you the revised plan in an email later today.

Thank you for your time and consideration of these revisions. Please let me know if you need any additional information.

Sincerely,

Christina L Luebbert

Christina L. Luebbert, P.E., CFM, LEED AP
Owner/Principal Engineer

Enclosures

PHASE II MS4 PROGRAM REVIEW AND ASSESSMENT

Date(s) of Review: March 14, 2013

Permittee: Excelsior Springs Small MS4
Permit #: MOR040074

Reviewer(s) Ruth Wallace & Jimmy Coles

Document(s) Reviewed:
✓ PERMIT(s) DATED 2008-2013
✓ SWMP(s) DATED September 10, 2007
✓ Annual Report(s) with/without Monitoring Data DATED AR_2011_2012
☐ TMDL Monitoring Plan(s) DATED

1. Public Outreach & Education

✓ Adequate ☐ Somewhat Adequate ☐ Inadequate

Comments: The city partners with Mid America Regional Council (MARC) for implementation of public education and outreach efforts, and MARC is fairly extensive in their efforts.

2. Public Involvement & Participation

☐ Adequate ✓Somewhat Adequate ☐ Inadequate

Comments: It appears much effort has been put forth to successfully engage citizens in stream team cleanups, and the City indicated these efforts will continue. The City also indicated it has made efforts to engage the public in the development of the formal MS4 program, strategies, ordinances, policies, etc.; however, the public appears uninterested by not attending the public forums held for this purpose.

3. Illicit Discharge Detection and Elimination Plan

☐ Adequate ✓ Somewhat Adequate ☐ Inadequate

Comments: The city has made good progress is most areas of this component. There is a comprehensive storm sewer and outfall map and ordinances are in place to prohibit illicit discharges and enforce the program. Field screening for selected outfalls is done only during the month of May. The city should consider conducting field screenings over several months during dry periods to increase the likelihood of locating illicit discharges as they occur. The procedures for outfall selection, source tracing, and elimination should be included in further detail in the updated SWMP plan. The city has compiled a

GENERAL COMMENTS: It appears the City is making progress in several areas of the program. The City has indicated an improvement to inter-departmental coordination and communication. More clarity can be provided in the construction program and some areas of compliance need to be addressed with the illicit discharge program, the post-construction runoff control program and the pollution prevention and good housekeeping program. The SWMP will need to be revised to address any permit compliance issues within the first year of the next permit cycle, as the City was provided five years from initial permit issuance to have the program fully operational. The City needs to include interim goals, milestones and measures for success in their revised SWMP (with target dates.) It is recommended the City refer to the Annual Report Form Addendum when preparing the SWMP in order to align the goals with annual report objectives.
Stormwater Annual Report - Small MS4 Permits -- 780-1846
http://www.dnr.mo.gov/forms/780-1846-f.pdf
Stormwater Annual Report - Small MS4 Permits Addendum - Water Quality Program Assessment - 780-2049
http://www.dnr.mo.gov/forms/780-2049-f.pdf

REQUIREMENTS:

1. The City needs to ensure that adoption of APWA document(s) is accompanied by establishment of requirements where the APWA document(s) might include recommendations rather than mandates – in order to meet permit requirements. This is true for both the construction program and the post-construction program. It was not discussed whether the City requires SWPPPs of contractors and self-inspections.

2. The City needs to update their SWMP to include the latest requirements for post-construction runoff control, including site-design and on-site best management practice (BMP) performance requirements to mimic pre-construction runoff quality in all regulated new development projects, and a standard to provide reasonable incremental improvement to runoff quality in all regulated redevelopment projects. The city will need to ensure that existing codes and ordinances do not conflict with the new criteria to be established; i.e. weed ordinances, mandatory street widths, etc.

RECOMMENDATIONS:

1. It is recommended the City explore alternative approaches to engage the public in the areas of program awareness, ordinance and policy development – especially in the areas of construction and post-construction where changes are expected and the community can become positively engaged in community betterment aspects of green infrastructure and low-impact development. It is suggested the City develop a positive campaign around these efforts to take advantage of the benefits of better development practices and to increase public buy-in on projects that honor the new

http://www.americanrivers.org/newsroom/resources/managing-stormwater-using-green-infrastructure.html

e. Ordinance templates and additional information located on the Missouri Stormwater Information Clearinghouse located at http://www.dnr.mo.gov/env/wpp/stormwater/sw-local-gov-programs.htm#mcm5

5. Pollution Prevention and Good Housekeeping in Municipal Operations. The City might benefit from reviewing the GHPP Program Template document developed by the St. Louis County co-permittees: Operation and Maintenance Program for the Prevention and Reduction of Pollution in Storm Water Runoff from Municipal Operations. [Municipality Name]. February 2005. http://www.dnr.mo.gov/env/wpp/stormwater/MSD-OMmanual-template.pdf