

City of Maryville

Storm water management Plan

RECEIVED
WATER PROTECTION PROGRAM

The City of Maryville, Missouri has updated the following Storm water Management plan (SWMP) in conjunction with the permit renewal application to discharge under the State of Missouri State operating permit number MO-R040071. This SWMP is written with the intent of being compliance with the general permit.

The City of Maryville encompasses 3 square miles and its population is 10,581 according to the 2000 Census. The City is drained by 3 main streams, the White Cloud, Peach Creek, and the 102 river. These streams and rivers convey storm water generally south to the Missouri river. The land use is primarily residential with pockets of commercial and industrial development as shown on the enclosed map.

Public Education and outreach

The City of Maryville shall 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 the public can take to reduce pollutants in storm water runoff.

The City has a well established communication practice with its citizens. Primary means of communication include the city website (<http://www.maryville.org/>), the local newspaper, local radio and the city council meeting which are open to the public. Because the citizenry are accustomed to learning about the City activities from these sources, they will reach well over 50 percent of the 3800 households, businesses and industries in the city.

The target audience for the program is the residents, school age children and business owners. These target audiences include a majority of the people living and working in the Maryville area. Additionally, education of school age children about pollution prevention will help develop good habits and skills early in their life. They will carry these traits with them throughout their lives. Also, their good habits will impact the older generations and help them understand the benefits of pollution prevention.

Primary pollutant sources in the City include the general population and commercial and industrial operations. The focus of the education program will be pollution prevention. The city's education program will help its residents understand the impact of pollution and how to prevent it from happening.

The measurable goals for the public education and outreach BMPs include the completion of specific tasks. As it is difficult to measure the effectiveness of public education, especially in the early years of implementation, the completion of the proposed SWMP tasks related to public education and outreach provide the City a means to track their progress in developing the programs.

BMPs and Measurable Goals

Year 1, the focus of year 1 is to inform the community that the city is required to manage its storm water and to let them know the requirements of the storm water program.

1. Publish 2 articles in the local printed media. Subjects will include an introduction to the NPDES phase 2 permit, requirements of Phase 2, identify opportunities for the community to participate in the SWMP, and the location of additional information and a contact person.

Schedule: media article one year of effective date of permit.

Measurement: Number of articles in the local newspaper.

2. Develop a web page accessed from the city's main website regard the SWMP. This will allow the public to see information from their homes and include the information in a centralized location. The website will summarize the SWMP and include other materials generated.

Schedule: Launch the SWMP within 1 year of effective date of permit.

Measurement: Post the SWMP web page.

3. Implement a comment card section in city hall and on the web page, this will allow the community to log concerns related to storm water management.

Schedule: Provide comment card section with in one year of effective date of permit.

Measurement: Comment card with phone numbers and contact information.

4. Develop a log form to register citizen concerns and city response.

Schedule: Develop log form within 183 days from effective date of permit.

Measurement: Complete log form.

5. Contact local school district and identify educators interested in developing a one day curriculum on storm water management.

Schedule: Contact the school district within one year from effective date of the permit.

Measurement: List of educators interested in developing a one day curriculum.

Year 2, the focus of year 2 is to use the lines of communication established in the year 1 to build on the knowledge gained by the community and encourage them to help properly manage storm water.

1. Continue newspaper articles on proper storm water management. Subjects will be determined based on the annual report finding for year 1.

Schedule: 2 additional newspaper articles within 2 years of the effective date of the permit.

Measurement: Number of articles in the local media.

2. Enhance the website by posting articles from the newspaper and other relevant material on the SWMP web page and providing links to relevant storm water management sites like MDNR and EPA.

Schedule: Post articles and material within 1 month of when published in local media. Provide links to other sites within 2 years of the effective date of the permit.

Measurement: Number of articles posted. Links to information sites.

3. Meet with interested educators identified within 2 years. Work with them to develop curricula.

Schedule: Meet with interested educators within 2 years of the effective date of the permit. Develop curricula within 2 years of the effective date of the permit.

Measurement: Meeting held. Number of materials for curricula obtained/developed.

4. Investigate program to post signs at stream crossings in parks areas and other locations regarding stream water quality protection and hazards of dumping. Develop program ideas as the staff level and present to the city council for discussion and action.

Schedule: develop program ideas within 1.5 years of the effective date of the permit. Present to the City Council within 2 years of the effective date of the permit.

Measurement: Program ideas developed. City council presentation made.

5. Distribute brochure and letters to waste haulers and restaurant owners regarding the proper management of waste grease, cleaning of grease traps, and waster disposal.

Schedule: Distribute brochure letter within 2 years of the effective date of the permit.

Measurement: Number of brochures and letters distributed.

Year 3

1. Continue newspaper articles in proper storm water management. Subjects will be determined based on annual report finding for year 2.

Schedule: 2 additional newspaper articles within 3 years of the effective date of the permit.

Measurement: number of articles in the local newspaper.

2. Continue the website by posting articles from the newspaper and the other relevant material on the SWMP web page and identifying and providing links to additional relevant storm water management sites.

Schedule: Post articles and material within 3 months of when they are published. Provide additional links to other sites with in 3 years of the effective date of the permit.

Measurement: Number of articles posted. Number if links to other web sites active. Number of hits to the website.

3. Work with educators to complete their one day curricula on proper storm water management.

Schedule: Work with educators as needed in year 3.

Measurement: Number of presentations to school age children on storm water management.

4. Staff contact with restaurants owners to review their compliance with proper management of waste grease, cleaning of grease traps and waste disposal.

Schedule: Contact restaurant owners with in 3 years of the effective date of the permit.

Measurement: number of contacts made.

5. Summary of year 2 activities at a city council meeting. Notice of the meeting to include an announcement of SWMP presentation.

Schedule: Year 2 summary provided with in the 2.5 years of the effective date fo the permit.

Measurement: Presentation at City Council meeting.

Year 4

1. Continue newspaper articles in proper storm water management. Subjects will be determined on the annual report finding for year 3.

Schedule: 2 additional newspaper articles with in 4 year of effective date of the permit.

Measurement: Number of articles in the local newspaper.

2. Continue the website by posting articles from the newspaper and the other relevant material on the SWMP web page and identifying and providing links to additional relevant storm water management sites.

Schedule: Post articles and material within 3 months of when they are published. Provide additional links to other sites with in 4 years of the effective date of the permit.

Measurement: Number of articles posted. Number if links to other web sites active. Number of hits to the website.

3. Work with educators to complete their one day curricula on proper storm water management.

Schedule: Work with educators as needed in year 4.

Measurement: Number of presentations to school age children on storm water management.

4. Review existing ordinance on proper disposal of animal waste and amend as necessary according to the storm water permit.

Schedule: Develop ordinance language within 4 years of the effective date of the permit.

Measurement: Ordinance revised.

5. Summary of year 3 activities at a city council meeting. Notice of the meeting to include announcement of SWMP presentation.

Schedule: year 3 summary provided within 3.5 years of the effective date of the permit.

Measurement: Presentation at City Council meeting complete.

Year 5

1. Continue newspaper articles in proper storm water management. Subjects will be determined on the annual report finding for year 4.

Schedule: 2 additional newspaper articles with in 5 year of effective date of the permit.

Measurement: Number of articles in the local newspaper.

2. Continue the website by posting articles from the newspaper and the other relevant material on the SWMP web page and identifying and providing links to additional relevant storm water management sites.

Schedule: Post articles and material within 3 months of when they are published. Provide additional links to other sites with in 5 years of the effective date of the permit.

Measurement: Number of articles posted. Number if links to other web sites active. Number of hits to the website.

3. Work with educators to complete their one day curricula on proper storm water management.

Schedule: Work with educators as needed in year 5.

Measurement: Number of presentations to school age children on storm water management.

4. Enact revisions to ordinance on proper disposal of animal waste.

Schedule: Enact revisions within 5 years of the effective date of the permit.

Measurement: Issues of non-complying residents documented.

5. Summary of year 4 activities at a City Council meeting. Notice of the meeting to include announcement of SWMP presentation.

Schedule: Year 4 summary provided within 4.5 years of the effective date of the permit.

Measurement: Presentation at City Council meeting complete.

Public Participation/Involvement

Permit Requirement: Maryville shall implement a public involvement & participation program that complies with the state and local public notice requirement.

Decision Process: Maryville involves it community primarily through assembly of citizens panels to help staff develop long range plans to manage growth and significant public improvement projects. The City's plan for public involvement will include development of a citizen panel to provide input and direction for long term storm water management and to help publicize the changes that will be required.

Volunteer groups in the City have participated in cleanup days in the past. These groups have included homeowners associations, church and school groups, scouts, etc. The City will use these successful programs as a basis to expand participation.

The focus of the participation/involvement program will be to increase participation in established, successful programs. The target audiences will be expanded from the education program to include the development community and businesses.

It is difficult for the City to predict, or accurately evaluate a level of participation in many specific programs or activities related to the Public Participation/Involvement BMPs. Therefore, the City has developed goals that include measurement of the number of activities or events completed.

BMPs and Measurable Goals

Year 1.

1. Conduct a public meeting outlining the Phase II program, the resources required, and a schedule of activities. Identify volunteers willing to participate in a citizen's panel to help direct the SWMP. Advertisement of the meeting will be according to the City's normal procedures.

Schedule: Within 6 months of the effective date of the permit.

Measurement: Public meeting held. Volunteers identified.

2. Develop citizen's panel. Conduct 1 organizational meeting. Outline topics for follow up meetings.

Schedule: Within 1 year of the effective date of the permit.

Measurement: Complete meeting.

3. Train City personnel to identify and report potential dry weather illicit discharges.

Schedule: Within 9 months of the effective date of the permit.

Measurement: Training program completed.

Year 2.

1. Conduct 2 meetings of the citizen's panel.

Schedule: 2 meetings held within 2 years of the effective date of the permit.

Measurement: Number of meetings held.

2. Promote the program at a City Council meeting soliciting participation in the program. Focus on identification of potential dry weather illicit discharges.

Schedule: Within 1.5 years of the effective date of the permit.

Measurement: Presentation made at City Council meeting.

3. Train interested citizens to identify and report potential dry weather illicit discharges.

Schedule: Within 2 years of the effective date of the permit.

Measurement: Training meeting conducted.

4. Adjust SWMP based on citizen's panel input.

Schedule: Within 2 years of the effective date of the permit.

Measurement: Number of ideas included in the SWMP and SWMP updated.

Year 3.

1. Conduct 2 meetings of the citizen's panel.

Schedule: Conduct 2 additional meetings within 3 years of the effective date of the permit.

Measurement: Number of meetings held.

2. Organize and schedule a litter cleanup day in the City parks which have drainage areas flowing through them.

Schedule: Within 3 years of the effective date of the permit.

Measurement: Cleanup day scheduled.

3. Adjust SWMP based on citizen's panel input.

Schedule: Within three years of the effective date of the permit

Measurement: Number of ideas included in the SWMP and SWMP updated.

Year 4.

1. Conduct 2 meetings of the citizen's panel.

Schedule: Conduct 2 additional meetings within 4 years of the effective date of the permit.

Measurement: Number of meetings held.

2. Conduct a littler cleanup day in the City parks which have drainage areas flowing through them.

Schedule: Within 4 yeas of the effective date of the permit.

Measurement: Cleanup day scheduled.

3. Adjust SWMP based on citizen's panel input.

Schedule: Within 4 years of the effective date of the permit.

Measurement: Number of ideas included in the SWMP and SWMP updated.

Year 5.

1. Conduct 2 meetings of the citizen's panel.

Schedule: Conduct 2 additional meetings within 5 years of the effective date of the permit.

Measurement: Number of meetings held.

2. Conduct a litter cleanup day in the City parks which have drainage areas flowing through them.

Schedule: Within 5 years of the effective date of the permit.

Measurement: Cleanup day scheduled.

3. Adjust SWMP based on citizen's panel input.

Schedule: Within 5 years of the effective date of the permit.

Measurement: Number of ideas included in the SWMP and SWMP updated.

Responsible person: Public Works Director

Illicit Discharge Detection and Elimination

Permit Requirement: Maryville will develop, implement, and enforce a program to detect and eliminate illicit discharge in the MS4. Develop or submit a storm sewer system map showing the location of all outlets and the names and location of all waters of the State that receive discharges from the MS4. Prohibit through ordinance, or other regulatory mechanism, non-storm water discharges into the mMS4 and implement appropriate enforcement procedures and actions. Develop and implement a plan to detect and address non-storm water discharges, including illegal dumping, to the MS4. Inform public employees, businesses, and the general public of hazards of illegal discharges and improper disposal of waste. Include a provision prohibiting any individual non-storm water discharge that is contributing significant amounts of pollutants to the MS4.

Decision Process: Maryville minimizes illicit discharges through several existing mechanisms. An existing ordinance, copy attached, is the legal mechanism used to prevent illicit discharges. The attached MS4 map is under development and is updated periodically, and will be updated as part of the SWMP. An attached map indicating the known outfalls of the MS4 will be updated as the City completes dry weather field screening. City streams are not on the 303(d) list nor do they have TMDLs which

indicates the City's streams are in relatively good condition. Therefore, the focus of the program is to identify during field inspections and through community involvement the presence of dry weather discharges. These dry weather discharges will be field tested by our waste water department for the presence of typical pollutants found in storm water or traced to their origin, and appropriate measures undertaken to eliminate them if found to be illicit.

The measurable goals for Illicit Discharge Detection and Elimination include phased completion of mapping, inspection, investigations, and resolution. The City will complete mapping and inspection of one quarter of the City each year and follow up with investigations and resolution. After the four year cycle, the City will have mapping updated and will begin to re-inspect the systems. The participation in programs such as motor oil recycling or hazardous waste collection will also be tracked.

BMPs and Measurable Goals

Year 1.

1. Conduct field investigation of the open channel system in the NW corner of the City. Field investigation will include walking the waters of the State, locating outfalls, GPS survey of outfalls, and noting whether a dry weather discharge was occurring.

Schedule: Within 1 year of the effective date of the permit.

Measurement: All streams in the NW corner walked, outfalls located, and dry weather discharges noted.

2. Update sewer system map with field located outfalls and any new drainage systems constructed.

Schedule: Map updated within 1 years of the effective date of the permit.

Measurement: Updated map that includes newly constructed and field located outfalls.

3. Continue to pursue grants for household hazardous waste pick up day. Conduct the pick up day if grant obtained.

Schedule: Submit grant application and conduct pick up day if grant obtained within 1 year of the effective date of the permit.

Measurement: Grant application submitted Continue used motor oil collection program at a collection center.

4. Continue used motor oil collection program at local collection stations.

Schedule: on going

Measurement: number of drop offs, or gallons recycled.

5. Review existing ordinance prohibiting illicit discharges and recommend modifications to ordinance as required.

Schedule: Within 1 year of the effective date of the permit.

Measurement: Ordinance reviewed and recommendations presented to City Council Committee.

Year 2.

1. Conduct field investigation of the open channel system in the SW corner of the City. Field investigation will include walking the waters of the State, locating outfalls, GPS survey of outfalls, and noting whether a dry weather illicit discharge was occurring.

Schedule: Within 2 years of the effective date of the permit.

Measurement: Streams in the SW corner of the city walked, outfalls located, and dry weather discharges noted.

2. Update sewer system map with field located outfalls and any new drainage systems constructed.

Schedule: Map updated within 2 years of the effective date of the permit.

Measurement: Updated map that includes newly constructed and field located outfalls.

3. Continue to pursue grants for household hazardous waste pick up day. Conduct the pick up day if grant obtained.

Schedule: Submit grant application and conduct pick up day if grant obtained within 2 years of the effective date of the permit.

Measurement: Grant application submitted.

4. Continue used motor oil collection program at collection center.

Schedule: On-going.

Measurement: Number of drop-offs, or gallons collected.

5. Update existing ordinance prohibiting illicit discharges to include necessary provisions.

Schedule: Update ordinance within 2 years of the effective date of the permit.

Measurement: Ordinance updated.

6. Field screen dry weather discharges identified in year 1. If the discharge appears to be an illicit discharge, identify source using maps and field investigations of the storm drainage system. Contact owner of source to determine type of discharge. If illicit, work with owner to eliminate discharge using the enforcement provisions of the ordinance.

Schedule: Complete activities with 2 years of the effective date of the permit.
Measurement: Number of dry weather discharges field screened. Number of investigations completed. Number of contacts made. Number of enforcement procedures.

Year 3.

1. Conduct field investigation of the open channel system in the SE corner of the City. Field investigation will include walking the waters of the State, locating outfalls, GPS survey of outfalls, and noting whether a dry weather discharge was occurring.

Schedule: Within 3 years of the effective date of the permit.

Measurement: Streams in the SE corner of the city walked, outfalls located, and dry weather discharges noted.

2. Update sewer system map with field located outfalls and any new drainage systems constructed.

Schedule: Map updated within 3 years of the effective date of the permit.

Measurement: Updated map that includes newly constructed and field located outfalls.

3. Continue to pursue grants for household hazardous waste pick up day. Conduct the pick up day if grant obtained.

Schedule: Submit grant application and conduct pick up day if grant obtained within 3 years of the effective date of the permit.

Measurement: Grant application submitted.

4. Continue used motor oil collection program at a collection center.

Schedule: On-going.

Measurement: Number of drop-offs, or gallons collected.

5. Field screen dry weather discharges identified in year 2. If the discharge appears to be an illicit discharge, identify source using maps and field investigations of the storm drainage system. Contact owner of source to determine type of discharge. If illicit, work with owner to eliminate discharge using the enforcement provisions of the ordinance.

Schedule: Complete activities within 3 years of the effective date of the permit.

Measurement: Number of dry weather discharges field screened. Number of investigations completed. Number of contacts made. Number of enforcement procedures.

Year 4.

1. Conduct field investigation of the open channel system in the NE corner of the City. Field investigation will include walking the waters of the State, locating outfalls, GPS survey of outfalls, and noting whether a dry weather discharge was occurring.

Schedule: Within 4 years of the effective date of the permit.

Measurement: Streams in the SE corner of the city walked, outfalls located, and dry weather discharges noted.

2. Update sewer system map with field located outfalls and any new drainage systems constructed.

Schedule: Map updated within 4 years of the effective date of the permit.

Measurement: Updated map that includes newly constructed and field located outfalls.

3. Continue to pursue grants for household hazardous waste pick up day. Conduct the pick up day if grant obtained.

Schedule: Submit grant application and conduct pick up day if grant obtained within 4 years of the effective date of the permit.

Measurement: Grant application submitted.

4. Continue used motor oil collection program at a collection center.

Schedule: On-going.

Measurement: Number of drop-offs, or gallons collected.

5. Field screen dry weather discharges identified in year 3. If the discharge appears to be an illicit discharge, identify source using maps and field investigations of the storm drainage system. Contact owner of source to determine type of discharge. If illicit, work with owner to eliminate discharge using the enforcement provisions of the ordinance.

Schedule: Complete activities with 4 years of the effective date of the permit.

Measurement: Number of dry weather discharges field screened. Number of investigations completed. Number of contacts made. Number of enforcement procedures.

Year 5.

1. Reinvestigate the open channel system in the NW corner of the City. Reinvestigation will include walking the waters of the State, locating new outfalls, GPS survey of outfalls, and noting whether a dry weather discharge was occurring.

Schedule: Within five years of the effective date of the permit.

Measurement: Streams in the NW corner of the city walked, new outfalls located, and dry weather discharges noted.

2. Update sewer system map with field located outfalls and any new drainage systems constructed.

Schedule: Map updated within 5 years of the effective date of the permit.

Measurement: Updated map that includes newly constructed outfalls and field located outfalls.

3. Continue to pursue grants for household hazardous waste pick up day. Conduct the pick up day if grant obtained.

Schedule: Submit grant application and conduct pick up day if grant obtained within 5 years of the effective date of the permit.

Measurement: Grant application submitted.

4. Continue used motor oil collection program at a collection center.

Schedule: On-going.

Measurement: Number of drop-offs, or gallons collected.

5. Field screen dry weather discharges identified in year 4. If the discharge appears to be an illicit discharge, identify source using maps and field investigations of the storm drainage system. Contact owner of source to determine type of discharge. If illicit, work with owner to eliminate discharge using the enforcement provisions of the ordinance.

Schedule: Complete activities within 5 years of the effective date of the permit.

Measurement: number of dry weather discharges field screened. Number of investigations completed. Number of contacts made. Number of enforcement procedures.

Responsible person: Public Works Director

Construction Site Storm Water Runoff Control

Permit Requirement: Maryville shall implement a program to reduce pollutants in any storm water runoff to their small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of storm water discharges from construction activity disturbing less than one acre must 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. If the NPDES permitting authority waives requirements for storm water discharges associated with small construction activity in accordance with 10 CSR 20-6.200, Maryville will not be required to implement a program to reduce pollutant discharges from such sites.

Decision Process: Maryville minimizes pollutants in storm water runoff from construction activities through several existing mechanisms. Existing ordinance, copy attached, is the legal mechanism used to require erosion and sediment controls at construction sites. Existing ordinances, copies also attached describe the review process of pre-construction development plans and subdivision improvement plans. These existing ordinances will be reviewed with regard to water quality and amended to reflect the requirements of this storm water master plan.

1. Review existing storm water related ordinances.

Schedule: within 1 year of the effective date of the permit.

Measurement: review of ordinance complete.

2. Continue performing site inspections according to existing ordinance.

Schedule: ongoing

Measurement: Number of inspections performed. Documented.

3. Propose specific sanctions and action to be used to ensure compliance with erosion control ordinance requirements to City Council for discussion.

Schedule: Within 1 year of effective date of permit.

Measurement: Enforcement measures developed and submitted to City Council.

4. Develop an ordinance, according to permit requirements, for a site plan review procedure for pre-construction site plans to consider potential water quality impacts. All sites will be reviewed.

Schedule: Within 1 year of effective date of the permit.

Measurement: Ordinance written.

5. Develop log form to register citizen complaints, specific to construction site activity. This will be set up in conjunction with the log developed under the public outreach section of the permit.

Schedule: within 1 year of effective date of permit.

Measurement: Complete log form.

Year 2.

1. Develop a construction site erosion control inspection policy including a checklist or similar standard inspection report form to document procedures for site inspection and enforcement of control measures.

Schedule: Within 1.5 years of effective date of the permit.

Measurement: Standard form complete.

2. Develop ordinance requiring construction site operators to implement appropriate erosion and sediment control practices and control waste at construction sites that may cause adverse impacts to water quality.

Schedule: Within 2 years of effective date of the permit.

Measurement: Ordinance written.

3. Amend existing storm water related ordinances according to review performed in the first year.

Schedule: Within 2 years of effective date of the permit.

Measurement: Ordinance amended.

4. Continue to perform site inspections.

Schedule: On-going.

Measurement: Number of inspections performed.

5. Revise ordinances to implement proposed enforcement sanctions developed in year 1.

Schedule: Within 2 years of effective date of permit.

Measurement: Ordinances revised.

Year 3.

1. Implement the ordinance requiring site operators to maintain pollution control practices and monitor compliance during site inspections.

Schedule: Within 3 years from effective date of the permit.

Measurement: Ordinance enacted.

2. Continue to review site plans.

Schedule: On-going.

Measurement: Number of plans reviewed.

3. Continue to perform site inspections and enforce control measures.

Schedule: On-going.

Measurement: Number of inspections performed. Number of penalties issued.

4. Implement sanctions for non-compliance with erosion control ordinance.

Schedule: Implement within 3 years of effective date of permit.

Measurement: Non-complying developments addressed.

Year 4.

1. Continue to perform site inspections and enforce control measures.

Schedule: On-going.

Measurement: Number of inspections performed. Number of penalties issued.

2. Continue to review site plans.

Schedule: On-going.

Measurement: Number of plans reviewed.

Year 5.

1. Continue to perform site inspections and enforce control measures.

Schedule: On-going.

Measurement: Number of inspections performed. Number of penalties issued.

2. Continue to review site plans.

Schedule: On-going.

Measurement: Number of plans reviewed.

Responsible person: Public Works Director

Post-Construction Storm Water Management in New Development and Redevelopment

Permit Requirement: Maryville shall 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 small MS4. Maryville must ensure that controls are in place that would prevent or minimize water quality impacts.

Decision Process: Maryville minimizes pollutants in storm water runoff after construction completion through existing ordinances, copies attached. The ordinance contains buffer yard and landscape requirements to minimize water pollution and requirements for maintaining ecological balance. Another ordinance, which is also used to control runoff during construction, contains requirements for delegation of the maintenance responsibility of the site once construction is completed.

The focus of this program will be to develop procedures to prevent pollution of natural waters and control storm water runoff from a site once it is no longer under construction. The audience the City will educate about the impacts of storm water discharges on water

bodies will be expanded to include developers along with public education required by a previous BMP. Developers will be informed of the steps that they can take to minimize the impact their actions have on the environment and to reduce pollutants in storm water runoff and ordinances will be revised to encourage use of these.

The measurable goals for Post-Construction Storm water Management in New Development and Redevelopment include the completion of ordinance modifications, education of developers and homeowner associations, inspections, and enforcement.

BMPs and Measurable Goals

Year 1.

1. Review the existing post-construction storm water control related ordinance, the buffer yard and landscape requirements ordinance, to evaluate it as compared to permit requirements. The ordinance shall require protection of sensitive areas, encourage the minimization of impervious surfaces, and promote minimal disturbance of the ecology.

Schedule: Within 1 year of effective date of the permit.

Measurement: Review of ordinance complete.

2. Review the existing storm water management standards ordinance to ensure its inclusion of long-term operation and maintenance responsibility agreements between the City and post-development landowners or regional authorities and the inclusion of filtration and storage practices.

Schedule: Within 1 year of effective date of the permit.

Measurement: Review of ordinance complete.

3. Develop a web page, in conjunction with the web page that is to be set up according to plans for the Public Education and outreach section, accessed from the City's website on the SWMP. This will allow developers to see information, from a centralized location that will summarize the SWMP and include other materials generated.

Schedule: Launch the SWMP within 1 year from the effective date of the permit.

Measurement: Post the SWMP web page.

Year 2.

1. Amend current storm water management standards ordinance as necessary to promote use of such items as grassed swales and energy dissipation, and storage practices such as wet ponds and detention basins, along with the long term operation and maintenance requirements.

Schedule: Revise within 2 years of effective date of permit.

Measurement: Revision of ordinance complete.

2. Amend the buffer yard and landscape requirements ordinance as necessary according to permit requirements.

Schedule: Revise within 2 years of effective date of permit.

Measurement: Revision of ordinance complete.

3. Create and advertise an educational program for developers concerning design practices they can use to minimize water quality impacts.

Schedule: Within 2 years from effective date of permit.

Measurement: Program developed.

Year 3.

1. Enact the revised post-construction storm water runoff control related ordinances.

Schedule: Implement with 3 years of effective date of permit.

Measurement: Ordinance implemented.

2. Hold workshop training session for developers to provide them with knowledge of required permits for developments and interpretation of revisions to the ordinances.

Schedule: Within 2 years from effective date of permit.

Measurement: Conduct training session.

3. Continue use of the website by posting articles from the newspaper and other relevant material on the SWMP web page and providing links to additional relevant storm water management sites.

- 4.

Schedule: Post articles and materials within 1 month of when they are published. Provide additional links to other sites within 3 years of the effective date of the permit.

Measurement: Number of articles posted. Number of links to other websites active. Number of hits on website.

Year 4.

1. Continue to inspect for and enforce the revised post-construction storm water runoff control related ordinances.

Schedule: On-going.

Measurement: Inspect 10 percent of projects completed in the previous year.

2. Continue use of the website by posting articles from the newspaper and other relevant material on the SWMP web page and providing links to additional relevant storm water management sites.

Schedule: Post articles and materials within 1 month of when they are published. Provide additional links to other sites within 4 years of the effective date of the permit.

Measurement: Number of articles posted. Number of links to other websites active. Number of hits on website.

1. Year 5 Continue to inspect for and enforce the revised post-construction storm water runoff control related ordinances.

Schedule: On-going.

Measurement: Inspect 10 percent of projects completed in the previous year.

2. Continue use of the website by posting articles from the newspaper and other relevant material on the SWMP web page and providing links to additional relevant storm water management sites.

Schedule: Post articles and materials within 1 month of when they are published. Provide additional links to other sites within 4 years of the effective date of the permit.

Measurement: Number of articles posted. Number of links to other websites active. Number of hits on website.

Responsible person: Public Works Director

Pollution Prevention/Good Housekeeping for Municipal Operations.

Permit Requirement: Maryville shall 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. Using training materials that are available from EPA, State, or other organizations. Maryville shall include employee training to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance.

Decision Process: Maryville addresses many aspects of this section under the previous five minimum control measures. The City currently has street sweeping procedures established, and the process will be continued along with additional pollution prevention measures.

The focus of this program will be pollution prevention within municipal operations. The list of municipal operations that are impacted by this operation and maintenance program

is attached. The City will help its staff understand the impacts of pollution and how to prevent it from happening.

The measurable goals for Pollution Prevention/Good Housekeeping include completion of training, planning, and cleaning activities and ongoing pollution prevention/good housekeeping procedures.

BMPs and Measurable Goals

Year 1.

1. Maintenance, Develop pollution prevention plans for facilities such as the public works garage and yard. This plan will include housekeeping issues such as proper storage of chemicals, proper disposal, spill control and clean-up procedures, and proper equipment maintenance practices to prevent fluid spills.

Schedule: Within 1 year from effective date of permit.

Measurement: Plans developed.

2. Gather or develop training materials to address with staff the pollution prevention plans and other good housekeeping requirements.

Schedule: Within 1 year from effective date of permit.

Measurement: Training materials collected.

3. Develop procedures for items such as inlet cleaning designed to reduce sediments and debris entering streams through the storm sewers. To also aid in this measure, continue street sweeping.

Schedule: Within 1 year from effective date of permit.

Measurement: Inlet cleaning procedures developed.

Year 2.

1. Complete training of City staff in pollution prevention procedures and good housekeeping measures through morning tool box meetings or similar training exercises.

Schedule: Within 2 years from effective date of permit.

Measurement: Training meetings conducted.

2. Implement inlet cleaning and Regular Street sweeping procedures.

Schedule: Within 2 years from effective date of permit.

Measurement: Street sweeping and inlet cleaning completed.

3. Enact pollution prevention plans at municipal facilities through a general informational meeting with City staff members.

Schedule: Within 2 years from effective date of permit.

Measurement: Pollution prevention plans in place at each facility.

4. Develop a procedure for proper disposal of wastes removed from the MS4 and municipal operations.

Schedule: Within 2 years from effective date of permit.

Measurement: Procedure developed.

Year 3.

1. Implement procedures for proper MS4 and municipal facility waste disposal.

Schedule: Within 3 years from effective date of permit.

Measurement: Staff using waste disposal procedures.

2. Continue training of employees in pollution prevention and good housekeeping procedures with added topics such as proper application of fertilizers and herbicides for Department employees, or used oil recycling for maintenance garage employees, or road salt application and storage for city salt crews, and runoff control for city construction crews. Training materials available from the USEPA websites will be utilized for this type of training.

Schedule: Within 3 years from effective date of permit.

Measurement: Number of training sessions conducted.

3. Continue updating facility specific pollution prevention plans.

Schedule: Within 3 years from effective date of permit.

Measurement: Plans up to date with current environmental regulations and municipal operations.

4. Monitor compliance with plan requirements.

Schedule: On-going.

Measurement: Documentation of compliance activities.

5. Continue inlet cleaning and street sweeping procedures.

Schedules: On-going.

Measurement: Inlet cleaning.

Year 4.

1. Continue training of employees in pollution prevention and good housekeeping procedures.

Schedule: Within 4 years from effective date of permit.

Measurement: Training sessions conducted.

2. Continue updating facility specific pollution prevention plans.

Schedule: Within 4 years from effective date of permit.

Measurement: Plans up to date with current environmental regulations and municipal operations.

3. Monitor compliance with plan requirements.

Schedule: On-going.

Measurement: Documentation of compliance activities.

4. Continue inlet cleaning and street sweeping procedures.

Schedule: On-going.

Measurement: Inlet cleaning and street sweeping completed.

Year 5.

1. Continue training of employees in pollution prevention and good housekeeping procedures.

Schedule: Within 5 years from effective date of permit.

Measurement: Training sessions conducted.

2. Continue updating pollution prevention plans.

Schedule: Within 5 years from effective date of permit.

Measurement: Plans up to date with current environmental regulations and municipal operations.

3. Continue to perform inspections to monitor compliance with plan requirements.

Schedule: On-going.

Measurement: Documentation of compliance activities.

4. Continue inlet cleaning and street sweeping procedures.

Schedule: On-going.

Measurement: Inlet cleaning and street sweeping completed.

Responsible person: Public Works Director