Draft:
MS4 - STORMWATER MANAGEMENT PLAN

Oct. 1, 2021 – Sept. 30, 2026

Permit – MOR04C00??

(Updated January 2021)
# Table of Contents

Background & Introduction ................................................................................. 4

Permitting and Reporting .................................................................................. 7
  Public Education and Outreach (MCM 1) ......................................................... 9
  Public Participation (MCM 2) .......................................................................... 10
  Illicit Discharge Detection and Elimination (MCM 3) ................................. 11
  Construction Site Stormwater Runoff Control (MCM 4) .......................... 13
  Post-Construction Stormwater Management (MCM 5) ............................... 14
  Pollution Prevention / Good Housekeeping (MCM 6) ................................. 16

Appendix 1: MS4 Stormwater Team ................................................................. 17

Appendix 2: MS4 Permit Document ................................................................. 18

Appendix 3: City Code Chapters ................................................................... 19
  Chapter 12 Floodplain Management ............................................................ 19
  Chapter 22 Solid Waste & Weeds ................................................................. 19
  Chapter 23 Storm Water ............................................................................ 19
  Chapter 25 Development Code ................................................................ 19
  Chapter 29 Sewer Ordinance .................................................................... 19

Appendix 4: Procedures & Policies ................................................................. 20
  Stormwater Plan Review Procedures ........................................................... 20
  Construction Inspections Procedures .......................................................... 21
  Post Construction Inspection Procedures & Policies ................................. 22
  Good Housekeeping Procedures & Policies .................................................. 22

Appendix 5: SWPPP Template ....................................................................... 24

Appendix 6: Check Lists .................................................................................. 25
  Stormwater Plan Review Check List ............................................................ 25
  Construction Site Inspection Check List ...................................................... 25
  SWPPP Review Check List ....................................................................... 25

Appendix 7: City Issued Development Permits ............................................. 26
  Stormwater Management Permit ............................................................... 26
  Floodplain Development Permit ............................................................... 26

Appendix 8: City of Cape Stormwater Web Page ........................................ 27
Appendix 9: Parks Dept Newsletter Insert ...............................................28
Appendix 10: Adaptive Management for BMP Evaluation ......................29
Appendix 11: Permanent Storm Drain Marking ...................................30
Appendix 12: Target Audience List ..................................................31
Appendix 13: Illicit Discharge Procedures & Policies ..........................32
  Dry Weather Screening Process .....................................................32
  Procedures for Tracing Illicit Discharges ........................................33
  Septic Tank Policy ........................................................................33
  Constructed Outfall List ................................................................33
  Designated Outfall List ................................................................33
  Designated Outfall Map ................................................................33
Appendix 14: Public Works Fleet SPCC .............................................34
Appendix 15: Fleet Maintenance- Standard Operating Procedures ........35
Appendix 16: Training Videos ...........................................................36
Appendix 17: MS4 Construction Site information ...............................37
Appendix 18: Municipal Operations ..................................................38
Background & Introduction

The City of Cape Girardeau was established in 1806. The 2010 Census reports the City has a population of 37,941. According to the City’s GIS information the City of Cape Girardeau covers an area of 27 square miles. The City has a Council – Manager form of government. City Council consists of a mayor (elected city wide) and six council members (one elected from each of six wards), they’re all part time. The Council appoints a full time City Manager. The City has mostly residential and commercial retail areas. Southeast Missouri State University is within the city limits. The City is served by two large hospitals and has some light industrial areas.

For the Cape Girardeau MS4 the receiving waters of the state (as shown on the MSDIS map) are:

- Cape La Croix Creek
- Walker Branch
- Scivally Branch
- Sloan Creek
- Mississippi River
- Ramsey Branch
- Veteran’s Fork
- Breckenridge Branch
- Juden Creek
- Ranney Creek
- Tributary To Veteran’s Fork
- Williams Creek
- Castor River Diversion Channel

The City has been involved in water quality improvement for over 3 decades. In the early 1990’s the City began an effort to separate combined sewers. This had a twofold objective: reducing the impact of wet weather flows at the wastewater treatment plant, and improving water quality in local waterways. In 2003, the City was included in the Phase II Stormwater Program of the MS4 permitting process. Efforts were taken to comply with the MS4 permit requirements during that first 5 year permit period. In 2008 the City renewed the MS4 permit and took a significant step forward in the compliance effort by hiring a full time stormwater coordinator. In 2013, the City submitted a permit renewal application. The 2008 permit was extended until the issuance of the new permit in October 2016. In 2014, the stormwater coordinator position was revised to be a Streets and Stormwater Inspector. Further steps toward improved compliance included creating a city staff Stormwater Team and revision of local ordinances and policies for inclusion of more water quality guidelines and requirements. In 2015, the City
began using the services of a consulting engineering firm for plan review and site inspection work related to MS4 compliance. In 2019, the stormwater coordinator position was re-established.

The City of Cape Girardeau has a Stormwater Ordinance that was adopted in 1989. The last significant revision was in 2012. The Stormwater Ordinance requires that developers:

- Hold pre-design / pre-development meetings with the City Staff to consider opportunities for water quality BMP’s to be utilized in the site design.
- Develop effective flood control detention methods that include water quality considerations.
- Develop a reasonable means to mimic pre-development runoff conditions. This will involve filtering surface runoff from small frequent rain events.
- Provide as part of the design package a detailed SWPPP for the development site, which is to include information on the planned erosion & sediment controls, pollution prevention practices, and future operation and maintenance practices for onsite water quality BMP’s.
- Preserve a 50 foot buffer along stream banks.
- Make graded slopes no steeper than 3:1.
- Make cooperative use of landscaping areas for stormwater quality improvement.

The City’s Stormwater Ordinance provides for control of illicit discharges by listing specific allowable non-stormwater discharges and listing specific prohibited non-stormwater discharges; and provides enforcement authority for all the requirements of the MS4 Permit. This ordinance gives city staff authority to perform necessary inspections. It includes a progressive enforcement protocol. The Stormwater Ordinance is enforced within the City limits on all construction sites regardless of size of the area of land disturbed.

The City of Cape Girardeau continues to be committed to reducing the levels of contaminants, silt, sediments, and other pollutants reaching area waterways by means of the stormwater flowing from the City of Cape Girardeau. Any contaminants entering the City from outside city limits will pass through.

The City's Stormwater Management Team (SWMT) oversees the development and implementation of the Stormwater Management Plan (SWMP). The SWMT meets at least on an annual basis to review the status of the SWMP and address issues necessary to properly implement the SWMP. Other meetings with part or all of the SWMT, or other appropriate staff will be held as necessary for proper implementation of the elements of the SWMP. The SWMT is comprised of City staff from Public Works, Development Services (Engineering, Planning, and Inspections),
Parks and Recreation, GIS, and Airport. The Stormwater Coordinator serves as the head of the SWMT, schedules the meetings, prepares the reports, prepares records of the meetings, provides recommendations for updates to the SWMP or the Stormwater Ordinance, and consults the SWMT on stormwater issues and problems. The SWMT also makes recommendations for changes or amendments to existing ordinances. The current members of the SWMT are listed in Appendix 1.

The City of Cape Girardeau’s Storm Water Management Plan (SWMP) has specific Best Management Practices (BMP) for each of the six required Minimum Control Measures (MCM). There are measureable goals for BMP’s within each MCM, and the responsible party is identified for each BMP.

The SWMP is set up to work in cooperation with the City’s Ordinances to provide guidance for review, implementation, oversight, and enforcement of all approved stormwater pollution prevention plans for new development or re-development sites. The SWMP has recommendations for structural and non-structural BMP’s. The Site Development plans necessarily include erosion and sediment control plans, water quality improvement BMP’s, and other elements in accordance with the City’s regulations to comply with the MS4 Permit. The SWMP has emphasis on targeted pollutants of litter, pet waste, and sediment runoff. (4.1.B) The SWMP has identified the following targeted audiences: residents, developers and construction site operators. (4.1.A) This diverse audience is identified as being directly involved in activities that could result in contribution of pollutants to the MS4. The City believes this is the group that would have a vested interest in the development and implementation of the SWMP.

The SWMT will review the SWMP annually in conjunction with the stipulated Reporting requirements, or as required by the director of the U. S. Environmental Protection Agency and / or the Missouri Department of Natural Resources, in accordance with statutory provisions of section 402(p)(3)(B) of the Clean Water Act. Changes to the SWMP shall be approved by the SWMT and be forwarded to MoDNR Water Pollution Control Branch. The SWMT has authority to make changes to the SWMP that do not involve ordinance revisions. Ordinance revisions must be approved through the normal City Council process.
Permitting and Reporting

The MS4 Operating Permit is issued by MoDNR. The current MS4 Permit is in Appendix 2 of the SWMP. This MS4 Permit provides objectives to be met through the SWMP. Generally these objectives are:

- Identify pollutants and their sources
- Use structural and non-structural best management practices to control the discharge of pollutants
- Use Public Education and Participation to reduce pollution discharges
- Use active observation for illicit discharge detection and prevention.
- Ensure construction sites utilize BMP’s for erosion and sediment control
- Ensure development sites have long term water quality practices implemented
- Reduce the discharge of pollutants to the “Maximum Extent Practicable”
- Generally protect the integrity and water quality of area waterways

In order to meet these objectives, the City will enforce applicable ordinances and implement BMP’s identified in the SWMP.

A summary SWMP report will be prepared and submitted according to the terms of the MS4 Permit. This is currently required in odd numbered years. This report will detail the status of compliance with the permit conditions. This report will include an assessment of the appropriateness of the selected BMP’s and progress toward achieving the measureable goals for each BMP. The report will provide results of any data collected and analyzed. Currently the City has no regularly scheduled data collection. The report will include any recommendations for changes to the BMP’s or measureable goals for any of the MCM’s. The City’s Report to MoDNR will include a summary of that year’s activities, and a summary of the stormwater activities planned for the next reporting period.

All records and reports will be maintained for a minimum of three years, and will be accessible to the public. Upon request, copies of records and reports will be submitted to the permitting authority.
Additional Information

The Cape Girardeau Airport has a separate Stormwater Management Plan that includes the Airport Fueling Area SPCC Plan. This airport also has an MS4 permit.

The Fleet Maintenance Area in the Public Works building has a SPCC plan for that area. This SPCC is in Appendix 14. The other maintenance areas, such as Parks and the Golf Course, do not store quantities of oil products as to require a SPCC plan.

Standard Operating Procedures (SOP’s) are prepared in written form and kept in these areas: Parks Maintenance Shed, Jaycee Golf Course Maintenance Shed, Fleet Maintenance area, Airport Managers Office, Solid Waste Recycle Center, Solid Waste Transfer Station, Sewer and Stormwater Maintenance area, and Streets Maintenance area.

The City of Cape Girardeau believes this SWMP, City ordinances, and City policies provide reasonable methods and practices to achieve compliance with the MS4 Permit requirements and guidelines.
Minimum Control Measures & Best Management Practices

MCM 1: Public Education and Outreach (4.1)

The City of Cape Girardeau has identified the following target audiences and their corresponding target pollutants:
1) Residents – litter and pet waste
2) Developers and construction site operators – sediment runoff

The City of Cape Girardeau believes that educating the public is important for successful reduction of contamination and pollutants entering area waterways. To accomplish the goals set forth in this SWMP for Public Education and Outreach the City has set the following objectives for this Measure:

➢ Clear Choices Clean Water Program - This is a campaign to increase awareness about choices we make and the impact they have on our streams and lakes. Water friendly practices such as using phosphorus-free fertilizer, landscaping with native plants, managing yard and pet wastes, properly maintaining septic systems and using less water all help make clear clean water available to us. By educating individuals on these and other important actions and giving them the tools needed to make behavior changes, we empower everyone to do their part for water quality and conservation.
   o capegirardeau.clearchoicescleancwater.org

➢ Permanent marking of new storm drains with “No Dumping – Drains to River” message.

➢ Planning and working on Hazardous Waste Collection Day.
   o The City strives to obtain a solid waste grant every two years in order to host a Household Hazardous Waste Collection event. These are only scheduled when grant funds are obtained.

➢ Set measurable goals for the Practices

➢ Evaluate the effectiveness of the BMP’s.

The BMP’s selected for Public Education and Outreach as well as Public Involvement are listed below. See the chart on page 9A for the list of BMP’s and measurable goals.

- Outreach and Education
  1. Clear Choices Clean Water website
  2. Permanent “Do Not Dump – Drains to River” required for new inlets
  3. Play Cape newsletter articles
  4. Water quality informational signs for recreational trail

- Involvement
  1. Adopt-A-Street
  2. Household Hazardous Waste Collection
<table>
<thead>
<tr>
<th>Permit Requirement</th>
<th>Permit Section</th>
<th>BMP Description</th>
<th>BMP Purpose</th>
<th>Responsible Person</th>
<th>Goal/Expected Result of BMP</th>
<th>Measurable Goals and Milestones</th>
<th>Measurable Goals and Milestones</th>
<th>Measurable Goals and Milestones</th>
<th>Measurable Goals and Milestones</th>
<th>Measurable Goals and Milestones</th>
<th>BMP Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identifying target audiences of significant pollution</td>
<td>4.1.A</td>
<td>Target Audiences List</td>
<td>Identify specific audiences who are likely to have significant stormwater impacts (Residents, Developers, etc.)</td>
<td>Stormwater Team</td>
<td>Address the residents being served by the City and at a minimum one additional audience</td>
<td>Establish list of key members within the City's development community, such as developers and construction site operators</td>
<td>Review and update development audience list</td>
<td>Form new target audience from list of pretreatment operators within the City limits</td>
<td>Review and update audience lists (developers &amp; pretreatment operators)</td>
<td>Evaluate relevance of each audience list for the next permit cycle</td>
<td>Are the target audience lists being kept up-to-date?</td>
</tr>
<tr>
<td>Identifying target pollutants and sources of pollutants related to target audiences</td>
<td>4.1.B</td>
<td>Target Pollutant List</td>
<td>Identify specific pollutants that are to be incorporated into the City's public education program</td>
<td>Stormwater Team</td>
<td>Identify a minimum of one target pollutant/source per target audience</td>
<td>Target residents with litter and pet waste educational information</td>
<td>Target development group with sediment runoff educational information</td>
<td>Target pretreatment operators with fats, oils, &amp; grease educational information</td>
<td>Review and update educational information</td>
<td>Target established audiences with established educational information about their target pollutant</td>
<td>Has each audience been educated on it's identified pollutant?</td>
</tr>
<tr>
<td>Inform target audiences of target pollutants and how they can contribute in reducing pollution</td>
<td>4.1.C</td>
<td>Clear Choices Clean Water Website</td>
<td>Engage residents in water quality improvement</td>
<td>Stormwater Coordinator</td>
<td>Increase awareness of litter and pet waste through online pledges</td>
<td>Maintain site for the entire year, and update links once a year</td>
<td>Maintain site for the entire year, and update links once a year</td>
<td>Maintain site for the entire year, and update links once a year</td>
<td>Maintain site for the entire year, and update links once a year</td>
<td>Maintain site for the entire year, and update links once a year</td>
<td>Has the number of pledges increased?</td>
</tr>
<tr>
<td></td>
<td>4.1.C</td>
<td>Permanent &quot;No Dumping - Drains to River&quot; markings on storm inlets</td>
<td>Increase awareness for storm drains in order to reduce litter and illicit discharge</td>
<td>Stormwater Supervisor / City Engineer</td>
<td>Decrease in litter and illicit discharge</td>
<td>Collect data on all previously marked inlets</td>
<td>Analyze data from dry weather screenings to create a baseline for BMP effectiveness</td>
<td>Review and update data base for marked inlets</td>
<td>Compare data from dry weather screenings with baseline data to determine if areas with increased signage has decreased litter and illicit discharges</td>
<td>Update database and determine if certain areas need targeted with additional signage</td>
<td>Have areas with increased signage had fewer illicit discharges?</td>
</tr>
<tr>
<td></td>
<td>4.1.C</td>
<td>Parks &amp; Rec. Newsletter Insert</td>
<td>Raise seasonal awareness to pollutants of concern</td>
<td>Stormwater Coordinator</td>
<td>Produce two newsletter articles to be published in a spring/summer and fall/winter.</td>
<td>Collect educational information to include in a spring/summer insert</td>
<td>Create and publish fall/winter insert to include in newsletter</td>
<td>Publish both inserts in newsletter</td>
<td>How many years were both inserts published in the Parks &amp; Rec. newsletter?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.1.C</td>
<td>Stormwater Trail Signs</td>
<td>Educate residents on the importance of stormwater quality</td>
<td>Stormwater Team</td>
<td>Maintain 5-6 stormwater quality informational signs along Cape La Croix Recreational Trail</td>
<td>Create QR code as a &quot;check-in&quot; mechanism to include with signage</td>
<td>Check signage for indications of vandalism or maintenance needs</td>
<td>Evaluate QR code data to determine the effectiveness of signage placement</td>
<td>Check signage for indications of vandalism or maintenance needs</td>
<td>Review signage information to determine relevance of water quality information</td>
<td>How many people are &quot;checking-in&quot; using the QR code?</td>
</tr>
<tr>
<td>Create or support opportunities for activities that improve water quality</td>
<td>4.1.D</td>
<td>Adopt-A-Street</td>
<td>Reduce the amount of litter entering waterways within City limits</td>
<td>Public Works</td>
<td>Document a minimum of 2 mi of roadside where litter was collected and record the amount bagged</td>
<td>Promote the Adopt-A-Street Program to local service organizations</td>
<td>Organize 1-2 days for Public Works employees to participate in clean-up along their adopted street.</td>
<td>Promote the Adopt-A-Street Program to local service organizations</td>
<td>Organize 1-2 days for Public Works employees to participate in clean-up along their adopted street.</td>
<td>Promote the Adopt-A-Street Program to local service organizations</td>
<td>How many miles and how much litter is being picked up each year?</td>
</tr>
<tr>
<td></td>
<td>4.1.D</td>
<td>Household Hazardous Waste Collection Day</td>
<td>Prevent household hazardous wastes from becoming illicit discharges</td>
<td>Public Works</td>
<td>Collect household hazardous wastes</td>
<td>Hold Household Hazardous Waste Collection Day</td>
<td>Apply for Solid Waste Grant</td>
<td>Hold Household Hazardous Waste Collection Day</td>
<td>Apply for Solid Waste Grant</td>
<td>Hold Household Hazardous Waste Collection Day</td>
<td>Is the amount of household hazardous waste being collected increasing?</td>
</tr>
</tbody>
</table>
MCM 2: Public Participation (4.2)

The City of Cape Girardeau will strive to engage public participation in the implementation of the SWMP. To accomplish the goals set forth in this SWMP for Public Participation the City has set the following objectives for this Measure:

- Renewal for the proposed SWMP and future updates will be presented through a public review process.
- Public input is encouraged through email and the City’s website.
- An informational meeting shall be held in order for additional public input to be offered.
- Qualified residents will be encouraged to request for the opportunity to serve on the SWMT.
- The members of the SWMT are also engaged for input on the SWMP.
- City Council should receive an annual update on the SWMP.
- Set measureable goals for the practices in the SWMP.
- Evaluate the effectiveness of the BMP’s.

The BMP’s selected for the Public Participation Measure are listed below. See the chart on page 10A for the list of BMP’s, measurable goals, responsible party, and implementation schedule.

1. Public Notice Period
2. MS4 Webpage
3. Public Informational Meeting
4. Annual Review of SWMP by SWMT
<table>
<thead>
<tr>
<th>Permit Requirement</th>
<th>Permit Section</th>
<th>BMP Description</th>
<th>BMP Purpose</th>
<th>Responsible Person</th>
<th>Goal/Expected Result of BMP</th>
<th>Measurable Goals and Milestones</th>
<th>Measurable Goals and Milestones</th>
<th>Measurable Goals and Milestones</th>
<th>Measurable Goals and Milestones</th>
<th>Measurable Goals and Milestones</th>
<th>Measurable Goals and Milestones</th>
<th>BMP Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hold public notice period for public to review SWMP</td>
<td>4.2.A</td>
<td>Public Notice Period</td>
<td>Allow public review of the SWMP</td>
<td>Stormwater Coordinator</td>
<td>Notify public 30 days or more prior to renewal application</td>
<td>(Only necessary for significant changes to the SWMP or during permit renewal.)</td>
<td>(Only necessary for significant changes to the SWMP or during permit renewal.)</td>
<td>(Only necessary for significant changes to the SWMP or during permit renewal.)</td>
<td>(Only necessary for significant changes to the SWMP or during permit renewal.)</td>
<td>Was the public notice held for 30 days?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide webpage with required items and comment information</td>
<td>4.2.B, C</td>
<td>MS4 Webpage</td>
<td>Serve as a reference point for pertinent information</td>
<td>Public Information Officer</td>
<td>Post copy of draft permit and draft SWMP</td>
<td>Ensure the most up-to-date SWMP is posted</td>
<td>Ensure the most up-to-date SWMP is posted</td>
<td>Ensure the most up-to-date SWMP is posted</td>
<td>Ensure the most up-to-date SWMP is posted</td>
<td>Is the current SWMP posted on this site?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide public meeting for public to review SWMP and voice comments.</td>
<td>4.2.C</td>
<td>Public Informational Meeting</td>
<td>Create an opportunity for the public to engage with the SWMT</td>
<td>Stormwater Coordinator</td>
<td>Host a 2 hr meeting to provide additional information to the public</td>
<td>(Only necessary for significant changes to the SWMP or during permit renewal.)</td>
<td>(Only necessary for significant changes to the SWMP or during permit renewal.)</td>
<td>(Only necessary for significant changes to the SWMP or during permit renewal.)</td>
<td>(Only necessary for significant changes to the SWMP or during permit renewal.)</td>
<td>Did anyone from the public attend the meeting?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide publicly available method to accept comments from public.</td>
<td>4.2.D</td>
<td>Public Comment Email</td>
<td>Collect feedback and concerns from the public</td>
<td>Stormwater Coordinator</td>
<td>Receive input and concerns from the public in regards to permit renewal and MS4 concerns</td>
<td>Respond to any comments/concerns</td>
<td>Respond to any comments/concerns</td>
<td>Respond to any comments/concerns</td>
<td>Respond to any comments/concerns</td>
<td>Have all comments received a response?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stormwater Management Committee - provide opportunities for citizen representatives</td>
<td>4.2.E</td>
<td>Stormwater Management Team</td>
<td>Engage City staff in the management of the SWMP and provide an opportunity for public participation</td>
<td>Stormwater Coordinator</td>
<td>Hold an annual meeting to review SWMP and offer participation to the public</td>
<td>Meet annually and review SWMP</td>
<td>Meet annually and review SWMP</td>
<td>Meet annually and review SWMP</td>
<td>Meet annually and review SWMP</td>
<td>Was a meeting held annually?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual update for governing body</td>
<td>4.2.F</td>
<td>Annual City Council Update</td>
<td>Inform Council of the importance of MS4 compliance and update on the progress made through the SWMP</td>
<td>Stormwater Coordinator</td>
<td>Present at a Council meeting at least once a year</td>
<td>Present to City Council during a Council Meeting</td>
<td>Present to City Council during a Council Meeting</td>
<td>Present to City Council during a Council Meeting</td>
<td>Present to City Council during a Council Meeting</td>
<td>Was A presentation made annually?</td>
<td></td>
<td></td>
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</tbody>
</table>
**MCM 3: Illicit Discharge Detection and Elimination (4.3)**

The City of Cape Girardeau continues efforts to reduce the occurrence of illicit discharges. The Stormwater Ordinance identifies illicit discharges (CoCG code Ch. 23-13). To accomplish the goals set forth in this SWMP for Illicit Discharge Detection and Elimination the City has set the following objectives for this Measure:

- Perform periodic inspection of outfalls with dry weather screenings
- Maintain stormwater information on the GIS mapping system
- Continue employee training for illicit discharges
- Evaluate City codes related to illicit discharges and pollution control and revise as necessary
- City sewer crews respond to sewage overflows or discharges with appropriate action.
- Illicit discharges will be traced upstream on foot or by vehicle, using visual observations and pipeline TV cameras as necessary.
- Employee training for Pollution Prevention and Illicit Discharge Detection & Response

The BMP’s selected for the Illicit Discharge Detection and Elimination Measure are listed below. See the chart on page 12A for the list of BMP’s, measurable goals, responsible party, and implementation schedule.

- Perform periodic inspections for illicit discharges
- Continue training for city staff in Public Works, Engineering, Parks, Airport, and Building Inspections regarding illicit discharges
- Maintain stormwater information in the GIS Mapping
- Perform dry weather screenings ... do 20% of outfalls each year
- Confirm city emergency response staff are trained for vehicle accident liquid waste containment or capture
- Inspect marked storm drains and have remarked as necessary
- Evaluate IDDE program effectiveness
- Identify and keep updated list of common pollutants (CoCG code Ch. 23-13:1b)
- Fats, Oils & Grease ordinance (CoCG code Ch. 29-5)
- Maintain list of allowable non-stormwater discharges (CoCG code Ch. 23-13:2)
- City regulations will be enforced to ensure identified violators comply with code requirements (CoCG code Ch. 23-15:1a-d)
- Sanitary sewer system overflows (SSO’s) are addressed by city crews and reported to MoDNR.
- The City has a continuing I&I Flow Reduction Program to reduce the occurrence of SSO’s
This assessment of the location of higher illicit discharge potential is reviewed during each permit period.

To identify priority areas for illicit discharge potential the City performed a desk top assessment of illicit discharge potential. The City followed the guidance for this assessment in the Oct 2004 IDDE Guidance Manual prepared for EPA by the University of Alabama. The results of this desk top assessment were used to identify the areas of most potential for illicit discharges. The result of the desk top assessment was that the Cape La Croix stream basin was the area of highest priority.

For the current permit period (Oct. 2021 – Sept. 2026), the initial priority area has been narrowed down to the Cape La Croix Creek from Independence Street to Southern Expressway. This was highly influenced by the light industrial facilities in the area and numerous nearby commercial businesses. (4.3.H)
MCM 4: Construction Site Stormwater Runoff Control (4.4)

The City of Cape Girardeau continues to enforce the Stormwater Ordinance for control of construction site runoff to protect area waterways from pollutants associated with development or re-development sites. The Stormwater Ordinance requires developers to meet with City staff prior to commencing site design for a development or re-development site (CoCG Code Ch. 23-5:3). The Stormwater Ordinance requires developers to provide a Storm Water Pollution Prevention Plan for construction sites of any size (Ch. 23-6:8-9). This SWPPP will include BMP’s for erosion and sediment control on construction sites. The SWPPP will include BMP’s for long term water quality concerns (Ch. 23-8:10, Ch. 23-10:17). The City has provisions for review of all site development plans prior to issuance of a building or grading permit (CoCG code Ch. 23-5 & 6). The City is using an MS4 consultant for stormwater plan review and site inspections services. The Stormwater Ordinance gives the City staff authority to inspect and enforce the regulations for control of pollutant sources, most notably erosion and sediment controls, at a construction site (CoCG code Ch. 23-14:1a-d). Inspections are planned to be performed weekly by persons competent to perform that function. To accomplish the goals set forth in this SWMP for Construction Site Runoff Control the City has set the following objectives for this Measure:

- Review the stormwater ordinance annually and update as needed
- Utilize a checklist for site plan review of development plans or grading plans.
- Utilize proper procedures and checklists for inspection of construction sites
- Utilize enforcement protocols to ensure compliance with required erosion and sediment controls, and other pollutant controls
- Provide a list of common pollutants (CoCG code Ch. 23-13:1b)
- Set measurable goals for the Practices in the SWMP
- Evaluate the effectiveness of the BMP’s.

The BMP’s selected for the Construction Site Runoff Control Measure are listed below. See the chart on page 13A for the list of BMP’s, measurable goals, responsible party, and implementation schedule.

- Review stormwater ordinance annually and update as necessary
- Required site plan review with focus on water quality issues (CoCG code Ch. 23-5 & 6)
- Construction site inspections (CoCG code Ch. 23-15)
- Ordinance authorizing enforcement procedures (CoCG code Ch. 23-15)
- Maintain procedures to receive information from the public
- SWPPP required to be at the development site (CoCG code Ch. 23-6:14)
MCM 5: Post-Construction Stormwater Management (4.5)

The City of Cape Girardeau continues to promote the use of structural and non-structural design and management practices to reduce the post construction runoff of pollutants into the MS4. The City ordinances require developers to:

- Hold pre-design / pre-development meetings with the City Staff to consider opportunities for water quality BMP’s to be utilized in the site design (CoCG code Ch. 23-5:3).
- Develop effective flood control detention methods that include considerations for water quality.
- Record a “Stormwater/BMP Facility Deed Restriction” with the Plat (CoCG Ch. 25-1107: b)
- Develop an effective means to mimic pre-development runoff conditions
- Provide as part of the design package a detailed SWPPP for the development site, which is to include information on the planned erosion & sediment controls, pollution prevention practices, and future operation and maintenance practices for long term onsite water quality BMP’s (CoCG code Ch. 23-6, Ch. 23-8:1).
- Preserve a 50 foot buffer along stream banks (CoCG code Ch. 23-8:14).
- Make graded slopes no steeper than 3:1 (CoCG code Ch. 23-8:9).
- Incorporate use of landscaping areas for stormwater quality improvement (CoCG code Ch. 23-8:4d, 23-10:17h)
- Encourage use of Low Impact Development practices and design elements

To accomplish the goals set forth in this SWMP for Post Construction Runoff Control the City has set the objectives listed below for this Measure.

- Evaluate the recommended structural and non-structural BMP’s and revise as necessary
- Evaluate local ordinances & policies to insure implementation of Post Construction Runoff Controls and amend as necessary
- Ensure adequate and proper long-term operation and maintenance of onsite water quality and pollution controls
- Set measurable goals for the Practices in the SWMP
- Evaluate the effectiveness of the BMP’s.

The BMP’s selected for the Post Construction Runoff Control Measure are listed below. See the chart on page 15A for the list of BMP’s, measurable goals, responsible party, and implementation schedule.

- Identify structural and non-structural BMP’s for long term control of water runoff and pollutants from development and re-development sites (CoCG code Ch. 23-6, Ch. 23-8:1, Ch. 23-8:16).
- Develop & Maintain a catalog or database of recommended BMP’s
• Utilize early discussion and review procedures for incorporating water quality elements into site designs (CoCG code Ch. 23-6, Ch. 23-8:1, Ch. 23-5:3)
• Maintain 50 foot buffer along stream banks (CoCG code Ch. 23-8:14)
• Maintain development controls within floodplain areas (CoCG code Ch. 12-11, 12-14, 12-15)
• Control direct connections of onsite runoff water to the public conveyance system or street (CoCG code Ch. 25-804 a)
• Control utility extensions along stream banks
• Develop database of Post Construction BMP’s for O&M purposes
• Encourage use of porous pavement techniques for parking areas (CoCG code Ch. 25-908, 25-205:C1)
• Continue to responsibly enforce procedures and implementation of water quality improvement elements in the design, construction, and operations phases of a development (CoCG code Ch. 23-6, 23-8:1)
• Recommend use of native plants in landscaping areas (CoCG code Ch. 23-8:11)
• Post construction water quality BMP’s to be properly maintained (CoCG code Ch. 23-6:10-11, 23-12)
• Large sites required to address stormwater management as one site, not as small pieces (CoCG code Ch. 23-8:8)
• Encourage use of landscaping for stormwater quality (CoCG code Ch. 23-10:17h, 23-8:4d)
• Maximum slope allowed on disturbed areas is 3:1 (CoCG code Ch. 23-8:9)
• Post construction BMPS’ required to be included in site development plans (CoCG code Ch. 23-8)
• Post Construction BMPS’ required to be inspected annually by owner and reported to City (CoCG code Ch. 23-12:3)
• 15% landscape area required (CoCG code Ch. 25-803)
• Large parking areas have landscape requirements (CoCG code Ch. 25-804)
• Cluster developments (CoCG code Ch. 25-1252)
• Sanitary sewers required for developments (CoCG code Ch. 25-1104:a, 29-18, 29-21)
MCM 6: Pollution Prevention / Good Housekeeping (4.6)

The City of Cape Girardeau continues a thorough program for pollution prevention through good housekeeping practices. To accomplish the goals set forth in this SWMP for Pollution Prevention & Good Housekeeping the City will continue numerous established procedures. To accomplish the goals set forth in this SWMP for Pollution Prevention & Good Housekeeping the City has set the following objectives for this Measure:

- Maintain and update SPCC plans
- Maintain and update Standard Operating Procedures in each work area
- Maintain and update / screen MSDS information for each work area
- Continue use of calibrated meters for salt spreading, and brine applications
- Conduct periodic inspections of work areas
- Continue periodic training of City staff for Pollution Prevention, Spill Control & Response, and Illicit Discharges
- Perform periodic self-assessment to evaluate ways to improve pollution prevention efforts

The BMP’s selected for the Pollution Prevention & Good Housekeeping Measure are listed below. See the chart on page 16A for the list of BMP’s, measurable goals, responsible party, and implementation schedule.

- Continue training for maintenance staff for pollution prevention
- Maintain in good condition the computerized metering devices for ice control spreader boxes
- Maintain in good condition the salt dome storage structure
- Continue use of brine for snow and ice control
- Continue scheduled cleaning of storm drains
- Continue Used Motor Oil Reuse Program
- Continue practice of marking drain inlets with the “Do Not Dump” message
- Keep and update Standard Operating Procedures for pollution prevention for each work area
- Maintain and update SPCC plans
- Maintain and update / screen MSDS information for each work area
- Continue street sweeping operations
- Continue solid waste recycling program
- Continue battery recycling program
- Continue automobile tire recycling program
- Continue program for household appliance disposal
- Maintain the vehicle wash bay in good condition
- Continue city wide leaf collection program
- Continue proper removal and disposal of collected stormwater debris
Appendix 1

MS4 Stormwater Team

2020

Stan Polivick                      Public Works Director
Casey Brunke                      Assistant Public Works Director
Gary Middleton                   Stormwater Maintenance Supervisor
Kelly Green                      City Engineer
Teresa Heifner                    GIS Division
Erica Bogenpohl                  Alliance Water / GIS
Brock Davis                      Division Manager Parks & Recreation
Nicolette Brennan                Public Information Office
Ryan Shrimplin                   Planner
Katrina Amos                     Airport Manager
VACANT                           Building Code Enforcement Manager
VACANT                           Development Services Director
Luke Malahy                      Streets & Stormwater Inspector
Chris Walter                     Stormwater Coordinator
Appendix 2

MS4 Permit Document

Issued: October 2021

The Draft Comprehensive Permit can be found on this website:
https://www.cityofcape.org/MS4
Appendix 3

City Code Chapters
(4.3.C; 4.4.A; 4.4.D; 4.5.A)

Chapter 12 Floodplain Management

Chapter 22 Solid Waste & Weeds

Chapter 23 Storm Water

Chapter 25 Development Code

Chapter 29 Sewer Ordinance

Copy of Ordinances not included in this document

City Ordinances may be read at this website:
https://www.municode.com/library/mo/cape_girardeau/codes/code_of_ordinances
Appendix 4

Procedures & Policies Manual
January 2021


The City code requires developers to have a pre-design / pre-development meeting with City staff for purposes of review of the site. Discussion points include, but are not limited to:

- Sensitive areas of the site to be protected, such as streams and undisturbed timber areas
- Code requirements for water quality considerations
  - Applicable BMP’s
  - SWPPP preparation
  - Flood control detention requirements
  - Sediment and erosion controls during construction phases
- Post Construction elements for long term runoff water quality
- Limitation of clearing and soil disturbance
- Necessary operation and maintenance considerations for stormwater elements of the site plan

The developer then prepares the site plans and submits them for review by City staff.

The City is using the services of a qualified engineering consultant for plan review. In the event City staff does the review at least two staff members are involved in the plan review. Plans are checked for compliance with the various code requirements.

Any questions or deficiencies are noted and communicated back to the developer / designer.

Plans are revised and resubmitted until the plan meets the necessary goals and requirements.

The stormwater permit is then issued to the developer.
Construction Inspections Procedures (4.4.C)

When a stormwater permit is issued the appropriate party is notified and given copies of the approved site plans. This would be the Streets and Stormwater inspector, the Engineering Department inspector, or the Inspections Division inspector. The Engineering Department does the inspections for developments that include infrastructure that will become property of the City. The Inspections Division performs inspections on any residential developments (single family or multi-family). The Streets and Stormwater inspector performs inspections on commercial development sites.

The City inspector adds the site to list of sites to be checked.

The City inspector then watches the site to insure the perimeter controls and other BMP’s are properly set prior to construction starting.

The City inspector performs the periodic inspections for the site using the checklist as a guide. The inspection is properly documented.

Any concerns or deficiencies are reported to the contractor verbally or in writing. These are noted for attention in follow-up inspections.

Inspection records are kept in paper form and in a computer database in each division. The engineering consultant has developed a share point site for storage of all construction site inspection records. This share point site is accessible by all the staff involved with the MS4 compliance matters.

Should the contractor fail to comply with the necessary corrective actions the City inspector is to follow the enforcement protocol included in the City code in Ch. 23. This calls for verbal warning, then a written warning with a specific compliance date and time indicated, then a stop work order can be issued, and then a summons to court can be issued. For the last two steps in the enforcement process the Nuisance Abatement officials are included in the process.

Once the site work is complete and any open soils are properly covered or protected by vegetation the site is noted as being closed and no more construction inspections are required.

Before the certificate of occupancy for the site issued the developer is required to have his designer provide to the City written confirmation that all stormwater elements are installed per the approved plans. The developer is
also required to provide Record Drawings to the City Engineering Department for the stormwater elements on the site.

**Post Construction Inspection Procedures & Policies**
(4.5.E & 4.5.D)

Most sites will have Post Construction BMP’s or elements as part of the site development plan. These are to be inspected during the construction phase by the site construction inspector. Part of that process is to insure the elements are properly installed.

The City is to have a database of the post construction elements for tracking purposes.

City code requires that the owner perform an annual inspection of their post construction water quality elements to determine proper function and to see if any repairs or maintenance actions are necessary. The owner is to file the inspection report with the City MS4 manager for record purposes.

The City inspectors are to perform periodic inspections of the post construction water quality elements within the 5 year period of the active MS4 permit. Any deficiencies are to be reported to the owner for corrective actions.

When site development includes new drainage inlets the City code requires developers to use frames with the “Do Not Dump... Drains To River” message cast into the frame.

**Good Housekeeping Procedures & Policies** (4.6.F)

**Used Oil Program**

The City has an authorized Used Oil Do It Yourself Collection program. Documentation is on file from the MO DNR dated 6-24-09.

The City uses oil from its own maintenance operations to be burned in used oil heaters for the maintenance shop area in the recycling center building.

The City also accepts used oil from citizens who bring used oil from their do it yourself activities. The citizen may bring their oil to the maintenance shop where it will be turned over to a shop employee to be dumped. The citizen must sign a log sheet listing the date, their name, what the product is and the estimated quantity.
The used oil storage tanks are included in the SPCC for the fleet maintenance area. The tanks are either double wall or have outer containment. The tanks are inside the building.

Monthly inspections are conducted and documented as required by the SPCC for the fleet maintenance area.

**Used Materials Recycling**

The Public Works Department recycles many products that result from maintenance operations. Tires, batteries, and used oil are recycled.

The City has a very successful solid waste recycling program. This program takes the usual “garbage type” recyclables. It also accepts old appliances.

**Snow and Ice Controls (4.6.F)**

The City has a salt dome for protected storage of salt year round. The salt spreaders used are calibrated to the vehicle speed to minimize over spreading salt onto the roadways. The City also uses brine solution as much as possible to reduce the pollution effect of snow and ice controls.

**Stormwater Debris Disposal (4.6.G)**

The City Stormwater Crew cleans grated inlets around the City following moderate to heavy rain events. When necessary this crew also removes trees limbs, tree trunks, and other debris that washes up in the streams and creeks. All of this material is then stored at the City’s old solid waste transfer station facility (now inactive for solid waste operations). This material is combined with leaves collected in the leaf pick up program. Once each year the City hires a contractor to mulch all the material for use by City departments or the public.
Appendix 5

SWPPP Template
(4.4.B)

The SWPPP Template can be found on this website:
https://www.cityofcape.org/MS4
Appendix 6

Check Lists:

**Stormwater Plan Review Check List (4.4.B)**

The Plan Review Checklist can be found on this website:
https://www.cityofcape.org/MS4

**Construction Site Inspection Check List (4.4.E)**

The Site Inspection Form can be found on this website:
https://www.cityofcape.org/MS4

**SWPPP Review Check List (4.4.A)**

The SWPPP Checklist can be found on this website:
https://www.cityofcape.org/MS4
Appendix 7

City Issued Development Permits
(4.4.F)

Stormwater Management Permit

The Stormwater Permit Application can be found on this website: https://www.cityofcape.org/MS4

Floodplain Development Permit

The Floodplain Development Permit Application can be found on this website: https://www.cityofcape.org/MS4
Appendix 8

City of Cape Stormwater Webpage
(4.1.C)

http://www.cityofcapegirardeau.org/public_works/stormwater/stormwater_pollution
Appendix 9

Parks Dept. Newsletter Insert
(4.1.C)
For Parks newsletter

**Storm Water Notes: Water Pollution Prevention**

As we go about the everyday activities of summer, the Cape Public Works Department would encourage citizens to be mindful of water pollution prevention. There are many simple ways to help reduce water pollution levels in our creeks and waterways.

**Do Not Over Fertilize The Lawn** - Use only the amount needed, which is usually far less than you think. Most lawns would be quite healthy by just leaving the clippings from mowing in place to decay into the soil.

**Do Not Dump Fluids In The Drains** – Properly dispose of used oil and other fluids. Do not dump these in the ditches or drains. That causes the oil to run into the creeks and to the river leaving pollution effects along the way.

**Do Not Sweep Grass Clippings Into The Drain** – This can clog the drain causing local flooding. If the grass washes away it ends up in the creeks. This increases the amount of nitrogen and organic matter in the stream which is bad for plants and animals living in the water. Composting is a great way to handle yard waste to avoid polluting the waterways.

**Direct Roof Drains To Flow Over The Lawn** – Flow from roof drains should not be set to flow over paved areas but rather to flow over land though grassy areas. This allows the water to soak into the ground, water the plants, and filter pollutants from the water.

**Repair Leaks On Vehicles** – The oils and other fluids that drip on pavement will get washed in to the creeks. Even a small amount of these fluids can cause a big pollution effect in the stream.

**Do Not Litter** – In addition to being unsightly, litter clogs drains and is a pollutant. Plastics, Styrofoam, metal, and paper products end up in streams or along the banks. These pollutants cause harm to the plants and animals living in and around the waterways.

**Pick Up A Little Trash When You Visit A Park Or River** - Others will see your actions and perhaps hesitate to litter next time. Every small action makes a difference.

**Properly Dispose Of Pet / Animal Waste** - Animal waste can be a major source of water pollution. The waste washes in to the creeks overloading the nutrient levels causing low oxygen levels. This is bad for the plants and animals in the water.

**Be Careful With Use Of Lawn And Household Chemical Products** – Misuse or improper application of lawn and household chemicals can pollute the waterways. Only use these products according to the directions.
Appendix 10

Adaptive Management for BMP Evaluation (3.1.B)

The City of Cape Girardeau will use the protocol described below to evaluate and assess the various Best Management Practices (BMP) identified in the City’s SWMP.

Each year the City will evaluate all of the BMP’s in each MCM category as required by the permit. The annual review of BMP’s will be performed by the SWMT. If updates are recommended to the SWMP then a Public Hearing process will be initiated.

The adaptive management process will generally be:

- City staff will prepare a list of the BMP’s describing the BMP, its function, how its effectiveness is to be determined, its measureable goal, which MCM it applies to, and any assessment criteria.
- A comment period of not less than 14 days will be set to receive comments from City staff.
- All comments received will be reviewed and any credible or reasonable changes will be proposed in a draft SWMP revision report.
- If there are no changes to the SWMP necessary, City staff will document the review process and include that information in the annual report to Mo DNR.
- If changes to the SWMP are proposed the public review process as defined in the permit will be followed.

The City may occasionally choose to use additional elements to receive public comment. Such additional elements could be use of online surveys, public meetings called for discussion of given topics, or mailings to selected resident groups. The City will not use these every year, but may choose to use such additional elements at their discretion in a given year.
Appendix 11

Permanent Storm Drain Marking
(4.1.C)
Notes:
1. All work shall be done in accordance with the latest edition of the City of Cape Girardeau Standard Specifications.
2. Concrete shall have 28 day minimum strength of 4000 PSI.
3. Structures where "H" is greater than eight feet shall be reinforced concrete (#4 bars at 12" centers, both ways and #4 bars diagonal at pipe openings).
4. Other than details shown above, the barrel and base sections are to be constructed according to MoDOT Standard Drawing No. 731.10.
5. Side openings shall be on all four sides per dimensions shown unless noted otherwise on the plan.
6. Steps shall be omitted. Shaped concrete invert shall be added.
7. All box lids shall have the language "Do Not Dump, Drains to River" or similar language located on a plaque on the lid. See the APL for approved plaques.
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Appendix 13

Illicit Discharge Procedures & Policies (4.3)

**Dry Weather Screening Process** (4.3.D)

The City will identify the constructed outfalls in the MS4. These are provided in a list in this Appendix 13.

From the overall list of constructed outfalls the City will identify representative outfalls for a dry weather screening process. These are listed as an attachment to this Appendix 13. The City staff will perform the dry weather screening on 20% of the representative outfalls each year. This will accomplish the screening of all representative outfalls during the permit period.

The attached form will be used for the dry weather screening at each of the representative outfalls.

This dry weather screening inspection will include getting a photo of the outfall with its unique ID information and making a visual assessment of the condition of the outfall. Specific attention will be given to:
- observe the structure for any stains that would indicate a previous illicit discharge
- observation of the receiving stream conditions
- logging in the exact location with GPS equipment for Lat / Lon data
  - If any flows are observed record:
    - Flow rate
    - Temperature, pH, conductivity, and turbidity
    - Any odors, colors, floatables present

If water samples are determined to be necessary said samples will be grabbed and taken to a local lab for processing. The parameters to be tested will be determined based on the nature of the observations at the site. For example, if a gasoline or diesel odor is observed, then the lab tests will probably be a TPH or BTEX testing. If sanitary sewer odor is observed, the E.coli testing would be done. If a chemical contamination is expected, then testing for that type of element would be done.

Any irregularities will be reported to the Public Works Director and appropriate investigation steps will be undertaken.

The data will be recorded on the inspection form, and that information will be stored with the GIS data for each of the representative outfalls.

Any signs of illicit discharges will be investigated to determine if a source can be identified. Appropriate actions will be followed as described in the Illicit Discharge Tracking information. Appropriate enforcement actions will be taken as described in the City Codes.
**Procedures for Tracing Illicit Discharges** (4.3.F)

Once an illicit discharge is discovered the City sewer or stormwater crew will begin the process to track the evidence upstream to determine a source. The City crew will track the evidence by various means as necessary. This could be on foot or by vehicle. When conveyance structures are underground the crew will use pipeline TV apparatus to track the evidence.

Once the upstream limit of the discharge is determined the crew will study the area to see what the possible sources may be. This will include an assessment of area businesses and residential locations. Consideration of the evidence’s nature will be used to narrow the possible sources search.

Proper actions to correct or clean the impacted areas will be implemented as quickly as possible. Should the discharge be sufficiently large to threaten aquatic life or the well-being of residents in the area of the stream, or prove to be difficult in tracking, the MoDNR office in Poplar Bluff will be notified to request their assistance.

Once the source of the discharge is determined the owner will be notified of the findings. If any charges for clean up or corrections are in order the owner will be notified promptly. If any legal actions are necessary the proper authorities will be contacted to perform those duties. The owner will be advised to determine how the discharge occurred and to take proper educational and preventative actions to prevent any future occurrences.

**Septic Tank Policy** (4.3.C)

The City of Cape Girardeau is updating the information for septic tank locations. This work is combining paper records from Cape Girardeau County data and City GIS mapping data. The City is updating the sewer wye location data in the GIS mapping system using record drawings. This work will provide a more accurate data set for the septic tank locations.

When the City is made aware of a problem with a septic tank city staff will do an inspection to examine the conditions. Then the matter is referred to Cape Girardeau County Health Department for their action.

**Total Constructed Outfall List** (4.3.B)

**Designated Constructed Outfall List** (4.3.B)
**Designated Constructed Outfall Map** (4.3.A)
Appendix 14

Public Works Fleet SPCC
(4.6.F: 4 & 5)

The SPCC Plan can be found on this website:
https://www.cityofcape.org/MS4
Table of Contents

Standard Operations Procedures Binder .................................................. 1
Accidents & Injuries .............................................................................. 2
Material Safety Data Sheets ................................................................. 2
Fluid Storage ......................................................................................... 2
Spill Response ....................................................................................... 3
Used Oil ................................................................................................. 3
Used Anti-Freeze ................................................................................... 3
Used Tires ............................................................................................. 4
Battery Disposal .................................................................................. 4
Salt & Ice Control Products .................................................................. 4
Spraying Operations ............................................................................. 4

Standard Operations Procedures Binder

The Standard Operating Procedures (SOP’s) will be kept in a binder clearly marked and available to the workers in the work area. Each Division will have an SOP binder with the general and site specific information for that work area. SOP’s will be updated as necessary for each area. Each Division employee is to be aware of the location of the SOP binder, the organization of the information in it, and the general content.
Accidents & Injuries
Accidents and injuries are to be handled according to the procedures adopted by the City and as described in the City Personnel Manual

Material Safety Data Sheets
MSDS sheets will be received from each vendor with the product when it is initially delivered to Public Works. The MSDS sheets will be kept in an organized binder in the Division area where the product is used or stored. Each Division will keep an MSDS binder with information for that work area. The MSDS binder will be clearly labeled on the outside for quick recognition. The MSDS binder will be kept in a location where it is visible and quickly accessible to the workers in the area. The MSDS binder will be updated / checked at least once per year to clean out sheets for products no longer used, and to make sure sheets are present for the products in use. Each Division employee is to be aware of the location of the MSDS binder, how it is organized, and how to use the MSDS sheets.

Fluid Storage
All fluids are to be stored in containers suitable for the product. Containers should be smaller than 55 gallons capacity when possible or feasible. All containers whether portable or fixed will have secondary containment for spill and leak control.

Outdoor containment areas will be protected from rain fall to the extent possible. Outdoor containment areas shall have a drain to release clean water. This drain is to be normally closed or plugged. It should only be opened to release water that has been confirmed as clean and then closed. The log sheet in the SPCC should be filled out each time an outdoor containment area is drained.

Indoor containment will be accomplished by containment pallets or interior containment walls.

Oil absorbent products made for the purpose of capturing and containing spills will be staged at various locations around the maintenance work areas. These products will be in containers that are clearly marked. The container shall have the absorbent product and a scoop or other means of transferring the product into a smaller container. These containers should be placed in close proximity to areas where oil, vehicle fluids, or solvent spills are likely to occur. All Division employees in the work area are to be advised of the location of the absorbent products and the use of them. The absorbent containers are to be checked weekly and refilled as necessary.
Spill Response

When a fluid spill occurs, the worker nearest the spill should take immediate action to contain the fluid. This will usually be to spread the oil absorbent material over the spill. Another action would be to take the absorbent rolls and place them around the spill area to capture the fluid. There may also be absorbent pads that could be placed over the spill. The absorbent materials or kits will be placed in a few locations around the maintenance area for quick access. These containers will be clearly marked. The SPCC has specific guidance on response actions, and contact information for emergency response staff. It also has guidance for notification of proper officials, when necessary. Once the spill is contained, the supervisor should be notified of the spill including the type of fluid and the amount. Proper steps for disposal of the absorbent materials should be taken. The MSDS information may provide guidance for this. Proper protective gear should be used when handling the spill materials. Recommended response action for a spill should be covered in safety meetings with employees at least once per year.

For spills of dry materials, the material should be swept up completely. If it can still be used it should be placed back in a proper container. If the material cannot be used, it should be disposed of in a proper manner. **In no situation should spilled dry material be washed away.** **Dry material spills should not be swept into grass or paved areas to be washed away by rain water.**

Used Oil

Oil taken from vehicles and equipment shall be placed in storage container(s) at Public Works. Used oil received from the public will be stored in the same container(s). This storage shall have secondary containment. The oil will be used for fuel in the waste oil heaters for the Public Works buildings. The Fleet Division will keep records of the amount of oil used as fuel for the heaters.

Used Anti-Freeze

Used Anti-Freeze taken from vehicles and equipment shall be placed in suitable storage container(s) at Public Works. This storage shall have secondary containment. The anti-freeze will be disposed of by delivery to a commercial agent. They will properly dispose of the used anti-freeze. The Fleet Division will keep records of the amount of Anti-Freeze that is disposed of and the method of disposal
Used Tires

When new tires are purchased for a unit direct from the vendor the vendor will take the old tires and be responsible for disposal. When tires are replaced out of inventory the old tires are to be collected and stored until they are picked up for disposal. The Fleet Division will keep records of the total number of tires sent for disposal.

Battery Disposal

When new batteries are purchased direct from the vendor the vendor will take the old battery and be responsible for disposal. When batteries are replaced out of inventory stock the old batteries are to be collected and stored until they are delivered to Sides Scrap Metal for disposal. The Fleet Division will keep records of the total number of batteries sent for disposal.

Salt & Ice Control Products

The bulk salt will be stored in a covered area or salt dome on the Public Works site. This storage will protect the salt from rain. Salt application equipment shall be calibrated to the vehicle speed for control of the amount of salt spread. Equipment used to spread the salt shall be cleaned at the end of a snow / ice event. That salt will be properly disposed of by placing it back into storage or placing in a disposal container that will protect the salt from rain until it is hauled away.

Bagged ice melt products will be stored in a dry place protected from stormwater. Bagged ice melt products will be used according to the manufacturer’s directions. Care will be taken to not over apply ice melt products.

Spraying Operations

All employees involved with the application of spray applied products shall be properly trained and hold any necessary certifications or licenses accordingly. This applies for pesticides used for vector control, and for herbicides used for plant or weed control. If required, a written plan for the spraying program shall be kept on file in the appropriate office. If required, field reports or summary reports on the spraying program shall be properly kept in the appropriate office.

All chemicals and products used in such spraying programs shall be properly stored. All chemicals and products used in such spraying programs shall be properly handled by authorized personnel. Disposal of unused or aged products shall be through proper methods.
Appendix 16

MS4 Stormwater Education Videos (4.6.A & 4.6.B)

The following training videos are available for viewing. These are located at Cape Public Works. Each of these videos is from Excal Visual, a nationally recognized professional training video company. Each is 15 to 20 minutes in length.

A Drop In the Bucket

This 16 minute program shows employees at industrial and industrial-type government facilities the latest Stormwater Pollution Prevention techniques. Good housekeeping, Materials management, Spill prevention, Maintenance, and small spill clean-up are discussed.

Storm Warnings

This video provides general awareness training to employees and contractors about stormwater pollution prevention. It describes Best Management Practices (BMPs) that are useful and important at a wide range of regulated facilities. It covers good housekeeping and other BMPs that help protect stormwater run-off.

Rain Check

This program shows employees how to practice good housekeeping, spill response, materials management, vehicle fueling and washing and the other BMPs.

Ground Control  Construction Site Controls

This video shows employees how erosion, sediments and other potential surface water pollutants are controlled at construction sites. The program focuses on Best Management Practices (BMPs) that are widely used at most construction sites including: silt fence, stabilized entrances/exits, drop inlet protectors and others. The program illustrates how these BMPs work and how they can fail.

SPCC Controlling Oil

This 16 minute video instructs employees on first response measures to take when a discharge is discovered. The video also addresses site security: measures to take to protect oil handling facilities against vandalism and terrorism. This 'SOV' version is specifically tailored for facilities that store modest amounts of oil in smaller containers.

IDDE A Grate Concern

This video focuses on the hazards of illicit discharges and shows employees how to spot them.
Appendix 17

MS4 Construction Site information
(4.4.C: 5)

Share Point Site Link

Here is the website link:
https://sites.bfaeng.com/projects/3241-5

This is a password protected access site.
BFA and City staff has access to it.
This houses the inspection reports from site inspections.

Share Point Site Home Page
Appendix 18

Municipal Operations
Impacted by MS4 O & M Program
(4.6.D & 4.6.E)

The following Departments and Divisions of the City of Cape Girardeau participate in the MS4 Good Housekeeping MCM:

Public Works:
  Streets & Traffic
  Stormwater
  Sanitary Sewer
  Wastewater Treatment
  Solid Waste
  Fleet Maintenance
  Alliance Water - contract operator for Water Division
Parks Department
Fire Department

The following City owned and operated facilities have NPDES permits:

- Wastewater Treatment
  - MO 0136328
- Solid Waste Transfer Station
  - MOR80H165
- Airport
  - MOR80F020
- Water Plant 1
  - General Permit. MOG640100
- Water Plant 2
  - General Permit. MOG640100