

**Webb City Phase II MS4  
MO-R040046**

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WATER PROTECTION PROGRAM

**Storm Water Management Plan  
(SWMP)**

**For**



**City of Webb City, Missouri**

## **Introduction**

This Stormwater Management Program Document constitutes the City of Webb City's 2013 Stormwater Management Program (SWMP) as required by the Missouri Department of Natural Resources Phase II Municipal stormwater permit. The purpose of the document is to detail actions that the City of Webb City will take between May 14<sup>th</sup>, 2013 to June 12<sup>th</sup>, 2018 to maintain compliance with conditions in the permit.

The National Pollutant Discharge Elimination System (NPDES) is a program created under the Federal Clean Water Act with the intent of protecting and restoring water quality in lakes and stream so that they can support "beneficial uses" such as fishing and swimming. Governmental and private entities wishing to discharge water or wastewater to surface waters regulated by the Federal Government (Waters of the US) must obtain permits and comply with certain conditions or face fines and other penalties.

A permit allows municipalities to discharge stormwater from municipal systems into "waters of the state" such as rivers, lakes and streams, as long as we implement programs to reduce pollutants in stormwater to "maximum extent possible" by conducting programs and activities in the following program areas:

- Minimum Control Measure # 1: Public Education and Outreach
- Minimum Control Measure # 2: Public Involvement/Participation
- Minimum Control Measure # 3: Illicit Discharge Detection and Elimination
- Minimum Control Measure # 4: Construction Site Storm Water Runoff Control
- Minimum Control Measure # 5: Post-Construction Storm Water Management
- Minimum Control Measure # 6: Pollution Prevention/Good Housekeeping Practices for Municipal Operations

Together, these Minimum Control Measures are expected to achieve significant reductions of pollutants discharged into the receiving water bodies.

For the city of Webb City, the Public Works Department, headed by Russell Ball, Stormwater Manager, and Rick Roth, Public Works Director, has the main responsibilities for management and implementation of the Storm Water Management Program.

The following subsections outline the Best Management Practices (BMPs), measurable goals, and implementation schedule for each MCM proposed for the city of Webb City's Storm water Management Program.

## **MINIMUM CONTROL MEASURE # 1 PUBLIC EDUCATION AND OUTREACH**

Missouri State Operating Permit No. MO-R040046 requires the city of Webb City to implement a Public Education and Outreach Program to distribute education materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff.

Webb City's Public Education and Outreach Program will utilize several outlets to inform individuals and households about the steps they can take to reduce storm water pollution and how to become involved in the program. The key elements of this program include development and maintenance of a storm water website, issuing print ads and news releases through the local newspaper, brochures, flyers at community events; and, maintaining a library of storm water literature available to the general public at City Hall.

The pollutant sources the Public Education and Outreach Program is designed to address are motor oil, pet wastes, yard wastes, fertilizers, herbicides, pesticides, sediment, and illicit discharges. The target audiences for the Public Education and Outreach Program and the pollutants that are likely to be utilized by each group include:

- Residential- Fertilizers, pet waste, pesticides, herbicides, motor oil, yard waste
- Developers- Sediment at construction sites and in streets, fertilizers, pesticides, herbicides, motor oil, yard waste
- Commercial- Fertilizers, illicit discharges, improper restaurant practices, motor oil in parking lots, pesticides, herbicides
- Industrial- Fertilizers, illicit discharges, motor oil in parking lots, pesticides, herbicides
- Institutional- Fertilizers, illicit discharges, improper restaurant practices, motor oil in parking lots, pesticides, herbicides

The following table establishes the tasks (BMPs), measurable goals, and implementation schedule proposed for the Public Education and Outreach Program.

**Table 1  
Public Education and Outreach Program Strategy and Implementation Schedule**

<b>BMP/Goal</b>	<b>Tasks Planned to Achieve Goals</b>	<b>Measurability</b>	<b>Implementation Schedule</b>	<b>Responsible Individual</b>
Maintain stormwater website	Update and add new materials as needed	See <a href="http://www.webbcitymo.org">www.webbcitymo.org</a> Stormwater Page and see that it is live	Ongoing	Russell Ball
Distribute stormwater brochures around city	Provide brochures, fact sheets, and newsletters to residents and businesses in the city  Design "Welcome" information to new utility customers with stormwater education plus common code policies and city information	Brochure displays at Public Works, City Hall, Library. Track number of brochures distributed.  "Welcome" booklets distributed to all new utility customers	Ongoing, but displays in place by September 30, 2013.  Quarterly checks of brochure displays for resupplying and count of brochures distributed  "Welcome" booklets implemented by October 31, 2013	Russell Ball
Distribute Stormwater education activity books to all 3 <sup>rd</sup> Graders in Webb City School District	Produce activity books annually	Distribute 350 activity books each year the week before Spring Break	March 2013 March 2014 March 2015 March 2016 March 2017 March 2018	Russell Ball
Participate in "Environmental Day" in partnership with the Webb City School District and provide stormwater education to 6 <sup>th</sup> graders	Prepare educational display  Distribute materials	Speak to 300 students	April 12, 2013 April 2014 April 2015 April 2016 April 2017 April 2018	Russell Ball
Stormwater Display for Community Education	Prepare display and document times and places used	Use 3 times per year	September 30, 2013	Russell Ball
Educate certain business owners of stormwater	Use our "Menu" of Best Management Practices for	Make contact with businesses annually	June 30, 2013 June 30, 2014 June 30, 2015 June 30, 2016	Russell Ball

impacts	restaurants and gas stations		June 30, 2017 June 30, 2018	
News Media	Articles, notices, information to be placed in local newspaper	Use 2 times per year	Spring/Fall 2013 Spring/Fall 2014 Spring/Fall 2015 Spring/Fall 2016 Spring/Fall 2017 Spring/Fall 2018	Russell Ball
Partnerships	Continue working with Joplin Metropolitan Statistical Area	Annual Education Publications for recycling, stormwater	July 15, 2014 July 15, 2015 July 15, 2016 July 15, 2017 July 15, 2018	Russell Ball

**MINIMUM CONTROL MEASURE # 2  
PUBLIC INVOLVEMENT/PARTICIPATION**

Missouri State Operating Permit No. MO-R040046 requires the City of Webb City to implement a Public Involvement/Participation Program that complies with State and local public notice requirements. The intent of the program is to achieve awareness and support from the general public for the Storm Water Management Program and pollution prevention practices.

Webb City's Public Involvement/Participation Program will utilize avenues discussed in the Public Education and Outreach Program to advertise the Public Involvement/Participation activities. Public Involvement/Participation activities planned for the program include an annual city wide clean up and storm drain marking. These events will be advertised on the city storm water web site page, advertisements and news releases in the local newspaper, and distribution of flyers. The target audiences for these programs include elementary school children, educators, homeowners, businesses, and environmental groups.

The public will also be encouraged to participate in development of the Storm Water Management Plan. A survey will be mailed to all residents with the intent of determining the level of public interest and awareness of storm water management and pollution prevention. The public will be encouraged to review a summary of the plan available on the storm water web page.

The following table establishes the tasks (BMPs), measurable goals, and implementation schedule proposed for the Public Involvement/Participation Program.

Table 2

Public Involvement/Participation Program Strategy and Implementation Schedule

BMP/Goal	Tasks Planned to Achieve Goals	Measurability	Implementation Schedule	Responsible Individual
Track at least 50 additional hits to the Webb City Stormwater website	Advertise a summary of the stormwater management plan in the local newspaper	Track 50 "hits" to city website	September 30, 2013	Russell Ball
Annual City Clean Up	Provide stations for residents to drop off *Metal Waste *Cardboard/Paper *Plastics *Furniture/Appliances *Paints, Solvents, Chemicals *Yard Waste	Track at least 175 residential vehicles who participate in the clean up.	May 11, 2013 May 2014 May 2015 May 2016 May 2017 May 2018	Eddie Kreighbaum
Leaf Pick Up	City crews run routes to pick up leaves residents place at curbside. Advertise for resident participation	Routes run through town two times	Nov-Dec 2013 Nov-Dec 2014 Nov-Dec 2015 Nov-Dec 2016 Nov-Dec 2017 Nov-Dec 2018	Russell Ball
Storm Drain Marking	Get volunteers or City personnel to mark all the drains by June 30, 2013	All drains marked	June 30, 2013	Russell Ball
Residential Environmental Projects	Provide educational materials for rain barrels, rain gardens, Citizens Guides to stormwater pollution	Educational pieces produced  Link to website for residential projects	May 31, 2014	Russell Ball
SWMP review and survey of City residences	Mail stormwater survey to residents in conjunction with the SWMP	Receive 200 responses from city survey by residents	July 31, 2014	Russell Ball
Facilitate with Wayne Smith, leader of the Webb City Stream Team	Stream Monitoring by the High School Stream team	Document reports from the team	June 2013 June 2014 June 2015 June 2016 June 2017 June 2018	Russell Ball
Illicit Connections and Illegal Dumping Notification system via calls and emails	Document all messages, using "PubWorks" software. Calls returned, investigated, and acted upon if actionable	Document all calls and state how calls were handled for the Annual report	June 2013 June 2014 June 2015 June 2016 June 2017 June 2018	Russell Ball

### **MINIMUM CONTROL MEASURE # 3 ILLCIT DISCHARGE DETECTION AND ELIMINATION**

Missouri State Operating Permit No. MO-Ro40046 requires the City of Webb City to:

- Develop, implement and enforce a program to detect and eliminate illicit discharges;
- Develop a storm sewer system map;
- Prohibit, through ordinance, or other regulatory mechanism, non-storm water discharges into the storm sewer system and implement appropriate enforcement procedures and actions;
- Develop and implement a plan to detect and address non-storm water discharges, including illegal dumping; and
- Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.

A Center Creek has a TMDL for zinc, but the MS4 is not the source and has not been assigned a WLA or an LA.

A storm sewer map showing the location of all outlets and the names and location of all receiving waters will be developed. Sources of information used to assemble the storm sewer locations include historic sewer maps and interviews with City employees, verified by field survey. Verification of outlet locations will be achieved by field surveys. The map will be regularly updated by the City of Webb City when changes are made to the storm sewer system and/or outfall locations.

Illicit discharges into the MS4 will be prohibited by storm water Ordinance, Chapter 250, already in place. A copy of the relevant section is attached, which includes the provisions for enforcement and penalties.

An illicit discharge detection and elimination plan will be developed. Items addressed in the plan will include:

- Procedures for locating priority areas which includes areas with higher likelihood of illicit connections (older sanitary sewer lines) or ambient sampling to locate impacted reaches
- Procedures for tracing the source of an illicit discharge including the specific techniques that will be used
- Procedures for removing the source of the illicit discharge
- Procedures for program evaluation and assessment

Once the plan has been developed, dry weather field surveys will be conducted to ascertain locations of possible illicit discharges that should be followed up by testing to confirm pollutants and their sources.

Public employees, businesses, and the general public will be informed of the hazards associated with illegal discharges and improper disposal of waste by development of Illicit Discharge and Improper Waste Disposal information on the city website, advertisement of the City's recycling program through print ads and website, distribution of pamphlets, flyers, and brochures at community events.

The following table establishes the tasks (BMPs), measurable goals, and implantation schedule proposed for the Illicit Discharge and Detection Program.

Table 3  
Illicit Discharge and Detection Program Strategy and Implementation Schedule

<b>BMP/Goal</b>	<b>Tasks Planned to Achieve Goals</b>	<b>Measurability</b>	<b>Implementation Schedule</b>	<b>Responsible Individual</b>
Illicit Discharge Ordinance	Already in place and adopted  Continued enforcement of non-stormwater discharges into the MS4	All illicit discharges documented and corrected	June 15, 2013 June 15, 2014 June 15, 2016 June 15, 2017 June 15, 2018	Russell Ball
Advertise Recycling Program	News release, website promotion	Two newspaper notices per year	Fall/Spring 2013 Fall/Spring 2014 Fall/Spring 2015 Fall/Spring 2016 Fall/Spring 2017 Fall/Spring 2018	Russell Ball
Develop Storm Sewer Map	Field verify locations of outfalls and complete map with updates	Map completed	August 31, 2013	Russell Ball
Outfall Inspections	Conduct dry condition inspections on a monthly basis  Conduct wet condition inspections after every major rain event	Documented inspection sheets will be kept on file	Monthly and after major rain events. Inspection forms to be included in Annual Report paperwork	Russell Ball
Website Information	Provide citizens guide to stormwater pollution	Track 10 hits to website	January 31, 2014	Russell Ball
Brochures for dealing with household waste, pesticides, etc	Provide Illicit Discharge information to residents	Number of brochures to be tracked	January 31, 2014	Russell Ball

#### **MINIMUM CONTROL MEASURE # 4 CONSTRUCTION SITE STORM WATER RUNOFF CONTROL**

Missouri State Operating Permit No. MO-R040046 requires the city of Webb City to develop, implement, and enforce a program to reduce pollutants in any storm water runoff to the storm sewer system from construction activities that result in a land disturbance 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. Elements of the program shall include:

- An 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 appropriate erosion and sediment control BMPs;
- Requirements for construction site operators to control waste that may cause adverse impacts to water quality;
- Procedures for site plan review which incorporate consideration of potential water quality impacts;
- Procedures for receipt and consideration of information submitted by the public; and,
- Procedures for site inspection and enforcement control measures.

The City of Webb City has regulatory mechanisms in place that cover many of Missouri State Operating Permit No. MO-R040046 regulatory requirements. These mechanisms include Webb City's City Code, Chapters 250 and 405, already in place, as well as storm water BMP's the city requires for construction activities that disturb one acre of dirt or more.

Webb City will draft more specific construction site stormwater management ordinance.

Erosion and sediment controls at construction sites are required by the Building Department prior to the "signing off" of the issuing of the Building Permit, though more regulatory steps need to be taken, via ordinance.

Requirements for construction site operators to implement appropriate erosion and sediment control BMPs and control waste at construction sites that may cause adverse impacts to water quality are loosely addressed in city code Chapter 250, though the language of the code does not specifically address construction activities and will need to be addressed. Currently, all developments must have an erosion control and clean up plan that is given during the permitting process, but it is more of a check from the Building Department rather than a written, codified requirement. In all cases, the developer is encouraged to select the best method of erosion control for the project.

A storm water management plan is required for all developments. All plans are reviewed by city staff.

All construction sites will be inspected during each project phase. Enforcement of the erosion control measures includes written notices, stop-work orders, revocation of approval, appeal, and monetary penalties.

A form page on the City's website will be developed to submit storm water complaints by the public. This feature will be advertised on the City's website.

The following table establishes the tasks (BMPs), measurable goals, and implementation schedule proposed for the Construction Site Storm Water Runoff Control Program.

Table 4  
Construction Site Storm Water Runoff Control Program Strategy and Implementation Schedule

<b>BMP/Goal</b>	<b>Tasks Planned to Achieve Goal</b>	<b>Measurability</b>	<b>Implementation Schedule</b>	<b>Responsible Individual</b>
Adopt Construction Site Stormwater Management Ordinance	Write ordinance City Council approval	Ordinance adopted	July 31, 2013	Russell Ball
Adopt Webb City BMP Manual for Erosion Prevention and Sediment Control Guidelines	City Council approval	Manual adopted	July 31, 2013	Russell Ball
Review site plans and permits for construction projects greater than one acre that are not reviewed by other government agencies	Review 100% of plans	Document meetings held	May 31, 2013	Russell Ball, Eddie Kreighbaum, Rick Roth
Review SWPPP from construction projects within jurisdiction that	Periodic checks to be done	Document inspection of SWPPP	Ongoing, June 15, 2013 June 15, 2014 June 15, 2015 June 15, 2016	Russell Ball

have the potential to discharge into the MS4			June 15, 2017 June 15, 2018	
Pre-Construction Meetings	Checklist for Developers of what is required  Inform contractors of requirements by placing information on website	Checklist developed  Information placed on website	February, 28, 2014	Russell Ball
Modify Building Inspection Forms	Include checks for Erosion Prevention and Sediment Control	Forms Modified	August 31, 2013	Becky Eckler
Enforce penalties in accordance with ordinance for construction activities	Use methods such as verbal warnings, written warnings, stop work orders, and/or issue citations	Document enforcement actions and include in annual report	June 15, 2013 June 15, 2014 June 15, 2015 June 15, 2016 June 15, 2017 June 15, 2018	Russell Ball
Citizen's Reporting	Advertise means for citizens to report complaints/concerns for improper stormwater runoff control from construction sites	Content advertised and placed on city website	December 31, 2013	Russell Ball

**MINIMUM CONTROL MEASURE # 5  
POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW  
DEVELOPMENT AND REDEVELOPMENT**

Missouri State Operating Permit No. MO-R040046 requires the City of Webb City to:

- Develop, implement, and enforce a program to address 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 storm water system;
- Develop and implement strategies which include a combination of structural and/or non-structural BMPs appropriate for the community;
- Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects; and,
- Ensure adequate long-term operation and maintenance of BMPs.

The City of Webb City will place regulatory mechanisms to cover many of the Missouri State Operating Permit No. MO-R040046 regulatory requirements. These mechanisms will be included in the creation of a Post Construction Stormwater Runoff Control Ordinance and an amendment of Webb City's Building Permit Application Form.

In particular, the following regulations will be put in place to comply with the requirements of Missouri State Operating Permit No. MO-R040046:

- Require submittal and approval of preliminary and final storm water management plans for all developments.
- Require a final storm water management plan that must include runoff calculations showing attempts to maintain pre-construction conditions and water quality impacts.
- Address post construction runoff from new developments and redevelopments in city ordinance.
- Address long term operation and maintenance (O&M) of selected BMPs.

The City of Webb City will encourage appropriate non-structural and structural BMPs when reviewing storm water management plans. The City will review current planning and zoning policies, review existing drainage areas and inventory existing BMPs to determine where additional BMPs could be incorporated to improve water quality.

The following table establishes the tasks (BMPs), measurable goals, and implementation schedule for the proposed Post-Construction Storm Water Management in New Development and Redevelopment Program.

**Table 5**  
**Post-Construction Storm Water Management in New Development and**  
**Redevelopment Program Strategy and Implementation Schedule**

<b>BMP/Goal</b>	<b>Tasks Planned to Achieve Goal</b>	<b>Measurability</b>	<b>Implementation Schedule</b>	<b>Responsible Individual</b>
Adopt Post-Construction Stormwater Runoff Control Ordinance	Write ordinance	Ordinance adopted	July 31, 2013	Russell Ball
Review site plans and permits for construction projects greater than one acre not reviewed by other government entities	Review all BMPs contractors present for post-construction, maintenance plans, detention water quality	100% of plans reviewed and document on annual report	June 15, 2013 June 15, 2014 June 15, 2015 June 15, 2016 June 15, 2017 June 15, 2018	Russell Ball, Eddie Kreighbaum, Rick Roth
Review existing drainage to determine additional areas for BMP implementation	Identify existing BMPs and plot on drainage map	BMPs plotted on map, documentation	April 30, 2014	Russell Ball

**MINIMUM CONTROL MEASURE #6  
POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL  
OPERATIONS**

Missouri State Operating Permit No. MO-R040046 requires the city of Webb City 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; and,
- Using training materials that are available from EPA, State, or other organizations, develop training to prevent and reduce storm water pollution from municipal maintenance activities.

The city of Webb City will continue developing a Pollution Prevention/Good Housekeeping Program. The program will address the following elements:

- An inventory of the operation and maintenance programs targeted to prevent or reduce pollutant runoff from municipal operations based on an inspection of municipal facilities;
- Maintenance activities and schedules, and long-term inspection procedures for controls to reduce pollutants to the storm sewer system from identified facilities;
- Controls for reducing or eliminating the discharge of pollutants from municipal operations including streets, roads, highways, municipal parking lots, maintenance and storage yards, waste transfer stations, fleet and maintenance shops with outdoor storage areas, and salt/sand storage locations and snow disposal areas;
- Procedures for the proper disposal of waste removed from the storm sewer system; and,
- 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 practices.

The City of Webb City will also develop a list of government employee training programs used to prevent and reduce storm water pollution from municipal activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance. An annual training session for City employees will be conducted to reinforce pollution prevention/good housekeeping practices.

The following table establishes the tasks (BMPs), measurable goals, and implementation schedule proposed for the Pollution Prevention/Good Housekeeping Program.

**Table 6**  
**Pollution Prevention/Good Housekeeping Program Strategy and Implementation Schedule**

<b>BMP/Goal</b>	<b>Tasks Planned to Accomplish Goals</b>	<b>Measurability</b>	<b>Implementation Schedule</b>	<b>Responsible Individual</b>
Identify and Inspect Municipal Operations subject to pollution prevention operations	Create and adopt O & M Manual for Municipal Operations  Identify all of Public Works, Street Department, and Parks and Recreation operations and develop maintenance schedules	Manual adopted  Maintenance Schedule created	September 30, 2013  March 31, 2014	Russell Ball
Perform scheduled long term maintenance activities developed during municipal operation identification	Maintenance tasks accomplished and documented  Municipal Stormwater infrastructure inspected and maintained	Maintenance documentation done  20% of infrastructure inspected and maintained each year for five years	September 30, 2013 and then quarterly inspections to be documented  20% -July 2014 20%- July 2015 20%- July 2016 20%- July 2017 20%- July 2018	Russell Ball
Street Sweeping	Sweep roads downtown weekly, weather permitting, and other areas on a rotating basis	Track tons of debris/sediment removed	Monthly and will document on Annual report	Russell Ball, Eddie Kreighbaum
Design Standards	Adopt APWA 5600 for Stormwater Infrastructure	APWA 5600 adopted	July 31, 2013	Russell Ball
Employee Training	Training sessions for all Public Works employees on proper disposal of waste removed from the MS4, signs of Illicit Discharges, and	Training sessions held and documented	Winter/Summer 2014 Winter/Summer 2015 Winter/Summer 2016 Winter/Summer 2017 Winter/Summer 2018	Russell Ball

	Good Housekeeping practices			
Review and assess water quality impacts of new flood management projects with City's floodplain manager	Review 100% of plans submitted for flood management projects with floodplain manager	Plans reviewed and documented on annual report	June 15, 2013 June 15, 2014 June 15, 2015 June 15, 2016 June 15, 2017 June 15, 2018	Russell Ball