

Draft SWMP 2008

CITY of SEDALIA STORM WATER MANAGEMENT PROGRAM

The City of Sedalia is required to submit a storm water management plan (SWMP) in accordance with 40CFR Part 123.32. This document outlines the City of Sedalia's program to develop, implement and enforce a storm water management program designed to reduce the discharge of pollutants to the maximum extent practicable, to protect water quality and to satisfy the appropriate requirements of the Clean Water Act in accordance with Missouri Department of Natural Resources Phase II program. The SWMP addresses the six minimum control measures as required by the regulations. The plan also identifies the city's legal authority to implement the general permit.

The storm water management plan traverses all areas within the corporate city limits. The City of Sedalia has a population of 20,300 residents, 150 miles of roadways and 20 storm water outfalls from the city discharging into the waters of the state.

The City of Sedalia will submit its required report annually during the first term of the permit cycle. The report will include the status of compliance with the permit conditions, an assessment of the appropriateness of the Best Management Practice (BMP) and progress toward achieving the measurable goals for each six minimum control measures. A summary of the activities the City of Sedalia will undertake during the reporting cycle and any changes to BMPs or measurable goals will be included in the report. The plan outlines the six minimum control measures, which are expected to result in significant reductions in pollutants discharged.

The six minimum control measures are:

- 1) Public Education / Outreach
- 2) Public Participation / Involvement
- 3) Illicit Discharge Detection / Elimination
- 4) Construction Site Runoff Control
- 5) Post Construction Runoff Control
- 6) Pollution Prevention / Good Housekeeping

1. Public Education and outreach on storm water impacts

Description of Best Management Practices:

- 1) Bilingual brochures or fact sheets
- 2) Volunteer Citizen Educators
- 3) Alternative Information Sources
- 4) Event Participation
- 5) Educational Programs
- 6) Storm drain Stenciling
- 7) Storm Water Hotline
- 8) Tributary Signage

Permit Requirement:

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 the steps that the public can take to reduce pollutants in storm water runoff.

Plan implemented to meet this requirement:

- 1) Bilingual flyers sent out with water bill explaining impact of storm water discharges on water bodies and the steps individuals can take to reduce pollutants in the storm water runoff which include proper disposal of toxins and illicit discharges. Call DNR to learn of where to dispose toxins. This will be done by using a monthly reoccurring letter that will describe different ways to protect the storm water runoff, covering a different subject every month. The subjects will include what is water pollution, the effects of pollution, what the city is doing to prevent pollution, pet waste, disposing toxins properly, lawn care, septic systems, vehicle maintenance ect. The brochures will be

bilingual and give volunteer information and the hotline to call on every flyer sent out each month.

- 2) Volunteer Educators will be used; the City will attempt to involve the Stream Team or students in college to relay information to other younger students as well as any others who have volunteered to be a part of the Storm Water Pollution Prevention Plan. The city will do this by hanging volunteer signs in the schools to try and recruit volunteers. We will train the volunteers to train others on storm water runoff or allow previous volunteers to share their knowledge of pollution prevention, stories they have about pollution, or any creative activity they may have on pollution.
- 3) The alternative information resource will be a website which will have all information pamphlets, ordinances, volunteer information, designated hazardous waste disposal places, and the storm water hotline to call. The city may also use other means such as bumper stickers.
- 4) Event participation will be held at the schools showing scenes and ways that water is polluted. This will be an interactive festival for school aged children and their parents. We will first begin at schools and hopefully make the event large enough to incorporate the entire City of Sedalia.
- 5) A PowerPoint Presentation will be used to educate children on the effects of storm water discharges to water bodies. An activities booklet will be another educational tool utilized by the city further participation and understanding
- 6) The storm water hotline will be used to call about any inquiries, questions, and/or concerns that relate to storm water or illicit discharges. Calls will be logged with the persons name if they are willing to give that information, address, the problem, and what actions were taken to fix the problem.
- 7) Tributary signage will be used to inform people of where storm water outfalls are located. The clean up after your pet sign will be placed in all parks.

Decision Process:

The City decided to pick the BMPs most suitable for Sedalia. The educational materials used were selected by deciding the best way to communicate to the people of Sedalia. These BMPs will allow the people of Sedalia to have an input on what is happening and other ways they can help. Children are the main focus, although the City will also be targeting individuals and businesses. Businesses are important to consider as well since they have much a much larger impact on the community. It is important they know the effects of illicit discharges and good housekeeping techniques to ensure they are meeting the cities regulations on storm water runoff.

Rationale statement on Informing individuals and households on Stormwater Pollution Reduction:

Individuals will be targeted through a bilingual monthly mailing. This mailing will go to all people within the Sedalia Water Department service area. Individuals will be informed of steps to reduce pollution, how to participate in volunteer services, lawn care, proper disposal techniques for hazardous material, and other important information on storm water runoff. The city will send out a bi-annual survey in place of an informative flyer.

Announcements will also be made through the radio and newspaper to ensure anyone interested may participate in volunteer services or other informative classes. Classes will be held every four months.

Rationale statement on Informing individuals and groups on Stormwater Pollution

Reduction:

Groups to become active in the storm drain cleanups or stream team cleanups will be the stream team members and the boys and girls scouts. They will be asked by the city of Sedalia to participate in cleanups. Stream Team can aid in the cleanup of our creeks surrounding Sedalia. The boys and girls club can help in stenciling and cleaning the storm runoff drains, catch basins, and ditches. Other groups will be informed and asked to participate once these volunteers are organized. There will always be volunteers welcome with the city and information will be constantly provided on how to become a part of the storm water pollution runoff plan. The City will post volunteer information on in schools, send flyers out with mail, create a web site to aid in public education and outreach. The volunteers will document areas cleaned and illicit discharges detected.

Target Audience:

It is essential to target our youth. They are the leaders of tomorrow. Teaching students will lessen the chances of them polluting the environment. The target areas will be kindergarten through tenth grade. The City has created a PowerPoint Presentation that will help children understand what stormwater runoff is and the benefits of protecting it. At the end of the presentation we will give children the information they need to become a volunteer, as well as a coloring pamphlet activity booklet. The City will not only be targeting students, but they will be targeting businesses such as auto body garages and restaurants. A different pamphlet or flyer will be made up for each individual type of business. The pre-treatment coordinator will be reaching out to these businesses by visiting local businesses and passing out educational flyers. The city will also be targeting construction sites through informational classes and an ordinance.

Target Pollutant Sources to Address through Public Education:

The pollutant sources to be targeted will be: illicit discharges, waste oil, pet waste, paint, pesticides, yard waste, trash, septic tank waste.

Outreach Strategies: Brochures, radio, flyers, meetings, newspapers, and PowerPoint presentations will all be strategies to inform the public of water pollution and the preventative measures. Brochures will be used when visiting schools, they will be sent out with water bills or flyers whichever is easiest to use with the mailing of the water bills. The PowerPoint presentations will be used at schools as well as public gatherings to talk about things such as septic tank upkeep or pollution prevention measures that can be taken by individuals in the household. The radio and newspaper will be used to announce pick up of hazardous materials and leaf collections. Informational flyers will be passed out to businesses showing information on how they can reduce the amount of pollutants they are putting in the stormwater runoff.

Persons Responsible:

Brooke Huddleston and Mark Grose

Evaluate the Success of the City of Sedalia's Program:

Presentations given in one year will determine the amount of children or adults reached. This includes meetings conducted at city hall, festivals, or volunteer services. Time lines being met will be another factor that is a big part of the cities success rate. The amount of people volunteering will be another factor that the city will consider in the overall success of the program.

How many people expected to reach over the permit term:

Estimated number of people reached will be a majority of school aged children. Businesses of different types will be given information. Over the permit term 50% of businesses and school aged children will be reached

Reasoning behind selecting specified BMP:

The BMP's were selected to target youth, industries, and the people of the City of Sedalia. The BMP's chosen will be the best to use for the size of Sedalia and the number of people who must be reached as well as the methods for reaching these people. If these methods are lacking and outreach does not seem to be meeting the City of Sedalia's educational requirements; actions will be taken to better the program.

Measurable Goals

Year 1 Jan. 2007 – Jan. 2008

Bilingual Brochures sent out to the people of Sedalia through water bill
Begin development of web site
Volunteers to be recruited
Educational Program organized and presented to boys and girl scouts
Storm Drain Stenciling- completed but will rechecked each summer for faded paint by volunteers
Stormwater Hotline will be available and records taken of calls
Tributary signage will be placed on water outfalls and parks
Documentation of number and location of tributary signage complete

Year 2 Jan. 2008- Jan. 2009

Volunteer educators will be recruited. These volunteers will consist of stream team members and other volunteers the city can recruit including: high school and college students and teachers.
Continue adding to web site
Update brochures for businesses
Continue adding to educational material and finding new ways to present material

Year 3 Jan. 2009 – Jan. 2010

Continue stormwater stenciling program with volunteers
Continue to reach out to the community through new educational materials

Year 4 Jan. 2010 – Jan. 2011

Find other alternative information sources such as bumper stickers or possibly placemats for restaurants.

Continue finding new ways of displaying information and incorporating new citizens into the volunteer services.

2. Public Involvement/Participation

Description of Best Management Practices

- 1) Public Meeting/Citizens Panel
- 2) Storm Drain Stenciling
- 3) Community Clean-ups
- 4) Citizen Watch Groups
- 5) Volunteer Educators/Speakers
- 6) Volunteer Water Quality Monitoring
- 7) Adopt a Storm Drain

Permit Requirement: Implement a public involvement/participation program

Decision Process:

Volunteers from the boys and girls clubs as well as the stream team will be asked to aid the City in keeping the waters clean from debris. We will ask that volunteers take part in water testing and water outfall inspections. Conducting a meeting every four will allow the public to be heard. These comments will be taken note of and the problems will be addressed to ensure that flooding and water flow are not a problem within the city. The City will allow all willing to participate in volunteering. The city will use bilingual volunteer messages to convey to the community the importance of clean stormwater runoff. We will also ask that companies become involved in cleaning up the city by giving them informational brochures.

Involving the public in the development and submittal of the application and SWMP:

The City will conduct public meetings every four months which will allow for all issues to be presented by the public, the City will attempt to nominate citizen representatives to become a part of the storm water management panel, by announcing to groups, and individuals. Questions, concerns, or ideas in the citizen's panel will be addressed. The citizens' panel will be open to the entire community.

Actively Involving the public in the development and implementation of the program:

Storm drain stenciling will be a way for all members of the community to become active in reducing the amount of illicit discharges. Members can not only stencil the drains, but clean them out as well. All members of the community will be asked to participate. We will reach out to every type of ethnic and economic group possible by using multi-language materials and broadcasting regularly. Included in the outreach will be school

aged children, Spanish, businesses, general public ect... Community cleanups will be another way to get the citizens involved. Every three months volunteers can pick up trash and other debris that will cause a threat to the water supply. If there are ample volunteers this can be scheduled once a month or even more depending on the amount of volunteers readily available to do so. A citizen's watch group is another way for people to keep an eye on the water and help the city locate people who are breaking the city ordinance. A citizens watch group can monitor what is going into the drains and possibly even keep their drain free of debris. Illegal dumping could be stopped with a citizens watch group. These people will be reached by media. The public can call the stormwater hotline for more information. Volunteer educators and speakers will be utilized. The City will ask that college students or anyone else who would be interested to take over and communicate with others the importance of keeping the stormwater runoff pollutant free. We will ask the schools if their science class students may participate in water testing, if not the stream team or other volunteers will be recruited if permissible. This will not only aid the city by getting its water tested free of charge, but it will also show students or other volunteers the amount of pollutants in the drinking water, which will aid in their understanding of illicit discharges and the impacts on the environment and water quality. Adopt a storm drain will be another way for the community to reach out to individuals. Names and addresses will be kept of people who want to take part in this and the number of storm drains taken care of. These people will be recognized in the local paper for helping keep the streams clean.

Identification Responsible Persons: Brooke Huddleston and Mark Grose

Evaluating Success:

Success will be measured by the amount of pollutants removed from the storm water through volunteers, and the stream team efforts. It will also be measured by the number of people participating in the citizens' panel, volunteering not only to clean up but to educate others in storm water runoff.

Measurable Goals:

Year 1: Jan. 2007 – Jan. 2008

Notice of public meetings sent out on bilingual flyers,
Begin locating volunteers through media
Citizens Panel set up
Stencil drains
Water quality tested by volunteers

Year 2: Jan. 2008 – Jan. 2009

Community Cleanups Organized
Citizens Watch Group Information sent out
Adopt a Storm Drain Information sent out
Continued water testing by volunteers

Year 3: Jan. 2009 – Jan. 2010

Storm Drain Adopters recognized in local paper
Continued water testing by volunteers
Community Cleanups initiated and recorded
Volunteer groups set up

Year 4: Jan. 2010 – Jan. 2011

Continue implementing new strategies to incorporate volunteers and the community.
Continue storm drain stenciling

3. Illicit Discharge Detection Elimination:

Best Management Practices:

- 1) Storm Sewer System Map
- 2) Plan to Locate Problem Areas
- 3) Identify the Source of Contaminants
- 4) Devise a Plan to Remove/Correct Illicit Discharges
- 5) Develop Informative Brochures
- 6) Publicize and Facilitate Public reporting of Illicit Discharges
- 7) Coordinate Volunteers
- 8) Initiate recycling program
- 9) Public Employees/Volunteers Training

Program to detect and eliminate illicit discharges including illegal dumping:

The city will visually inspect each stormwater outfall every three months. Volunteers will be utilized. Volunteers will be from the general public; school aged children, civic groups, or others who the city is able to recruit for volunteer services. If volunteers are not available, the city will take the initiative and inspect the stormwater outfalls visually every three months. The first year the city will test the stormwater outfall discharges for significant signs of illicit discharges and each year there after, unless an illicit discharge is present. Discharges found will be cleaned up or located and eliminated. The city/volunteers will attempt to clean all illicit discharges or debris at the time of discovery. All outfalls will be tested annually for water contamination to ensure that the pollutants that are not visible are discovered and properly managed. The city will have an inspection form and clean up form for the purpose of documenting inspection times, types of illicit discharges detected (if any), or amount of debris that were cleaned at the time of inspection. Locating illicit discharges may require the city to do extensive testing of different sites of the water body to determine where the illicit discharge originated. The city has made a PowerPoint Presentation which will aid as a training device on the proper steps of locating and eliminating illicit discharges. The city will also rely on the public to report illicit discharges or illegal dumping within the City of Sedalia. Illegal dumping and/or water outfall signs will be posted at stormwater outfalls. Hazardous spills are the responsibility of the City's Fire Department. Other non hazardous materials will be cleaned by the City of Sedalia and/or the Fire Department. Disposal will be handled on a case by case basis

Develop Storm Water Map/GIS:

The City has developed a plan for GIS and will include the location of all outlets, and the names and location of all waters that receive these discharges from those outlets.

Prohibit Illegal Discharges:

The City will implement an ordinance to prohibit illegal discharges into the MS4 system.

Procedures for locating priority areas with a higher likelihood of illicit connections:

The city will coordinate with the Water Pollution Control Department to aid in the development and analysis of background levels. The City will then conduct the program to detect and eliminate illicit discharges.

Procedures for Program Evaluation and Assessment:

Program evaluation and assessment will be based on the amount of illicit discharges found and eliminated, the amount of trash removed from water sources, and the water quality change after one year.

Informing Public Employees, Businesses, and the General Public of Hazards Associated with Illegal Discharges and Improper Disposal of Waste:

The City will hand out brochures/flyers, for specific businesses within the Sedalia City Limits. These businesses will include but are not limited to restaurants, factories, garages/auto body shops, etc... These brochures/flyers will include up to date information of the hazards of illegal discharges and improper disposal, which will correlate with the type of business they are operating. These information packets will also explain the proper ways to dispose of illicit discharges and companies names that deal with these types of materials.

Persons Responsible:

Brooke Huddleston and Mark Grose

Evaluating Success of Minimum Measure:

The success of this minimum measure will be determined by the water quality level changes from the background testing to the annual testing. This will tell the City of Sedalia whether illicit discharges are still being dumped into the storm waters. From there the City of Sedalia will take measures to reduce illicit stormwater runoff. Amount of trash removed and illicit discharges eliminated will be another way to evaluate success.

Measurable goals:

Year 1 Jan. 2007 – Jan. 2008

Stormwater GIS Map Completed

Ordinance passed on illicit discharging

First testing of water outfalls complete

Plan to locate and eliminate illicit discharges in place

Documents in place to record all illicit discharge detections, testing, actions taken, and trash picked up.

Informative brochures developed

Publicize illicit discharges found

Recycling Program for household waste

Year 2 Jan. 2008 – Jan. 2009

Coordinate volunteers for stream cleanups and testing stormwater outfalls

Training for public employees completed

30% of illicit discharges determined

Year 3 Jan. 2009 – Jan. 2010

60% of illicit discharges detected and eliminated

10% of households participating in hazardous waste collection days

Year 4 Jan. 2010 – Jan. 2011

90% of illicit discharges detected and eliminated

30% households participating in hazardous waste collection days

4. Construction Site Storm Water Runoff Control

Best Management Practices:

- 1) Ordinance
- 2) Procedures for site plan review
- 3) Procedures for site inspection and enforcement of control measures
- 4) Give out a BMP booklet to Construction Site Operators
- 5) Storm water hotline available on the BMP pamphlet
- 6) Offer a training class to Construction Operators

Ordinance:

See Ordinance number _____

Procedures for site plan review:

It is mandatory through the City's ordinance that the construction site operators submit a plan of action to ensure the least amount of erosion and sediment runoff. These plans will include all probable BMPs that will be best suited for the project. The building inspector will have training in the Best Management Practices for construction sites.

Procedures for receipt and consideration of information submitted by the public:

The public will have the storm water hotline to call if they have information for consideration. The city will consider their information, keep documentation, investigate, and write a proper response to each person who has given information.

Site Inspection and Enforcement Control Measures:

The building inspector will have the authority to enforce any of the following options at his/her discretion; Non-Monetary penalties (such as stop work orders), fines, and/or permit revocation for non-compliance.

Requirements for construction site operators to implement appropriate erosion and sediment control BMPs and control waste at construction sites:

Construction site operators will be given a copy of the ordinance as well as a BMP pamphlet to help them decide which BMPs will be best suited for their construction plan. The BMP pamphlet will also give instructions on what to do with left over materials such as discarded building materials, concrete truck washouts, chemicals, litter, and sanitary waste. Anyone in non-compliance with the ordinance will be subject to; revocation, stop work orders, fines, and/or permit revocation for non-compliance.

Procedures for considering the potential water quality impacts of pre-construction site plans:

Site plan reviews will be consider the potential amount of erosion and sediment loss construction sites will incur, as well as the amount of land that will be disturbed. The building inspector will take into consideration the placement of water inlets and outfalls located near or around the construction site that may pose a potential threat to the quality of water. The building inspector will be given training to ensure the proper BMPs will be put in place for the type of land on and surrounding the property. The Construction Site Operator will be given the BMP pamphlet that will help him/her in phasing and sequencing the construction site to maintain sediment and erosion loss. The Building Inspector will compare the Construction Site Operators notes with his/her own to ensure that all BMPs needed for the construction site will be utilized.

Procedures for receipt and consideration of information submitted by the public:

The information will include the storm water hotline to call if non-compliance is recognized, or any other problem with storm water quality is recognized by residents. This information will be noted and inspected to ensure that the storm water requirements are being met.

Procedures for site inspection and enforcement of control measures including prioritizing sites for inspection:

Site inspection will include a checklist of BMPs, as well as a visual inspection of all BMPs that are located on the construction property. All BMPs shall be in place and serving the purpose as set out in the operator/s original plan of action. Any stormwater runoff devices will be inspected to ensure storm water runoff is being detained in the proper manner from reaching the storm water inlets or outlets.

Construction runoff inspections will be prioritized by the amount of land the construction activity will be disturbing. Prior compliance with storm water runoff and implementing BMPs will also be taken into consideration if applicable.

Persons Responsible for overall management and implementation:

Brooke Huddleston and Mark Grose - Building Inspectors and code enforcement

Evaluating the success of this minimum measure:

The success of this minimum measure will be evaluated by the number of construction sites being in compliance with the cities ordinance, and the construction site operator/s duties to comply with the BMPs set out. The success will also be measured by the amount of construction site operators who attend the training seminar, as well as a lesser amount of water pollution from construction sites.

Estimated Goals:

Year 1 Jan. 2007 – Jan. 2008

Ordinance in place
Procedures for site plan review adopted
Procedures for inspection and enforcement adopted
Training class for construction operators established
First training class for building inspectors complete
BMP booklet complete

Year 2 Jan. 2008 – Jan. 2009

BMP booklet reviewed and updated
50% compliance achieved through construction operators
50% compliance with ordinance

Year 3 Jan. 2009 – Jan. 2010

100% compliance with Ordinance
100% compliance achieved through Construction operators

Year 4 Jan. 2010 – Jan. 2011

Continue using BMP in construction finding new innovative ideas and training materials to help construction operators remain in compliance with the ordinance and BMP requirements.

5. Pollution Prevention/Good Housekeeping for Municipal Operations

Best Management Practices:

- 1) Operation and Maintenance Program
- 2) Employee Training Manuals
- 3) Controls for Reducing or Eliminating Discharges of Pollutants
- 4) Procedures for Proper Waste Disposal
- 5) Recycling Program
- 6) Designated area for Snow Disposal
- 7) Reduce in Pesticides and Herbicides use

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:

Operation and maintenance schedules will be recorded regarding street sweeping, maintenance on municipal vehicles, fuel usage, salt usage, and catch basins cleaned.

Procedures for the proper disposal of waste:

Procedures for proper disposal of waste will be included in the training manuals for municipal employees. Records will be kept of materials used, waste accumulated, as well as the date's accumulated waste is disposed.

Training materials 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 stormwater system maintenance. Employee training manuals will cover:

Fleet Maintenance-Vehicles
Land Disturbances
Material Storage
Parks and Grounds Maintenance
Solid Waste Handling
Storm Water Training
Streets and Drainage

Program to prevent reduce pollutant runoff:

The program to prevent or reduce pollutant runoff will include daily logs of vehicle inspections. Vehicles leaking polluting material the vehicle will be taken out of service until repaired. The city does not own or operate any industrial facilities that are subject to EPA regulations. The municipal operations impacted will include the following: Parks and recreation, street crews, trash pickup, maintenance, and the sewer maintenance.

Existing available materials planned to use in training and how this training program will be coordinated with the outreach programs:

The city does not have any documentation of previous training program. The PowerPoint(s) presentations that will be used are from the EPA websites. The citizens of Sedalia will receive in a water bill mailing the same flyer that will be given to the municipal employees.

Maintenance activities, maintenance schedules, and long-term inspection procedures for controls to reduce floatables and other pollutants to the permittee's regulated MS4:

The City of Sedalia will inspect and make repairs on drainage infrastructure to include catch basins, manholes, pipes, open channels and ditches, and residential and retention/detention (R/D) pond facilities. The long-term inspection procedure will be to maintain a yearly inspection and cleaning. Catch basins will be cleaned as needed after every storm to ensure that floatables and other pollutants are kept to a minimum.

Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways and municipal parking lots:

The city will conduct regular street cleaning. All street cleaning will be documented. The salt has already been stored inside one of the city garages holding spaces.

Procedures for proper disposal of waste removed from the MS4 area of jurisdiction:

All dredged material and accumulated sediments will be taken to the City owned closed lagoon cell. Floatables and other debris will be taken to the landfill.

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 will contact flood management to find new ways to protect against flooding. When new ideas are found the city will document placement of these protection devices and check to ensure flooding in that area during or right after a heavy storm.

Initiate Recycling Program:

A recycling of hazardous waste program in tact and held annually. The City of Sedalia will attempt to make this a quarterly collection if possible. The city is also in the process of developing a composting facility. Public recycling is done in a joint effort of the City of Sedalia and Banjos recycling.

Persons responsible:

Brooke Huddleston and Mark Grose

Evaluating Success:

The number of municipal employees attending training will be apart of the evaluating success. Records taken of all municipal activities to reduce storm water pollution will be recorded such as vehicle repairs, amount of trash collected, number of employees trained, and number of major spills cleaned. Decreased amount of pollutants from municipal operations will be another factor i.e. truck leaks fixed. BMPs utilized on land disturbances, and reduced usage of herbicides and pesticides will also be documented.

Measurable Goals:

Year 1 Jan. 2007 – Jan. 2008

Operation and maintenance program in tact
Training program complete/first training class completed for municipal employees
Controls to reduce pollutants in place
Procedure for proper disposal of waste in place
Review different types of flood water control devices

Year 2 Jan. 2008 – Jan. 2009

Designate area for snow disposal that will not affect storm water runoff
Incorporate additional water quality control devices
Begin annual maintenance on catch basins and ditches

Year 3 Jan. 2009 – Jan. 2010

Initiate new recycling program that better meets public needs of disposal
The city will implement new ways to reduce pesticide and herbicide uses

Year 4 Jan. 2010 – Jan. 2011

City use of pesticides reduced through new measures
New Recycling Program in effect

6. Post-Construction Storm Water Management in New Development and Redevelopment

Best Management Practices

- 1) Education and training on post-construction runoff for City employees, construction operators, and the general public
- 2) Ordinance in place for post-construction
- 3) Design manual in place for post-construction

Develop, Implement, and Enforce a program to address storm water runoff from new development and redevelopment:

See ordinance # _____ and Stormwater Design Manual

Develop and implement strategies which include a combination of structural and/or non-structural BMPs appropriate for the community:

The city already has an ordinance in place for detention/retention ponds. The city will use vegetative practices in the city parks to enhance pollutant removal and improve natural site hydrology. The city will develop strategies for developers to implement in their post-construction activities through the design manual this will include both structural and 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:

The city will adopt an ordinance to ensure compliance from construction site operators, this ordinance will affect post-construction of new development and redevelopment projects and set out guidelines for construction site operators.

Ensuring long-term operation and maintenance of BMPs:

Long term operation and maintenance of BMPs will be ensured by random inspecting of sites. These sites will be observed at least once a year by the designated inspector. This will also be ensured through a contract with the developer.

The program to address storm water runoff from new development and redevelopment projects:

The program will be addressed by the city ordinance and the storm water design manual.

How the program is specifically tailored for the local communities individual needs by minimizing water quality impacts, and attempt to maintain pre-development runoff conditions:

This program is specifically tailored for the City of Sedalia by the ordinance that is set forth for construction operators to follow as well as the lands that inspectors will inspect. This program will minimize water quality impacts by ensuring that both structural and non-structural BMPs are being used and maintained properly. The city will attempt to minimize impervious cover, by insuring the contractors/construction operators are aware of the proper ways to incorporate new and redeveloped buildings into the storm water management practices.

Policies and ordinances that provide requirements and standards to direct growth to identified areas, maintain/increase open space, minimize impervious surfaces, and minimize disturbance of soils and vegetation:

The ordinance set forth will provide requirements and standards for development and redevelopment properties. The design manual will give post-construction operators the ideal tools to use to minimize impervious surfaces as well as minimize disturbance of soils and vegetation.

Educational programs for developers and the public about project designs that minimize water quality impacts:

The education program will consist of a PowerPoint presentation that directly identifies all aspects of structural and non-structural BMPs to be utilized for the Post-Construction site. This will be a training class designed for developers, public, and city employees. The classes will also offer specific maintenance procedures that must take place after the BMPs have been implemented. The educational program will be two separate programs. The first will be on the BMPs to utilize on specific properties and give examples of what BMPs would be most appropriate for different land settings. The second class will deal with maintenance and preventative measures.

Identification of the mechanisms and why the City chose these:

The ordinance is a way for the city to enforce the post-construction storm water runoff plan. The city chose to use a design manual so information can be changed as appropriate. The Design manual will set out the basic guidelines for construction operators to follow.

How the permittee will ensure the long-term operation and maintenance of their selected BMPs. Operations to help ensure that future O&M responsibilities are clearly identified include an agreement between the permittee and another party such as the post-development landowners or regional authorities:

The city will ensure the long-term operation and maintenance of their selected BMPs by doing random inspections of sites and ensure developers comply. The city will contact post-development landowners or regional authorities to advise them of the changes taking place to ensure an agreement between both parties.

Identification of persons responsible:

Brooke Huddleston and Mark Grose

Evaluating success of minimal measure:

The evaluating of the success of this minimal measure will be determined by the amount of compliance from developers. The reduced amount of soil erosion and improved clarity of waters will be a part of evaluating success. Participation in post-construction meetings will also be a way to evaluate success. The number of inspections and fines levied will be another means of evaluating success.

Measurable Goals:

Year 1 Jan. 2007 – Jan. 2008

Ordinance in place

Design Manual Complete

Educational Materials for community, developers, city employees, and construction operators complete

Year 2 Jan. 2008 – Jan. 2009

Educational classes for community, developers, city employees, and construction operators complete

Design manual distributed out to developers

Design manual posted on web site

Year 3 Jan. 2009 – Jan. 2010

50% compliance with post-construction ordinance and design manual

Continue educational classes

Year 4 Jan. 2010 – Jan. 2011

Continuing training for the public on post-construction

100% compliance for post-construction ordinance and design manual

1) Public Education and Outreach

Old Storm Water BMP

1. Bilingual brochures and fact sheet for the public
2. Alternative information sources (websites, bumper stickers, posters, etc...)
3. Storm drain stenciling : “Don’t dump goes to stream”
4. A brochure to specific industries (restaurants, auto repair shops about the effects of dumping grease, used oil and anti-freeze into storm drains ect...)
5. Educational Programs- focus on K-12th grade
6. Recreational guides to educate groups (hikers and bicyclist about trash in waterways).

New Storm Water BMP

1. Bilingual brochures or fact sheets/surveys
2. Alternative Information Sources- website possible bumper stickers
3. Storm drain Stenciling- completed re-check every summer
4. A brochure to specific industries (restaurants, auto repair shops about the effects of dumping grease, used oil, and anti-freeze into storm drains ect...)
5. Educational Programs- focus on k-10th grade
6. Volunteer Citizen Educators-students, stream team, boy and girl scouts
7. Event Participation- water festivals, public meetings
8. Storm Water Hotline
9. Tributary Signage – water outfalls and pick up after your pet signs

2) Public Participation/Involvement

Old Storm Water BMP

1. Public Meetings
2. Volunteers/ educators and speakers
3. Citizen watch group
4. Storm Drain Stenciling
5. Adopt a storm drain
6. Community Cleanups
7. Educating the public on septic tank operation and maintenance through public meeting

New Storm Water BMP

No change except: Volunteer water quality monitoring will be added and BMPs will be implemented differently

3) Illicit Discharge Detection and Elimination

Old Storm Water BMP

1. GIS Storm Water Map
2. Right of entry ordinance to inspect for discharges
3. Use public complaints and visual inspections to find/eliminate illicit discharges
4. Use Water Pollution Control Department to find previous water pollution

New Storm Water BMP

1. GIS Storm Water Map
2. Right of Entry Ordinance to inspect for discharges
3. Publicize and facilitate public reporting of illicit discharges
4. Establish and implement a plan to locate problem areas, after problem areas are found identify the source
5. Remove/Correct Illicit Discharges devise a plan to do so
6. Document all actions taken on inspections, problems found, and how they were resolved.
7. Coordinate volunteers for locating and visually inspecting outfalls or stenciling storm drains
8. Initiate recycling program for commonly dumped wastes such as motor oil, antifreeze, and pesticides
9. Training of public employees of identifying and eliminating illicit Discharges

4) Construction Site Runoff Control

Old Storm Water BMP

1. Ordinance
2. Inspection of construction properties
3. Sanctions for non-compliance

New Storm Water BMP

1. Ordinance
2. Procedures for site inspection and enforcement of control measures
3. Sanctions through ordinance to ensure compliance
4. Procedures for construction plan review that consider potential water quality impacts
5. Distribute BMP booklets to developers to consider other options of reducing pollutants in storm water runoff including the storm water hotline available on the BMP pamphlet for questions
6. Building Inspector Training
7. Offer a training class to construction operators, developers, and anyone else interested in knowing BMP for construction sites

5) Pollution Prevention/Good Housekeeping

Old Storm Water BMP

1. Vehicle Maintenance Program
2. Street Sweeping
3. Road salt stored
4. Parks reduced use of herbicides and pesticides
5. Integrated pest management control

New Storm Water BMP

1. Maintenance program for municipal operations
2. Street Sweeping
3. Road salt stored
4. Reduce amount of pesticides and herbicides used
5. Controls for reducing or eliminating discharges of pollutants
6. Procedures for the proper disposal of waste
7. Recycling Program
8. Designated area for snow disposal
9. Develop employee training manuals

6) Post Construction Runoff Control

Old Storm Water BMP

1. Structural and non-structural BMPs to address storm water pollution
2. Reduce amount of impervious cover by setting aside more land for conservation
3. Incorporate dry-ponds in urban setting

New Storm Water BMP

1. Create a design manual for post-construction to detail site plans and structural and non-structural BMPs
2. Education and training on post-construction runoff for city employees, construction operators and the general public
3. Ordinance in place for Post-Construction