

## **Minimum Control Measure 1:**

### **PUBLIC EDUCATION AND OUTREACH ON STORM WATER IMPACTS**

The goal of the City of Webb City's Public Education and Outreach on Storm Water Impacts Plan is to inform the community about the impacts storm water discharges have on water bodies and what the community can do to reduce pollutants transported via storm water runoff.

- **Plans to Inform Individuals and Households.** In addition to the measures outlined in the Public Involvement/Participation Plan, the City has established four means by which to reach the community. These means were chosen based on research of other successful outreach and education programs and recommendations by EPA and Missouri DNR published materials. The following BMPs and measurable goals have been developed by the City:
  - **Brochures/Fact Sheets/Newsletters.** Brochures and Fact Sheets are currently on display at the Public Works Department. These materials target residents and business owners. The Brochures and Fact Sheets let the reader know what they can do to reduce storm water pollution. Ultimately, the goal of this program is to reach the entire community. The number of brochures distributed to the community will be monitored. If it is felt that the brochures are not reaching or are not available to enough individuals other means of dissemination will be considered such as placing the materials in other places. *The City also plans to send out a storm water newsletter with the City newsletter to inform and educate residents on various storm water issues and inform them on how to become involved in the storm water program at least once every year beginning spring of 2008.*
  - **Web Site.** The City is developing a web site for the public. The web site will contain educational information, participation and involvement information, and contact information. The website will be advertised in the brochures, fact sheets, and newsletters distributed to the public. *The City has a goal of having the website operational around the spring of 2008. The City has a goal of updating the website once every six months. The City has goal of having one thousand hits to the website every six months. The number of hits the website receives will be monitored to determine the success and effectiveness of the web site.*
  - **Public Education Task Force.** The City's Public Works Department has been designated as the Public Education Task Force. The Public Works Department is responsible for public education, public involvement, and enforcement of the Storm Water Management Program. The Task Force will be responsible for public education. In the past, storm water meetings and presentations at council meetings and schools have been conducted to educate the public. Public attendance and involvement in these meetings will be monitored to evaluate the success of this program. *The City has set a goal of hosting or participating in at least two public education forums every year.*
  - **Storm Water Hotline.** The public is encouraged to call the Public Works Department with any comments or concerns with storm water runoff. The Storm Water Hotline phone number will be advertised in the brochures, fact sheets, and newsletters distributed to the public. The number of calls received by the Public Works Department regarding storm water will be recorded and analyzed to

determine if more can be done to get the public involved in this program. The City has set a goal to document every storm related call received beginning in the fall of 2007.

- **Target Audiences.** The following target audiences were targeted based their potential to be contributors to storm water pollution or because of EPA suggestions based on research.
  - Citizens
  - Developers and Construction Companies
  - Commercial Businesses, especially Restaurants
  - Industry
  - Municipal Employees
  - Trade Associations
  - Schools
  
- **Target Pollutants.**
  - Sediment
  - Floatables
  - Organic Material
  - Hydrocarbon / Petroleum Products
  - Heavy Metals, especially Lead, Zinc, and Cadmium
  - Salt
  
- **Target Pollutant Sources.**
  - Construction Activities
  - Streambank Erosion
  - Improper Disposal of Wastes, especially motor oil and hazardous materials
  - Illicit Dumping into Storm Drains
  - Improper Disposal of Grass Clippings and Leaves
  - Gas Stations
  - Restaurants
  - Pet Waste
  - Street Deicing
  - Street and Parking Lot Litter
  - Municipal Operations

The Public Works Department is responsible for managing and monitoring the success of the City's Public Education and Outreach on Storm Water Impacts Plan. The City will continue to monitor the success of the Plan. The City will continue to look at ways to expand the program to include other education opportunities. The City will also continue gain more public involvement by targeting other groups of the public through this program and the Public Participation/Involvement Plan. Opportunities the City is considering for the program include storm drain stenciling, tributary signage, and volunteer programs such as water quality monitoring and trash pickup programs. The City also continues to work with other municipalities in the area to maximize resources and train City staff.

## **Minimum Control Measure 2:**

### **PUBLIC INVOLVEMENT/PARTICIPATION**

The goal of the City of Webb City's Public Involvement/Participation Program is to raise public awareness and gain public support through informing the public about storm water runoff issues and involving the public in the development and implementation of the Storm Water Management Program.

The City's Public Involvement/Participation Plan began by involving the community in public meetings and recycling and cleanup efforts. Citizens were encouraged to participate in the effort through publishing notices in the local newspaper. The City's Public Involvement/Participation Plan now consists public meetings, public forums, and community activities such as cleanups and recycling.

- **Public Involvement in Plan Development.** The Public Works Department has been responsible for informing the public and receiving comments from the public at City Council Meetings. These Council meetings are advertised and open to the public. In this type of setting, comments are received from several different potentially affected stakeholder groups. The success of this program has been and will continue to be monitored by the frequency of presentations are made at the Council Meetings and the amount of feedback received from the public. *The City has a goal of presenting information and soliciting comment from the public at least twice a year at City Council meetings for the continued development of the City's Storm Water Management Plan.*
- **Target Audiences**
  - Citizens
  - Developers and Construction Companies
  - Commercial Businesses, especially Restaurants
  - Industry
  - Municipal Employees
  - Trade Associations
  - Schools
- **Involvement Activities.** The City has or plans to implement the following public involvement activities:
  - **Community Cleanups.** The City continues to involve the public in various recycling and cleanup programs for yard and motor oil wastes. Residents are notified through the local newspaper of times and locations of various opportunities to participate. The Public Works Department is responsible for notifying the public and properly disposing of the materials collected. The success of this program is determined by the amount of participation and material collected in the program. *The City has set a goal of increasing the number of gallons of oil and bags of leafs collected every year during the community cleanups.*
  - **Public Forums.** The City has worked with the Joplin Metro Area Home Builders Association to hold public forums or discussion that are focused on the impacting new home construction has on storm water runoff issues. Officers of the Joplin Metro Area Home Builders Association are actively involved in this program alongside the Public Works Department. Public attendance and involvement in

these meetings will be monitored to evaluate the success of this program. The City has set a goal of hosting or participating in at least two public education forums every year. The additional public forum would involve more groups than the construction community.

- **Storm Drain Stenciling and Trash Pickup Activities.** The City has set a goal to paint “Do Not Dump – Drains Directly to Stream” on all storm inlets and drains using volunteers by the end of 2008. In 2009 the City plans to implement a Stream Adoption program to clean litter from the City’s streams. The City plans to use its Public Education and Outreach Program to get more notices on these events and opportunities to all citizens regardless of economic or ethnic group.
- **Web Site.** Once the City’s storm water web site is operational, the City has a goal of having the public participate in online polls regarding storm water issues. The public will also have the ability to submit questions, concerns, or report illegal dumping to the City via the website.

The Public Works Department is responsible for managing and analyzing the success of the City’s the Public Involvement/Participation Plan. City continues to look at other ways expand the program to get more public involvement and participation. The City, while continuing to develop and add relationships with surrounding municipalities to maximize resources, is also working on becoming less reliant on these municipalities so that citizens in the City of Webb City are more likely to get involved.

### **Minimum Control Measure 3:**

#### **ILLICIT DISCHARGE DETECTION AND ELIMINATION**

The goal of the City of Webb City's Illicit Discharge Detection and Elimination Plan is to control illicit discharges, prevent improper disposal of wastes, and contain and mitigate accidental spills.

A Storm Sewer System Map has been developed. This Map shows all outlet locations and the names and locations of the waters of the State that receive discharges from these outlets. The Map was developed by a contracted engineering firm. The map will be updated as new outlets are added through design, development, and as existing outlets are discovered through field surveys. Additionally, the City has a goal of developing a geographic information system (GIS) with the entire storm water infrastructure mapped on a computer based system for easily updating and adding inspection information. The City hopes to have 25% of the infrastructure mapped in GIS within 2 years.

The City does not currently have an ordinance prohibiting non-storm water discharges into the City's MS4. However, a draft ordinance has been developed. The City has a goal of accepting and passing an ordinance before the end of 2007. The ordinance will not address the following non-storm water discharges as significant contributors of pollutants:

- 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
- Street wash water

The ordinance will have a provision prohibiting any individual non-storm water discharge that is determined to be contributing significant amounts of pollutants to the City's MS4. The ordinance will allow for penalties to be enforced for non-conformers.

The City has developed a plan to ensure through appropriate enforcement procedures the ordinance will be implemented when passed. This plan consists of the following steps:

1. **Locate Problem Areas.** Problem areas will be located by an outfall and manhole inspection program. Areas within the City will be prioritized and checked systematically for dry weather flows. Older areas of town and business and industrial areas will be checked first. The City will also rely on site inspections, citizen complaints, and television camera inspection, if necessary. The City's goal is to inspect 25% of the storm sewer within 2 years. The City has very few on-site sewage disposal systems. Every year the City expands the sanitary sewer system to eliminate as many on-site sewage disposal systems as possible. The City does not consider flow from these systems to be major contributors of pollutants. However, the City has procedures for inspecting these systems and enforcing their proper maintenance and operation.

2. **Find the Source.** Once a discharge is found, the discharge will be traced back to its source by visual observation. If tracking the source through visual observation is not possible, other techniques such as smoke testing, dye testing, or television camera inspection will be used to find the source. *The City's goal is to find all sources of all dry weather flows found.*
3. **Remove/Correct Illicit Connections.** Once the source is identified, the discharger will be notified and directed to correct the problem immediately. Efforts will be made to educate and work with the offender to bring them into compliance before legal action is taken. *The City's goal is to remove or correct 100 percent of all illicit connections found.*
4. **Document Actions Taken.** All problems located and actions taken will be well documented for DNR as evidence of program progress and success. *The City's goal is to document all illicit flows found and all actions taken.*

The City will use the Public Education and Outreach and Public Participation/Involvement programs to educate and inform the public of hazards associated with illegal discharges and improper disposal of wastes. City personnel will be trained through various classes available and publications made available by DNR and EPA websites. *The City has set a goal of eliminating all illicit connections within 5 years.*

The Public Works Department will be responsible for the management of the City's Illicit Discharge Detection and Elimination Plan. The success of the plan will be evaluated first on finding illicit discharges and second eliminating and seeing a reduction in illicit discharges.

## **Minimum Control Measure 4:**

### **CONSTRUCTION SITE STORM WATER RUNOFF CONTROL**

The goal of the City of Webb City's Construction Site Storm Water Runoff Control Plan is to reduce the potential for a discharge of pollutants into urban runoff from construction activities that result in a land disturbance of greater than or equal to one acre.

The City coordinated with area communities and with EPA and DNR in developing the City's Construction Site Storm Water Runoff Control Plan. The City's Plan consists of an ordinance requiring the implementation of appropriate construction site controls, review procedures for construction site plans submitted to the City that consider potential water quality impacts, inspection and enforcement procedures to ensure compliance with the ordinance and accepted plans, and procedures for receiving and considering comments from the public.

- **Regulatory Mechanism.** The City has not adopted and passed an ordinance to require erosion, sediment, and waste controls at construction sites. However, a draft ordinance has been developed and is being reviewed by the City. *The City has a goal of having an ordinance in place before the end of 2007.* The ordinance will have requirements that a storm water pollution prevention plan meeting the established design requirements be submitted to the City with construction plans for review. Design requirements will be in place for grading activities greater than or equal to one acre. The ordinance will also establish inspection and enforcement procedures including frequency and penalties.
- **Site Plan Review.** The City Engineer currently reviews all site plans for conformance to City regulations before work can commence. *The City plans to perform erosion and sediment control review for conformance to the City's storm water ordinance on 100 percent of all site plans submitted.* The City will have the right to approve the plan as submitted, approve the plan subject to certain conditions, or disapprove the plan. Records of the number of plans submitted and reviewed along with the review decision will be kept to evaluate the success of this program.
- **Inspections and Penalties.** Once a storm water ordinance has been adopted and passed by the City, site inspections will be performed to ensure conformance to the ordinance and to the plans submitted and approved. The City's Building Inspector and Code Enforcement Officer will be responsible for performing site inspections. The ordinance will have specific times when a contractor is required to have the City inspect the site for conformance. In addition to the mandatory inspections, random inspections will be made at various times throughout the construction process. The City's Building Inspector and Code Enforcement Officer will be trained to provide additional guidance and education to contractors as well as issue warnings and assess penalties as necessary. The ordinance will provide different enforcement options. Enforcement can include a stop-work orders or criminal charges and monetary fines for serious or repeat offenders. The stop-work orders will remain in effect until compliance is achieved. *The City has a goal of inspecting 100 percent of all sites inspected and documented. The City also has a goal of having 100 percent of all contractors and construction sites implementing the City's BMPs.* The City also requires performance bonding from developers on subdivision developments.

- **Requirements for Construction Site Operators.** The City requires contractors to control sediment from leaving the construction site at all times. To facilitate this requirement, the City encourage the use of certain best manage practices (BMPs). The City has informational materials on each of the BMPs listed below. The City provides training sessions to inspectors and contractors on the proper use of each. The BMPs are divided into 5 categories. The City has goal of developing a general handout summarizing the importance of each BMP before the end of 2008.
  - **Site Plan BMPs**
    - Plan the development to fit the topography, soils, drainage, and natural vegetation of the site
    - Remove existing vegetation only when absolutely necessary
    - Delineate clearing limits, easements, setbacks, sensitive or critical areas, trees, drainage courses, and buffer zones to prevent excessive or unnecessary disturbances and exposure.
    - Phase grading operations to reduce disturbed areas and time of exposure
    - Avoid excavation and grading during wet weather
  - **Soil Cover BMPs**
    - Use temporary seeding and planting to reduce erosion potential
  - **Tracking Control BMPs**
    - Construct stabilized access roads and entrances
  - **Structures to Control and Convey Runoff BMPs**
    - Earth dikes, drainage swales, and ditches
    - Velocity dissipation devices
    - Flared culvert end sections
    - Check dams
  - **Sediment Capture BMPs**
    - Protect storm drain inlets from sediment-laden runoff including sand bag barriers, filter fabric fences, block and gravel filters, and excavated drop inlet sediment traps.
    - Silt fence
    - Straw bale barrier
    - Temporary sediment basin
  
- **Information Submitted by the Public.** Through the City's Public Education and Outreach on Storm Water Impacts Plan, the public is encouraged to call the Storm Water Hotline at the Public Works Department with any comments or concerns with storm water runoff. Through this Storm Water Hotline, the public can submit inquiries, concerns, or any information regarding construction site runoff. Each call will be documented and considered. Where appropriate, the concerns will be relayed to the City's Building Inspector and Code Enforcement Officer for further inspection and investigation. The success of this program will be determined by the number of calls received and documented and the number of calls acted upon. The City has a goal of documenting every call received.

The Public Works Department will be responsible for management and evaluation of the Construction Site Storm Water Runoff Control Plan. The overall success of this program will be determined and measured by the percentage of deficiencies found in the various elements of this program. The City expects to see an increase in the percentage of plans and sites achieving compliance each year.

## **Minimum Control Measure 5:**

### **POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT**

The goal of the City of Webb City's Post-Construction Storm Water Management in New Development and Redevelopment Plan is to reduce the potential for discharge of pollutants from new development and redevelopment disturbing land more than or equal to one acre in area by eliminating pollutant sources and site runoff volumes and velocities.

The development of the City's Post-Construction Storm Water Management in New Development and Redevelopment Plan was coordinated with EPA and DNR and took into account the City's past experiences in handling storm water runoff. The City's Plan consists of using non-structural and structural BMPs. The City has a Storm Water Management Design Manual that addresses post-construction runoff design procedures for all construction developments. The City has goal of revising this guide to incorporate non-structural and structural BMPs. The City also has operation and maintenance procedures for inspecting and maintaining these facilities.

- **Priority Areas.** Through policy and the Storm Water Management Design Manual, the City targets priority areas for controlling post-construction runoff. Historically, the priority areas have been limited to areas identified as having existing or potential flooding problems as identified by the City Engineer or an engineering study. In this regard, the Plan is specifically tailored to Webb City. The program is implemented to control and mitigate specific areas of concern within the City.
- **Non-Structural BMPs.** The City has several non-structural BMPs in place through policy or ordinance.
  - The City encourages preserving natural drainages, and where allowed by law, requires full mitigation for removing any natural drainage that is considered belonging to the State.
  - Grass-lined drainage channels are encouraged over concrete or rip rap lined channels.
  - The City has also looked at using porous pavement materials in appropriate places on City property and encourages the use of these pavements by developers.
  - The City has set minimum yard setbacks for residential, commercial, and industrial developments.
  - The City also requires that residential developments donate land for park areas or donate money for the maintenance and expansion of existing parks.
  - The City requires that all disturbed areas be, at a minimum, seeded with a native grass mix in a timely manner.
  - The City requires a minimum percentage of landscaped area for commercial developments.
  - The City encourages developments in areas that have been previously mined. Previously mined areas within the City generally have little vegetative growth and contribute sediment high in lead, zinc, and cadmium to the watershed.
- **Structural BMBs.** The City has some structural BMPs in place through policy or ordinance.
  - The City requires storm water detention for certain developments within the City through ordinance. The current ordinance requires detention at areas deemed

necessary by the City Engineer as a result of identified flooding problems and developments exceeding ten acres where the post-developed flow exceeds the pre-developed flow by more than ten percent.

- Grass-lined swales of 100 feet to 300 feet are encourage to be used as filter strips.
- **Regulatory Mechanism.** The City has not adopted and passed an ordinance addressing post-construction runoff from new developments and redevelopments. The City plans to have an ordinance adopted by the end of 2007. The ordinance will combine the above policies and ordinances and address storm water quantity and quality.
- **Operation and Maintenance.** Once a structural storm water control system meets all necessary requirements and passes inspection, the City will accept dedication of the facility. The City will maintain the facility and enforce any compliance issues. The to-be-adopted ordinance will clearly define the dedication process. The operation and maintenance will be the responsibility of the Public Works Department. Funding will be from the City's Storm and Recreation tax fund. The City has goal of inspecting and maintaining all structural storm water control systems at least once every year.

The Public Works Department will be responsible for managing evaluating the City's Post-Construction Storm Water Management in New Development and Redevelopment Plan. The City has set goals of addressing urban runoff concerns on all new developments and redevelopments during the site plan review process.

## **Minimum Control Measure 6:**

### **POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS**

The goal of the City of Webb City's Pollution Prevention/Good Housekeeping for Municipal Operations Plan is to develop good housekeeping procedures that address urban runoff pollution associated with the City's operations.

The City's Plan consists of a operation and maintenance plan to reduce the likelihood of polluting the MS4 as a result of City operations and an employee training program to teach City employees the operation and maintenance plan and associated good housekeeping measures.

- **Operations and Maintenance Program.** The Parks Department, Public Works Department, and the City Engineer are impacted by this operation and maintenance program. The City currently operates ## industrial facilities that are subject to EPA's Multi-Sector General Permit or NPDES permits for storm water discharge associated with industrial activity. This operations and maintenance plan is broken up into four components.
  - **Maintenance Activities, Maintenance Schedules, and Inspection Procedures.** The purpose of this component of the program is to reduce floatables and other pollutants entering the City's MS4. To accomplish this, the City plans on implementing an aggressive storm drain system cleaning program in which all catch basins, inlets, junction boxes, and storm pipes. The Public Works Department will conduct scheduled inspections and perform maintenance on each system component as necessary. Logs will be kept on standard reporting forms. *The City has a goal of inspecting and maintaining the entire storm system once in the first year, twice in the second year, and at least three times for each subsequent year. The City also intends on mapping the entire storm water infrastructure using GIS mapping within 4 years and maintaining all inspection and maintenance records on this system.*
  - **Controls for Reducing the Discharge of Pollutants from:**
    - **Streets, Roads, Highways, City Parking Lots.** The City currently sweeps all City streets. The street sweeper is maintained and operated by the Public Works Department. *The City plans on implementing a schedule of sweeping all streets at least once a month.* The City will also look into a restrictive parking policy via flyers or temporary signs to allow maximum access for sweepers. Street sweepers are cleaned at wash racks that drain to the sanitary sewer, and residuals are disposed of at the local landfill. All street maintenance activities are done with control measures in place. Storm inlets are covered and all sediments and debris are cleaned and disposed of properly at the local landfill.
    - **Maintenance and Storage Yards and Shops.** The City stores all hazardous materials away from storm drains and in secondary containments where appropriate. A spill response plan has also been developed and all City employees are trained according to this plan. *The City has goal of marking the destination of all drains so disposed material are not dumped down the storm drains by the end of 2008. The City also plans on recycling 100 percent of used oil every year.*
    - **Salt and Sand Storage Areas.**

- **Snow Disposal Areas.**
- **Municipal Landscaped Areas.**
- **Procedures for Proper Disposal of Waste.** All non-hazardous waste materials removed from the City's MS4 and area of jurisdiction including dredged material, accumulated sediments, floatables, and other debris will be disposed of at the local landfill. When possible, materials are recycled. Hazardous materials are disposed of through a licensed, commercial waste disposer.
- **Procedure for Assessing New Flood Management Projects for Impacts on Water Quality.** Through policy, the City Engineer assesses flood management project for the impacts the project may have on water quality and looks for ways to incorporate the same non-structural and structural controls that would be considered for new development and redevelopment under MCM 5.
- **Government Employee Training Program.** The City provides training of inspectors, street sweeping equipment operators, street maintenance crews, utility maintenance crews, park maintenance crews, and construction crews. The City uses resources from EPA and DNR for training materials and coordinates with other local municipalities for training opportunities. Training will be coordinated with all other MCMs. *The City has a goal of developing a schedule for training personnel at least once per year.*

The Public Works Department is responsible for managing and evaluating the City's Pollution Prevention/Good Housekeeping for Municipal Operations Plan. The measurable goals set for the BMPs were determined through research and study of EPA and DNR literature and analysis of the City's needs. The success of the program will be determined by analyzing each of the BMP goals for the successes and failures at the end of each year.