

CITY *of* CAPE GIRARDEAU

STORMWATER MANAGEMENT PLAN

**A Continuing Program for Water Quality Improvement
2016 – 2021**

Updated May 2018

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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 of Cape Girardeau has a Council – Manager form of government. The City Council consists of a mayor (elected city wide) and six council members (one elected from each of six wards), and all of them are part time. The Council appoints a full time City Manager. The City has mostly residential areas 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 2 decades. In the early 1990’s the City began an effort to separate combined sewers. This had a twofold objective / impact of reducing 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.

The City of Cape Girardeau has a Stormwater Ordinance that was adopted in 1989. The last significant revision was in May 2018. 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 of Cape Girardeau Stormwater Ordinance provides for control of illicit discharges by listing specific allowable non-stormwater discharges and listing specific prohibited non-stormwater discharges.

The City of Cape Girardeau Stormwater Ordinance provides enforcement authority for all the requirements of the Ordinance. 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 or through the City of Cape Girardeau. However, it should be noted that the City has no control over what occurs outside the City limits. Any contaminants entering the City from outside city limits will pass through.

The City of Cape Girardeau Stormwater Management Team (SWMT) oversees the development and implementation of the Stormwater Management Plan (SWMP). The SWMT meets at least on a semi-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 Assistant Public Works Director 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 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 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 sediment; fats, oils, and grease; fertilizers and pet waste; and floating debris, (Permit Reference 4.2.1.1.5). The SWMP has a targeted audience of City staff, developers, designers, contractors, schools and universities, and local businesses. (Permit Reference 4.2.2.1.3). 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 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 October 2017 updated 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
- > Ensure construction sites utilize BMP's for erosion and sediment control

- Ensure development sites have long term water quality practices implemented
- Use active observation for illicit discharge detection and prevention.
- 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

Public Education and Outreach (MCM 1)

(Permit Ref. Section 4.2.1)

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 the City has set the following objectives for this Measure:

- Identify, develop, obtain, and provide educational resources for distribution to the citizens through media such as mailings, print, radio, television, and the internet.
- 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.
 - <http://www.clearchoicescleanwater.org/national.php>
- Implement a program of marking storm drains with “Do Not Dump” message.
- Employee training for Pollution Prevention and Illicit Discharge Detection & Response
- Set measureable goals for the Practices
- Evaluate the effectiveness of the BMP’s.
- Targeted pollutants are sediment; fats, oils, and grease; fertilizer and pet waste; and floating debris, (Permit Reference 4.2.1.1.5). Construction Sites, retailers, and municipal operations are targeted as potential sources of pollutants.

The BMP’s selected for the Public Education Measure are listed below. See the chart on page 8-A & B for the list of BMP’s, measurable goals, responsible party, and implementation schedule.

- CG993 local access television programming
- Storm drain stenciling & marking

- Employee education
- Workshops with area contractors, engineers, developers
- Web site postings and links
- Placement of information signs along walking tails
- Blogs and social media
- Clear Choices Clean Water Program

Public Education

Best Management Practices

BMP	Description	MS4 Permit Reference	Status
1	Channel CG993 Programming Use local access channel for broadcast of Water quality educational programs and PSA's	4.2.1.1.4	Continuing Effort
1A	Run "Liquid Assets" program	4.2.1.1.4	Continuing Effort
1B	Run EPA program "After The Storm"	4.2.1.1.4	Continuing Effort
1C	Run "Waster Blues Green Solutions" Program	4.2.1.1.4	Continuing Effort
2	Use Social Media Use Social media to distribute water quality information	4.2.1.1.4	Continuing Effort
2A	prepare a plan for use of social media to increase public awareness of water pollution prevention	4.2.1.1.4	In Development
2B	prepare postings for social media distribution	4.2.1.1.4	Continuing Effort
3	Storm Drain Stenciling / Marking Have volunteers and City crews mark storm drain covers with "Do No Dump... Drains To River" message	4.2.1.1.4; 4.2.1.1.2	Continuing Effort
4	Employee Education Provide training to City employees for pollution prevention / housekeeping practices and Illicit Discharge issues	4.2.1.1.2	Continuing Effort
5	Elected Official Education Hold Public Hearings at City Council meeting for SWMP updates and renewals	4.2.1.1.2	Continuing Effort
6	Web Site Postings & Links Identify sources of Pollution Prevention information and post it on the links on the City Website	4.2.1.1.2; 4.2.1.1.4;	Continuing Effort
7	Walking Trail Signs Install water quality information signs along walking trail	4.2.1.1.2	In Development
8	Workshops Host workshops for local developers, engineers, and contractors	4.2.1.1.2; 4.2.1.1.4;	Continuing Effort
9	Citizen Education Clear Choices Clean Water program	4.2.1.1.2; 4.2.1.1.4; 4.2.1.1.3	In Development
9A	Work with Whitewater Alliance organization to develop the City website for Clear Choices Clean Water Program	4.2.1.1.2; 4.2.1.1.4; 4.2.1.1.3	In Development
9B	Monitor and manage the Cape Girardeau Clear Choices Clean Water Program	4.2.1.1.2; 4.2.1.1.4; 4.2.1.1.3	In Development
10	Household Hazardous Waste Day Apply for and obtain grant for hosting Hazardous waste collection event	4.2.1.1.2	Continuing Effort

Public Education

Best Management Practices

BMP	Responsible Party	Measurable Goals	Implementation Schedule				
			2017	2018	2019	2020	2021
1 Channel CG993 Programming	APWD, PIO		X	X	X	X	X
1A	PIO	Run once each week	X	X	X	X	X
1B	PIO	Run once each week	X	X	X	X	X
1C	PIO	Run once each week	X	X	X	X	X
2 Use Social Media	APWD, PIO	see 2A and 2B below	X	X	X	X	X
2A	APWD, PIO	complete the plan development		X			
2B	PIO	implement the plan from 2A above			X	X	X
3 Storm Drain Stenciling / Marking	SWS	Have 25 inlets stenciled or marked each year	X	X	X	X	X
4 Employee Education	APWD, SWMT	Have training for 5 divisions 2 times each year	X	X	X	X	X
5 Elected Official Education	APWD, CE	Present SWMP report once in permit period					X
6 Web Site Postings & Links	APWD, PIO	Add info as available	X	X	X	X	X
7 Walking Trail Signs	SWMT	Install 5 signs in years 3 and 5 of permit period			X		X
8 Workshops	APWD, CE	Host a workshop twice in permit term			X		X
9 Citizen Education	APWD	see 9A and 9B below					
9A	APWD	Complete the development of the City website in 2018		X			
9B	APWD	monitor and promote use of the web site		X	X	X	X
10 Household Hazardous Waste Day	APWD	host an event every other year		X			X

Responsible Party Notation

SWMT = Stormwater Management Team
 PIO = Public Information Office
 CE = City Engineer
 SWS = Stormwater Supervisor
 CEEng = Consulting Engineer Firm

APWD = Ass't Public Works Director
 SWI = Stormwater Inspector
 BO = Building Official

Public Participation (MCM 2)

(Permit Ref. Section 4.2.2)

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:

- Develop educational resources to support the Public Education program
- Clear Choices, Clean Water is a campaign to increase awareness about choices we make and the impact they have on our streams and lakes. By educating individuals and encouraging their participation in their everyday lives we empower people to do their part for water quality and conservation.
 - <http://www.clearchoicescleanwater.org/national.php>
- Planning and working on community clean-up efforts such as Hazardous Waste Collection Day and Friends of the Park work days.
 - 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.
 - The Friends of the Park Day is held in April every year by the Parks Department. The work the volunteer group does traditionally includes trash and debris removal along stream banks adjacent to City park areas.
- Set measureable goals for the practices in the SWMP.
- Evaluate the effectiveness of the BMP's.
- Public input is encouraged through website and social media. Updates and renewal of the proposed SWMP are presented through a public hearing process at City Council meetings. Public input can be offered at this forum. Stakeholders are also engaged for input on the SWMP.

The BMP's selected for the Public Participation Measure are listed below. See the chart on page 9-A & B for the list of BMP's, measurable goals, responsible party, and implementation schedule.

- Public Hearings at City Council meetings
- Annual Review of SWMP by City staff and stakeholders
- Clear Choices Clean Water Program
- Annual review of stakeholders list
- Stream Clean Up Event

Public Participation

Best Management Practices

BMP	Description	MS4 Permit Reference	Status
1	Citizen Participation Use Clear Choices Clean Water program to engage residents in water quality improvement	4.2.1.1.2; 4.2.1.1.4; 4.2.1.1.3	In Development
1 A	Work with Whitewater Alliance organization to develop the City website for Clear Choices Clean Water Program	4.2.1.1.2; 4.2.1.1.4; 4.2.1.1.3	In Development
1 B	Monitor and manage the Cape Girardeau Clear Choices Clean Water Program	4.2.1.1.2; 4.2.1.1.4; 4.2.1.1.3	In Development
2	Stream Clean Up Event Annual Friends of the Parks day. Volunteers work one day and pick up trash from streams near Parks.	4.2.1.1.2; 4.2.1.1.4; 4.2.1.1.3	Continuing Effort
3	Annual Review of SWMP SWMP Annual Review by City staff and stakeholders	4.2.2.1.2	Continuing Effort
3A	annual review of SWMP using the iterative process	4.2.2.1.2	Continuing Effort
3B	hold Public Hearing as necessary for SWMP updates and renewal	4.2.2.1.2	Continuing Effort
4	Maintain Stakeholder List Review and update Stakeholder List	4.2.2.1.3	Continuing Effort

Public Participation

Best Management Practices

BMP	Responsible Party	Measureable Goals	Implementation Schedule				
			2017	2018	2019	2020	2021
1	APWD	See Items 1A and 1B below		X	X	X	X
1A	APWD	Complete the development of the City website in 2018		X			
1B	APWD	monitor and promote use of the web site			X	X	X
2	APWD	Have one event per year	X	X	X	X	X
3	APWD, CE	Complete review each year. If changes are necessary hold public hearing	X	X	X	X	X
3A	APWD, SWMT	Complete review each year. If changes are necessary hold public hearing	X	X	X	X	X
3B	APWD, SWMT	hold public hearing as necessary					X
4	APWD	Check each year and update as necessary	X	X	X	X	X

Illicit Discharge Detection and Elimination (MCM 3)

(Permit Ref. Section 4.2.3)

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:

- Coordinate periodic Household Hazardous Waste Collection events
- Storm drain inlet marking with “Do Not Dump...Goes To River “ Message
- 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.

The BMP's selected for the Illicit Discharge Detection and Elimination Measure are listed below. See the chart on page 11-A & B 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

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 the Cape La Croix stream basin was the area of highest priority. This was highly influenced by the presence of big box retailers like Sams, Walmart, and Lowes where fertilizers and other yard work related potential pollutant sources are stored and sold. In the spring it is common for these retailers to have the inventory of these products in the parking lots where the products are exposed to weather and stormwater runoff. This assessment of the location of higher illicit discharge potential is reviewed during each permit period. For the current permit period this area is still considered to be the area of highest illicit discharge potential, (Permit Reference 4.2.3.1.5)

Illicit Discharge Detection & Elimination

Best Management Practices

BMP	Description	MS4 Permit Reference	Status
1	GIS Data Entry for Stormwater System Maintain and update graphical and data information for stormwater system components in the GIS mapping system.	4.2.3.1.1	Continuing Effort
2	Storm Drain Stenciling / Marking Have volunteers and City crews check markings for "Do No Dump . . . Drains To River" message on drain inlets	4.2.2.1.6; 4.2.3.1.9	Continuing Effort
3	Household Hazardous Waste Day Apply for and obtain grant for hosting Hazardous waste collection event	4.2.1.1.2	Continuing Effort
4	Dry Weather Screening Coordinate and perform Dry Weather Screening of outfalls in priority areas	4.2.3.1.3; 4.2.3.1.4	Continuing Effort
5	Ordinance Enforcement Continue enforcement activities when illicit discharges are found. Coordinate with Abatement Officer for issuing summons and court action when necessary	4.2.3.1.6; 4.2.3.1.7	Continuing Effort
6	Employee Education Provide training to City employees for illicit Discharge issues	4.2.3.1.9	Continuing Effort
7	Training for liquid waste handling related to traffic accidents Continue training for employees in Fire Department, Police Department, Street Division, Airport, and Stormwater Division for proper actions to control and capture liquid waste at accident scenes.	4.2.3.1.9	Continuing Effort
8	Identify Pollutant Types Identify common pollutants and develop procedures for control of them.	4.2.3.1.10	Continuing Effort

Illicit Discharge Detection & Elimination

Best Management Practices		Responsible Party	Measurable Goals	Implementation Schedule				
BMP				2017	2018	2019	2020	2021
1	GIS Data Entry for Stormwater System	APWD, CE	Continue entry of new system information as additions or changes are made	x	x	x	x	x
2	Storm Drain Stenciling / Marking	APWD, SWS	check 20 inlets each year	x	x	x	x	x
3	Household Hazardous Waste Day	APWD	host an event every other year		x		x	
4	Dry Weather Screening	APWD, SWMT	perform screening on 20% of outfalls in priority areas each year	x	x	x	x	x
5	Ordinance Enforcement	APWD, SWI, BO	Track occurrences of illicit discharges and cite offending party if found.	x	x	x	x	x
6	Employee Education	APWD, SWS SWMT	Have training for 5 divisions 2 times each year	x	x	x	x	x
7	Training for liquid waste handling related to traffic accidents	APWD, SWMT	One training session for each division per year	x	x	x	x	x
8	Identify Pollutant Types	SWMT, APWD	Review and update list every year, as necessary.	x	x	x	x	x

Construction Site Runoff Control (MCM 4)

(Permit Ref. Section 4.2.4)

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 measureable 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 12-A & B 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)

Construction Site Runoff Controls

Best Management Practices

BMP	Description	MS4 Permit Reference	Status
1	Stormwater Ordinance Periodically review the stormwater ordinance for necessary amendments	4.2.4.1.6; 4.2.4.1; 4.2.4.1.1	Continuing Effort
2	Pre-development meetings Have meetings with developers / designers to discuss site layout with specific attention to sediment & erosion controls, and other pollutant controls	4.2.5.1; 4.2.5.1.3	Continuing Effort
3	Site Plan Review Have all proposed developments provide a site plan and SWPPP. This plan to be reviewed by APWD and City Engineering office.	4.2.4.1.1; 4.2.4.1.3	Continuing Effort
4	Site Inspections Continue to use procedures and checklists to perform and document construction site inspections.	4.2.4.1.5; 4.2.4.1.5.1	Continuing Effort
5	Public Input Continue receive and process calls from citizens. The calls could be complaints, suggestions, or observations. Stormwater Division staff responds to the calls	4.2.4.1.4	Continuing Effort
6	Construction Site Waste Control Enforce proper containment and disposal of construction site waste materials	4.2.4.1.2	

Construction Site Runoff Controls

Best Management Practices

BMP	Responsible Party	Measurable Goals	Implementation Schedule				
			2017	2018	2019	2020	2021
1 Stormwater Ordinance	APWD, CE SWMT	Review ordinance annually	X	X	X	X	X
2 Pre-development meetings	APWD, CE, BO, CEng	Hold a meeting for every development plan	X	X	X	X	X
3 Site Plan Review	APWD, CE, BO, CEng	Review every development plan	X	X	X	X	X
4 Site Inspections	SWI, Ceng	Perform 100 site inspections by SWI, Ceng, Inspections Division staff, and Engineering Division staff	X	X	X	X	X
5 Public Input	SWMT, APWD	Respond to 24 calls in a timely manner, according to the nature of the call.	X	X	X	X	X
6 Construction Site Waste Control	SWI, CEng	as part of site inspections make sure construction waste is properly addressed	X	X	X	X	X

Post Construction Runoff Control (MCM 5)

(Permit Ref. Section 4.2.5)

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.
- 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 measureable 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 14-A & B 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)

Post Construction Runoff Controls

Best Management Practices

BMP	Description	MS4 Permit Reference	Status
1	List of Post Construction Runoff Control BMP's Prepare and maintain a list of recommended Structural & Non-structural BMP's for Post Construction Runoff control	4.2.5.1.3	Continuing Effort
2	Design criteria for the recommended BMP's Prepare and maintain a set of design criteria for the recommended BMP's for Post Construction runoff control	4.2.5.1.3	Continuing Effort
3	SWPPP review Review SWPPP for development and re-development sites for specific water quality BMP applications	4.2.5.1.3	Continuing Effort
3A	Stream Bank Buffer Zone Maintain and enforce 50 ft. buffer zone along stream banks	4.2.5.1.3	Continuing Effort
3B	Disconnect Onsite Storm Water Flows Maintain policy of not allowing a direct connection of development site storm water flows to the MS4 conveyance system	4.2.5.1.3	Continuing Effort
3C	Post Construction BMP O&M Use PC BMP database to track maintenance of applicable BMP's	4.2.5.1.2	Continuing Effort
3D	Flood control detention Review flood control detention plans for water quality considerations	4.2.5.1.3	Continuing Effort
3E	Use of landscape areas for storm water quality improvement encourage use of landscape areas for service as water quality BMP's	4.2.5.1.3	Continuing Effort
3F	Maximum graded slope 3:1 Enforce regulations for maximum graded slopes of 3:1	4.2.5.1.3	Continuing Effort
4	Pre-development meetings Have meetings with developers / designers to discuss site layout with specific attention to sediment & erosion controls, and other pollutant controls	4.2.5.1.3	Continuing Effort
5	Flood Plain Development Controls Maintain and enforce flood plain development controls		Continuing Effort
6	Utility extension controls Maintain control of utility extensions along stream banks. When such extension is necessary design to minimize impact to vegetation and stream.	4.2.5.1.3	Continuing Effort
7	Post Construction BMP database Develop and maintain a digital database of water quality BMP's	4.2.5.1.4	Continuing Effort
8	Parking Space Variances Review parking space requirements for specific developments to see if variance may be justified to lower number of required spaces	4.2.5.1.3	Continuing Effort
9	LID design practices & elements Encourage use of Low Impact Development design practices and elements	4.2.5.1.3	Continuing Effort

Post Construction Runoff Controls

Best Management Practices

BMP	Responsible Party	Measurable Goals	Implementation schedule				
			2017	2018	2019	2020	2021
1	APWD, SWMT, CEEng	Complete the preparation of the BMP list and update as necessary	X	X	X	X	X
2	APWD, CE, BO, CEEng	Prepare a set of BMP design criteria for use by designers or contractors. Update annually	X	X	X	X	X
3	APWD, CE, BO, CEEng	Review SWPPP for each development plan	X	X	X	X	X
3A	APWD, CE, BO	Review SWPPP for each development plan	X	X	X	X	X
3B	APWD, CE, BO	Review SWPPP for each development plan	X	X	X	X	X
3C	APWD, CE, BO, CEEng	Check 20% of database elements each year	X	X	X	X	X
3D	APWD, CE Bo, Ceng	Review SWPPP for each development plan	X	X	X	X	X
3E	APWD, CE Bo, Ceng	Review SWPPP for each development plan	X	X	X	X	X
3F	APWD, CE Bo, Ceng	Review SWPPP for each development plan	X	X	X	X	X
4	APWD, CE Bo, Ceng	Have meeting for each development plan	X	X	X	X	X
5	APWD, CE, BO	enforce flood plain development guidelines	X	X	X	X	X
6	APWD, CE, BO	encourage utility work to avoid disturbance in the stream bank buffer zone	X	X	X	X	X
7	APWD, CE, BO	Update database annually	X	X	X	X	X
8	APWD, CE, BO	review parking plans to seek means of limiting impervious areas	X	X	X	X	X
9	APWD, CE Bo, Ceng	review development plans to encourage use of LID practices	X	X	X	X	X

Pollution Prevention / Good Housekeeping (MCM 6)

(Permit Ref. Section 4.2.6)

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 15-A & B 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

Pollution Prevention & Good Housekeeping

Best Management Practices

BMP	Description	MS4 Permit Reference	Status
1	Training for City Staff Provide training to City employees for pollution prevention & housekeeping practices. Set up a schedule for training.	4.2.6.1.1	Continuing Effort
2	Computerized Metering Equipment for Ice Control Keep computerized equipment used to spread chemicals for ice control in good operating condition and properly calibrated	4.2.6.1.4	Continuing Effort
3	Salt Storage Keep salt storage dome in good condition.	4.2.6.1.4	Continuing Effort
4	Use brine for snow and ice control use brine for snow and ice control instead of rock salt when feasible	4.2.6.1.4	Continuing Effort
5	Systematic Cleaning of Storm Drains Continue program of scheduled cleaning for storm drains around the City	4.2.6.1.3	Continuing Effort
6	Continue Used Oil Reuse Program Continue collection and use of used oil for heaters in maintenance shop area	4.2.6.1.5	Continuing Effort
7	Standard Operating Procedures Keep and update Standard Operating Procedures for pollution prevention in each work area	4.2.6.1.4; 4.2.6.1.3	Continuing Effort
8	Vector Control (mosquitoes) Continue to use larvicide for vector control	4.2.6.1.4	Continuing Effort
9	SPCC Plans Continue to keep SPCC plans updated	4.2.6.2	Continuing Effort
10	MSDS Information Continue to keep MSDS informatin updated and screened	4.2.6.2	Continuing Effort
11	Street Sweeping Continue street sweeping operations	4.2.6.1.3	Continuing Effort
12	Solid Waste Recycling Program Continue solid waste recycling program	4.2.6.1.3	Continuing Effort
13	Battery Recycling Program Continue equipment and vehicle battery recycling program	4.2.6.1.5	Continuing Effort
14	Automobile Tire Recycling Program Continue tire recycling program	4.2.6.1.5	Continuing Effort
15	Household Appliance Disposal Continue program to accept and dispose of household appliances	4.2.6.1.4	Continuing Effort
16	Vehicle Wash Bay Keep vehicle wash bay in good condition for washing machinery and equipment	4.2.6.1.4	Continuing Effort
17	Citywide Leaf Collection Program Continue the citywide leaf collection and disposal program	4.2.6.1.3	Continuing Effort

Pollution Prevention & Good Housekeeping

Best Management Practices

BMP	Responsible Party	Measureable Goals	Implementation Schedule				
			2017	2018	2019	2020	2021
Training for City Staff	APWD, SWMT	Have training 2 times each year for Fleet Maint. Parks, Stormwater, Sewer, and Solid Waste crews	2017	2018	2019	2020	2021
Computerized Metering Equipment for Ice Control	APWD	Have equipment checked each fall before winter season.	X	X	X	X	X
Salt Storage	APWD	Have storage area and dome checked each year	X	X	X	X	X
Use brine for snow and ice control	APWD	use brine when feasible to reduce salt distribution on roadways	X	X	X	X	X
Systematic Cleaning of Storm Drains	SWS	Clean drains to remove debris and ensure proper function	X	X	X	X	X
Continue Used Oil Reuse Program	APWD, SWMT	collect and reuse 300 gallons per year	X	X	X	X	X
Standard Operating Procedures	APWD, SWMT	check and update information each year	X	X	X	X	X
Vector Control (mosquitoes)	SWS	use non-pollutant larvicide in lieu of sprayed controls to avoid water pollution	X	X	X	X	X
SPCC Plans	APWD, SWMT	review SPCC plan each year and update as necessary	X	X	X	X	X
MSDS Information	APWD, SWMT	review msds data each year and update as necessary	X	X	X	X	X
Street Sweeping	APWD, SWMT	sweep all streets once per month	X	X	X	X	X
Solid Waste Recycling Program	APWD, SWMT	recycle 3000 tons per year	X	X	X	X	X
Battery Recycling Program	APWD, SWMT	recycle 200 batteries per year	X	X	X	X	X
Automobile Tire Recycling Program	APWD, SWMT	recycle 200 tires per year	X	X	X	X	X
Household Appliance Disposal	APWD, SWMT	dispose of 75 appliances each year	X	X	X	X	X
Vehicle Wash Bay	APWD, SWMT	maintain wash bay to control runoff from site	X	X	X	X	X
Citywide Leaf Collection Program	APWD, SWMT	collect / dispose 500 tons leaves each year	X	X	X	X	X

Appendix 1

MS4 Stormwater Team 2013

Stan Polivick	Assistant Public Works Director
Steve Cook	Public Works Director
Stacey Beasley	Stormwater Maintenance Supervisor
Casey Brunke	City Engineer
Teresa Hefner	GIS Division
Erica Bogenpohl	Alliance Water / GIS
Brock Davis	Division Manager Parks & Recreation
Nicolette Brennan	Public Information Office
Ryan Shrimplin	Planner
Bruce Loy	Airport Manager
Anna Kangas	Building Code Enforcement Manager
Alex McElroy	Development Services Director
Jim Haltmar	Streets & Stormwater Inspector

Appendix 2

MS4 Permit Document

Issued October 2016

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

Jeremiah W. (Jay) Nixon, Governor • Harry D. Bozoiian, Director

www.dnr.mo.gov

October 24, 2016

City of Cape Girardeau
2007 Southern Expy
Cape Girardeau, MO 63701

Dear City of Cape Girardeau:

Pursuant to the Federal Water Pollution Control Act, under the authority granted to the State of Missouri and in compliance with the Missouri Clean Water Law, we have issued and are enclosing a General State Operating Permit for CAPE GIRARDEAU SMALL MS4.

Please review the requirements of your permit. Monitoring reports that may be required by this permit must be submitted on a periodic basis. Copies of the necessary report forms, if required, are enclosed and should be mailed to your regional office. Please contact that office for additional forms.

This permit may include requirements with which you may not be familiar. If you would like the department to meet with you to discuss how to satisfy the permit requirements, an appointment can be set up by contacting Susan Mathis at 573-840-9750. These visits are called Compliance Assistance Visits (CAV) and focus on explaining the requirements to the permit holder.

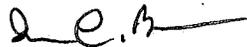
This General Permit is both your federal discharge permit and your new state operating permit and replaces all previous state operating permits and letters of approval for the discharges described within. In all future correspondence regarding this permit, please refer to your general permit number as shown on page one of your permit.

If you were adversely affected by this decision, you may be entitled to an appeal before the administrative hearing commission pursuant to 10 CSR 20-1.020 and Sections 644.051.6 and 621.250, RSMo. To appeal, you must file a petition with the administrative hearing commission within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the administrative hearing commission. Contact information for the AHC is as follows: Administrative Hearing Commission, United States Post Office Building, Third Floor, 131 W. High Street, P.O. Box 1557, Jefferson City, MO 65102, Phone: 573-751-2422, Fax: 573-751-5018, Website: www.oha.mo.gov/ahc.

Please be aware that this facility may also be subject to any applicable county or other local ordinances or restrictions. Please note the expiration date of this permit. If your permit is issued within six months of the expiration date of the attached permit, this letter also serves as a notification to resubmit an application for renewal or termination.

If you have any questions concerning this permit, please contact Mike Hefner at (573) 840-9764 or if you should have questions concerning discharge monitoring reporting, please contact Marletta Cozad at (573) 840-9794 at the Southeast Regional Office at 2155 North Westwood Blvd., Poplar Bluff, MO 63901.

Sincerely,
Southeast Regional Office



Jackson L. Bostic
Regional Director

JB/mh

Enclosure

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

General Operating Permit

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No MOR040020
Owner: City of Cape Girardeau
Address: 2007 Southern Expy
Cape Girardeau, MO 63701

Continuing Authority: City of Cape Girardeau
401 Independence St
Cape Girardeau, MO 63701

Facility Name: CAPE GIRARDEAU SMALL MS4
Facility Address: 2007 SOUTHERN EXPY
CAPE GIRARDEAU, MO 63701

Legal Description: See Page 2
UTM Coordinates: See Page 2
Receiving Stream: See Page 2
First Classified Stream - ID#: See Page 2
USGS# and Sub Watershed#: See Page 2

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein.

FACILITY DESCRIPTION All Outfalls SIC #9511
All Outfalls - Stormwater discharges from Regulated Small Municipal Separate Storm Sewer Systems.

SIC 9511/NAICS 924110

This permit authorizes only wastewater, including storm water, discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System, it does not apply to other regulated areas. This permit may be appealed in accordance with RSMo Section 644.051.6 and 621.250, 10 CSR 20-6.020, and 10 CSR 20-1.020.

November 01, 2016
Issue Date

Harry D. Bozoian
Harry D. Bozoian, Director
Department of Natural Resources

September 30, 2021
Expiration Date

Jackson L. Bostic
Jackson Bostic
Regional Director, Southeast Regional Office

Outfall Number: 001

Legal Description: Land Grant 3091, Cape Girardeau County
UTM Coordinates: 810541.000/4137211.000
Receiving Stream: Tributary to Mississippi River (U)
First Classified Stream - ID#: Mississippi R. (P) 3701.00
USGS# and Sub Watershed#: 07140105 - 0503

Outfall Number: 002

Legal Description: Land Grant 2199, Cape Girardeau County
UTM Coordinates: 808740.322/4135579.087
Receiving Stream: Sloan Creek (C)
First Classified Stream - ID#: 8-20-13 MUDD V1.0 (C) 3960.00
USGS# and Sub Watershed#: 07140105 - 0503

Outfall Number: 003

Legal Description: Land Grant 2199, Cape Girardeau County
UTM Coordinates: 807335.610/4131390.406
Receiving Stream: Cape La Croix Creek (P)
First Classified Stream - ID#: Cape La Croix Cr. (P) 1836.00
USGS# and Sub Watershed#: 07140105 - 0503

Outfall Number: 004

Legal Description: NE 1/4, NE 1/4, Sec. 23, T30N, R13E, Cape Girardeau County
UTM Coordinates: 804645.816/4129239.205
Receiving Stream: Ramsey Branch (P)
First Classified Stream - ID#: Ramsey Br. (P) 2194.00
USGS# and Sub Watershed#: 07140105 - 0503

Outfall Number: 005

Legal Description: Land Grant 3139, Cape Girardeau County
UTM Coordinates: 801895.441/4129488.556
Receiving Stream: Ranney Creek (C)
First Classified Stream - ID#: 8-20-13 MUDD V1.0 (C) 3960.00
USGS# and Sub Watershed#: 07140105 - 0503

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1. **COVERAGE UNDER THIS PERMIT**

1.1 Permit Area:

1.1.1 This permit covers all areas served by a Municipal Separate Storm Sewer System (MS4) for which the applicant is identified as the Continuing Authority.

1.2 Applicability:

1.2.1 This permit authorizes discharges of stormwater from regulated Small MS4s, as defined in 10 CSR 20-6.200. This permit also authorizes the discharge of stormwater commingled with flows contributed by process wastewater, non-process wastewater, or stormwater associated with industrial activity provided such discharges are authorized under separate National Pollutant Discharge Elimination System (NPDES) permits. The permittee, or co-permittee, is authorized to discharge under the terms and conditions of this general permit if the permittee:

1.2.1.1 Owns or operates a regulated Small MS4 as defined in 10 CSR 20-6.200; located fully or partially within an urbanized area as determined by the latest Decennial Census by the Bureau of Census or designated for permit authorization by the Missouri Department of Natural Resources (Department); and

1.2.1.2 Submits a general permit application in accordance with Section 2 of this permit.

1.2.2 The following are types of discharges authorized by this permit:

1.2.2.1 *Stormwater discharges.* This permit authorizes stormwater discharges to waters of the state from the regulated Small MS4s identified in Section 1.2.1, except as excluded in Section 1.3.

1.2.2.2 *Non-stormwater discharges.* The permittee is authorized to discharge the following non-stormwater sources provided the permitting authority has not determined these sources to be substantial contributors of pollutants to the permittee's MS4 that required a separate permit:

- Landscape irrigation and lawn watering,
- Rising groundwater,
- Uncontaminated groundwater infiltration (infiltration is defined as water other than wastewater that enters a sewer system, including sewer service connections and foundation drains, from the ground through such means as defective pipes, pipe joints, connections, or manholes. Infiltration does not include, and is distinguished from, inflow),
- Uncontaminated pumped groundwater,
- Discharges from potable water sources,
- Foundation or footing drains,
- Air conditioning condensate,
- Springs,
- Uncontaminated water from crawl space pumps,
- Flows from riparian habitat and wetlands,
- Street wash water,
- Discharges or flows from emergency fire-fighting activities,
- Individual residential car washing, and
- Dechlorinated residential swimming pool discharges.

1.3 Limitations of Coverage

1.3.1 *Non-stormwater Discharges.* The permittee, as defined herein, shall prohibit non-stormwater discharges into the MS4, except to the extent such discharges are regulated with a separate NPDES permit or as authorized by Section 1.2.2.2 above.

1.3.2 This operating permit does not affect, remove, or replace any requirement of the Endangered Species Act; the National Historic Preservation Act; the Comprehensive Environmental Response, Compensation and Liability Act; or the Resource Conservation and Recovery Act. Determination of applicability to the above mentioned acts is the responsibility of the permittee.

1.4 Discharge Limitations

1.4.1 The permittee shall implement Best Management Practices (BMPs) via an iterative process to reduce the discharge of pollutants to the Maximum Extent Practicable (MEP) into the MS4 for the goal of attainment with Missouri's Water Quality Standards. Specific requirements are listed in Parts 4, 5, and 6 of this operating permit.

1.4.2 The permittee shall implement and enforce a Stormwater Management Program (SWMP) per the requirements listed in this operating permit in accordance with section 402(p)(3)(B)(iii) of the CWA, corresponding NPDES regulations, 40 CFR 122.34, and in accordance with the Missouri Clean Water Law (MCWL) and its implementing regulations under 10 CSR 20-6.200(5)(A)(1 – 6).

1.4.3 The permittee shall comply with all provisions and requirements contained in this permit and with their SWMP including plans and schedules developed in fulfillment of this permit.

1.4.4 If the Department determines a regulated MS4 is causing or contributing to instream excursions of Missouri's Water Quality Standards, then the Department may require corrective action(s) or require an application for a site-specific permit to ensure that BMPs are being implemented via an iterative process to reduce pollutants to the MEP. Additionally, the Department may require the regulated MS4 to submit an application for an alternative general permit.

1.4.5 Newly designated regulated MS4s applying for coverage under this general permit and discharging to waterbodies or watersheds subject to an existing EPA approved or established TMDL may be denied coverage under this general permit and required to apply for and obtain a site-specific operating permit for stormwater discharges from their regulated MS4.

2. **AUTHORIZATION TO DISCHARGE AND APPLICATION REQUIREMENTS**

2.1 Authorization to discharge stormwater from a regulated small MS4 requires each permittee (existing and recently designated regulated MS4 based on the latest decennial census) to submit a complete application for the MS4 general permit. In addition to the application, permittees shall submit their written SWMP including implementation schedule and items listed under Section 4.1 of this operating permit.

- 2.1.1 Each submitted SWMP shall be subjected to a review and rating. If the Department approves the SWMP, it will be presumed to be affordable for the permittee. However, if the Department disapproves the SWMP and requires any additional or different controls or expenses, then the Department will conduct an affordability analysis in support of the disapproval for the permittee. However, permittees may waive the requirement of the Department to conduct an affordability analysis at any time.
- 2.2 The permittee shall submit their application on the latest version of the application form(s). The application shall be signed and dated by an authorized signatory in accordance with section 6.17 of this operating permit.
- 2.3 Existing regulated permittees seeking renewal of their MS4 permit shall submit a renewal application within 30 days prior to the expiration date of this operating permit unless the permittee has been notified by the Department that an earlier application is required.
- 2.4 Recently designated regulated MS4s based on the latest decennial census shall submit their permit application within 180 days following notification by the Department that permit coverage is required.
3. **SPECIAL CONDITIONS FOR TOTAL MAXIMUM DAILY LOADS**
- 3.1 MS4s Subject to Total Maximum Daily Loads (TMDL)
- 3.1.1 Any regulated MS4 identified in an United States Environmental Protection Agency (EPA) approved or established Total Maximum Daily Load (TMDL) with an applicable Wasteload Allocation (WLA) shall implement steps toward the attainment of applicable WLA in accordance with 40 CFR 122.44(k)(2) and (3).
- 3.1.2 The permittee shall develop a TMDL Assumptions and Requirement Attainment Plan (ARAP) to address the TMDL's assumptions and requirements where applicable. The TMDL ARAP shall be incorporated into the SWMP and include, at a minimum, the following:
- 3.1.2.1 A process to identify potential sources of the pollutants(s), BMPs to be implemented to address the sources within their MS4, a prioritization of those actions, and a schedule including beginning and ending milestones by month and year. The schedule for the implementation of the TMDL ARAP shall be completed as soon as practicable, but is not limited to the term of this operating permit (i.e., 5 years) as attainment can take years or even multiple permit terms;
- 3.1.2.2 BMPs developed or designed with a purpose of reducing the pollutant(s) of concern. Each BMP shall contain a description of the BMP, the purpose of the BMP, and the expected result of the BMP.
- 3.1.2.3 Measurable goals shall be established for each BMP or in conjunction with multiple BMPs. Each measurable goal shall contain a statement clearly indicating how it will be established to determine the appropriateness of identified BMPs and progress toward the expected results of the BMP. Measureable goals shall be quantifiable; however, if it is not feasible to utilize a measurable goal that is quantifiable, then the permittee shall provide justification indicating why the measurable goal cannot be quantifiable. If applicable, measurable goals shall also utilize interim and completion milestone dates, and a periodic frequency of measurement to document progress. It is recommended that interim and final milestone dates are established with a format of month and

year. If the format of month and year cannot be utilized, the permittee shall ensure that schedules have the minimum format of 1st, 2nd, 3rd, 4th, and 5th year of the operating permit.

- 3.1.2.4 An iterative process to be utilized by the permittee that documents how each BMP is evaluated and subject to replacement or modification. The permittee shall apply reasonable further progress by replacing or modifying ineffective BMPs with effective BMPs.
- 3.1.3 If the permittee is subject to section 3.1.1, then the permittee shall draft and submit their TMDL ARAP to the Department as soon as practicable but no later than 30 months after the date EPA approves or establishes the TMDL or the effective date of their operating permit, whichever is later. The initial TMDL ARAP is to be submitted to the Department's MS4 Coordinator for review and rating at Water Protection Program, P.O. Box 179, Jefferson City, MO 65102. The deadline for the TMDL ARAP may be extended by request of the permittee and written approval by the Department.
 - 3.1.3.1 The permittee shall submit annual TMDL ARAP status reports to the Department on January 28th of each year until the TMDL ARAP has been submitted. The annual status report shall provide a brief update on the status of completion of the TMDL ARAP to be submitted to the Department. The deadline for the TMDL ARAP may be extended by request of the permittee and with written approval by the Department. The annual status report shall be submitted to the Department's Water Protection Program, MS4 Coordinator at P.O. Box 176, Jefferson City, MO 65102.
 - 3.1.3.2 If the Department approves the TMDL ARAP, it will be presumed that the TMDL ARAP is affordable by the permittee. However, if the Department disapproves a submitted TMDL ARAP and requires any additional or different controls or expenses, the Department will conduct an affordability analysis in support of the disapproval unless waived by the permittee. In addition to the disapproval, the Department shall provide an itemized list of recommendations, discrepancies, and plan corrective action(s) to the permittee in written correspondence, which will also provide deadlines for any corrective action(s).
 - 3.1.3.3 If the TMDL ARAP has been submitted to the Department but has not received approval, then the permittee is not required to implement any actions listed in their TMDL ARAP and shall notify the Department of this in their MS4 SWMP Report.
 - 3.1.3.4 If the TMDL ARAP has received Department approval, the permittee shall implement their TMDL ARAP in accordance to schedules established in the TMDL ARAP. Implementation of all TMDL ARAP control measures shall be documented and retained by the permittee with the permittee's SWMP, and made available to the Department or EPA upon request.
- 3.1.4 If the permittee is subject to section 3.1.1 of this operating permit and has an approved TMDL ARAP, then the permittee shall provide a summary that lists the BMPs, the expected results of the BMPs, how the measurable goals are utilized to document effectiveness of the BMPs, and the status of the measurable goal in the MS4 SWMP Report.
- 3.1.5 If the permittee is subject to section 3.1.1 of this operating permit, then the permittee may demonstrate that no additional controls are needed beyond the successful implementation of the six Minimum Control Measures (MCMs), which includes modifications to the BMPs or measurable goals, for the attainment with the TMDL's assumptions and requirements. The demonstration is subject to Department approval. If the permittee is to provide a demonstration

that no additional controls are needed, they shall contact the Water Protection Program's MS4 Coordinator to begin the process.

- 3.1.6 If the permittee is subject to section 3.1.1 of this operating permit, then the permittee may submit an Integrated Plan as an approach for the implementation of a TDML's assumptions and requirements. Review and rating of an Integrated Plan is subject to the same requirements of sections 3.1.2 through 3.1.3 of this permit. If the permittee is to utilize an Integrated Plan, they shall contact the Water Protection Program's MS4 Coordinator to begin the process.
- 3.1.7 Permittees subject to existing TMDL Assumptions and Requirements shall submit their plan and status of implementation to the Department with the first MS4 SWMP Report required by this permit. Existing plans shall be subject to the same conditions listed in items 3.1.2.1; 3.1.2.2; 3.1.2.3; 3.1.2.4; 3.1.3.1; 3.1.3.2; 3.1.3.4; 3.1.4; 3.1.5; 3.1.6.
- 3.1.8 If the EPA approved or established TMDL indicates that the permittee does not cause or contribute to the impairment, then the permittee is not required to develop and implement any action contained in Part 3 of this permit.

4. **STORMWATER MANAGEMENT PROGRAM (SWMP)**

4.1 The SWMP document shall include:

4.1.1 The following information for each of the six (6) minimum control measures described in Section 4.2 of this permit:

4.1.1.1 BMPs developed or designed with a purpose of reducing stormwater pollution. Each BMP shall contain a description of the BMP, the purpose of the BMP, and the expected result of the BMP.

4.1.1.2 Measurable goals shall be established for each BMP or in conjunction with multiple BMPs. Each measurable goal shall contain a statement clearly indicating how it will be established to determine the appropriateness of identified BMPs and progress toward the expected results of the BMP. Measurable goals shall be quantifiable; however, if it is not feasible to utilize a measurable goal that is quantifiable, then the permittee shall provide justification indicating why the measurable goal cannot be quantifiable. If applicable, measurable goals shall also utilize interim and completion milestone dates, and a periodic frequency of measurement to document progress. It is recommended that interim and final milestone dates are established with a format of month and year. If the format of month and year cannot be utilized, the permittee shall ensure that schedules have the minimum format of 1st, 2nd, 3rd, 4th, and 5th year of the operating permit.

4.1.1.3 The person primarily responsible for the SWMP and the person(s) responsible for each minimum control measure if different from the primary responsible person; and

4.1.1.4 An iterative process to be utilized by the permittee that documents how each BMP is evaluated and subject to replacement or modification. The permittee shall apply reasonable further progress by replacing or modifying ineffective BMPs with effective BMPs.

4.1.2 Newly designated regulated MS4s shall fully implement each Minimum Control Measures in accordance with their approved SWMP within five (5) years of receipt of its MS4 operating permit.

4.1.3 Within one (1) year of the effective date of this permit, the permittee shall revise their SWMP, if necessary, and submit the SWMP to the Water Protection Program's MS4 Coordinator for review and rating.

4.2 Minimum Control Measures – The six (6) Minimum Control Measures that shall be included in the permittee's SWMP document are:

4.2.1 ***Public Education and Outreach of Stormwater Impacts***

4.2.1.1 The permittee shall implement a public education program to distribute educational material to the community or conduct equivalent outreach activities about the impact of stormwater discharges on waterbodies and steps the public can take to reduce pollutants in stormwater runoff. As part of the SWMP, the Public Education and Outreach Program shall include the following information at a minimum:

4.2.1.1.1 A plan on how target audiences are identified for the public education program who are likely to have significant stormwater impacts (including commercial and industrial entities);

4.2.1.1.2 A plan to inform individuals and households about steps they can take to reduce stormwater pollution;

4.2.1.1.3 A plan to inform individuals and groups on how to become involved in the SWMP (with activities such as local stream and lake restoration activities);

4.2.1.1.4 The outreach strategy, including the mechanisms (e.g., printed brochures, newspapers, media, workshops, etc...) to reach target audiences; and

4.2.1.1.5 The pollutant(s) sources that the permittee's education program is designed to address.

4.2.2 ***Public Involvement and Participation***

4.2.2.1 The permittee shall implement a public involvement/participation program that provides opportunities for public involvement in the development and oversight of the permittee's SWMP, and provides opportunities for public involvement of the permittee's renewal application. The public involvement/participation program shall, at a minimum, include the following:

4.2.2.1.1 A public notice period to allow the public to review the SWMP and renewal application prior to the submission of the SWMP and renewal application to the Department. It is recommended that the public review period is at least 10 (ten) business days;

4.2.2.1.2 A notice of public meeting, if needed, regarding the SWMP and renewal application. It is recommended that the notice should be at least 72 hours prior to the meeting;

4.2.2.1.3 A plan to target all potentially affected stakeholder groups, including but not limited to, commercial and industrial businesses, trade associations, environmental groups, homeowner associations and educational organizations;

- 4.2.2.1.4 If the permittee utilizes a stormwater management panel/committee, then the permittee shall provide opportunities for citizen representatives on the panel/committee;
- 4.2.2.1.5 If appropriate, volunteer monitoring or stream/lake clean-up activities; and
- 4.2.2.1.6 Provide opportunities and work with citizen volunteers willing to educate others about the permittee's SWMP.
- 4.2.4.2.3 ***Illicit Discharge Detection and Elimination***
- 4.2.3.1 The permittee shall develop, implement, and enforce a program to detect and eliminate illicit discharges, as defined in 10 CSR 20-6.200 and 40 CFR 122.34(b)(3), into the permittee's regulated Small MS4. As part of the SWMP document, the permittee's illicit discharge detection and elimination program shall include the development and implementation of, at a minimum:
- 4.2.3.1.1 A storm sewer map showing the location of all constructed outfalls and the names and locations of all receiving waters of the state that receive discharges from those outfalls. The permittee shall describe the sources of information used for the map(s), and how the permittee plans to verify the outfall locations with field surveys. If already completed, the permittee shall describe how the map was developed and how the map will be regularly updated. The permittee shall make the map information available to the Department upon request;
- 4.2.3.1.2 To the extent allowable under state or local law an effective prohibition, through ordinance or other regulatory mechanism, of non-stormwater discharges into the permittee's storm sewer system and implementation of appropriate enforcement procedures and actions. The permittee shall identify the mechanism (ordinance or other regulatory mechanism) the permittee will use to effectively prohibit illicit discharges into the Small MS4. If the permittee needs to develop this mechanism, describe the permittee's plan and implementation schedule. If the permittee's ordinance or regulatory mechanism is already developed, include a copy of the relevant sections with the permittee's SWMP;
- 4.2.3.1.3 A plan and implementation schedule to detect and address non-stormwater discharges, including discharges from illegal dumping and spills, to the permittee's system;
- 4.2.3.1.4 A dry weather field screening plan for non-stormwater flows and field tests of selected chemical parameters as indicators of discharge sources. The plan shall also address on-site sewage disposal systems that flow into the permittee's storm drainage system;
- 4.2.3.1.5 Procedures for locating priority areas which include areas with higher likelihood of illicit connections (e.g., areas with older sanitary sewer lines) or ambient sampling to locate impacted reaches;
- 4.2.3.1.6 Procedures for tracing the source of an illicit discharge, including the specific techniques the permittee will use to detect the location of the source;
- 4.2.3.1.7 Procedure for eliminating the illicit discharge;
- 4.2.3.1.8 A plan to ensure through appropriate enforcement procedures, including fines, and actions that the permittee's illicit discharge ordinance (or other regulatory mechanism) is implemented;

- 4.2.3.1.9 A plan to inform public employees, businesses and the general public of hazards associated with illegal discharges and improper disposal of waste. The permittee shall describe how this plan will coordinate with all other minimum control measures, monitoring, and TMDL implementation (if applicable);
- 4.2.3.1.10 A plan to address non-stormwater discharges or flows (i.e., illicit discharges) the permittee identifies as significant contributors of pollutants to the regulated Small MS4 including authorized non-stormwater discharges contained in Section 1.2.2.2 of this permit.
- 4.2.4 ***Construction Site Stormwater Runoff Control***
- 4.2.4.1 The permittee shall develop, implement and enforce a program to reduce pollutants in any stormwater runoff to their regulated Small MS4 from construction activities that result in land disturbance of greater than or equal to one acre. Reduction of stormwater discharges from construction activity disturbing less than one acre shall be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. As part of the SWMP, the permittee's construction site stormwater runoff control program shall include the development and implementation of, at a minimum:
 - 4.2.4.1.1 An ordinance or other regulatory mechanism to require operators to implement erosion and sediment control BMPs at construction sites; to include sanctions designed to ensure compliance, to the extent allowable under state or local law; and
 - 4.2.4.1.1.1 If the permittee needs to develop this mechanism, the permittee shall describe the plan and scheduled implementation. If the permittee's ordinance or regulatory mechanism is already developed, the permittee shall include a copy of the relevant sections with the permittee's SWMP.
 - 4.2.4.1.2 Requirements for construction site operators to control construction-site waste that may cause adverse impacts to water quality, such as discarded building materials, concrete truck washout, chemicals, litter and sanitary waste;
 - 4.2.4.1.3 Procedures for the permittee to consider and review all pre-construction site plans for potential water quality impacts;
 - 4.2.4.1.4 Procedures for the permittee receive and consider information submitted by the public, including coordination with the permittee's public education and involvement programs;
 - 4.2.4.1.5 Procedures for the permittee to inspect sites and enforce control measures, including prioritization of site inspection; and
 - 4.2.4.1.5.1 The permittee shall inspect (or require inspection of) any structure that functions to prevent pollution of stormwater or to remove pollutants from stormwater and ensure that all BMPs are implemented and effective; and a monitoring plan with implementation schedules shall be referenced in the SWMP document.

4.2.4.1.6 A plan designed to ensure compliance with the permittee's erosion and sediment control regulatory mechanism, including the sanctions and enforcement mechanisms the permittee will use to ensure compliance and procedures for when certain sanctions will be used. Possible sanctions include non-monetary penalties (such as stop work orders), fines, bonding requirements, and/or permit denials for non-compliance.

4.2.5 ***Post-Construction Stormwater Management in New Development and Redevelopment***

4.2.5.1 The permittee shall develop, implement and enforce a program to address the quality of long-term stormwater runoff from new development and redevelopment projects that disturb equal to and greater than one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the permittee's regulated Small MS4. The permittee's program shall ensure that controls are in place that have been designed and implemented to prevent or minimize water quality impacts. As part of the SWMP document, the post-construction runoff control program shall include the following information, at a minimum:

4.2.5.1.1 An ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under state or local law. If the permittee needs to develop a mechanism, the permittee shall describe the plan and a schedule for implementation. If the permittee's ordinance or regulatory mechanism is already developed, the permittee shall include a copy of the relevant sections with the SWMP document;

4.2.5.1.2 A plan to ensure adequate long-term operation and maintenance of selected BMPs, including, as appropriate, types of agreements between the permittee and other parties such as post-development landowners or regional authorities;

4.2.5.1.3 Strategies to minimize water quality impacts, which include a combination of structural and/or non-structural BMPs appropriate for the permittee's community, including but not limited to the assessment of site characteristics at the beginning of the construction site design phase to ensure adequate planning for stormwater program compliance. The goal of this approach is to arrive at designs that protect sensitive areas, minimize the creation of stormwater pollution, and utilize BMPs that effectively remove stormwater pollution. This can be achieved by reasonably mimicking pre-construction runoff conditions on all affected new development projects, or the permittee may achieve this goal through a method more appropriate for its community;

4.2.5.1.4 An inspection plan with implementation schedules for post-construction BMPs; and

4.2.5.1.5 The permittee shall inspect or require the inspection of post-construction stormwater BMPs to ensure that all BMPs are implemented and effective.

4.2.6 ***Pollution Prevention/Good Housekeeping for Municipal Operations***

4.2.6.1 The permittee 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. As part of the SWMP, the pollution prevention/good housekeeping program shall include the following information, at a minimum:

- 4.2.6.1.1 A government employee training program to prevent and reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance. The permittee shall describe any existing, available material the permittee plans to use such as those available from EPA, the state, or other organizations. The permittee shall describe how this plan will coordinate with all other minimum control measures, monitoring and TMDL implementations where applicable;
- 4.2.6.1.2 A list of all municipal operations that are impacted by this operation and maintenance program. The permittee shall also include a list of industrial facilities that the permittee owns or operates that are subject to NPDES permits for discharges of stormwater associated with industrial activity that ultimately discharge to the permittee's MS4. The permittee shall include the permit number or a copy of the No Exposure Exemption Certification (if applicable) for each facility. NPDES permitted facilities not owned or operated by the permittee are not required to be part of the list;
- 4.2.6.1.3 Maintenance BMPs, maintenance schedules, and long-term inspection procedures for controls to reduce floatable and other pollutants to the permittee's regulated Small MS4;
- 4.2.6.1.4 Controls for reducing or eliminating the discharge of pollutants from street, roads, highways, municipal parking lots, maintenance and storage yards, waste transfer station, fleet or maintenance shops with outdoor storage areas, and salt/sand storage locations and snow disposal areas the permittee operates;
- 4.2.6.1.5 Procedures for the proper disposal of waste removed from the permittee's Small MS4 and areas of jurisdiction, including dredged material, accumulated sediments, floatables and other debris;
- 4.2.6.1.6 Procedures to assess impacts of water quality for new flood management projects, if applicable. Flood management projects are those projects developed or designed to reduce flooding.
- 4.2.6.2 All paints, solvents, petroleum products and petroleum waste products (except fuels) under the control of the permittee shall be stored so that these materials are not exposed to stormwater. Sufficient practices of spill prevention, control, and/or management shall be provided to prevent any spill of these pollutants from entering waters of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater.
- 4.2.7 BMP Substitutions
- 4.2.7.1 BMPs and methods prescribed in Sections 4.2.1.1.1 through 4.2.1.1.5 (Public Education and Outreach) , Sections 4.2.2.1.1 through 4.2.2.1.6 (Public Involvement and Participation), Sections 4.2.3.1.3 through 4.2.3.1.10 (Illicit Discharge Detection and Elimination), and Sections 4.2.6.1.4 through 4.2.6.1.6 (Pollution Prevention/Good Housekeeping for Municipal Operations) may be substituted with alternative BMPs under the following conditions:
- 4.2.7.1.1 The substitutions are reasonably as protective as those they replace;
- 4.2.7.1.2 Substitutions and methods are identified in the SWMP, along with rationale for substitutions; and

- 4.2.7.1.3 Progress on compliance with applicable minimum control measure(s) via substitution(s) is reported in the MS4 SWMP Report.
- 4.3 Sharing Responsibility
 - 4.3.1 Implementation of one or more of the minimum measures may be shared with another governmental entity or the governmental entity can assume responsibility for the measure via the co-permittee option if:
 - 4.3.1.1 The co-permittee has a MS4 located within or partially within an Urbanized Area as determined by the most recent Bureau of Census, which can include, but is not limited, to: municipalities, county, military bases, large hospitals, prison complexes, universities, sewer districts, and highway departments;
 - 4.3.1.2 The co-permittee, in fact, implements the control measure;
 - 4.3.1.3 The particular control measure, or component of that measure, is at least as stringent as the corresponding permit requirements; and
 - 4.3.1.3.1 The co-permittee agrees to implement the control measure on the permittee's behalf:
 - 4.3.1.3.1.1 Written acceptance of this obligation is required;
 - 4.3.1.3.1.2 This obligation shall be maintained as part of the documented description of the permittee's SWMP;
 - 4.3.1.3.1.3 If the co-permittee agrees to report on the control measure, the permittee shall supply the co-permittee with the reporting requirements contained in Section 5.3 of this permit.
 - 4.3.1.3.1.4 If the co-permittee fails to implement the control measures on the permittee's behalf, then the co-permittee shall remain liable for any discharges due to that failure to implement. Additionally, the Department may require corrective actions(s), require an application for a site-specific permit, or require the co-permittee to apply and obtain their own Small Phase II MS4 general permit.
- 4.4 Reviewing and Updating the SWMP
 - 4.4.1 The permittee shall conduct an annual review of their SMWP in conjunction with preparation of the MS4 SWMP Report required under Section 5.3;
 - 4.4.2 The permittee may change the SWMP during the life of the permit in accordance with the following procedures:
 - 4.4.2.1 Changes adding components, controls, or requirements to the SWMP may be made at any time upon written notification to the Department; or through the MS4 SWMP Report if changes are minor or through a timely resubmittal of the SWMP if major changes are needed;

- 4.4.2.2 Changes replacing an ineffective or infeasible BMP specifically identified in the SWMP with an alternate BMP may be made at any time and reported to the Department through the MS4 SWMP Report or a timely resubmittal of the SWMP if major changes are needed. The permittee's modifications shall include a documentation of the following:
 - 4.4.2.2.1 An analysis of why the BMP is ineffective or infeasible (including cost prohibitive);
 - 4.4.2.2.2 Expectations on the effectiveness of the replacement BMP; and
 - 4.4.2.2.3 An analysis of why the replacement BMP is expected to achieve the goals of the BMP to be replaced.
- 4.4.2.3 The permittee shall give advanced notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- 4.4.3 Changes to the SWMP requested by the Department must be made in writing, set forth a time schedule for the permittee to develop the changes, and offer the permittee opportunities to propose alternative program changes to meet the objective of the requested modification. All changes required by the Department will be made in accordance with 10 CSR 20-6.200. The Department may require changes to the SWMP as needed to:
 - 4.4.3.1 Address impacts on receiving water quality caused or affected by discharges from the MS4.
 - 4.4.3.2 Include more stringent requirements necessary to comply with new federal or state statutory or regulatory requirements; or
 - 4.4.3.3 Include such other conditions deemed necessary by the Department to comply with the goals and requirements of the MCWL.
- 4.4.4 In the event of a transfer of ownership, change in Continuing Authority, or change in responsibility for SWMP implementation; the permittee shall implement the SWMP on all new areas added to the permittee's portion of the MS4 (or for which the permittee becomes responsible for implementations of stormwater quality controls) as expeditiously as practicable, but not later than one (1) year from the addition of the new areas. Implementation may be accomplished in a phased manner to allow additional time for controls that cannot be implemented immediately:
 - 4.4.4.1 Within 90 days of a transfer of ownership, change of continuing authority, or change in responsibility for SWMP implementation, the permittee shall submit a revised plan, if necessary, for implementing the revised SWMP on all affected areas. The plan shall include revised schedules for implementation. Information on all new annexed areas and any resulting updates required to the SWMP shall be included in the MS4 SWMP Report.
- 4.4.5 Addition of components, controls or requirements by the permittee(s) and replacement of an ineffective or infeasible BMP implementing a required component of the SWMP with an alternate BMP expected to achieve the goal of the original BMP shall be considered minor changes to the SWMP and not a modification to this permit.

5. **MONITORING, RECORDKEEPING, AND REPORTING**

5.1 Monitoring

5.1.1 The permittee shall retain records of any monitoring information used to complete the application for this operating permit, implementation of any part of this operating permit, and implementation for any part of the permittee's SWMP for a period of at least three (3) years from the date of the sample, measurement, or analysis. This period may be extended by official request by the Department at any time. Monitoring data shall include, if applicable, the below information:

5.1.1.1 All calibrations and maintenance records;

5.1.1.2 All original strip chart recordings for continuous monitoring instrumentation;

5.1.1.3 The date, location, and time of sampling or measurement;

5.1.1.4 The individual(s) who performed the sampling or measurements;

5.1.1.5 The date(s) analyses were performed;

5.1.1.6 The individual(s) who performed the analyses;

5.1.1.7 The analytical techniques or methods used; and

5.1.1.8 The results of such analyses.

5.1.2 Any monitoring conducted for the purpose of implementation of any part of this permit shall be conducted in accordance to test procedures approved under 40 CFR Part 136 unless another method is required under 40 CFR subchapters N or O.

5.2 Recordkeeping

5.2.1 The permittee shall retain records of all activities requiring recordkeeping by the SWMP, a copy of the NPDES permit, a copy of all ordinances, policies, and formal procedures for all six (6) MCMs and records of all data used to complete the application for this permit, for a period of at least three (3) years from the date of the report or application. This period may be extended by official request of the Department at any time.

5.2.2 The permittee shall retain the most recent version of their SWMP at a reasonable location accessible to the Department.

5.2.3 The permittee shall submit the items required under Part 5 – MONITORING, RECORDKEEPING, REPORTING of this permit, including a copy of the permit, SWMP, or application upon written request by the public.

5.2.3 The permittee shall submit the items contained in Sections 5.2.1 and 5.2.2 of this permit upon request to the Department. The permittee shall retain a written description of the SWMP required by this permit (including a copy of the permit) at a location accessible to the Department.

5.2.4 The permittee shall submit the items contained in Section 5.2.1 and 5.2.2 of this permit, information and/or application, and description of the SWMP upon written request by the public.

5.3 MS4 SWMP Report

5.3.1 The permittee shall submit MS4 SWMP Reports containing, at a minimum:

5.3.1.1 Information regarding progress toward achieving the statutory goal of reducing the discharge of pollutants to the MEP;

5.3.1.2 The status of the MS4's compliance with permit conditions;

5.3.1.3 Assessment(s) of the appropriateness of identified BMPs and corresponding measurable goals for each Minimum Control Measure;

5.3.1.4 A summary of results of information collected and analyzed during the reporting period, including monitoring data or quantifiable values per the MS4's measurable goals;

5.3.1.5 A summary of the TMDL ARAP, if applicable, containing the implementation status of BMPs and measurable goals specific to the TMDL Assumptions and Requirement Attainment Plan or progress toward implementing the schedule for implementation of the TMDL Assumptions and Requirement Attainment Plan. The summary shall also include any changes to BMPs and corresponding measurable goals;

5.3.1.5.6 If the permittee is utilizing a Department approved integrated planning process, then the permittee shall provide a summary of the status of the integrated plan incorporated with the TMDL ARAP;

5.3.1.7 A summary of the stormwater activities the permittee plans to undertake during the next reporting cycle (including an implementation schedule);

5.3.1.8 Any proposed changes to the permittee's SWMP, including changes to any identified BMPs or measurable goals that apply to the SWMP; and

5.3.1.9 Notice that the permittee is relying on another government entity to satisfy some of the permittee's permit obligations. If applicable, the permittee shall supply the name of the entity, the name of the entity's primary contact person, and other relevant contact information.

5.3.2 The MS4 SWMP Report shall contain the above information for previously unreported calendar year(s). The MS4 SWMP Report shall be submitted based on the schedule below:

Report Frequency	Report Due Dates	Applicability
Annual	February 28 th each year*	Newly designated MS4s, MS4s subject to TMDLs
Biennial	February 28 th odd years only**	Existing MS4s not subject to TMDLs

* - Annual reports will continue to be due every year on February 28th after expiration of this permit until the permit is renewed.

** - Biennial reports will continue to be due every odd number year on February 28th after expiration of this permit until the permit is renewed.

5.3.3 Annual MS4 SWMP Reports shall contain all required information from January 1st to December 31st each year. Biennial MS4 SWMP Reports shall contain all required information from January 1st of the beginning year to December 31st of the immediate following year.

- 5.3.4 Permittees shall submit the MS4 SWMP Reports on the Department approved, *MS4 STORMWATER MANAGEMENT PLAN (SWMP) REPORT* (Form MO 780-1846).
- 5.3.5 If approved by the Department, permittees may submit the MS4 SWMP Report using an alternative report format.
6. **STANDARD PERMIT CONDITIONS**
- 6.1 Duty to Comply. The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Missouri CWL and the Federal CWA and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or for denial of a permit renewal.
- 6.2 Duty to Mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment;
- 6.3 Proper Operation and Maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems installed by a permittee only when necessary to achieve compliance with the conditions of the permit;
- 6.4 Inspection and Entry. The permittee shall allow the department or an authorized representative (including an authorized contractor acting as a representative to EPA, or the department) upon the presentation of credentials and other documents as may be required by law to:
- 6.4.1 Enter the permittee's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;
- 6.4.2 Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- 6.4.3 Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- 6.4.4 Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Act, any substance or parameters at any location.
- 6.5 Monitoring Methods. See Part 5.1 of this operating permit.
- 6.6 Need to Halt or Reduce Activity Not an Excuse. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- 6.7 Permit Actions. This permit may be modified, revoked, reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition;

- 6.8 Duty to Reapply. If the permittee wishes to continue an activity regulated by this permit after the permit expiration date, the permittee must apply for and obtain a new permit. The renewal application shall be submitted at least 30 days prior to expiration of this permit unless the department allows a later deadline not to exceed the expiration date of the permit. Continuation of expiring permits are in accordance with 10 CSR 20-6.010(10)(E) and subsequent amendments;
- 6.9 Administrative Continuation of the Permit. If this permit is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with 10 CSR 20-6.010(10)(E) and remain in force and effect. Any permittee who was granted permit coverage prior to the expiration date, and who has applied for renewal at least 30 days prior to the expiration date, will automatically remain covered by the continued permit until the earlier of:
- 6.9.1. Reissuance or replacement of this permit, at which time the permittee shall comply with the application conditions of the new permit to maintain authorization to discharge;
- 6.9.2. Notice of termination;
- 6.9.3. Issuance of a site-specific permit or alternative general permit for MS4 discharges; or
- 6.9.4. A permit decision by the Director not to reissue this general permit, at which time the permittee shall seek coverage under an alternative general permit or a site-specific permit.
- 6.10 Permit Transfers. Subject to 10 CSR 20-6.010(11), an operating permit may be transferred upon submission to the department. The department may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Missouri CWL or the Federal CWA. (See 40 CFR 122.61; in some cases, modification or revocation and reissuance is mandatory.)
- 6.11 Procedures for Modification or Revocation.
- 6.11.1 If at any time the department determines that the quality of waters of the state may be better protected by reopening this permit, or revoking this permit and requiring the owner/operator of the permitted site to apply for a site-specific (individual) permit or alternative general permit, the department may revoke a general permit and require any person to obtain such an operating permit as authorized by 10 CSR 20-6.010(13), 10 CSR 20-6.200(1)(B) or 10 CSR 20-6.200(6);
- 6.11.2 If this permit is reopened, modified or revoked pursuant to this section, the permittee retains all rights under Chapters 536 and 644 Revised Statutes of Missouri upon the department's reissuance of the permit as well as all other forms of administrative, judicial and equitable relief available under law;
- 6.11.3 The department may require the permittee to apply for and obtain a site-specific or alternative general permit if:
- 6.11.3.1 The permittee is not in compliance with the conditions of this general permit; or
- 6.11.3.2 The discharge no longer qualifies for this general permit due to changed site conditions and regulations; and
- 6.11.4 The permittee will be notified in writing of the need to apply for a site-specific permit or an alternative general permit. When a site-specific permit or alternative general permit is issued to the authorized permittee, the applicability of this general permit to the permittee will be terminated upon the effective date of the site-specific or alternative general permit, whichever the case may be.

- 6.12 Site-Specific Permit or Alternative General Permit. The permittee may apply for a site-specific permit or alternative general permit in lieu of coverage under this general permit. In such cases, the permittee shall submit an application for the alternate permit in accordance with the requirements of 10 CSR 20-6.200 with reasons supporting the request. The request may be granted by issuance of any site-specific permit or an alternative general permit.
- 6.13 Property Rights. This permit does not convey any property rights of any sort, or any exclusive privilege;
- 6.14 Duty to Provide Information. The permittee shall furnish to the department, within a reasonable time, any information which the department may request to determine whether cause exists for modifying, revoking, and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the department upon request copies of records required to be kept by this permit;
- 6.15 Falsification Penalties. Any person who knowingly makes any false statement, representation or certification in any application, record, report, plan, or other document filed or required to be maintained pursuant to sections 644.006 to 644.141 or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than ten thousand dollars, or by imprisonment for not more than six months, or by both. Second and successive convictions for violations under this paragraph by any person shall be punished by a fine of not more than \$50,000 per day of violation, or by imprisonment for not more than two years, or both;
- 6.16 Reopener Clause. Nothing in this permit shall prevent the department from re-opening, modifying, or revoking this permit as authorized by law.
- 6.17 Signatory Requirements.
- 6.17.1 All permit applications shall be signed and certified in accordance with 40 CFR 122.22 and 10 CSR 20-6.010(2)(B) by either a principal executive officer or by an individual having overall responsibility for environmental matters for the permittee; and
- 6.17.2 All reports required by this permit, and other information requested by the department shall be signed by a person described in paragraph 6.17.1 of this permit, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
- 6.17.2.1 The authorization is made in writing by a person designated in Section 6.17.1 of this permit;
- 6.17.2.2 The authorization specifies an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator, superintendent, or position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the permittee. (A duly authorized representative may thus be either a named individual or any individual occupying a named position);
- 6.17.2.3 The written authorization is submitted to the Director; and
- 6.17.2.4 If an authorization under 6.10 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new [written] authorization satisfying the requirements of this paragraph must be submitted to the Director prior to or together with any reports, information, or applications signed by an authorized representative.

Missouri Department of Natural Resources
FACT SHEET
FOR THE PURPOSE OF RENEWAL
OF
PHASE II SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)
MO-R040000
MASTER GENERAL PERMIT

The Federal Water Pollution Control Act ("Clean Water Act or CWA" Section 402 Public Law 92-500 as amended) established the National Pollution Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of stormwater from certain point sources. All such discharges are unlawful without a permit (Section 301 of the CWA). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Permits in Missouri are issued by the Director of the Missouri Department of Natural Resources (department) under an approved program, operating in accordance with federal and state laws (Federal CWA and Missouri Clean Water Law or CWL Section 644 as amended). NPDES operating permits are issued for a period of five (5) years unless otherwise specified.

The purpose of a fact sheet is to give the reader pertinent information regarding the applicable regulations, rationale for the development of the NPDES Missouri State Operating Permit (operating permit), and the public participation process for operating permit listed below.

A fact sheet is not an enforceable part of an operating permit.

This fact sheet is for a 2015 renewal of Master General Permit MOR040000 for regulated Small Municipal Separate Storm Sewer Systems (MS4s) and has been significantly modified to better provide justification to the terms and conditions of the MS4 general permit MOR040000 due to comment received during the October 31, 2014 to December 31, 2014, public notice period.

Part I - Facility Information

The following MS4 facility information should appear on the certification page of the General Permit Covered Facility operating permit. If the below information listed on the certification page is not correct, please contact the appropriate Regional Office on how to correct the information. This may include an operating permit modification application along with application fee.

- NPDES Permit Number
- Facility Name/Address
- Owner's Name/Address
- Department's Regional office(s) the MS4 is located
- Missouri County or Counties the MS4 is located
- MS4 SIC code and NAICS code
- Facility Description

Part II – Permitted Features

A NPDES Permitted Feature is a term borrowed from the Department's Clean Water Information System (MoCWIS), which is typically a three digit code used to describe if the point source location is an outfall, monitoring location, well, internal monitoring location, stormwater outfall, etc.

Applications for MS4 operating permit (renewal or new) require the MS4 to provide information regarding the location of outfalls from the regulated MS4. In accordance with 10 CSR 20-6.200(1)(C)18, an outfall is defined as, "A point source as defined by 10 CSR 20-2.010 at the point where a municipal separate storm sewer discharges and does not include open conveyances connecting two (2) municipal separate storm sewers, pipes, tunnels or other conveyances which connect segments of waters of the state and are used to convey water of the state."

A point source is, as defined in 10 CSR 20-2.010(54), "Any discernible, confined and discrete conveyance including but not limited to, any pipe, ditch, channel, tunnel conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, separate storm sewer or vessel or other floating craft from which pollutants are, or may be, discharged."

Applications for renewal or to receive (i.e., new permit) of the MS4 general permit require the permittee to provide the legal description, outfall number and receiving stream. In addition, the application for both co-permittees and individual MS4 permittees require a United States Geological Survey map showing the locations of the municipality/area in relation to the local road system and to indicate on the map the municipal/area boundary, receiving stream(s), all known stormwater outlets and the map section, township, and range. From this information, Department permit writers will establish a full description of these permitted features on the permit's certification page with the following:

Permitted Feature ID (e.g., Outfall #001)

Legal Description: $\frac{1}{4}$, $\frac{1}{4}$, Section, Township, Range, Direction

UTM Coordinates: X=000000.0, Y=0000000.0 (Easting, Northing respectively)

Receiving Stream: Name & Classification

First Classified Stream and ID: Name, Class, Waterbody ID – currently provided by the department

USGS Basin & Sub-watershed No.: (# – #) [12 digit USGS Hydrologic Unit Code (HUC)]

This permit allows regulated MS4s to discharge stormwater to the following waters, depending on location of the regulated MS4: Missouri or Mississippi River, lakes or reservoirs, losing streams, metropolitan no-discharge waters, special streams, subsurface waters and other waters of the state.

Part III - Rationale and Derivation of Limitations & Permit Conditions

ADDITIONAL FEDERAL ACTS

In accordance with 40 CFR 122.49(b) and (c) the operating permit cites the Endangered Species Act (ESA) and the National Historic Preservation Act (NHPA) and places the permittee on notice that the operating permit does not affect, remove or replace the requirements or compliance determination for NPDES operating permits. It is the responsibility of the permittee to determine if activities conducted within their MS4 or stormwater discharging from their MS4 are in compliance with the ESA and NHPA.

Assistance in determining applicability to ESA conditions and requirements can be found in the U.S. Fish and Wildlife Service (FWS) Endangered Species webpage, which is located at: <http://www.fws.gov/Endangered/>. Additionally, the FWS Information for Planning and Conservation (IPaC) web-based project planning tool that streamlines the environmental review process is highly recommended and is located at: <http://ecos.fws.gov/ipac/>.

Assistance in determining applicability to NHPA conditions and requirements can be found in the Department's State Historic Preservation Office Section 106 Review, which is located at: <http://dnr.mo.gov/shpo/sectionrev.htm>. Additionally, the Advisory Council on Historic Preservation Citizen Guide to Section 106 Review, which explains the process, is located at: <http://www.achp.gov/citizensguide.html>.

In addition to the ESA and NHPA, this operating permit does not affect, replace or remove the requirements and compliance determinations with respect to substances not otherwise covered under a NPDES permit and regulated by federal law under the Resource Conservation and Recovery Act or the Comprehensive Environmental Response, Compensation, and Liability Act.

ANTI-BACKSLIDING:

Anti-backsliding is a provision in federal regulations CWA §303(d)(4); CWA §402(o); 40 CFR 122.44(l) that requires a reissued permit to be as stringent as the previous permit with some exceptions. The permit complies with Anti-backsliding regulations.

This operating permit conforms with anti-backsliding in accordance with CWA §402(o)(2)(B)(ii), which states, "The Administrator determines that technical mistakes or mistaken interpretations of law were made in issuing the permit under subsection (a)(1)(B) of this section." However, while this is a true statement, the department believes this operating permit does not backslide as it is more protective than the previous Master General Permit for Phase II Small MS4 (previous general permit). Regardless, the discussion in support of CWA §402(o)(2)(B)(ii) is given below.

The previous general permit contained several terms and conditions regarding water quality standards, which were incorrectly established, unenforceable and not in keeping with applicable federal and state statutes and regulations. Specifically, section 1.3.6 established that the permit did not authorize "discharges that cause or contribute to a violation of instream water quality standards." Section 3.1.2 established, "The permittees SWMP document required under section 4 shall include a description of how the permittee's program will control the discharge of measurable pollutants of concern and ensure the permittee's discharge will not cause or contribute to instream exceedances of water quality standards." Section 3.1.3.7 established, "The permittee shall continue meeting the requirements of 3.1.3.4 through 3.1.3.7 for this permit duration until the department determines WLAs are being met or that water quality standards are being met." Additionally, section 4.1.4 requires the permittee to, "implement a program designed to protect water quality in potentially affected waters and ensure that the permitted activities do not cause a violation of the Water Quality Standards." Finally, under section 4.1.4.1, the permit establishes, "Discharge to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria."

Federal regulation 40 CFR 122.34(a) states, "Your NPDES MS4 permit will require at a minimum that you develop, implement, and enforce a stormwater management program to reduce the discharge of pollutants from your MS4 to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act..." It is believed (i.e., not documented in the fact sheet) the previous operating permit was issued under the concept that "to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act" was to require strict and immediate compliance with both numeric and narrative Missouri's Water Quality Standards (WQS).

As noted in the *1999 National Pollution Discharge Elimination System Regulations for Revisions of Water Pollution Control Program Addressing Storm Water Discharges* (64 FR No. 235), "For this reason, today's rule specifies that the 'compliance target' for the design and implementation of municipal storm water control program is 'to reduce the pollutants to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the CWA'. The first component, reduction to the MEP, would be realized through the implementation of the six minimum measures. The second component, to protect water quality, reflects the overall design objective for municipal programs based on CWA section 402(p)(6). The third component, to implement other applicable water quality requirements of the CWA, recognizes the Agency's specific determination under CWA section 402(p)(3)(B)(iii) of the need to achieve reasonable further progress toward attainment of water quality standards according to the iterative BMP process, as well as the determination that State or EPA officials who establish TMDLs could allocate waste loads to MS4s, as they would to other point sources."

As noted above in 64 FR No. 235, 40 CFR 122.34(a), specifies the "compliance target" (i.e., the goal, what to aim for, etc....) is MEP, protection of water quality, and to satisfy the appropriate water quality requirements of the CWS. Additionally, it establishes that the phrase "to protect water quality" reflects the overall design objective for the municipal program, which is in contrast to the previous general permit as it established water quality shall not be violated rather than what to set goals to achieve (i.e., as a design objective). This is subsequently supported with the third portion of 40 CFR 122.34(a), "to satisfy the appropriate water quality requirements of the CWA" as 64 FR No. 235 clearly establishes that this is achieved via reasonable further progress toward attainment of water quality standards according to the iterative process (i.e., the process of establishing BMPs, evaluating the BMPs, and refocusing on BMPs). The phrase, "via reasonable further progress toward attainment of water quality standards" establishes (1) that water quality is the goal, but more importantly (2) there is a process that allows the permittee to reach attainment with water quality, which is "reasonable further progress." When the previous general operating permit established that violation of water quality were not permitted and that the permittee could not exceed numeric and narrative water quality standards, it removed the ability of the permittee to utilize the iterative process and reasonable further progress.

Additionally, the previous general permit's requirement to not violate WQS without the establishment of numeric limitations is not in keeping with 40 CFR 122.44(d). Specifically, the previous general permit did not allow the specific MS4s to be subject to reasonable potential in accordance with 122.44(d)(ii). Rather, the previous operating permit skips the requirement under 40 CFR 122.44(d)(1)(ii) by assuming the permitting authority has determined the discharges already cause or have reasonable potential to cause or contribute to in-stream excursions above the allowable ambient concentrations of Missouri's WQS. Additionally, the permit fails to establish required numeric effluent limitations per 40 CFR 122.44(d)(1)(iii) and (iv) when it required compliance with numeric water quality standards.

The previous general permit was also in contrast with Missouri's CWL §644.051.4, which states, "...The director, in order to effectuate the purposes of sections 644.006 to 644.141, shall deny a permit if the source will violate any such acts, regulations, limitations or standards or will appreciably affect the water quality standards or the water quality standards are being substantially exceeded, unless the permit is issued with such conditions as to make the source

comply with such requirements within an acceptable time schedule.” The previous operating permit was not in keeping with this statute as it failed to be issued with conditions to make the source comply with such requirements (i.e., numeric effluent limits) and within an acceptable time schedule.

Additionally, 64 FR No. 235 establishes, “Because the six measures representing a significant level of control if properly implement, EPA anticipates that a permit for regulated small MS4 operator implementing the six minimum control measures will be sufficiently stringent to protect water quality, including water quality standards, so that additional, more stringent and/or more prescriptive water quality based effluent limitations will be unnecessary.” While this places responsibility on the permittee to successfully implement the six MCMs in accordance with 40 CFR 122.34(a), it also places a responsibility onto the NPDES authority to ensure that the MS4 permit establishes clear conditions in the permit to ensure that the MS4 is implementing the six minimum control measures successfully. Thus, a portion of the increased protection comes from simplifying terms and conditions so as to provide clear mechanism for implementing 40 CFR 122.34(a) and (b).

One set of revisions to the operating permit requires the permittee to clearly document the purpose or rather expected result of the BMP. This is the first step in the process of reducing pollutants to the MEP as it places more emphasis on BMP selection and provides more clarity to the permittee when determining measurable goals, which is the second step in reducing pollutants to the MEP. The evaluation of BMPs is just as important as the actual mechanism to reduce pollutants. Without knowing the effectiveness of BMPs, permittees cannot achieve MEP. Likewise, without knowing the effectiveness of BMPs, permittees have a greater potential to mismanage funding for BMPs. Meaning, BMPs that are not effectively evaluated may be draining the permittee’s stormwater funds on an ineffective BMP, which places a significant hurdle in the attainment of MEP.

As noted above, this operating permit requires the permittee to develop/design BMPs and conduct evaluations of these BMPs. In addition, this operating permit requires the permittee to develop and implement an iterative process (please see the Iterative Process portion of this fact sheet). Without the iterative process in place, which is a process to replace ineffective BMPs, permittees cannot use reasonable further progress. Reasonable further progress is the process that, by design, replaces ineffective BMPs with effective BMPs, which in time become more protective of water quality; thus, ensuring the requirement under 40 CFR 122.34(a) are continued beyond protection of water quality and satisfaction of the Clean Water Act due to the continued reduction of pollutants to the MEP.

While the above permit requirements, by themselves, are more protective than the previous general permit, this operating permit establishes additional steps on the department that were not previously required. This operating permit requires the department to review and rate (i.e., approve or disapprove) the SWMP, which is the real mechanism of MEP. This is due to the fact that this operating permit establishes the minimum framework but places responsibility onto the permittee to develop and implement BMPs in accordance with 40 CFR 122.34(a) and ultimately section 402(p)(3)(B)(iii) of the CWA (i.e., MEP) to the best of their ability, which includes cost. By conducting the review and rating of the SWMP, the department is ensuring that the permittee is meeting the requirements of 40 CFR 122.34(a); however, SWMP will not be reviewed prior to this operating permit being issued due to changes in this permit will give cause for SWMPs to be revised and resubmitted for review and rating.

ANTI-DEGRADATION:

Anti-degradation consists of policies designed to ensure protection of water quality for a particular waterbody where the water quality exceeds levels necessary to protect fish and wildlife propagation and recreation on and in the water. This also includes special protection of waters designated as outstanding natural resource waters. Anti-degradation plans are adopted by each state to minimize adverse effects on water.

As per 10 CSR 20-7.031(2)(D), the three (3) levels of protection provided by the anti-degradation policy in subsections (A), (B) and (C) of this section shall be implemented according to procedures developed by the department. On April 20, 2007, the Missouri Clean Water Commission approved “Missouri Anti-degradation Rule and Implementation Procedure” (Anti-degradation Rule), which is applicable to new or upgraded/expanded facilities.

The department has determined that the best avenue forward for implementing the Anti-degradation requirements into the MS4 general permit is by requiring the appropriate development and maintenance of a SWMP. Section 4.1 of the permit directs the permittee to identify reasonable and effective BMPs in the SWMP, document the decision process for each minimum control measure, include a rationale statement for each BMP and measurable goal defined, provide an implementation schedule and develop a plan to evaluate program compliance, appropriateness of identified BMPs and progress towards achieving identified measurable goals. This selection and documentation of appropriate control measures will then serve as the analysis of alternatives and fulfill the requirements of the Antidegradation Rule and Implementation Procedure 10 CSR 20-7.031(3) and 10 CSR 20-7.015(9)(A)5.

Any facility seeking coverage under this permit, which undergoes expansion or discharges a new pollutant of concern, must update their SWMP and select new BMPs that are reasonable and cost effective. Facilities seeking coverage under this permit are required to develop a SWMP that includes this analysis and documentation of appropriate BMPs. Renewal of coverage for a facility requires a review of the SWMP to assure that the selected BMPs continue to be appropriate.

Adequate implementation of BMPs and terms and conditions described in this permit satisfies anti-degradation requirements. Compliance with the requirements established in this permit for the protection of General Criteria, along with the evaluation and implementation of BMPs as documented in the SWMP, meets the requirements of Missouri's Antidegradation Review [10 CSR 20-7.031(3) and Table A and 10 CSR 20-7.015(9)(A)5.]

APPLICATION REQUIREMENTS:

Small MS4s (as defined under 10 CSR 20-6.200) are to apply and obtain a small MS4 General Permit or site-specific permit in accordance with 40 CFR 122.33 and 10 CSR 20-6.200(5).

COMPLIANCE AND ENFORCEMENT:

Enforcement is the action taken by the Water Protection Program (WPP) to bring an entity into compliance with the Missouri CWL, its implementing regulations, and/or any terms and conditions of an operating permit. The primary purpose of the enforcement activity in the WPP is to resolve violations and return the entity to compliance.

Dischargers of stormwater from regulated Small MS4s, as defined in the Missouri Stormwater Regulations 10 CSR 20-6.200 who do not obtain coverage under this or other Missouri general permits, or under a site-specific NPDES permit, will be in violation of the Missouri CWL and its implementing regulations and subject to civil penalties of up to \$10,000 per violation per day. For entities covered under a NPDES permit, failure to comply with any NPDES permit requirement also constitutes a violation of the Missouri CWL and its implementing regulations.

INTEGRATED PLANNING

As noted in the June 5, 2012 EPA memorandum, "*Integrated Municipal Stormwater and Wastewater Planning Approach Framework*" EPA has increasingly embraced integrated planning approaches to municipal wastewater and stormwater management. EPA further committed to work with states and communities to implement and utilize these approaches in its October 27, 2011 memorandum "*Achieving Water Quality Through Municipal Stormwater and Wastewater Plans.*"

Integrated planning assist MS4 communities on their critical paths to achieving the human health and water quality objectives of the Clean Water Act by identifying efficiencies in implementing requirements that arise from distinct wastewater and stormwater programs, including how best to prioritize capital investments. Integrated planning can also facilitate the use of sustainable and comprehensive solutions, including green infrastructure, that protect human health, improve water quality, manage stormwater as a resource, and support other economic benefits and quality of life attributes that enhance the vitality of communities.

For more information regarding Integrated Planning please review both of the memorandums cited under this portion of the factsheet or contact the MS4 Coordinator.

ITERATIVE PROCESS

The iterative process is documented process consisting of action items and analysis that is to be conducted by the permittee to ensure that BMPs are effective and that the permittee is meeting the MEP standard. The process starts with the evaluation of a BMP with its designated measurable goal, which is the reason quantifiable measurable goals greatly assist in the iterative process vs. tracking measurable goals. If the BMP is found effective, then the permittee with regards to the BMP continues as normal until the next round of evaluation. If the BMP is found to be ineffective, then the permittee is required to conduct analysis to determine if the ineffective BMP is truly ineffective or if the measurable goal set was ill-chosen or unattainable due to no fault of the permittee.

If the measurable goal was ill-chosen or unattainable, then the permittee would need to conduct analysis to determine a more appropriate measurable goal, preferably quantifiable. If the measurable goal wasn't ill-chosen or unattainable, then the permittee is to conduct analysis, research, or review to determine a replacement BMP that is to be effective at reaching the existing measurable goal or new measurable goal that is more "protective" than the previous measurable goal. However, if the replacement BMP requires a new measurable goal, preferably quantifiable, then it is advantageous for the permittee to develop an appropriate measurable goal for the BMP. The replacement of the ineffective BMP with an effective BMP provides the permittee with compliance with reasonable further progress.

This process should occur as an annual evaluation; however, it would be naïve to believe that all BMPs can be evaluated annually. Thus, BMPs are to be evaluated every 5 years (i.e., the life of the permit) as a minimum and as required by this operating permit.

MAXIMUM EXTENT PRACTICABLE (MEP):

Prior to 1987, municipal stormwater was subject to the same controls as other point sources like industrial and domestic discharges, which was section 301(b) of the CWA. However, in 1987, “Congress retained the existing, stricter controls for industrial stormwater discharges but prescribed new controls for municipal stormwater discharges,” *NRDC v. EPA, 966 f.2d 1292, 9th Cir. 1992 (NRDC v. EPA)*. This “new control” was established in section 402(p)(3)(B)(iii) of the CWA, which states, “*Permits for discharges from municipal storm sewers – shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, designs and engineering methods, and such other provisions as the Administrator or State determines appropriate for the controls of such pollutants.*”

The argument for “new controls” contained in the case of *NRDC v. EPA* was subsequently supported in the case of *Defenders of Wildlife v. Browner*, in which it was concluded that section 402(p)(3)(B) of the CWA “replaces” the requirements of 301(b) of the CWA with the MEP standard for MS4 discharges, and that it creates a “lesser standard” than section 301(b) of the CWA establishes on other types of discharges. Thus, MEP is a technology-based standard established by Congress in Section 402(p)(3)(B)(iii) of the CWA. As established in the *1999 National Pollution Discharge Elimination System Regulations for Revisions of Water Pollution Control Program Addressing Storm Water Discharges* (64 FR No. 235), MEP is, “...the statutory standard that establishes the level of pollutant reduction that operators of regulated MS4s must achieve,” (i.e., not water quality standards).

In addition to indicating that MEP is the statutory requirement, the EPA also clearly stated that MEP is applicable to the six (6) minimum controls measures in 64 FR No. 235, which states, “*The first component, reduction to the MEP, would be realized through implementation of the six minimum measures.*” The description of MEP continues in 64 FR No. 235, with “*EPA envisions application of the MEP standard as an iterative process. MEP should continually adapt to current conditions and BMP effectiveness and should strive to attain water quality standards.*” The iterative process, mentioned is also defined in 644 FR. No 235 with the following, “...implement an iterative process of using BMPs, assessment, and refocused BMPs, leading toward the attainment of water quality standards.”

Therefore, compliance is determined by the successful implementation of the six MCMs in accordance with the conditions established in the operating permit, BMPs designed to reduce pollutants to the MEP and the utilization of the iterative process.

MEASURABLE GOALS

Measureable goals are described in the Phase II rule as BMPs designed objectives or goals that quantify the progress of program implementation and performance of your BMPs. They are objective markers or milestones that the MS4 permittee or the permitting authority will use to track the progress and effectiveness of BMPs in reducing pollutants to the MEP. At a minimum, your measurable goal should contain descriptions of actions that will be taken to implement each BMP, what you anticipate to be achieved by each goal, and the frequency and dates for such actions to be taken. BMPs and Measurable Goals are the mechanisms that are used to establish a clear and specific baseline against which future progress at reducing pollutants to the MEP can be measured.

There are a number of different ways MS4 permittees can establish measureable goals. It is recommended that the below categories when developing goals:

- **Tracking implementation over time** – Where a BMP is continually implemented over the permit term, a measurable goal can be developed to track how often, or where, this BMP is implemented.
- **Measuring progress in implementing the BMP** – Some BMPs are developed over time, and a measurable goal can be used to track this progress until the BMP implementation is completed.
- **Tracking total numbers of BMPs implemented** – Measureable goals can be used to track BMP implementation numerically (e.g., the number of wet detention basins in place or the number of people changing their behavior due to the receipt of educational materials).

- **Tracking program/BMP effectiveness** – Measurable goals can be developed to evaluate BMP effectiveness, for example, by evaluating a structural BMP's effectiveness at reducing pollutant loading, or evaluating a public education campaign's effectiveness at reaching and informing the target audience to determine whether it reduces pollutants to the MEP. A measurable goal can also be a BMP design objective or performance standard.
- **Tracking environmental improvement** – The ultimate goal of the NPDES stormwater program is environmental improvement, which can be a measurable goal. Achievement of environmental improvement can be assessed and documented by ascertaining whether state water quality standards are being met for the receiving waterbody or by tracking trends or improvements in water quality (chemical, physical, and biological) and other indicators, such as the hydrologic or habitat condition of the waterbody or watershed.

Additionally, it is recommended that measurable goals include, where appropriate, the following items:

- The activity, or BMP, to be completed;
- A schedule or date of completion; and
- A quantifiable target to measure progress toward achieving the activity or BMP.

Measurable goals that include these items (not necessarily all three) are easy quantifiable, which leads to being easily tracked, and ultimately leading to a clear demonstration of reducing pollutants to the MEP. However, just because the MS4 permittee has a measurable goal does not equate that it is effective as a measurable goal. In order to help in the selection of measurable goals that will work for the MS4 permittee, it is recommended that the below criteria are used in selecting measurable goals:

- **Consider the objective for each minimum measure** – The BMP that permittees chose should work toward one or more common objectives related to stormwater quality improvement and reducing pollutants to the MEP. Objectives should be based on what is known about existing pollutant sources and problems in the watershed and what is required by the minimum measure. The objective can be something the MS4 permittee can quantify or it can be a goal or purpose statement.
- **Review the programs that are already in place for each minimum measure** – Use a self-audit/self-analysis. Coordination with other agencies, non-profit groups, citizen groups, etc.... to identify existing initiatives that can be used as part of the stormwater management program.
- **Corresponding BMP** – Select BMPs that can be utilized for more than one minimum control measure each other and work toward meeting each minimum measure. These BMPs should address the minimum measures objective identified above and meet the regulatory requirement in the minimum measure. Likewise, when a BMP can be utilized for more than one minimum control, the measurable goal can also be used on more than one minimum measure.
- **Milestones for implementation** – Measurable goals should include a timeframe and a quantity to measure, if possible. To assist in this, MS4s should consider the following questions:
 - When will BMP be implemented?
 - What and when can institutional, funding, and legal issues, if any, need to be resolved before implementation can occur?
 - How will progress of implementation be tracked? (Spreadsheets or databases are very useful in tracking progress.
 - How can the BMP be measured to demonstrate pollutants are being reduced to the MEP? Changes in behavior, number of BMPs implemented, or documented improvements in water quality are results that can demonstrate this.
- **Evaluation and Effectiveness of each BMP** - MS4s will need to ascertain what effects individual and collective BMPs have on water quality and associated indicators. Instream monitoring, such as physical, chemical, and biological monitoring is ideal because it allows the MS4 to determine if the BMP is improving water quality resulting from management efforts. Intermediate goals can provide documentation of progress toward the measurable goal. Ultimately, the evaluation method that is used by the MS4 permittee for each BMP should lead to a determination of the environmental benefits of each minimum measure and overall effectiveness of the SWMP in reducing pollutants to the MEP.

MINIMUM CONTROL MEASURES (MCMs)

The Phase II rule defines a small MS4 stormwater management program as being comprised of six (6) Minimum Control Measures (MCMs) that, when administered in concert, are expected to result in the reduction of the discharge of pollutants into receiving water bodies. Operators of regulated small MS4s are required to design their programs to do the following: reduce the discharge of pollutants to the MEP, protect water quality, and satisfy the appropriate water quality requirements of the Clean Water Act per 40 CFR 122.34(a).

Proper implementation of the measures will improve water quality as indicated in 64 FR. No. 235, which states, *“Absent to the contrary, EPA presumes that a small MS4 program that implements the six minimum measures in today’s rule does not require more stringent limitations to meet water quality standards. Proper implementation of the measures will significantly improve water quality.”* The department considers narrative effluent limitations requiring the implementation of BMPs to be the most appropriate in accordance with 40 CFR 122.44(k)(2) and (3).

The national menu of BMPs for each specific MCM can be found at:
<https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#edu>

Public Education and Outreach

Terms and conditions related to this MCM are in accordance with 40 CFR 122.34(b)(1). Below guidance is per 40 CFR 122.34(b)(1)(ii) and are not requirements, but is highly encouraged.

- Storm water educational materials provided by your State, Tribe, EPA, environmental, public interest or trade organizations, or other MS4s may be used.
- The public education program should inform individuals and households about the steps they can take to reduce storm water pollution, such as ensuring proper septic system maintenance, ensuring the proper use and disposal of landscape and garden chemicals including fertilizers and pesticides, protecting and restoring riparian vegetation, and properly disposing of used motor oil or household hazardous wastes.
- It is recommended that the program inform individuals and groups how to become involved in local stream and beach restoration activities as well as activities that are coordinated by youth service and conservation corps or other citizen groups.
- It is recommended that the public education program be tailored, using a mix of locally appropriate strategies, to target specific audiences and communities. Examples of strategies include:
 - Distributing brochures or fact sheets (like those already created by the state or EPA),
 - Recreational guides,
 - Alternative information sources (web sites, bumper stickers, refrigerator magnets, and posters/place mats),
 - Sponsoring speaking engagements before community groups,
 - Library of educational material,
 - Volunteer citizens/tasks force
 - Storm drain stenciling (e.g., “Do Not Dump – Drains to River”),
 - Stormwater hotlines for the reporting of polluters
 - Economic incentives,
 - Tributary signage
 - Providing public service announcements,
 - Implementing educational programs targeted at school age children, and
 - Conducting community-based projects such as storm drain stenciling, and watershed and beach cleanups.
- In addition, EPA recommends that some of the materials or outreach programs be directed toward targeted groups of commercial, industrial, and institutional entities likely to have significant storm water impacts. For example, providing information to restaurants on the impact of grease clogging storm drains and to garages on the impact of oil discharges.
- It is also recommended that the outreach program is tailored to address the viewpoints and concerns of all communities, particularly minority and disadvantaged communities, as well as any special concerns relating to children.

Public education and outreach is needed due to the fact that an informed and knowledgeable community is crucial to the success of a stormwater management program since it helps ensure greater support which allows the public to gain a greater understanding of the reasons why it is necessary and important. Public support is particularly beneficial when operators of small MS4s attempt to institute new funding initiatives for the program or seek volunteers to help implement the program.

In addition, Measurable Goals are required in this operating permit, which are intended to gauge permit compliance and program effectiveness. Successful and obtainable measurable goals reflect the needs and characteristics of the operator and the area served by its small MS4, and are chosen using an integrated approach that fully addresses the requirements and intent of the program. Examples of measurable goals are as follows:

- BMP – Stormwater Public Education for radio or television.
- Measurable Goal – Increase the number of dog owners who pick up after their pets.
- Achievement/Progress Determination: Conduct a survey at the beginning, during, and at the end of the permit term to gauge any change.

Public Participation/Involvement

This MCM is required in accordance with 40 CFR 122.34(b)(2). Below guidance is per 40 CFR 122.34(b)(2)(ii) and is not a requirement, but is highly encouraged.

- It is recommended that the public be included in developing, implementing, and reviewing your storm water management program and that the public participation process should make efforts to reach out and engage all economic and ethnic groups.
- Opportunities for members of the public to participate in program development and implementation include:
 - Serving as citizen representatives on a local storm water management panel,
 - Attending public hearings,
 - Working as citizen volunteers to educate other individuals about the program,
 - Assisting in program coordination with other pre-existing programs, or
 - Participating in volunteer monitoring efforts. (Citizens should obtain approval where necessary for lawful access to monitoring sites.)

Public can provide valuable input and assistance to regulated small MS4s; therefore, it is encouraged that the public be given opportunities to play an active role in both the development and implementation of the program. An active and involved community is crucial to the success of a stormwater management program because it allows for broader public support, which means citizens who participate in the development and decision making process are partially responsible for the program may be less likely to raise legal challenges and more likely to take an active role. An active public can also result in shorter implementation times due to fewer obstacles in the form of public and legal challenges and increase sources in the form of citizen volunteers.

Example BMPs for this program can include, but are not limited to the below:

- Public meetings/citizen panels: allow citizens to discuss various viewpoints and provide input concerning appropriate stormwater management policies and BMPs.
- Volunteer water quality monitoring: gives citizens first-hand knowledge of the quality of local water bodies and provides a cost-effective means to collecting water quality data.
- Volunteer educators/speakers: can conduct workshops encourage public participation, and staff special events.
- Storm-drain stenciling: important and simple activity that can be conducted by citizens (especially students).
- Community clean-ups: can be conducted along local waterways, beaches, and around storm drains.
- Citizen watch groups: can aid local enforcement authorities in the identification of polluters.
- “Adopt a Storm Drain” program: encourages individuals or groups to keep storm drains free of debris and to monitor what is entering local waterways through the storm drains.

Measurable goals for this program can include, but are not limited to the below:

- BMP – Volunteer water quality monitoring.
- Measurable Goal – Increase the number of citizen/groups conducting water quality monitoring.
- Achievement/Progress Determination: Determine number of citizens/groups conducting water quality monitoring at the beginning, during, and at the end of the permit term. Determine if there has been an increase along with any relevant data to be used.

Illicit Discharge Detection and Elimination (IDDE)

This MCM is required in accordance with 40 CFR 122.34(b)(3). Below guidance is per 40 CFR 122.34(b)(3)(iv) and is not a requirement, but is highly encouraged.

- It is recommended that the plan to detect and address illicit discharges include the following four components:
 - Procedures for locating priority areas likely to have illicit discharges;
 - Procedures for tracing the source of an illicit discharge;

- Procedures for removing the source of the discharge; and
- Procedures for program evaluation and assessment.

- It is recommended that the plan contain:
 - Visually screening outfalls during dry weather and
 - Conducting field tests of selected pollutants as part of the procedures for locating priority areas.

- Illicit discharge education actions may include storm drain stenciling,
- A program to promote, publicize, and facilitate public reporting of illicit connections or discharges, and
- Distribution of outreach materials.

Discharges from MS4s often include waste and wastewater from non-stormwater sources. A study conducted in 1987 in Sacramento, California, found that almost one-half of the water discharged from a local MS4 was not directly attributable to precipitation runoff. A significant portion of these dry weather flows were from illicit and/or inappropriate discharges and connections to the MS4.

Illicit discharges enter the system through either direct connections (e.g., wastewater piping either mistakenly or deliberately connected to the storm drain) or indirect connections (e.g., infiltration into the MS4 from cracked sanitary systems, spills collected by drain outlets, or paint or used oil dumped directly into a drain). The result is untreated discharges that contribute high level pollutants, including heavy metals, toxics, oil and grease, solvents, nutrients, viruses, and bacteria to receiving waterbodies. Pollutant levels from these illicit discharges have been shown in EPA studies to be high enough to significantly degrade receiving water quality and threaten aquatic, wildlife, and human life.

The Illicit Discharge Detection and Elimination (IDDE) plan is dependent upon several factors, including the permittee's available resources, size of staff, and degree and character of illicit discharges. As guidance only, the four steps of a recommended plan are outlined below:

Locate Problem Areas – It is recommended that the priority areas be identified for detailed screening of the system based on the likelihood of illicit connections (e.g., areas with older sanitary sewer lines) Methods that can locate problem areas include:

- Visual Screening,
- Water sampling from manholes and outfalls during dry weather,
- The use of infrared and thermal photography,
- Cross-training field staff to detect illicit discharges, and
- Public complaints.

Find the Source – Once a problem area or discharge is found, additional efforts usually are necessary to determine the source of the problem. Methods that can find the source of the illicit discharge include:

- Dye-testing buildings in problem areas,
- Dye- or smoke-testing buildings at the time of sale,
- Tracing the discharge upstream in the storm sewer,
- Employing a certification program that shows that buildings have been checked from illicit connections,
- Implementing an inspection program of existing septic systems, and
- Using video to inspect the storm sewer.

Remove/Correct Illicit Connections – Once the source is identified, the offending discharger should be notified and directed to correct the problem. Education efforts in resolving the problem should occur before taking legal action; however, the MS4 needs to have the ability to enforce the IDDE plan.

Document Actions Taken – As a final step, all actions taken under the IDDE plan should be documented. This illustrates that progress is being made to eliminate illicit connections and discharges. Documented action should be included in reports as required by your operating permit and may include:

- Number of outfalls screened,
- Any complaints received and corrected,
- Number of discharges and quantities of flow eliminated, and the number of dye- or smoke-test conducted.

Measurable goals can include, but are not limited to the below example:

- BMP – 24 Hour Hotline
- Measurable Goal – Respond within 24 hours or less upon receipt of a citizen complaint.
- Achievement/Progress Determination: May require the development of a compliant tracking system to log times calls were received and time response was implemented.

Construction Site Runoff Control

This MCM is required in accordance with 40 CFR 122.34(b)(4). Below guidance is per 40 CFR 122.34(b)(4)(iii) and is not a requirement, but is highly recommended.

- Examples of sanctions to ensure compliance may include non-monetary penalties, fines, bonding requirements and/or permit denials for non-compliance.
- It is recommended that procedures for site plan review include the review of individual pre-construction site plans to ensure consistency with local sediment and erosion control requirements.
- Procedures for site inspections and enforcement of control measures could include steps to identify priority sites for inspection and enforcement based on the nature of the construction activity, topography, and the characteristics of soils and receiving water quality.
- It is encouraged that the MS4 provide appropriate educational and training measures for construction site operators.
- MS4s may wish to require a storm water pollution prevention plan for construction sites within your jurisdiction that discharge into your system.
 - See §122.44(s) (NPDES permitting authorities' option to incorporate qualifying State, Tribal and local erosion and sediment control programs into NPDES permits for storm water discharges from construction sites).
 - Also see §122.35(b) (The NPDES permitting authority may recognize that another government entity, including the permitting authority, may be responsible for implementing one or more of the minimum measures on your behalf.)

Polluted stormwater runoff from construction sites often flows to MS4 and ultimately is discharged into local waterbodies. Of the pollutants that have the potential to be discharged, sediment is usually the main point of concern. According to the 2000 National Water Quality Inventory, States and Tribes report that sediment is one of the most widespread pollutants affecting assessed rivers and streams, second only to pathogens (bacteria). Sources of sediment include agriculture, urban runoff, construction and forestry. However, sediment runoff rates from construction sites are typically 10 to 20 times greater than those of agricultural lands and 1,000 to 2,000 times greater than those from forest lands.

During a short time period, construction sites can contribute more sediment to streams than can be deposited naturally during several decades. The resulting siltation and contribution of other pollutants from construction sites can cause physical, chemical, and biological harm to Missouri's waters.

Some BMPs for the construction program include:

Regulatory Mechanism – Through the development of ordinances or other regulatory mechanism, the small MS4 operator will need to establish a construction program that controls polluted runoff from construction sites with a land disturbance of greater than or equal to one acre. Because there may be limitations on regulatory authority, the small MS4 operator is required to satisfy this minimum control measure only to the MEP and allowable State, Tribal, or local law.

Site Plan Review – The small MS4 will need to include in its construction program requirements for the implementation of appropriate BMPs on construction sites to control erosion and sediment and other waste at the site. To determine if a construction site is in compliance with such provisions, the MS4 operator can review the site plans submitted by the construction site before ground is broken.

Site plan reviews can aid in compliance and enforcement efforts since it alerts the small MS4 operator early in the process to the planned use or non-use of proper BMPs and provides a way to track new construction activities. The tracking of sites is useful not only for the MS4 operator recordkeeping and reporting purpose, which are required under this permit, but also for members of the public interested in ensuring that sites are in compliance.

Inspections and Penalties – Once construction commences, BMPs should be in place and the MS4 operator enforcement activities should begin. To ensure that the BMPs are properly installed, the MS4 operator is required to develop procedures for site inspection and enforcement of control measures to deter infractions. Procedures conducted include steps to identify priority sites for inspection and enforcement based on the nature and extent of the construction activity, topography, and the characteristics of soil and receiving water quality. Inspections give MS4s an opportunity to provide additional guidance and education, issue warnings, or assess penalties.

Information Submitted by the Public – A final consideration, but is highly recommended, is that the MS4 is developed to contain procedures for the receipt and considerations of public inquiries, concerns, and information submitted regarding local construction activities. This provision is intended to further reinforce the public participation component of the regulated MS4 and recognize the crucial role that public can play in identifying instances of non-compliance.

MS4s are required to only consider the information submitted, and may not need to follow-up and respond to every complaint or concern. Although some form of enforcement action or reply is not required, MS4s is required to demonstrate acknowledgement and consideration of the information submitted.

Measurable goals for this program can include, but are not limited to the below:

- BMP – Direct or indirect education of construction site operators and contractors about proper selection, installation, inspection, and maintenance of BMPs.
- Measureable Goal – 80% will have attended erosion/sediment control training for all projects that occurred in the MS4's jurisdiction during the permit term.
- Achievement/Progress Determination: This goal could be tracked by documenting attendance at local, State, or Federal training programs. Attendance can be encouraged by decreasing permitting fees for those contractors who have been trained and provide proof of attendance when applying for permits.

Post-Construction Runoff Control

This MCM is required in accordance with 40 CFR 122.34(b)(5). Below guidance is per 40 CFR 122.34(b)(5)(iii) and is not a requirement, but is highly encouraged.

- If water quality impacts are considered from the beginning stages of a project, new development and potentially redevelopment provide more opportunities for water quality protection.
- It is recommended that the BMPs chosen:
 - Be appropriate for the local community,
 - Minimize water quality impacts, and
 - Attempt to maintain pre-development runoff conditions (i.e., reasonably mimic).
- In choosing appropriate BMPs, it is encouraged that the MS4 participate in locally-based watershed planning efforts which attempt to involve a diverse group of stakeholders including interested citizens.
- When developing a program that is consistent with this measure's intent, it is recommended that the MS4 adopt a planning process that:
 - Identifies the municipality's program goals (e.g., minimize water quality impacts resulting from post-construction runoff from new development and redevelopment),
 - Implementation strategies (e.g., adopt a combination of structural and/or non-structural BMPs),
 - Operation and maintenance policies and procedures, and
 - Enforcement procedures.
- The development of this program should consider assessing existing ordinances, policies, programs and studies that address storm water runoff quality.
- In addition to assessing these existing documents and programs, you should provide opportunities to the public to participate in the development of the program.
- Non-structural BMPs are preventative actions that involve management and source controls such as:
 - Policies and ordinances that provide requirements and standards to direct growth to identified areas,
 - Protect sensitive areas such as wetlands and riparian areas, maintain and/or increase open space (including a dedicated funding source for open space acquisition),
 - Provide buffers along sensitive water bodies,
 - Minimize impervious surfaces, and minimize disturbance of soils and vegetation;
 - Policies or ordinances that encourage infill development in higher density urban areas, and areas with existing infrastructure;

- Education programs for developers and the public about project designs that minimize water quality impacts, and
- Measures such as minimization of percent impervious area after development and minimization of directly connected impervious areas.
- Structural BMPs include:
 - Storage practices such as wet ponds and extended-detention outlet structures,
 - Filtration practices such as grassed swales, sand filters and filter strips, and
 - Infiltration practices such as infiltration basins and infiltration trenches.
- It is recommended that the MS4 ensure the appropriate implementation of the structural BMPs by considering some or all of the following:
 - Pre-construction review of BMP designs;
 - Inspections during construction to verify BMPs are built as designed;
 - Post-construction inspection and maintenance of BMPs; and
 - Penalty provisions for the noncompliance with design, construction or operation and maintenance.
- Storm water technologies are constantly being improved, and EPA recommends that your requirements be responsive to these changes, developments or improvements in control technologies.

Post-construction stormwater management in areas undergoing new development or redevelopment is necessary because runoff from these areas has been shown to significantly affect receiving waterbodies. Many studies indicate that prior planning and design for minimization of pollutants in post-construction stormwater discharges is the most cost-effective approach to stormwater quality management.

The Phase II rule applies to redevelopment projects that alter the footprint of an existing site or building in such a way that there is a disturbance of equal to or greater than one acre of land. Redevelopment projects do not include such activities as exterior remodeling. Guidelines and BMPs (both non-structural and structural) for the development and implementation of this program include, but are not limited to the below:

Planning Procedures – runoff problems can be addressed efficiently with sound planning procedures. Local master plans, comprehensive plans, and zoning ordinances can promote improved water quality in many ways, such as guiding the growth of a community way from sensitive areas to areas that can support it without compromising water quality.

Site-Based BMPs – these BMPs can include buffer strips and riparian zones preservation, minimization of disturbance and imperviousness, and maximization of open spaces.

Stormwater Retention/Detention BMPs – control stormwater by gathering runoff in wet ponds, dry basins, or multi-chamber catch basins and slowly release it to receiving water bodies or drainage systems. The practices can be designed to both control stormwater volume and settle out particulates for pollutant removal.

Infiltration BMPs – are designed to facilitate the percolation of runoff through the soil to ground water resulting in the reduction of stormwater quantity, which reduces the mobilization of pollutants. Examples are:

- Basins/trenches,
- Dry wells, and
- Porous pavement.

Vegetative BMPs – are landscaping features that, with optimal design and good soil conditions, remove pollutants, and facilitate percolation of runoff resulting in the maintenance of natural site hydrology, promoting healthier habits, and increase aesthetic appeal. Examples are:

- Grassy swales,
- Filter strips,
- Artificial wetlands, and
- Rain gardens.

Measurable goals for this program can include, but are not limited to the below:

- BMP – Reduce/Replace road surface areas directly connected to storm sewer systems (using traditional curb and gutter infrastructure) with stormwater conveyance approaches such as grassy swales and similar.

- Measureable Goal – Reduce/Replace new development by 20% and re-development by 10% during the permit term.
- Achievement/Progress Determination: Ensure that 20% of new projects and 10% of re-development projects use alternative stormwater conveyance systems vs. traditional curb and gutter approach. This can be tracked by linear feet of curb and gutter not installed in projects that would have historically used them.

Pollution Prevention/Good Housekeeping

This MCM is required in accordance with 40 CFR 122.34(b)(6). Below guidance is per 40 CFR 122.34(b)(6)(ii) and is not a requirement, but is highly encouraged.

- EPA recommends that, at a minimum, you consider the following in developing your program:
 - Maintenance activities and schedules, and long-term inspection procedures for structural and non-structural storm water controls to reduce floatables and other pollutants discharged from your separate storm sewers;
 - Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, fleet or maintenance shops with outdoor storage areas, salt/sand storage locations and snow disposal areas operated by you, and waste transfer stations;
 - Procedures for properly disposing of waste removed from the separate storm sewers and areas listed above (such as dredge spoil, accumulated sediments, floatables, and other debris); and
 - Ways to ensure that new flood management projects assess the impacts on water quality and examine existing projects for incorporating additional water quality protection devices or practices.
- Operation and maintenance should be an integral component of all storm water management programs.
- This measure is intended to improve the efficiency of these programs and require new programs as needed.
- Properly developed and implemented operation and maintenance programs reduce the risk of water quality problems.

This program for municipal operations is a key element of the small MS4 stormwater management program. This measure requires the small MS4 operating to examine and subsequently alter their own actions to help ensure a reduction in the amount and type of pollution that:

- Collects on the street, parking lots, open spaces, and storage and vehicle maintenance areas and is discharged into local waterways; and
- Result from actions such as environmentally damaging land development and flood management practices or poor maintenance of storm sewer system.

While this plan is meant primarily to improve or protect receiving water quality by altering municipal or facility operations, it also can result in a cost savings for the MS4, since proper and timely maintenance of storm sewer systems can help avoid repair costs from damage caused by age and neglect.

Some guidelines and BMPs for this plan include:

Maintenance activities, maintenance schedules, and long-term inspection procedures – for structural and non-structural controls to reduce floatables and other pollutants discharge from the storm sewers.

Controls for reducing or eliminating the discharge of pollutants – from areas such as roads and parking lots, maintenance and storage yards (including salt/sand and snow disposal areas), and waste transfer stations. These controls could include programs that promote recycling (to reduce litter), minimize pesticide use, and ensure the proper disposal of animal waste.

Procedures for the proper disposal of waste – removed from separate storm sewer systems and areas listed in the Controls for reducing or eliminating the discharge of pollutants, including dredge spoil, accumulated sediments, floatables, and other debris.

Ways to ensure that new flood management projects assess the impacts on water quality – and examine existing projects for incorporation of additional water quality protection devices or practices. It is encouraged coordination with flood control managers for the purpose of identifying and addressing environmental impacts from such projects.

Measurable goals for this program can include, but are not limited to the below:

- BMP – Incorporate the use of road salt alternatives for highway deicing and reduce the use of traditional road salt.
- Measureable Goal – Reduce road salt usage by 50% in permit term.

- Achievement/Progress Determination: Use alternative deicing for roads and highways leading to the reduction of traditional road salt by 50% by the end of the permit term.

PESTICIDE RULE:

The department has developed a Pesticide General Permit #MOG-870000 for point source discharges resulting from the application of pesticides. This permit has been developed as a result of federal requirements under NPDES.

The general permit authorizes the discharge of pesticides that leave a residue in water when such applications are made into, over or near waters of the United States. The department has determined that entities most likely affected by this permit include public health entities, including mosquito or other vector control districts and commercial applicators that service this sector. Others potentially affected by this permit include resource and land management entities such as public and private entities managing public land, park areas and university campuses, as well as utilities maintaining easements and right-of-ways, golf courses and other large residential developments which maintain a large grounds area. In addition, permits may be required for applications involving pesticide use for agricultural related activities when pesticides are applied to crops grown in or near a water of the United States.

The department is collaborating closely with the Missouri Department of Agriculture, which already administers the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) along with the Missouri Pesticide Use Act.

The permittee/facility is subject to the pesticide rule. To determine if a permit is required, see general permit #MOG-870000 located at <http://dnr.mo.gov/env/wpp/permits/wpcpermits-general.htm>. The thresholds listed in Table 1 of the pesticide general permit will assist in determining if a permit is required. If a permit is required, the permittee/facility shall apply for either the Pesticide General Permit or a site-specific pesticide permit from the department.

STORMWATER MANAGEMENT PROGRAM AND PLAN (SWMP):

The SWMP is a documented implementation plan describing a schedule of MS4 program activities including prohibitions of practices, implementation of required practices, development of standards for urban growth, maintenance procedures, education, trainings, inspections and other management practices to prevent or reduce the pollution of waters of the state.

This permit in accordance with 10 CSR 20-6.200 and 40 CFR Part 122 requires the permittee to develop and implement a SWMP. The SWMP shall address the six minimum control measures - public education and outreach, public involvement/participation process, illicit discharge detection and elimination, construction site stormwater runoff control, post-construction stormwater management and pollution prevention/good housekeeping for municipal operations. In addition, the SWMP addresses TMDL implementation plan components. The SWMP also includes, but is not limited to, BMPs, pertinent local regulations, policies, procedures, interim milestones, measurable goals, measures of success, responsible persons/positions for each of the measurable goals, and any applicable TMDL assumptions and requirements.

SWMP ORDINANCES:

To the extent allowable under state or local law, ordinances (or other regulatory mechanisms if a non-traditional MS4) are required to be developed, implemented and enforced within five years of initial permit issuance under the following sections, in accordance with 40 CFR 122.34(b):

1. Illicit discharge detection and elimination – to prohibit non-stormwater discharges into the storm sewer system, and implement appropriate enforcement procedures and actions;
2. Construction site stormwater runoff control – to require erosion and sediment controls at construction sites, as well as sanctions designed to ensure compliance; and
3. Post-construction – to address post-construction runoff from new development and redevelopment projects, and sanctions designed to ensure compliance. The “Missouri Guide to Green Infrastructure: Integrating Water Quality into Municipal Stormwater Management” (May 2012) was written specifically to aid MS4s in developing and implementing the post-construction runoff program. The guide can be viewed at <http://www.dnr.mo.gov/env/wpp/stormwater/mo-gi-guide.htm>

EPA and the department and certain MS4s have developed compliant model ordinances that may be adapted for use by other interested MS4s.

SWMP REPORTING FREQUENCY:

Previous versions of this operating permit required annual reporting of the SWMP; however, the annual reporting will now only be required for new MS4 permittees in accordance with 40 CFR 122.34(g)(3) and MS4 permittees subject to TMDLs (water quality schedules over one calendar year require annual reporting). For MS4 permittees that have obtained MS4 permits (either site-specific or general permits) prior to this version of the Small Phase II MS4 general permit, they will be required to submit the MS4 SWMP report biennial (2nd and 4th year of the operating permit) in accordance with the same federal regulation 40 CFR 122.34(g)(3).

In addition, the MS4 SWMP Report Form 780-1846 has been revised. Please note that this operating permit does not require the Qualitative Monitoring Program anymore; however, the report form still list this. The Qualitative Monitoring Program portion of the report form will be removed after the public notice of this operating permit.

The MS4 SWMP Report is attached to this factsheet under Addendum 1. Additionally, as noted in the operating permit, MS4s may adopt their own report form. However, it must be approved by the Department prior to being utilized.

WATER QUALITY STANDARDS

As noted previously, the nature of the MS4 program is technology-based, which is in accordance with Section §402(p)(3)(B)(iii) of the CWA with the establishment of the technology-based standard MEP. Many in the MS4 community believe that MEP is the only standard applicable for compliance determination, which for the most part (specifically for the six (6) minimum control measures, is correct). Given the litigious nature surrounding the "agreeability" of MS4 compliance with WQS, MS4 permits have been the subject of court cases for several years.

40 CFR 122.34(a)(1) clearly requires that the MS4 permit will require the MS4 permittee to, "...develop, implement, and enforce a storm water management program designed to reduce the discharge of pollutants from your MS4 to the maximum extent practicable (MEP), to protect water quality, and satisfy the appropriate water quality requirements of the Clean Water Act." While this regulation seems to be in contradiction to Section §402(p)(3)(B)(iii) of the CWA due to the fact that it appears to require the permittee to "...protect water quality" and "satisfy the appropriate water quality requirements..." it actually is not; however, has been mistakenly applied to require strict, immediate compliance with WQS even in previously issued Missouri MS4 Master General Permits.

As noted in 64 FR No. 235, "*The Court, did, however, disagree with the EPA's interpretation of the relationship between CWA sections 301 and 402(p). The Court reasoned that MS4s are not compelled by section 301(b)(1)(C) to meet all State water quality standards, but rather the Administrator or the State may rely on section 402(p)(3)(B)(iii) to require such controls.*" The discussion continues with, "...the 1996 Policy describes how permits would implement an iterative process using BMPs, assessment, and refocused BMPs leading toward attainment of water quality standards. The ultimate goal of the iteration would be for water bodies to support their designated uses..." and "EPA also believes the iterative approach toward attainment of water quality standards represents a reasonable interpretation of CWA section 402(p)(3)(B)(iii)."

A break-down of 40 CFR 122.34(a) is given in 64 FR No. 235, as follows, "*The first component, reduction to the MEP, would be realized through implementation of the six minimum measures. The second component, to protect water quality, reflects the overall design objective for municipal programs based on CWA section 402(p)(6). The third component, to implement other applicable water quality requirements of the CWA, recognizes the Agency's specific determination under the CWA section 402(p)(3)(B)(iii) of the need to achieve reasonable further progress toward the attainment of water quality standards according to the iterative BMP process, as well as the determination that State or EPA officials who establish TMDLs could allocate waste loads to MS4s, as they would other point sources.*"

303(d) LIST, TOTAL MAXIMUM DAILY LOAD (TMDL)

Section 303(d) of the CWA requires that each state identify waters that are not meeting water quality standards. Water quality standards protect such beneficial uses of water as whole body contact (such as swimming), maintaining fish and other aquatic life, and providing drinking water for people, livestock and wildlife. The 303(d) List helps state and federal agencies keep track of waters that are impaired but not addressed by typical water pollution control programs. Federal regulations require permitting authorities to develop TMDLs to address impaired waters listed per Section 303(d) of the CWA. A TMDL is a calculation of the maximum amount of a given pollutant that a body of water can absorb before its water quality is impaired. Please visit the Department's website to determine if you are listed in an approved or established TMDL at: <http://dnr.mo.gov/env/wpp/tmdl/index.html>.

Federal regulation 40 CFR 122.34(a) establishes the requirements applicable to all MS4s with, *"Your NPDES MS4 permit will require at a minimum that you develop, implement, and enforce a storm water management program designed to reduce the discharge of pollutants from your MS4 to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act."* EPA translated this regulation into three parts in 64 FR No. 235, as follows, *"The first component, reductions to the MEP, would be realized through implementation of the six minimum measures. The second component, to protect water quality, reflects the overall design objective for municipal programs based on CWA section 402(p)(6). The third component, to implement other applicable water quality requirements of the CWA, recognizes the Agency's specific determination under CWA section 402(p)(3)(B)(iii) of the need to achieve reasonable further progress toward attainment of water quality standards according to the iterative BMP process, as well as the determination that State or EPA officials who establish TMDLs could allocate waste loads to MS4s, as they would to other point sources."*

The above citation of 64 FR No. 235 clearly states that MEP is specific to the six (6) MCMs and clearly establishes that Wasteload Allocations (WLAs) are applicable to MS4s. However, unlike other traditional point sources that utilize treatment facilities, the EPA clearly indicated that attainment of the WLA is to be conducted via *"the iterative BMP process."* Thus, requiring any condition for the attainment of water quality standards in addition to the MCMs is going beyond MEP but the process for attainment of the WLA is still achieved with BMPs using the iterative process of establishing BMPs, evaluating the BMPs, and refocusing on BMPs.

However, just because a WLA for any given pollutant(s) of concern (POC) has been established in a TMDL for a MS4, additional BMPs or modifications to BMPs for the six MCMs should not be required as a trigger action. Rather, the MS4 permittee subject to an effective and approved TMDL should first make a determination if the implementation of their MCMs is adequately meeting the requirements and assumptions of the TMDL. As noted in 64 FR No. 235, *"At this time, EPA determines that water quality-based controls, implemented through the iterative process today are appropriate for the control of such pollutants and will result in reasonable further progress towards the attainment of water quality standards."* While potentially rare this does indicate that no further action may be necessary to implement the requirements and assumptions of the TMDL as the MS4 community may, through successful implementation to the MEP for each of the MCMs, have already demonstrated *"reasonable further progress."* This, rightfully so, places the burden of support on the MS4 community; however, in order for the MS4 community to continue operating only under the six MCMs, the determination of beneficial use re-attainment must be reviewed and timely approved by applicable program staff (i.e., the MS4 program coordinator and Watershed Protection Section staff).

If the requirements and assumptions of the TMDL are not being met, then the MS4 will need to, at a minimum, develop BMPs that target the given POC with the goal or design for the reduction of the pollutant. Due to the nature of stormwater controls via the iterative process, subsequent determinations can and should be made by the MS4 community to determine if *"reasonable further progress"* has resulted in the attainment of the WLA. In addition to the initial determination or additional BMPs as required in the MS4 general permit, integrated planning actions may be considered as actions taken to specifically restore a waterbody's beneficial uses. Regardless, if the MS4 permittee uses integrated planning or BMPs design to reduce pollutants, other factors need to be considered in accordance with 64 FR No. 235, which states, *"If the permitting authority (rather than the regulated small MS4 operator) needs to impose additional or more specific measures to protect water quality, then that action will most likely be the result of an assessment based on a TMDL or equivalent analysis that determines sources and allocations of pollutant(s) of concern. EPA believes that the small MS4's additional requirements, if any, should be guided by its equitable share based on a variety of considerations, such as cost effectiveness, proportionate contribution of pollutants, and ability to reasonably achieve Wasteload reductions. Narrative effluent limitations in the form of BMPs may still be the best means of achieving those reductions."*

In addition to the above, the TMDL portion of the permit (Part 3) requires the development and implementation of a TMDL Assumption and Requirement Attainment Plan (ARAP). While the TMDL ARAP is not a Schedule of Compliance actions and schedules established in the TMDL ARAP will be subjected to the federal regulations on Schedules of Compliance [40 CFR 122.47]. Specifically if the development and implementation of the TMDL ARAP is to be conducted in a period of time extending one calendar year, then the permittee will be required to report annually for either the status of the development of the plan or for the implementation of the plan based on 40 CFR 122.47(a)(3)(ii).

Regarding the time period allowed for development of the TMDL ARAP (i.e., as soon as practicable not exceeding 30 months), the Department has determined the 30 month time period is appropriate as it allows the permittee the necessary time and flexibility that is needed to ultimately achieve attainment with the TMDLs assumptions and requirements. The Department has experience in the facilitation of an adaptive management plan, along with EPA Region 7, with a MS4 community that addressed the assumption and requirements of an applicable TMDL. The time period to develop the adaptive management plan took more than 30 months, but the assumptions and requirements of the TMDL were more complex than other straight forward TMDLs. Thus, the 30 month maximum time period allows the permittee to determine or develop appropriate BMPs, measurable goals, funding sources, local votes, strategic planning, opportunity to engage interested parties and stakeholders, etc... However, it would be naïve to believe that all regulated MS4s could develop a plan in 30 months, which is why the permit also indicates that the permittee can request an extension to the 30 months.

Permittees seeking approval of the extension will need to provide appropriate justification of why the extension is needed, a revised time schedule of compliance, and reason for failing to meet the 30 month maximum time; however, the allowance of extending the time period beyond 30 months is not guaranteed.

Part IV - Administrative Requirements & Public Notice of Small MS4's SWMPs

COST ANALYSIS FOR COMPLIANCE (CAFCON):

Pursuant to Section 644.145, RSMo, when issuing permits (under this chapter) that incorporate a new requirement for discharges from publicly owned combined or separate sanitary or storm sewer systems or publicly owned treatment works, or when enforcing provisions of this chapter or the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq., pertaining to any portion of a publicly owned combined or separate sanitary or storm sewer system or [publicly owned] treatment works, the department shall make a cost analysis for compliance upon which to base such permits and decisions to the extent allowable under this chapter and the Federal Water Pollution Control Act. Where permit modifications, permit renewals, or sewer extensions do not impose new requirements and/or do not require rate increases, the cost analysis for compliance may receive a less detailed review. Permits that do not include new requirements may be deemed affordable.

Existing Permittees – New Requirements:

The results of the CAFCON below were drafted during in accordance with the previous draft permit (i.e., 3rd round). This operating permit does not require the same level of sampling or parameters to be sampled. Thus, if the below was determined affordable under the previous draft operating permit, then it is affordable under this draft operating permit.

DEFINITIONS

All definitions contained in 10 CSR 20-6.200 shall apply to this permit and are incorporated herein by reference. For convenience, simplified explanations of some regulatory/statutory definitions have been provided, but in the event of a conflict, the definition found in the regulation takes precedence.

Control Measure as used in this permit refers to any Best Management Practice or other method used to prevent or reduce the discharge of pollutants to waters of the state.

Director refers to the Director of staff, Water Protection Program, Missouri Department of Natural Resources.

Discharge, when used without a qualifier, refers to "discharge of a pollutant" as defined at 40 CFR 122.2.

Illicit Connection means any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.

Illicit Discharge refers to any discharge to a municipal separate storm sewer that is not entirely composed of stormwater, except discharges authorized under an NPDES permit (other than the NPDES permit for discharges from the MS4) and discharges resulting from emergency fire-fighting activities.

Load Allocation is similar to Wasteload allocation, except refers to nonpoint source pollutants; whereas, Wasteload allocation pertains to point source pollutants. Per EPA, load allocation refers to the portion of the loading capacity attributed to (1) the existing or future nonpoint sources of pollution, and (2) natural background sources. Wherever possible, nonpoint source loads and natural loads should be distinguished.

MS4 is an acronym for "Municipal Separate Storm Sewer System" and is used to refer to a Large, Medium, or Small MS4 (e.g., "the Joplin Small MS4").

Permittee, as used in this permit refers to the holder of this general permit.

Representative Outfalls: Representative outfalls can be outfalls that discharge to the primary stem of principal watercourses in separate sub-regional watersheds and are representative of various land uses. Representative outfalls are listed in the permit as a subset of ALL of the MS4's outfalls.

Site-specific Permit also means individual permit (per EPA's definition) and one that is specific to the permittee's facility or discharges.

Stormwater means stormwater runoff, snow melt runoff, and surface runoff and drainage.

Stormwater Management Program and Plan (SWMP) refers to a comprehensive documented program and plan to manage the quality of stormwater discharged from the municipal separate storm sewer system.

Wasteload allocation per 10-CSR-20.010 means the amount of pollutants each [point source] discharger is allowed by the department to release into a given stream after the department has determined the total amount of pollutants that may be discharged into that stream without endangering its water quality. Point sources are typically permitted.

PUBLIC NOTICE AND COVERAGE FOR AN INDIVIDUAL ENTITY:

Per 10 CSR 20-6.020(1)(B) &(C), public notification of the issuance of this master general permit was required; however, public notification of issuance to individual applicants under this permit is not required. A public meeting was held March 5, 2013, at the Lewis & Clark State Office Building from 10 a.m. to 11 a.m. No comments were received as a result of this public meeting. The draft Master General Permit renewal was placed on Public Notice for 30 days in accordance with 10 CSR 20-6.020(1)(B) & (C). The first public comment period for that public notice expired on May 6, 2013. Comments were received from the Association of Missouri Cleanwater Agencies, the Metropolitan St. Louis Sewer District and the University of Missouri. The permit was revised as a result of public comments and the permit was public noticed for a second 30-day period from November 1 through December 2, 2013.

SUMMARY OF KEY ISSUES ADDRESSED IN RESPONSE TO OCTOBER 31, 2014 PUBLIC NOTICE INPUT:

Several changes were made to the permit in response to public comments during the most recent public notice period, which started on October 31, 2014. Detailed responses were provided to the commenters. Copies of the comment response letters may be obtained via an Open Records/Sunshine Law request.

SUMMARY OF KEY ISSUES ADDRESSED IN RESPONSE TO THE APRIL 8, 2016 PUBLIC NOTICE INPUT:

The changes made to this operating permit after the April 8, 2016, public notice are in response to comments received from EPA on July 6, 2016 (See Appendix A).

PUBLIC NOTICE OF SMALL MS4'S SWMPs:

In addition to this actual operating permit, MS4s applying for coverage under this general permit are required to submit their SWMP as required by this operating permit. The MS4s SWMPs are located at the Department website: <http://dnr.mo.gov/env/wpp/stormwater/swmp.htm>. SWMPs are subject to the same public notice and hearings as the MS4 general operating permit. SWMPs, under this operating permit, are subject to a review and rating. MS4s have one year from the effective date to submit their updated SWMP, if needed, for a review and rating.

COST ANALYSIS:

The previously public noticed permit established in the Conclusion and Findings that "All regulated MS4s under this permit will incur added costs for monitoring requirements per Section 5. Only certain communities will also incur costs for TMDL plan development per Section 3. The department has determined that costs for monitoring and TMDL plan development are affordable. The monthly household costs are estimated for all scenarios to range from \$0.01 to \$2.92 per month for the first 2.5 years and then \$0.01 - \$0.65 per year thereafter depending on the community. This considers that the cost for TMDL plan development is a one-time cost for a period of 30 months and that the cost of plan development may be shared in some scenarios but not others. This does not consider that some MS4s may need to develop more than one TMDL plan. Cost analyses can be revisited if the TMDL plan identifies specific implementation measures beyond current efforts."

Additionally, the department determined in the previously public notice permit that, "...the cost for developing a plan to address the TMDL assumptions and requirements (in addition to annual monitoring requirements) is affordable for affected communities, based on the limitation of this finding to one-time plan development, a reasonable 30-month provision plan completion period and much available guidance. The process to develop a plan is expected to include stakeholder input and to take one staff person an estimated 12 months full-time to research the needed information, coordinate public meetings, and establish a work plan and schedule. Dependent upon salary, contributing partnerships, available information and TMDL assumptions and requirements, the cost of plan development per year might range from \$4,000 - \$100,000 per community. These costs in addition to an annual monitoring cost of \$3,720 results in an estimate of total increased user costs shown as a percentage of MHIs that range from 0.02% to 0.03%. More information is needed to determine a more detailed estimate of plan costs for each affected MS4."

Finally, the previously public notice permit established, "the department has determined the cost for monitoring per Section 5 of the permit is affordable. This paragraph addresses communities that do not also have to develop a TMDL plan. The new sampling requirements are affordable for affected communities, especially for those communities who will be readily able to incorporate these efforts into existing program operations for sampling, analyses and reporting. Monitoring requirements will more than likely be covered through general revenue unless otherwise covered by dedicated stormwater funding. Monitoring may cost up to \$3,720 per year per community, depending on proximity to local laboratory services. More information is needed to determine a more detailed estimate of monitoring costs for each affected MS4."

This version of the draft Phase II Small regulated MS4 general permit does not place any requirement beyond that of the previously public noticed permit and is therefore found to be affordable by all regulated Phase II Small MS4s.

Revised Date of Fact Sheet: July 7, 2016

**MICHAEL J. ABBOTT, ENVIRONMENTAL SCIENTIST
MUNICIPAL SEPARATE STORMWATER SEWER SYSTEM (MS4) PROGRAM COORDINATOR
STORMWATER AND CERTIFICATION UNIT
WATER PROTECTION PROGRAM
michael.abbott@dnr.mo.gov
573-526-1139**

Appendix A – EPA July 6, 2016 Comments



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 7

11201 Renner Boulevard
Lenexa, Kansas 66219

JUL 6 2016

Mr. John Madras
Director, Water Protection Program
Missouri Department of Natural Resources
P.O. Box 176
Jefferson City, Missouri 65102

Dear Mr. Madras:

We have reviewed the draft proposed Missouri General Municipal Separate Stormwater Sewer System (MS4) Permit (MOR040000) that was placed on public notice May 8, 2016. Please find our comments on the permit below:

1. Section 3 – If a permittee is not already meeting an applicable Waste Load Allocation (WLA) and a schedule of compliance is needed, then regulations require that the WLA be met "as soon as possible." The instructions for the *Total Maximum Daily Load (TMDL) Assumptions and Requirement Attainment Plan (ARAP)* should make it clear that all plans, and implementation of plans, should be such that WLAs will be met as soon as possible.
2. Section 3.1.1 – This permit provision requires that the MS4 "...shall implement steps toward the goal of attainment with the applicable WLA ...". The language should be modified to be consistent with the CWA requirement that the MS4 must achieve attainment with the applicable WLA, not merely implement steps towards that goal.
3. Section 3.1.3 – Regulations require that water quality based limits be met "as soon as possible." If the Department believes that 30 months of planning is part of a process to meet WLAs as soon as possible, then that should be documented in the Fact Sheet for the permit.
4. Section 3.1.3.2 – After discussing this provision with Department personnel, we understand that any disapproval notice would explain what changes need to be made to a plan and would give a deadline for resubmittal of the TMDL ARAP. The inclusion of deadline for resubmittal, appears to negate the need for provision 3.1.3.3.
5. Section 3.1.7 – It is possible that TMDLs may not specifically name a certain point source even though the narrative of the TMDL makes it clear that there are WLAs that apply to the source. We are concerned that the current language of this provision might allow a permittee to ignore a TMDL in such a case if the TMDL did not specifically name them. Please consider a language change that would close this loophole.
6. New Discharges to TMDL-Limited Waterbodies – It is possible that newly regulated MS4 might discharge to a waterbody with a TMDL does not allow a WLA for the new discharge. One way

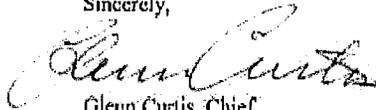
Continue to next page.

to deal with this situation is to not allow coverage for such an MS4 under this general permit, but require application for an individual permit.

7. Section 4.1.2 - The provision needs to make clear that the five years for full implementation is only available for MS4s that are being regulated under this permit for the first time. Currently regulated MS4s should already be fully implementing the six minimum control measures.
8. Sections 3.1.2.3 - The provision needs to require that if interim milestones are more than a year apart then progress must be reported on or before a year has passed from the last milestone.
9. Section 4.2.7 references sections of the permit that were in a previous draft but have since been removed.

If you have any questions or would like additional information, please contact either Glenn Curtis at (913) 551-7726, or Mark Matthews at (913) 551-7635.

Sincerely,



Glenn Curtis, Chief
Wastewater and Infrastructure
Management Branch

Enclosure

Appendix 3

(Permit Ref. Section 4.2.5; 4.2.4.1.1; 4.2.3.1.2; 4.2.4.1.6)

City Code Chapters

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

October 2017

Stormwater Plan Review Procedures

(Permit Ref. Section 4.2.4; 4.2.5)

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

(Permit Ref. Section 4.2.4.1.5)

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

(Permit Ref. Section 4.2.5; 4.2.5.1.4; 4.2.5.1.5; 4.2.5.1.2)

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

(Permit Ref. Section 4.2.6.1)

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

(Permit Ref. Section 4.2.6.1.4)

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

(Permit Ref. Section 4.2.6.1.3; 4.2.6.1.5)

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 (Permit Ref. Section 4.2.4.1)

Instructions

To help you develop the narrative section of your construction site SWPPP, the City of Cape Girardeau has modified the U.S Environmental Protection Agency (EPA) electronic Stormwater Pollution Prevention Plan (SWPPP). The template is designed to help guide you through the SWPPP development process and help ensure that your SWPPP addresses all the necessary elements stated in your construction general permit. It may be helpful to use EPA's guidance on *Developing Your Stormwater Pollution Prevention Plan*, available on EPA's website at www.epa.gov/npdes/swpppguide. The SWPPP template developed by the City of Cape Girardeau is available on the City's website at [\[redacted\]](#)

Using the SWPPP Template

Each section of this template includes "instructions" and space for project information. You should read the instructions for each section before you complete that section. This template was developed in Word so that you can easily add tables and additional text. Some sections may require only a brief description while others may require several pages of explanation.

Tips for completing the SWPPP template

- If there is more than one construction operator for your project, consider coordinating development of your SWPPP with the other operators.
- Multiple operators may share the same SWPPP, but make sure that responsibilities are clearly described.
- Modify this SWPPP template so that it addresses the requirements in your construction general permit and meets the needs of your project. Consider adding permit citations in the SWPPP when you address a specific permit requirement.
- Delete the instructions after completing each section.
- The blue text indicates portions of the template requiring edits.

Stormwater Pollution Prevention Plan

for:

Insert Project Name
Insert Project Site Location/Address
Insert City, State, Zip Code
Insert Project Site Telephone Number (if applicable)

Operator(s):

Insert Company or Organization Name
Insert Name
Insert Address
Insert City, State, Zip Code
Insert Telephone Number
Insert Fax/Email

SWPPP Contact(s):

Insert Company or Organization Name
Insert Name
Insert Address
Insert City, State, Zip Code
Insert Telephone Number
Insert Fax/Email

SWPPP Preparation Date:

___/___/_____

Estimated Project Dates:

Project Start Date: ___/___/_____
Project Completion Date: ___/___/_____

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SECTION 1: SITE EVALUATION, ASSESSMENT, AND PLANNING CERTIFICATION, AND SIGNATURE

1.1 Project/Site Information

Instructions:

- In this section, you can gather some basic site information that will be helpful to you later when you file for permit coverage.
- For more information, see *Developing Your Stormwater Pollution Prevention Plan: A SWPPP Guide for Construction Sites* (also known as the *SWPPP Guide*), Chapter 2
- Detailed information on determining your site's latitude and longitude can be found at www.epa.gov/npdes/stormwater/latlong

Project/Site Name: _____

Project Street/Location: _____

City: _____ State: _____ ZIP Code: _____

County or Similar Subdivision: _____

Latitude/Longitude (Use **one** of three possible formats, and specify method)

Latitude:

1. ___° ___' ___" N (degrees, minutes, seconds)

2. ___° ___' ___" N (degrees, minutes, decimal)

3. ___° N (decimal)

Longitude:

1. ___° ___' ___" W (degrees, minutes, seconds)

2. ___° ___' ___" W (degrees, minutes, decimal)

3. ___° W (decimal)

Method for determining latitude/longitude:

USGS topographic map (specify scale: _____)

EPA Web site GPS

Other (please specify): _____

Is the project located in Indian country? Yes No

If yes, name of Reservation, or if not part of a Reservation, indicate "not applicable." _____

Is this project considered a federal facility? Yes No

UPDES project or permit tracking number*: _____

*(This is the unique identifying number assigned to your project by your permitting authority after you have applied for coverage under the appropriate National Pollutant Discharge Elimination System (UPDES) construction general permit.)

1.2 Contact Information/Responsible Parties

Instructions:

- List the operator(s), project managers, stormwater contact(s), and person or organization that prepared the SWPPP. Indicate respective responsibilities, where appropriate.
- Also, list subcontractors expected to work on-site. Notify subcontractors of stormwater requirements applicable to their work.
- See *SWPPP Guide*, Chapter 2.B.

Operator(s):

Insert Company or Organization Name:

Insert Name:

Insert Address:

Insert City, State, Zip Code:

Insert Telephone Number:

Insert Fax/Email:

Insert area of control (if more than one operator at site):

Repeat as necessary

Project Manager(s) or Site Supervisor(s):

Insert Company or Organization Name:

Insert Name:

Insert Address:

Insert City, State, Zip Code:

Insert Telephone Number:

Insert Fax/Email:

Insert area of control (if more than one operator at site) :

Repeat as necessary

SWPPP Contact(s):

Insert Company or Organization Name:

Insert Name:

Insert Address:

Insert City, State, Zip Code:

Insert Telephone Number:

Insert Fax/Email:

Insert area of control (if more than one operator at site) :

Repeat as necessary

This SWPPP was Prepared by:

Insert Company or Organization Name:

Insert Name:

Insert Address:
Insert City, State, Zip Code:
Insert Telephone Number:
Insert Fax/Email:

Subcontractor(s):

Insert Company or Organization Name:
Insert Name:
Insert Address:
Insert City, State, Zip Code:
Insert Telephone Number:
Insert Fax/Email:
Repeat as necessary

Emergency 24-Hour Contact:

Insert Company or Organization Name:
Insert Name:
Insert Telephone Number:

1.3 Nature and Sequence of Construction Activity

Instructions:

- Briefly describe the nature of the construction activity and approximate time frames (one or more paragraphs, depending on the nature and complexity of the project).
- For more information, see *SWPPP Guide*, Chapter 3.A.

Describe the general scope of the work for the project, major phases of construction, etc:

INSERT TEXT HERE

What is the function of the construction activity?

- Residential Commercial Industrial Road Construction Linear Utility
 Other (please specify):

Estimated Project Start Date: ___ / ___ / _____

Estimated Project Completion Date: ___ / ___ / _____

1.4 Soils, Slopes, Vegetation, and Current Drainage Patterns

Instructions:

- Describe the existing soil conditions at the construction site including soil types, slopes and slope lengths, drainage patterns, and other topographic features that might affect erosion and sediment control.
- Also, note any historic site contamination evident from existing site features and known past usage of the site.
- This information should also be included on your site maps (See *SWPPP Guide*, Chapter 3.C.).
- For more information, see *SWPPP Guide*, Chapter 3.A.

Soil type(s):

Slopes (describe current slopes and note any changes due to grading or fill activities):

Drainage Patterns (describe current drainage patterns and note any changes due to grading or fill activities):

Vegetation:

Other:

1.5 Construction Site Estimates

Instructions:

- Estimate the area to be disturbed by excavation, grading, or other construction activities, including dedicated off-site borrow and fill areas.
- Calculate the percentage of impervious surface area before and after construction
- Calculate the runoff coefficients before and after construction.
- For more information, see *SWPPP Guide*, Chapter 3.A and Appendix C.

The following are estimates of the construction site.

Total project area:	acres
Construction site area to be disturbed :	acres
Percentage impervious area before construction:	%
Runoff coefficient before construction:	
Percentage impervious area after construction:	%
Runoff coefficient after construction	

1.6 Receiving Waters

Instructions:

- List the waterbody(s) that would receive stormwater from your site, including streams, rivers, lakes, coastal waters, and wetlands. Describe each as clearly as possible, such as Big Cottonwood Creek, a tributary to the Jordan River, and so on.
- Indicate the location of all waters, including wetlands, on the site map.
- Note any stream crossings, if applicable.
- List the storm sewer system or drainage system that stormwater from your site could discharge to and the waterbody(s) that it ultimately discharges to.
- If any of the waterbodies above are impaired and/or subject to Total Maximum Daily Loads (TMDLs), please list the pollutants causing the impairment and any specific requirements in the TMDL(s) that are applicable to construction sites. Your SWPPP should specifically include measures to prevent the discharge of these pollutants.
- For more information, see *SWPPP Guide*, Chapter 3.A and 3.B.
- Also, for more information and a list of TMDL contacts and links by state, visit www.epa.gov/npdes/stormwater/tmdl.

Description of receiving waters:

Description of storm sewer systems:

Description of impaired waters or waters subject to TMDLs:

Other:

1.7 Site Features and Sensitive Areas to be Protected

Instructions:

- Describe unique site features including streams, stream buffers, wetlands, specimen trees, natural vegetation, steep slopes, or highly erodible soils that are to be preserved.
- Describe measures to protect these features.
- Include these features and areas on your site maps.
- For more information, see *SWPPP Guide*, Chapter 3.A and 3.B.

Description of unique features that are to be preserved:

Describe measures to protect these features:

1.8 Potential Sources of Pollution

Instructions:

- Identify and list all potential sources of sediment, which may reasonably be expected to affect the quality of stormwater discharges from the construction site.
- Identify and list all potential sources of pollution, other than sediment, which may reasonably be expected to affect the quality of stormwater discharges from the construction site.
- For more information, see *SWPPP Guide*, Chapter 3.A.

Potential sources of sediment to stormwater runoff:

INSERT TEXT OR TABLE HERE

Potential pollutants and sources, other than sediment, to stormwater runoff:

INSERT TEXT OR USE TABLE BELOW

Trade Name Material	Stormwater Pollutants	Location

1.9 Endangered Species Certification

Instructions:

- Before beginning construction, determine whether endangered or threatened species or their critical habitats are on or near your site. For help to determine this you may wish to call the Dept of Natural Resources, Div. of Wildlife Resources at 801-538-4700 or call US Fish & Wildlife at 801-975-3330.
- Adapt this section as needed for state or tribal endangered species requirements and, if applicable, document any measures deemed necessary to protect endangered or threatened species or their critical habitats.
- For more information on this topic, see *SWPPP Guide*, Chapter 3.B.
- Additional information on Endangered Species Act (ESA) provisions is at www.epa.gov/npdes/stormwater/esa

Are endangered or threatened species and critical habitats on or near the project area?

Yes No

Describe how this determination was made:

INSERT TEXT HERE

If yes, describe the species and/or critical habitat:

INSERT TEXT HERE

If yes, describe or refer to documentation that determines the likelihood of an impact on identified species and/or habitat and the steps taken to address that impact. (Note, if species are on or near your project site, EPA strongly recommends that the site operator work closely with the appropriate field office of the U.S. Fish and Wildlife Service or National Marine Fisheries Service. For concerns related to state or tribal listing of species, please contact a state or tribal official.)

INSERT TEXT HERE

1.10 Historic Preservation

Instructions:

- Before you begin construction, you should review federal and any applicable state, local, or tribal historic preservation laws and determine if there are historic sites on or near your project. If so, you might need to make adjustments to your construction plans or to your stormwater controls to ensure that these historic sites are not damaged. For help with Utah Historic Property and Antiquities you may wish to call 801-533-3535.
- For more information, see *SWPPP Guide*, Chapter 3.B or contact your state or tribal historic preservation

Are there any historic sites on or near the construction site?

Yes No

Describe how this determination was made:

INSERT TEXT HERE

If yes, describe or refer to documentation that determines the likelihood of an impact on this historic site and the steps taken to address that impact.

INSERT TEXT HERE

1.11 Applicable Federal, Tribal, State or Local Programs

Instructions:

- Note other applicable federal, tribal, state or local soil and erosion control and stormwater management requirements that apply to your construction site.

INSERT TEXT HERE

1.12 Maps

Instructions:

- Attach site maps. For most projects, a series of site maps is recommended. The first should show the undeveloped site and its current features. An additional map or maps should be created to show the developed site or for more complicated sites show the major phases of development.

These maps should include the following:

- Direction(s) of stormwater flow and approximate slopes before and after major grading activities;
- Areas and timing of soil disturbance;
- Areas that will not be disturbed;
- Natural features to be preserved;
- Locations of major structural and non-structural BMPs identified in the SWPPP;
- Locations and timing of stabilization measures;
- Locations of off-site material, waste, borrow, or equipment storage areas;
- Locations of all waters of the United States, including wetlands;
- Locations where stormwater discharges to a surface water;
- Locations of storm drain inlets; and
- Areas where final stabilization has been accomplished.
- For more information, see *SWPPP Guide*, Chapter 3.C.

Include the site maps with the SWPPP.

SECTION 2: EROSION AND SEDIMENT CONTROL BMPs

Instructions:

- Describe the BMPs that will be implemented to control pollutants in stormwater discharges. For each major activity identified, do the following
 - ✓ Clearly describe appropriate control measures.
 - ✓ Describe the general sequence during the construction process in which the measures will be implemented.
 - ✓ Describe the maintenance and inspection procedures that will be used for that specific BMP.
 - ✓ Include protocols, thresholds, and schedules for cleaning, repairing, or replacing damaged or failing BMPs.
 - ✓ Identify staff responsible for maintaining BMPs.
 - ✓ (If your SWPPP is shared by multiple operators, indicate the operator responsible for each BMP.)
- Categorize each BMP under one of the following 10 areas of BMP activity as described below:
 - 2.1 Minimize disturbed area and protect natural features and soil**
 - 2.2 Phase Construction Activity**
 - 2.3 Control Stormwater flowing onto and through the project**
 - 2.4 Stabilize Soils**
 - 2.5 Protect Slopes**
 - 2.6 Protect Storm Drain Inlets**
 - 2.7 Establish Perimeter Controls and Sediment Barriers**
 - 2.8 Retain Sediment On-Site and Control Dewatering Practices**
 - 2.9 Establish Stabilized Construction Exits**
 - 2.10 Any Additional BMPs**
- Note the location of each BMP on your site map(s).
- For any structural BMPs, you should provide design specifications and details and refer to them. Attach them as appendices to the SWPPP or within the text of the SWPPP.
- For more information, see *SWPPP Guide*, Chapter 4.
- Consult your state's design manual or one of those listed in Appendix D of the *SWPPP Guide*.
- For more information or ideas on BMPs, see EPA's National Menu of BMPs
<http://www.epa.gov/npdes/stormwater/menuofbmps>

2.1 Minimize Disturbed Area and Protect Natural Features and Soil

Instructions:

- Describe the areas that will be disturbed with each phase of construction and the methods (e.g., signs, fences) that you will use to protect those areas that should not be disturbed. Describe natural features identified earlier and how each will be protected during construction activity. Also describe how topsoil will be preserved. Include these areas and associated BMPs on your site map(s) also. (For more information, see *SWPPP Guide*, Chapter 4, ESC Principle 1.)
- Also, see EPA's *Preserving Natural Vegetation BMP Fact Sheet* at www.epa.gov/npdes/stormwater/menuofbmps/construction/perserve_veg

INSERT TEXT or TABLE HERE, include inspection and maintenance schedules as appropriate and staff responsible for maintenance

2.2 Phase Construction Activity

Instructions:

- Describe the intended construction sequencing and timing of major activities, including any opportunities for phasing grading and stabilization activities to minimize the overall amount of disturbed soil that will be subject to potential erosion at one time. Also, describe opportunities for timing grading and stabilization so that all or a majority of the soil disturbance occurs during a time of year with less erosion potential (i.e., during the dry or less windy season). (For more information, see *SWPPP Guide*, Chapter 4, ESC Principle 2.) It might be useful to develop a separate, detailed site map for each phase of construction.
- Also, see EPA's *Construction Sequencing BMP Fact Sheet* at http://www.epa.gov/npdes/stormwater/menuofbmps/construction/cons_seq

- Phase I
 - Describe phase
 - Duration of phase (start date, end date)
 - List BMPs associated with this phase
 - Describe stabilization methods for this phase (describe any temporary stabilization methods that will be used before final stabilization)
- Phase II
 - Describe phase
 - Duration of phase (start date, end date)
 - List BMPs associated with this phase
 - Describe stabilization methods for this phase (describe any temporary stabilization methods that will be used before final stabilization)

Repeat as needed

2.3 Control Stormwater Flowing onto and through the Project

Instructions: <ul style="list-style-type: none"> Describe structural practices (e.g., diversions, berms, ditches, storage basins) including design specifications and details used to divert flows from exposed soils, retain or detain flows, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. (For more information, see <i>SWPPP Guide</i>, Chapter 4, ESC Principle 3.)
--

BMP Description:	
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

BMP Description:	
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

Repeat as needed

2.4 Stabilize Soils

Instructions: <ul style="list-style-type: none"> Describe controls (e.g., interim seeding with native vegetation, hydroseeding) to stabilize exposed soils where construction activities have temporarily or permanently ceased. Also describe measures to control dust generation. Avoid using impervious surfaces for stabilization whenever possible. (For more information, see <i>SWPPP Guide</i>, Chapter 4, ESC Principle 4.) Also, see EPA's <i>Seeding BMP Fact Sheet</i> at www.epa.gov/npdes/stormwater/menuofbmps/construction/seeding

BMP Description:	
<input type="checkbox"/> Permanent	<input type="checkbox"/> Temporary
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

BMP Description:

Permanent

Temporary

Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

Repeat as needed

2.5 Protect Slopes

Instructions:

- Describe controls (e.g., erosion control blankets, tackifiers) including design specifications and details that will be implemented to protect all slopes. (For more information, see *SWPPP Guide*, Chapter 4, ESC Principle 5.)
- Also, see EPA's *Geotextiles BMP Fact Sheet* at www.epa.gov/npdes/stormwater/menuofbmps/construction/geotextiles

BMP Description:

Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

BMP Description:

Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

Repeat as needed

2.6 Protect Storm Drain Inlets

Instructions:

- Describe controls (e.g., inserts, rock-filled bags, or block and gravel) including design specifications and details that will be implemented to protect all inlets receiving stormwater from the project during the entire project. (For more information, see *SWPPP Guide*, Chapter 4, ESC Principle 6.)
- Also, see EPA's *Storm Drain Inlet Protection BMP Fact Sheet* at www.epa.gov/npdes/stormwater/menuofbmps/construction/storm_drain

BMP Description:

Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

BMP Description:

Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

Repeat as needed

2.7 Establish Perimeter Controls and Sediment Barriers

Instructions:

- Describe structural practices (e.g., silt fences or fiber rolls) including design specifications and details to filter and trap sediment before it leaves the construction site. (For more information, see *SWPPP Guide*, Chapter 4, ESC Principle 7.)
- Also see, EPA's *Silt Fence BMP Fact Sheet* at www.epa.gov/npdes/stormwater/menuofbmps/construction/silt_fences, or *Fiber Rolls BMP Fact Sheet* at www.epa.gov/npdes/stormwater/menuofbmps/construction/fiber_rolls

BMP Description:

Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

BMP Description:

Installation Schedule:	
-------------------------------	--

Maintenance and Inspection:	
Responsible Staff:	

Repeat as needed

2.8 Retain Sediment On-Site

<p>Instructions:</p> <ul style="list-style-type: none"> - Describe sediment control practices (e.g., sediment trap or sediment basin), including design specifications and details (volume, dimensions, outlet structure) that will be implemented at the construction site to retain sediments on-site. (For more information, see <i>SWPPP Guide</i>, Chapter 4, ESC Principle 8.) - Also, see EPA's <i>Sediment Basin BMP Fact Sheet</i> at www.epa.gov/npdes/stormwater/menuofbmps/construction/sediment_basins
--

BMP Description:	
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

BMP Description:	
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

Repeat as needed

2.9 Establish Stabilized Construction Exits

Instructions:

- Describe location(s) of vehicle entrance(s) and exit(s), procedures to remove accumulated sediment off-site (e.g., vehicle tracking), and stabilization practices (e.g., stone pads or wash racks or both) to minimize off-site vehicle tracking of sediments and discharges to stormwater. (For more information, see *SWPPP Guide*, Chapter 4, ESC Principle 9.)
- Also, see EPA's *Construction Entrances BMP Fact Sheet* at www.epa.gov/npdes/stormwater/menuofbmps/construction/cons_entrance

BMP Description:

Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

BMP Description:

Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

Repeat as needed

2.10 Additional BMPs

Instructions:

- Describe additional BMPs that do not fit into the above categories.

BMP Description:

Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

BMP Description:

Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

Repeat as needed

SECTION 3: GOOD HOUSEKEEPING BMPs

Instructions:

- Describe the key good housekeeping and pollution prevention (P2) BMPs that will be implemented to control pollutants in stormwater.
- Categorize each good housekeeping and pollution prevention (P2) BMP under one of the following seven categories:
 - 3.1 Material Handling and Waste Management**
 - 3.2 Establish Proper Building Material Staging Areas**
 - 3.3 Designate Washout Areas**
 - 3.4 Establish Proper Equipment/Vehicle Fueling and Maintenance Practices**
 - 3.5 Allowable Non-Stormwater Discharges and Control Equipment/Vehicle Washing**
 - 3.6 Spill Prevention and Control Plan**
 - 3.7 Any Additional BMPs**
- For more information, see *SWPPP Guide*, Chapter 5.
- Consult your state's design manual or resources in Appendix D of the *SWPPP Guide*.
- For more information or ideas on BMPs, see EPA's National Menu of BMPs <http://www.epa.gov/npdes/stormwater/menuofbmps>

3.1 Material Handling and Waste Management

Instructions:

- Describe measures (e.g., trash disposal, sanitary wastes, recycling, and proper material handling) to prevent the discharge of solid materials to receiving waters, except as authorized by a permit issued under section 404 of the CWA (For more information, see *SWPPP Guide*, Chapter 5, P2 Principle 1.)
- Also, see EPA's *General Construction Site Waste Management BMP Fact Sheet* at www.epa.gov/npdes/stormwater/menuofbmps/construction/cons_wasteman

BMP Description:

Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

BMP Description:

Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

Repeat as needed

3.2 Establish Proper Building Material Staging Areas

Instructions:

- Describe construction materials expected to be stored on-site and procedures for storage of materials to minimize exposure of the materials to stormwater. (For more information, see *SWPPP Guide*, Chapter 5, P2 Principle 2.)

BMP Description:

Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

BMP Description:

Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

Repeat as needed

3.3 Designate Washout Areas

Instructions:

- Describe location(s) and controls to eliminate the potential for discharges from washout areas for concrete mixers, paint, stucco, and so on. (For more information, see *SWPPP Guide*, Chapter 5, P2 Principle 3.)
- Also, see EPA's *Concrete Washout BMP Fact Sheet* at www.epa.gov/npdes/stormwater/menuofbmps/construction/concrete_wash

BMP Description:

Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

BMP Description:

Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

Repeat as needed

3.4 Establish Proper Equipment/Vehicle Fueling and Maintenance Practices

Instructions:

- Describe equipment/vehicle fueling and maintenance practices that will be implemented to control pollutants to stormwater (e.g., secondary containment, drip pans, and spill kits) (For more information, see *SWPPP Guide*, Chapter 5, P2 Principle 4.)
- Also, see EPA's *Vehicle Maintenance and Washing Areas BMP Fact Sheet* at www.epa.gov/npdes/stormwater/menuofbmps/construction/vehicile_maintain

BMP Description:

Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

BMP Description:

Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

Repeat as needed

3.5 Control Equipment/Vehicle Washing

Instructions:

- Describe equipment/vehicle washing practices that will be implemented to control pollutants to stormwater. (For more information, see *SWPPP Guide*, Chapter 5, P2 Principle 5.)
- Also, see EPA's *Vehicle Maintenance and Washing Areas BMP Fact Sheet* at www.epa.gov/npdes/stormwater/menuofbmps/construction/vehicile_maintain

BMP Description:	
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

BMP Description:	
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

Repeat as needed

3.6 Spill Prevention and Control Plan

Instructions:

- Describe the spill prevention and control plan to include ways to reduce the chance of spills, stop the source of spills, contain and clean up spills, dispose of materials contaminated by spills, and train personnel responsible for spill prevention and control. (For more information, see *SWPPP Guide*, Chapter 5, P2 Principle 6.)
- Also, see EPA's *Spill Prevention and Control Plan BMP Fact sheet* at www.epa.gov/npdes/stormwater/menuofbmps/construction/spill_control

INSERT TEXT HERE or REFERENCE ATTACHMENT

3.7 Any Additional BMPs

Instructions:

- Describe any additional BMPs that do not fit into the above categories. Indicate the problem they are intended to address.

BMP Description:

Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

BMP Description:

Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

Repeat as needed

3.8 Allowable Non-Stormwater Discharge Management

Instructions:

- Identify all allowable sources of non-stormwater discharges that are not identified. The allowable non-stormwater discharges identified might include the following (see your permit for an exact list):
 - ✓ Waters used to wash vehicles where detergents are not used
 - ✓ Water used to control dust
 - ✓ Potable water including uncontaminated water line flushings
 - ✓ Routine external building wash down that does not use detergents
 - ✓ Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used
 - ✓ Uncontaminated air conditioning or compressor condensate
 - ✓ Uncontaminated ground water or spring water
 - ✓ Foundation or footing drains where flows are not contaminated with process materials such as solvents
 - ✓ Uncontaminated excavation dewatering
 - ✓ Landscape irrigation
- Identify measures used to eliminate or reduce these discharges and the BMPs used to prevent them from becoming contaminated.
- For more information, see *SWPPP Guide*, Chapter 3.A.

List allowable non-stormwater discharges and the measures used to eliminate or reduce them and to prevent them from becoming contaminated:

BMP Description:

Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

BMP Description:

Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

Repeat as needed

SECTION 4: SELECTING POST-CONSTRUCTION BMPs

Instructions:

- Describe all post-construction stormwater management measures that will be installed during the construction process to control pollutants in stormwater discharges after construction operations have been completed. Examples of post-construction BMPs include the following:
 - ✓ Biofilters
 - ✓ Detention/retention devices
 - ✓ Earth dikes, drainage swales, and lined ditches
 - ✓ Infiltration basins
 - ✓ Porous pavement
 - ✓ Other proprietary permanent structural BMPs
 - ✓ Outlet protection/velocity dissipation devices
 - ✓ Slope protection
 - ✓ Vegetated strips and/or swales
- Identify any applicable federal, state, local, or tribal requirements for design or installation.
- Describe how low-impact designs or smart growth considerations have been incorporated into the design.
- For any structural BMPs, you should have design specifications and details and refer to them. Attach them as appendices to the SWPPP or within the text of the SWPPP.
- For more information on this topic, see your state's stormwater manual.
- You might also want to consult one of the references listed in Appendix D of the *SWPPP Guide*.
- Visit the post-construction section of EPA's Menu of BMPs at: www.epa.gov/npes/menuofbmps

BMP Description:

Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

BMP Description:

Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

Repeat as needed

SECTION 5: INSPECTIONS

5.1 Inspections

Instructions:

- Identify the individual(s) responsible for conducting inspections and describe their qualifications. Reference or attach the inspection form that will be used.
- Describe the frequency that inspections will occur at your site including any correlations to storm frequency and intensity.
- Note that inspection details for particular BMPs should be included in Sections 2 and 3.
- You should also document the repairs and maintenance that you undertake as a result of your inspections. These actions can be documented in the corrective action log described in Part 5.3 below.
- For more on this topic, see *SWPPP Guide*, Chapters 6 and 8.
- Also, see suggested inspection form in Appendix B of the *SWPPP Guide*.

1. Inspection Personnel: Identify the person(s) who will be responsible for conducting inspections and describe their qualifications:

2. Inspection Schedule and Procedures:

Describe the inspection schedules and procedures you have developed for your site (include frequency of inspections for each BMP or group of BMPs, indicate when you will inspect, e.g., before/during/and after rain events, spot inspections):

Describe the general procedures for correcting problems when they are identified. Include responsible staff and time frames for making corrections:

Attach a copy of the inspection report you will use for your site.
REFERENCE ATTACHMENT

5.2 Delegation of Authority

Instructions:

- Identify the individual(s) or specifically describe the position where the construction site operator has delegated authority for the purposes of signing inspection reports, certifications, or other information.
- Attach the delegation of authority form that will be used.
- For more on this topic, see *SWPPP Guide*, Chapter 7.

Duly Authorized Representative(s) or Position(s):

Insert Company or Organization Name:

Insert Name:

Insert Position:

Insert Address:

Insert City, State, Zip Code:

Insert Telephone Number:

Insert Fax/Email:

Attach a copy of the signed delegation of authority form in Appendix K.

5.3 Corrective Action Log

Instructions:

- Create here, or as an attachment, a corrective action log. This log should describe repair, replacement, and maintenance of BMPs undertaken as a result of the inspections and maintenance procedures described above. Actions related to the findings of inspections should reference the specific inspection report.
- This log should describe actions taken, date completed, and note the person that completed the work.

Corrective Action Log:

INSERT LOG HERE or REFERENCE ATTACHMENT

SECTION 6: RECORDKEEPING AND TRAINING

6.1 Recordkeeping

Instructions:

- The following is a list of records you should keep at your project site available for inspectors to review:
- Dates of grading, construction activity, and stabilization (which is covered in Sections 2 and 3)
- A copy of the construction general permit (attach)
- The signed and certified NOI form or permit application form (attach)
- A copy of the letter from EPA or/the state notifying you of their receipt of your complete NOI/application (attach)
- Inspection reports (attach)
- Records relating to endangered species and historic preservation (attach)
- Check your permit for additional details
- For more on this subject, see *SWPPP Guide*, Chapter 6.C.

Records will be retained for a minimum period of at least 3 years after the permit is terminated.

Date(s) when major grading activities occur:

INSERT LOG HERE or REFERENCE ATTACHMENT

Date(s) when construction activities temporarily or permanently cease on a portion of the site:

INSERT LOG HERE or REFERENCE ATTACHMENT

Date(s) when an area is either temporarily or permanently stabilized:

INSERT LOG HERE or REFERENCE ATTACHMENT

6.2 Log of Changes to the SWPPP

Instructions:

- Create a log here, or as an attachment, of changes and updates to the SWPPP. You should include additions of new BMPs, replacement of failed BMPs, significant changes in the activities or their timing on the project, changes in personnel, changes in inspection and maintenance procedures, updates to site maps, and so on.

Log of changes and updates to the SWPPP

INSERT LOG HERE or REFERENCE ATTACHMENT

6.3 Training

Instructions:

- Training your staff and subcontractors is an effective BMP. As with the other steps you take to prevent stormwater problems at your site, you should document the training that you conduct for your staff, for those with specific stormwater responsibilities (e.g. installing, inspecting, and maintaining BMPs), and for subcontractors.
- Include dates, number of attendees, subjects covered, and length of training.
- For more on this subject, see *SWPPP Guide*, Chapter 8.

Individual(s) Responsible for Training:

INSERT TEXT or TABLE HERE

Describe Training Conducted:

- General stormwater and BMP awareness training for staff and subcontractors:
- Detailed training for staff and subcontractors with specific stormwater responsibilities:

SECTION 7: FINAL STABILIZATION

Instructions:

- Describe procedures for final stabilization. If you complete major construction activities on part of your site, you can document your final stabilization efforts for that portion of the site. Many permits will allow you to then discontinue inspection activities in these areas (be sure to check your permit for exact requirements). You can amend or add to this section as areas of your project are finally stabilized.
- Update your site plans to indicate areas that have achieved final stabilization.
- Note that dates for areas that have achieved final stabilization should be included in Section 6, Part 6.1 of this SWPPP.
- For more on this topic, see *SWPPP Guide*, Chapter 9.

BMP Description:

Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

BMP Description:

Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

Repeat as needed

SECTION 8: CERTIFICATION AND NOTIFICATION

Instructions:

- The SWPPP should be signed and certified by the construction operator(s). Attach a copy of the NOI and a copy of the General Storm Water Permit for Construction Activity. You can get a copy of the General Storm Water Permit for Construction Activity on the same web page that this template was obtained (www.waterquality.utah.gov/UPDES/stormwatercon.htm)

Consultant's Declaration

I hereby declare that the Sediment & Erosion Control Plan and information contained in Part II of this plan has been prepared under my direction or supervision in accordance with local, state and federal regulations, and that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete

Name: _____ Title: _____

Signature: _____ Date: _____

Owner's Certification

I hereby certify that I am the owner of the property described in this plan, or his legally authorized agent, and that I assume full responsibility for the performance of the operation stated in this plan.

Name: _____ Title: _____

Signature: _____ Date: _____

General Contractor's Certification

I hereby certify that I understand the requirements stated in this plan, that I am responsible for completing the requirements set forth in Part III of the plan and shown on the Sediment & Erosion Control Plan, and that I am responsible for the performance of the subcontractors listed in the plan.

Name: _____ Title: _____

Signature: _____ Date: _____

Repeat as needed for multiple construction operators at the site

SWPPP APPENDICES

Attach the following documentation to the SWPPP:

Appendix A – General Location Map

Appendix B – Site Maps

Appendix C – Construction General Permit

Appendix D – NOI and Acknowledgement Letter from EPA/State/MS4

Appendix E – Inspection Reports

Appendix F – Corrective Action Log (or in Part 5.3)

Appendix G – SWPPP Amendment Log (or in Part 6.2)

Appendix H – Subcontractor Certifications/Agreements

Appendix I – Grading and Stabilization Activities Log (or in Part 6.1)

Appendix J – Training Log

Appendix K – Delegation of Authority

Appendix L – Additional Information (i.e., Endangered Species and Historic Preservation Documentation; other permits such as dewatering, stream alteration, wetland; and out of date swppp documents)

Appendix M – BMP Specifications

Appendix A – *General Location Map*

Instructions:

- Provide a General Location Map, indicating local streets, local watersheds, and identifying the project area.

Appendix B – *Site Maps*

Instructions:

- Provide Site Maps:
 - Preconstruction Site Map – illustrating site conditions prior to development, including project boundary, vegetation, existing structures, existing contours, and existing stormwater flows
 - Active Construction Site Map – illustrating project boundary, erosion and sediment control, construction entrance, material staging areas, stockpile areas, existing and proposed contours, and proposed buildings, and site modifications
 - Postconstruction Site Map – illustrating project boundary, new contours, stormwater infrastructure, new building, paving and vegetation

Appendix C – *Construction General Permit*

Instructions:

- Provide a copy of the Construction General Permit

Appendix D – *NOI and Acknowledgement Letter from EPA/State/MS4*

Instructions:

- Provide a copy of the Notice of Intent and Acknowledgement Letter

Appendix E – *Inspection Reports*

Instructions:

- Provide a template of the Inspection Report used during site visits
- Insert completed Inspection Reports into the SWPPP document after each inspection is completed

Stormwater Pollution Prevention Plan (SWPPP)
INSERT PROJECT NAME and DATE

Amendment No.	Description of the Amendment	Date of Amendment	Amendment Prepared by [Name(s) and Title]

Appendix H – *Subcontractor Certifications/ Agreements*

Instructions:

- Provide a template of Subcontractor Agreement for the SWPPP
- Insert executed Subcontractor Agreements in the SWPPP for each Subcontractor

SUBCONTRACTOR CERTIFICATION STORMWATER POLLUTION PREVENTION PLAN

Project Number: _____

Project Title: _____

Operator(s): _____

As a subcontractor, you are required to comply with the Stormwater Pollution Prevention Plan (SWPPP) for any work that you perform on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the office trailer.

Each subcontractor engaged in activities at the construction site that could impact stormwater must be identified and sign the following certification statement:

I certify under the penalty of law that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the BMPs and practices described in the SWPPP.

This certification is hereby signed in reference to the above named project:

Company: _____

Address: _____

Telephone Number: _____

Type of construction service to be provided: _____

Signature: _____

Title: _____

Date: _____

Appendix I – Grading and Stabilization Activities Log

Instructions:
 - Provide a template of the Grading and Stabilization Activities Log
 - Update the Grading and Stabilization Activities Log in the SWPPP after each Grading and Stabilization Activity

Project Name:
SWPPP Contact:

Date Grading Activity Initiated	Description of Grading Activity	Date Grading Activity Ceased (Indicate Temporary or Permanent)	Date When Stabilization Measures are Initiated	Description of Stabilization Measure and Location

Stormwater Pollution Prevention Plan (SWPPP)
 INSERT PROJECT NAME and DATE

Date Grading Activity Initiated	Description of Grading Activity	Date Grading Activity Ceased (Indicate Temporary or Permanent)	Date When Stabilization Measures are Initiated	Description of Stabilization Measure and Location

Appendix J –SWPPP Training Log

Instructions:

- Provide a template of the SWPPP Training Log
- Update the Training Log in the SWPPP after each Training.

Stormwater Pollution Prevention Training Log

Project Name: _____

Project Location: _____

Instructor's Name(s): _____

Instructor's Title(s): _____

Course Location: _____ Date: _____

Course Length (hours): _____

Stormwater Training Topic: *(check as appropriate)*

- Erosion Control BMPs Emergency Procedures
- Sediment Control BMPs Good Housekeeping BMPs
- Non-Stormwater BMPs

Specific Training Objective: _____

Attendee Roster: *(attach additional pages as necessary)*

No.	Name of Attendee	Company
1		
2		
3		
4		
5		
6		
7		
8		
9		

10		
----	--	--

Appendix K – Delegation of Authority Form

Instructions:

- Provide a template of the Delegation of Authority Form
- Insert completed Delegation of Authority forms in the SWPPP

Delegation of Authority

I, _____ (name), hereby designate the person or specifically described position below to be a duly authorized representative for the purpose of overseeing compliance with environmental requirements, including the Construction General Permit, at the _____ construction site. The designee is authorized to sign any reports, stormwater pollution prevention plans and all other documents required by the permit.

_____ (name of person or position)
_____ (company)
_____ (address)
_____ (city, state, zip)
_____ (phone)

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in _____ (Reference State Permit), and that the designee above meets the definition of a “duly authorized representative” as set forth in _____ (Reference State Permit).

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: _____

Company: _____

Title: _____

Signature: _____

Date: _____

*Appendix L – Additional Information (i.e.,
Endangered Species and Historic Preservation
Documentation; other permits such as dewatering,
stream alteration, wetland; and out of date SWPPP
documents)*

Instructions:

- Insert applicable Additional Information in SWPPP

Appendix M – *BMP Specifications*

Instructions:

- Insert Best Management Practice (BMP) Specifications

Appendix 6

Check Lists

Stormwater Plan Review Check List (Permit Ref. Section 4.2.4.1.3)

Stormwater Management Plan Review Checklist

Stormwater file #: _____

Reviewed by: _____

Date: _____

Project Name: _____

Fee Received: _____

General Requirements:

Application Form:

- Applicant name, address, telephone
- Owner name, address, telephone
- Design professional name, address, telephone
- Design professional has current MO license
- Legal description

If applicable:

- Waiver due to zero runoff

Predevelopment Site Information:

- Location map with adjacent roads
- Topographic map 1:200 w/ 5'-0" intervals
- For percolation or exfiltration systems: location & type of vegetative cover, soil types
- Locations of streams and floodwater channels, including floodplain and floodway
- Locations of lakes, ponds, streams, detention basins; their normal shorelines, floodplains
- Locations of farm drains, inlets, outfalls, storm sanitary and combined sewers and outfalls, septic tank systems, seeps, springs, wells
- Locations of nearby off-site water management facilities: wells, lakes, drainageways, affected by proposed development

Existing drainage facilities maintained/altered:

- Size, slope, depth
- Outfalls, receiving waters
- Elevations, cross sections, profiles
- Construction materials

New stormwater facilities:

- Detention basins and other water quality elements
- Design details

- Locate existing and proposed impervious surfaces

- Grading and paving plans and specifications

- Location and extent of Right of Way and easements

- Identify special maintenance procedures

Stormwater management system design calculations:

- Design storms used
- For detention basins: storage volumes, water surface elevations, outflow rates
- Acreages and percentages of property proposed for:
 - Impervious surfaces
 - Pervious surfaces
 - Lakes, canals, detention areas, etc
 - Total project acreage
 - Other: _____
- Runoff routing calculation showing discharge, elevations and volumes retained/detained during storm events
- Calculations for minimum building floor and road elevations
- Calculations for inlets, pipes, and ditches

Narrative:

- Identify potential pollution sources
- Identify project managers and their area of control
- Temporary and permanent structural and nonstructural BMPs
- BMP implementation schedule
- Temporary and permanent stabilization practices
- Dewatering methods
- Dust minimizing procedures
- Method of waste disposal
- Sources of nonstormwater discharge
- Sediment removal and disposal process
- Pollution prevention measures for nonstormwater discharges

- Site specific erosion and sediment controls

- Operation and maintenance procedures for stormwater management facilities: cleaning frequency, access routes, special equipment

- Identify party responsible for operation and maintenance

Classification:

- Less than 25 acres
- 25 to 200 acres
- Over 200 acres

Stormwater Pollution Prevention Plan (SWPPP)

Maximize allowable release rate of stormwater:

- Rate shall not exceed pre-development rate for 2- and 10-year storms
- 25-year storm shall have release rate of 15-year storm
- Calculate release rate based on total drainage area
- Storage volume based on project area only
- At minimum, storage volume for 25-year storm
- Control runoff within each watershed
- Emergency overflow facilities for 100-year storm capacity

Allowable locations for stormwater runoff channels:

- Depressed median of double roadway
- Centered on rear lot lines

- Depressed area along roadway
- Landscaped areas
- Curb and gutter that discharge into detention basin
- Drainage channels and swales

Utility drainage easement:

- Along rear lot lines < 20' wide
- No structures
- No fences
- No shrubber or trees

Manholes within floodplain, street for detention, or area designed for floodwater or stormwater:

- Watertight bolted manhole cover
- Watertight concealed pick-hole cover
- Rim elevation at/above 100-year flood

- Max finish grade 3:1

- Retaining walls over 30" require guards

- Grading plans for sites < 1 acre require erosion & sediment control

- Protect adjacent sites from water, erosion and sediment

- Provide 50'-0" maintenance and drainage easement along natural watercourses

Stormwater design:

- Detention basins: 25-year
- Primary drainage systems: 25-year
- Bridges: 50-year
- Secondary drainage systems: 15-year
- Critical areas may require 100-year, per city manager

Calculations:

- 0 to 25 acres: Rational Method
- Over 25 acres: Technical Release 55 (TR-55)

Open Channels:

- May be at rear or sides of property
- 50'-0" drainage setback from channel
- Area inlets required if flow greater than 1 cf/s, to prevent flow over sidewalks/curbs

Inlets and junction boxes

- Spaced per city standards
- 100-year design storm level indicated

- Building gutters may not discharge directly into city's enclosed system

- If enclosing an existing natural drainageway that carries < 50 cf/s during design storm event, size enclosure for 50-year 20-minute storm

Dry detention facilities:

- 20'-0" perimeter maintenance easement
- Maximum 3:1 slopes

- Facilitate complete interior drainage to dry bottom basins
- May be secondary multipurpose recreational features
- Maximum pond limits: < 25'-0" hor. and < 2'-0" vert. from lowest building sill elevation
- Entire reservoir seeded, fertilized, mulched, sodded or paved
- Fully paved flow channels prohibited. Allowed: turf, aggregate, pavers, or approved method.

Wet detention facilities:

- 20'-0" perimeter maintenance easement
- Maximum 3:1 slopes
- Control elevation \geq 2'-6" below minimum road centerline elevation
- Side slopes < 3:1 within 2'-0" vertical of control elevation, then as steep as soil allows
- For fish, > 1/4 of permanent pool minimum 10'-0" deep
- Provide maintenance plans
- Maximum pond limits: < 30'-0" hor. and < 2'-0" vert. from lowest building sill elevation

Underground Storage:

- Type of facility
- Depth and volume of storage
- Inlet/outlet device details and locations
- Emergency overflow provisions
- Surface and groundwater pollution control measures

Developments adjoining floodplain for 100-year flood:

- Indicate floodplain and floodway
- Include plans and specifications req'd for federal, state, county and local laws/regs:
 - Zoning and subdivision req'mts
 - Building code req'mts
 - Other agency req'mts

Channel modifications:

- Channels not altered to reduce flow
- Cross sections of existing and proposed channel
- Plan indicating existing constructions and obstructions
- Hydrographs and/or flood routing calculations and backwater curve profiles of proposed waterway for 100-year storm
- Engineering evaluation and provisions for eliminating upstream and downstream adverse impacts
- Minimum floor elevations determined by FEMA FIRM map or backwater curve profiles for 100-year storm
- Plan indicating areas reserved for flood routing, detention or storage, including restrictions, dedications and maintenance responsibilities

Detention Storage within floodplain:

- Net increase of storage volume above existing credited to development
- No credit for volumes below regulatory flood elevation

Verification of adequacy (recommended but not req'd for projects < 50 acres):

- Detention volume
- Tributary (Q) peak runoff to basin
- Balanced maximum outflow rate from low-flow structure

- Ratios of inflow to outflow rates
- Sizing of the overflow facilities
- Stability of detention dikes
- Safety features
- Maintenance features

Projects 50 to 200 acres:

- Flood routing calculations in tabulated form
- Proof of adequacy of detention volume and sizing for low-flow structure

- Projects over 200 acres: verification of adequacy according to complexity of design

Installation of stormwater runoff control measures:

- Positive stormwater runoff control provided during development
- Schedule of installation, construction, modification to drainage facilities
- Erosion control measures and schedule for installation

Erosion and sedimentation control criteria:

- State approved standards
- Tree, topsoil, vegetative cover preservation and restoration
- Surface stabilization
- Runoff control measures (berms, dikes, sediment traps, barriers, etc.)
- Inlet and outlet protection
- Stream bank protection
- Schedule development activities and protection activities for minimal impact
- Landscaped areas may be used for post-construction water quality controls

Rights of Way and Easements:

- Stormwater management facilities constructed w/in easement or R-O-W, and legally accessibly for maintenance
- Minimum access width:
 - Open drainage channel or facility: 50'-0" from top of bank
 - Greenways: width of greenway
 - Pipes and culvert: 20'-0" centered
 - Detention areas: 20'-0" continuous around total area
 - Connecting access: 20'-0"
- Easements must include top of bank width and maintenance access width
- Maintenance access begins at point of bank or slope of the facility
- Additional access where required by City Manager

Maintenance Responsibility for Stormwater Management Facilities:

- Annual inspection written report, sent to City Manager
- Control weed growth, sediment, and mosquitoes/other insects
- After occupancy, Owner responsible for maintenance
- During construction, Developer responsible for maintenance
- Performance and Maintenance Security for 2 year period after completion

- Allowable discharges: waterline flushing/potable water, landscape irrigation, diverted stream flows, groundwater, footing/foundation drains, A/C condensation, springs, non-commercial car washing, wetland flows, firefighting

Drive entrances:

- Commercial: 1/4" per foot
- Residential: 1/2" per foot

Construction Site Inspection Check List
(Permit Ref. Section 4.2.4.1.5)

CONSTRUCTION SITE/LAND DISTURBANCE INSPECTION
City of Cape Girardeau, MO
Department of Public Works – Storm Water Division
2007 Southern Expressway – Cape Girardeau, MO 63703
PH: 573-339-6351 FX: 573-339-6363

PROJECT NAME: _____ INSPECTION DATE: _____

INSPECTOR: _____ CONTRACTOR CONTACT: _____

INSPECTION TYPE: PERIODIC RAIN EVENT COMPLAINT PRE-CONSTRUCTION
 DRIVE-BY COMPLETION

INSPECTION ITEMS

- | | | | |
|--|------------------------------|-----------------------------|------------------------------|
| 1. Is this site over 1 acre of land disturbance (requires MDNR Permit)? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| a. Is site notice readable and placed accessible to the public? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| b. Is SWPPP (plans, narrative) on site? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| c. Is SWPPP amended and up to date? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| d. Are inspections being done and kept on site? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| 2. Are adjacent streets clean and free from construction site track-out? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| 3. Perimeter controls are installed and maintained properly (i.e. no holes)? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| 4. Inlet Protection controls are installed and maintained properly? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| 5. Sediment Traps are installed and maintained properly? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| 6. Check dams are installed and maintained properly? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| 7. Concrete wash-out and trash handled properly? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |

COMMENTS ON ITEMS MARKED "NO" ABOVE OR ADDITIONAL COMMENTS:

INSPECTORS SIGNATURE:

ACTION ITEMS FOR CONTRACTOR TO REMEDY BY NEXT INSPECTION:

ACKNOWLEDGED BY (CONTRACTOR SIGNATURE: _____

DATE: _____

SWPPP Review Check List
(Permit Ref. Section 4.2.4.1.1)

SWPPP Checklist

Section 1: Contact Information/Responsible Parties

- Contact information (name, role, address, phone, fax, email) for:
 - Construction site Operator
 - Subcontractor(s)
 - Company SWPPP is prepared for
 - Company SWPPP is prepared by
 - Emergency 24-hour contact
 - Owner's Development Stormwater Team
- Date of:
 - SWPPP preparation
 - Estimated project start
 - Estimated project completion

Section 2: Site Evaluation, Assessment and Planning

- Project/site information, including address, subdivision, latitude/longitude
- Indicate if site is located in Indian Country lands or has religious/cultural significance to an Indian tribe, including tribe name
- Is project in response to a public emergency, such as a natural disaster, and if so, provide substantiating information and description of construction
- Does project discharge stormwater into an MS4?
- List of receiving waters that receive stormwater directly from site or the MS4
- List of Impaired waters/TMDL, including pollutants, if TMDL has been completed, title of TMDL, pollutants for which there is a TMDL, method for determining if site discharges to an impaired water
- List of Tiered waters and which tier
- Description of project, including total size (in acres), area of construction, and area of phases
- Construction support activities such as batch plants, staging yards, material storage, etc. and contact information for responsible parties
- Description of each phase of project, including approximate start and end dates, identifying areas for stormwater control, list of stormwater control measures, and estimated date of removing stormwater controls
- Types of allowable non-stormwater discharges present at site – also indicate on site map – refer to Chapter 23 of the City of Cape Girardeau's ordinance for allowable non-stormwater discharges
- Site maps: undeveloped site, developed site, site phases,

Section 3: Documentation of Compliance with other Federal Requirements

- Determine if endangered species or their habitat are at the site, and provide source of information. Eligibility criteria:
 - A. No federally listed threatened/endangered species or habitats at site. Provide source of threatened/endangered species info: USFWS or NMFS, public species list or other source.
 - B. Discharges and discharge-related activities were addressed in another Operator's certification of eligibility, that still has NPDES permit coverage. Agree to abide by effluent limitations/conditions in other Operator's certification. Provide tracking number from other Operator's NOI.
 - C. Federally listed threatened/endangered species are likely to occur at site but site activities and discharge are not likely to adversely affect species or habitat. Provide list of species in action area and distance between site and critical habitats. Include site map with NOI.

- D. Coordination w/ service indicates discharges and activities are not likely to adversely affect species or critical habitat. Include correspondence with Service in SWPPP and NOI.
- E. Consultation completed between Federal Agency and US Fish & Wildlife Service and/or National Marine Fisheries Services. Addressed effects of discharges and activities on species and critical habitat. Results conclude that site activities and discharges not likely to jeopardize existing species or critical habitat OR written concurrence from Services that discharges and activities are not likely to jeopardize species or habitat. Include correspondence in SWPPP and NOI.
- F. Construction activities authorized through permit under Section 10 of ESA, addressing effects of discharges and activities on species and habitat. Include correspondence in SWPPP and NOI.
- Determine if project is a historic property? If so, identify stormwater controls, determine if stormwater controls will impact historic property and provide documentation
- What type of stormwater controls will be installed:
 - Dike
 - Berm
 - Catch Basin
 - Pond
 - Stormwater Conveyance Channel
 - Culvert
 - Other
- Will subsurface earth disturbing stormwater controls effect historic properties?
- Include correspondence with THPO, SHPO or tribal representatives
- Safe Drinking Water Act Underground Injection Control – are any of the following installed:
 - Infiltration trenches
 - Pre-cast/pre-built subsurface detention vaults/chambers/etc to capture/infiltrate stormwater flow
 - Drywell/seepage pit/improved sinkholes

Section 4: Erosion/Sediment Controls

- Are any surface waters w/in 50'-0" of construction disturbances?
 - Provide/maintain 50'-0" natural buffer
 - 50'-0" Natural buffer + erosion/sediment controls
 - Infeasible to provide natural buffer + erosion/sediment control that reduce sediment load equivalent to 50'-0" natural buffer.
 - Buffer exceptions:
 - No discharge of stormwater to the surface water
 - No natural buffer exists
 - Linear project where compliance alternatives are infeasible
 - Small residential lot construction
 - Buffer disturbances authorized under CWA Section 404 Permit
 - Buffer disturbances occur (pier, boat ramp, trail)
- Identify the following controls, including description, specs, instructions for installation and maintenance, approximate installation date:
 - Perimeter Controls
 - Sediment track out controls
 - Stockpiled Sediment/Soil Controls
 - Dust Minimization Controls
 - Steep Slope Controls
 - Topsoil Controls
 - Soil Compaction Controls
 - Storm Drain Inlet Controls

- Stormwater Conveyance Channel Controls
- Sediment Basin Controls
- Chemical Treatment Controls
- Dewatering Practices
- Other Stormwater Controls
- Site Stabilization Controls: Vegetative/Nonvegetative/Temporary/Permanent

Section 5: Pollution Prevention Standards

- Identify Potential Sources of Pollution at site including pollutant-generating activity, identify pollutants that could be discharged in stormwater, location on site of pollutant
- Identify spill prevention/response procedures
- Identify Pollution Prevention Practices for:
 - Fueling/vehicle maintenance
 - Equipment/vehicle washing
 - Storage/handling/disposal of construction products/materials/wastes
 - Pesticides/herbicides/insecticides/fertilizers/landscape materials
 - Diesel Fuel/Oil/Hydraulic Fluids/Other petroleum products and chemicals
 - Hazardous/toxic wastes
 - Construction and domestic waste
 - Sanitary waste
 - Washing of applicators/containers for paint/concrete/other materials
 - Fertilizers
 - Other Pollution Prevention practices

Section 6: Inspection and Corrective Action

- Inspection Personnel and Procedures:
 - List of inspection personnel
 - Inspection schedule/frequency
 - Rain gauge location
 - Reduction in inspection frequency due to stabilization, drought or freeze
 - Inspection report form template
- Corrective action
 - List of personnel responsible for corrective action
 - Corrective action form template
- Delegation of authority
 - Designate authorized representative, including company name, position, address, phone number, fax and email

Section 7: Training

- List of names of personnel completing ESC training and date training completed

Section 8: Certification and Notification

- Certification indicating the SWPPP was prepared by qualified personnel, and the completeness and accuracy of the information, including printed name, title, signature and date

SWPPP Attachments

- Site Maps, including location map, phase maps, existing and proposed contours, and indicating areas of disturbance, controls, temporary structural and stabilization practices, material/waste/equipment storage areas, locations of surface waters and discharge points, final and permanent stabilization measures
- Missouri DNR Land Disturbance Permit
- NOI

- Inspection Form – include date, name/qualification of inspector, weather information, location of sediment/pollution discharge, BMPs requiring maintenance, BMPs that have failed, BMPs that are needed, corrective actions, updates to SWPPP, signed/certified
- Corrective Action Form
- SWPPP Amendment Log – include description of amendment, date of amendment, and name/title of who prepared amendment
- Subcontractor Certifications/Agreements – subcontractor's agreement to comply with SWPPP
- Grading and Stabilization Activities Log – include date grading initiated and ended, description of grading, description and location of stabilization measures, date of stabilization measures
- Training Log – instructor's name/title, course location/date, training topic, attendee roster
- Delegation of Authority
- Endangered Species documentation
- Historic Preservation Documentation

Appendix 7

City Issued Development Permits (Permit Ref. Section 4.2.4.1.1)

Stormwater Management Permit



STORMWATER MANAGEMENT PERMIT/APPLICATION
CITY of CAPE GIRARDEAU

DEVELOPMENT SERVICES DEPARTMENT, 401 INDEPENDENCE ST, CAPE GIRARDEAU, MO 63703 (573) 339-6327

Application For: Grading/Fill Only Site Development Development of Entire Project

Development of Phase(s) _____ of _____ Subdivision Development Area of Site _____ (acres or S. F.)

Project Title _____

Property Address/Location (If no address, attach legal description) _____

Brief Description of Work to be Performed (Attach plans) _____

Applicant		Property Owner (if other than Applicant)	
Mailing Address	City, State, Zip	Mailing Address	City, State, Zip
Telephone	Email/Fax	Telephone	Email/Fax
Professional Engineer's Name		Professional Engineer's Firm	
Address		City, State, Zip	
Telephone	Fax	Email	

CERTIFICATION

I, THE UNDERSIGNED, DO HEREBY STATE THAT I HAVE READ AND FULLY UNDERSTAND THE PROVISIONS OF THIS APPLICATION AND FURTHER, BY MY SIGNATURE, I HEREBY AGREE TO MAINTAIN COMPLIANCE WITH THE CITY OF CAPE GIRARDEAU STORMWATER MANAGEMENT REGULATIONS. ANY CHANGES IN OR EXPANDED SCOPE OF THAT REPRESENTED HEREIN WILL NECESSITATE SUBMITTAL OF A REVISED PLAN AND APPLICATION.

 Applicant Signature _____
 Date

 Applicant Printed Name

OFFICE USE ONLY

Date Received _____ Received By (Initials) _____

Permit Number _____

Reviewed By: Engineering _____ (initial) Planning _____ (initial)

Copies to: Engineering Inspection Services Development Permit File

Approved By: _____ Date: _____

**CITY OF CAPE GIRARDEAU
STORMWATER MANAGEMENT PERMIT/APPLICATION
INFORMATION SHEET**

Cape Girardeau, Mo. Stormwater Management Regulations (Ordinance No. 253, dated Aug. 15, 2011) require that positive stormwater run-off and erosion control measures must be taken during construction of any stormwater management facility.

Any stormwater management facility for which a permit has been issued as a part of a subdivision improvement plan must be included with as-built drawings and certified to have been constructed accordingly.

Any stormwater management facility for which a permit has been issued individually or as a part of a site development plan must be certified to have been constructed in conformance with the approved drawings prior to issuance of an occupancy permit.

If located in a designated floodplain, a Floodplain Development Permit is required before any work begins.

A DNR Land Disturbance Permit is required for construction sites of one (1) acre or more in area.

Provide a stormwater pollution prevention plan, in accordance with Chapter 23 of the City of Cape Girardeau Code of Ordinances.

Floodplain Development Permit



FLOODPLAIN DEVELOPMENT PERMIT/APPLICATION
CITY of CAPE GIRARDEAU

DEVELOPMENT SERVICES DEPARTMENT, 401 INDEPENDENCE ST, CAPE GIRARDEAU, MO 63703 (573) 339-6327

Permit fee:
 Development in Floodplain - \$25
 Development in Floodway - \$50

Project Title _____	Area of Site (acres or Sq. Ft.) _____
---------------------	---------------------------------------

Property Address/Location – or Legal Description (if no address) _____

Type of Development (Check one; attach plans) Filling Grading Excavation New Construction Improvement/Addition

If improvement, cost of improvement: _____ Fair Market Value pre-improvement _____

Principal Use _____	Accessory uses (storage, parking, etc.) _____
---------------------	---

Are the proposed improvements located in a designated: Floodway Floodplain Fringe
 (NOTE: If the answer is "floodway," certification must be provided prior to the issuance of a permit that proposed development will result in no increase in the base flood (100-year) elevation.

Elevation of the 1% Annual Chance Flood (BFE) _____	Source (map panel number) _____
---	---------------------------------

Elevation of the proposed development site _____	Elevation/floodproofing requirement (min at or above BFE) _____
--	---

Applicant		Property Owner (if other than Applicant)	
Mailing Address _____	City, State, Zip _____	Mailing Address _____	City, State, Zip _____
Telephone _____	Email/Fax _____	Telephone _____	Email/Fax _____

Professional Engineer's Name _____		Professional Engineer's Firm _____	
Address _____		City, State, Zip _____	
Telephone _____	Fax _____	Email _____	

Other Required Permits (applicant is responsible for obtaining):

MoDOT Right-of-Way City Stormwater City Building Permit

State of Missouri (e.g., MoDNR Land Disturbance permit for sites of 1 acre or more)

Corps of Engineers (e.g., Section 404, Clean Water Act for dredging, filling channel changes, in or beside rivers or streams, and for wetland considerations.)

CERTIFICATION

I, THE UNDERSIGNED, DO HEREBY STATE I HAVE READ AND FULLY UNDERSTAND THE PROVISIONS OF THIS APPLICATION AND FURTHER, BY MY SIGNATURE, I HEREBY AGREE TO MAINTAIN COMPLIANCE WITH THE CITY OF CAPE GIRARDEAU FLOODPLAIN DEVELOPMENT ORDINANCE REGULATIONS, AND ALL OTHER APPLICABLE CITY ORDINANCES AND THE LAWS AND REGULATIONS OF THE STATE OF MISSOURI. THE UNDERSIGNED HEREBY MAKES APPLICATION FOR A PERMIT TO DEVELOP IN A FLOODPLAIN OR FLOOD-PRONE AREA. THE WORK TO BE PERFORMED, INCLUDING FLOOD PROTECTION WORKS, IS AS DESCRIBED ABOVE AND IN ATTACHMENTS HERETO. ANY CHANGES IN OR EXPANDED SCOPE OF THAT REPRESENTED HEREIN WILL NECESSITATE SUBMITTAL OF A REVISED PLAN AND APPLICATION.

_____ Applicant/Owner Signature	_____ Date
_____ Owner/Agent Printed Name	

OFFICE USE ONLY

Date Received _____	Received By (Initials) _____	Payment Date _____	Permit Number _____
---------------------	------------------------------	--------------------	---------------------

Comments or Conditions: _____

Approved By: _____ Date: _____

**CITY OF CAPE GIRARDEAU
FLOODPLAIN DEVELOPMENT PERMIT/APPLICATION
INFORMATION SHEET**

All provisions of the Floodplain Management Regulations (Ordinance No. 9245, dated Aug. 15, 2011) of the City of Cape Girardeau shall be complied with.

Issuance of this permit will be with the condition that the lowest floor (including basement) of any new or substantially improved residential structure will be elevated to or above the base flood elevation. If the proposed development is a non-residential structure, issuance of this permit will be with the condition that the lowest floor (including basement) of any new or substantially improved structure will be elevated or floodproofed to or above the base flood elevation.

Issuance of this permit will be with the condition that the developer/owner will provide an elevation certification prepared by a registered engineer, architect, or land surveyor of the "as-built" lowest floor elevation of any new or substantially improved structure covered by the permit, or for a floodproofed non-residential structure, a flood proofing certificate, before structure can be occupied.

Appendix 8

City of Cape Stormwater Web Page (Permit Ref. Section 4.2.1.1.2)

https://www.cityofcapegirardeau.org/departments/public_works/stormwater

City of Cape website Stormwater Maintenance page



ABOUT

DEPARTMENTS

BUSINESS

VISIT

I WANT TO...

EN



Stormwater

Home / Departments / Public Works / Stormwater



Stormwater Maintenance

The City of Cape Girardeau has almost 5,500 storm drain inlets and 200 miles of drainage pipe. The Stormwater Division of Public Works is responsible for maintenance and repair of the storm drain system in the public right-of-way and within drainage easements.

Storm drains are designed to handle normal water flow, but occasionally during heavy rain, flooding will occur. Our goal is to limit the number of flooding incidents by keeping our drains clear. Some flooding is caused by issues on private property and must be addressed by the property owner. The Stormwater Division manages Cape's stormwater needs by providing the following services:

- Clearing debris from drains, pipes and creeks
- Repairing/controlling erosion
- Repairing and maintaining existing infrastructure
- Mowing city detention basins
- Places slow releasing tablets of insecticide to control mosquito larva
- Maintains the levee and pump stations for **downtown flood control**
- Mows weed abatement lots as ordered by the Nuisance Abatement Division of the Police Department
- Manages **storm Drain Stenciling** Program
- **Parks, Recreation & Stormwater Tax Program**, passed in 2008 identified 12 Capital Improvement Projects with an estimated cost of \$3 million -- 10 of these projects are complete

Holiday Schedule

Trash & Recycling Day Map

Trash & Recycling Handbook

New Accounts & Utility Bill

Stormwater Pollution Prevention

Leaf Brochure

Snow Brochure

Report a Problem

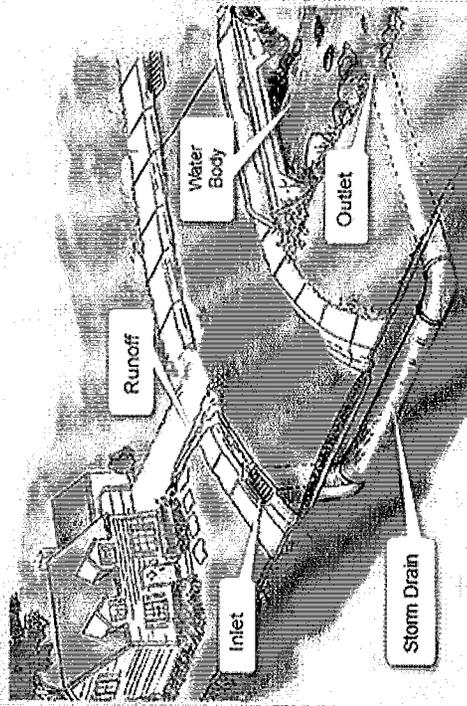
Interactive City Map





Stormwater Pollution Prevention

The Stormwater Division maintains the flow of stormwater through Cape Girardeau. Stormwater is rain that falls on streets, roofs, parking lots, and other surfaces. It then flows into inlets and travels through storm drains to creeks, streams, rivers, or other bodies of water. Since the water is not filtered, everything in the pipelines is released into the waterways. You should never pour any chemicals or hazardous materials on the ground or down the storm drains. Pollution harms everything that relies on the water source including plants, fish, wildlife, and humans. Even moderate pollution can damage the water supply. Most of Cape Girardeau's stormwater ends up in the Mississippi River, which is a drinking source for many communities.



What can you do to prevent stormwater pollution?

- Participate in our [Storm Drain Stenciling Program](#)
- Remember that only rain belongs in the drain
- Don't blow your yard clippings into the street
- Plant native, low-maintenance plants and grasses
- Use fertilizers sparingly and sweep up driveways, sidewalks, and gutters
- Don't overwater your lawn or garden
- Use less toxic pesticides and be sure to follow labels
- Direct downspouts away from paved surfaces; consider a [rain garden](#) to capture runoff
- Install a rain barrel or cistern to capture roof runoff
- Wash your car at a car wash or over gravel instead of your driveway
- Check your vehicle for leaks and [recycle your motor oil](#)
- Pick up after your pet
- Put trash in proper receptacles - DON'T LITTER

Holiday Schedule

Trash & Recycling Day Map

Trash & Recycling Handbook

New Accounts & Utility Bill

Leaf Brochure

Snow Brochure

Report a Problem

Appendix 9

Parks Dept Newsletter Insert (Permit Ref. Section 4.2.1.1.2)

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

Iterative Process for BMP Evaluation

(Permit Ref. Section 4.1.1.4)

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 20% of the BMP's in each MCM category. This will accomplish a review of all BMP's over the five year term of the MS4 permit.

The annual review of BMP's will be performed by city staff and stakeholders. If changes are recommended to the SWMP then a Public Hearing process will be initiated.

The iterative review process will generally be:

- City staff will initiate the process by selecting the BMP's to be reviewed.
- 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.
- The list of BMP's and associated information will be sent to the stakeholders on the stakeholder list.
- A comment period of not less than 15 days will be set to receive comments from City staff and stakeholders.
- 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 bi-annual report to Mo DNR.
- If changes to the SWMP are proposed, the draft SWMP revision report will be prepared. This document will be made available for public comment through the Public Notice and Public Hearing process described in Appendix 12 of the SWMP.

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

Storm Drain Marking

(Permit Ref. Section 4.2.1.1.4)

**Storm Drain Stenciling Program
Overview**

The City of Cape Girardeau is excited to have a program that allows volunteers to participate in the City's water pollution prevention efforts. The Storm Drain Stenciling Program is set up to allow volunteers of all ages, and from all areas of the community, to participate.

The Stenciling Program has volunteers paint a message on the storm drain inlets that informs the public "No Dumping Drains to River". This will increase people's awareness of the pollution impact of dumping waste in a drain.

The City will provide the supplies for this program to volunteers or volunteer groups. Coordination of the work should be done through the City's Stormwater Coordinator.

The Guidelines and Liability Waiver Form can be viewed and printed from the City website www.cityofcapegirardeau.org

Volunteers interested in participating in the program can contact:

Stan Polivick, Storm Water Coordinator
573-339-6351
spolivick@cityofcapegirardeau.org

NO DUMPING



DRAINS TO RIVER

Guidelines for Storm Drain Stenciling

These guidelines are to be followed by volunteers stenciling the "No Dumping ... Drains To River" message on City storm drain inlets.

1. Each volunteer (or their parent / guardian) must sign the Waiver / Release Form provided by the City Public Works Department. These Waiver Forms must be delivered to the Public Works Dept prior to any work being done.
2. When children under the age of 16 are involved in the work an adult supervisor is to be present at all times at each work site. The City will not provide any supervision.
3. All volunteers must be aware of the need to exercise caution for safety when working around the streets and storm drains.
4. All volunteers are to wear a high visibility safety vest when working on the stenciling program. The City will allow volunteers to borrow safety vests. Volunteers should take care not to damage or mar the safety vests. Volunteers will be asked to pay for damaged safety vests.
5. An orange safety cone is to be placed at the edge of street a short distance away from the work area to warn approaching traffic of the work area. The City will allow the volunteers to borrow the safety cones.
6. The stencil will be provided by the City Public Works Department. The paint will be provided by the City Public Works Department.
7. The volunteer group will advise the City Public Works Department of the locations where the stenciling will be done. The Public Works Dept. may provide suggestions on where to do the stenciling.
8. The volunteer group will coordinate with the City Public Works Department to schedule when the work will be done. Every effort will be made to accommodate the preferences of the volunteers.
9. The volunteer group will provide a report to the Public Works Dept when the work is complete. This report will give the locations where the stenciling was done and the dates.
10. The volunteer group is to return to the Public Works Department any unused paint, the stencils, all safety vests, and all safety cones when the work is completed.

Guidelines for Storm Drain Stenciling

These guidelines are to be followed by volunteers stenciling the "No Dumping ... Drains To River" message on City storm drain inlets.

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8. The volunteer group will coordinate with the City Public Works Department to schedule when the work will be done. Every effort will be made to accommodate the preferences of the volunteers.
9. The volunteer group will provide a report to the Public Works Dept when the work is complete. This report will give the locations where the stenciling was done and the dates.
10. The volunteer group is to return to the Public Works Department any unused paint, the stencils, all safety vests, and all safety cones when the work is completed.

CITY of CAPE GIRARDEAU

PUBLIC WORKS DEPARTMENT

Storm Drain Stenciling Program Waiver & Release of Liability Form

In consideration of participation in the City of Cape Girardeau Storm Drain Stenciling Program the undersigned acknowledges and agrees that:

- There is potential risk of injury when performing the work to stencil storm drains due to the location of the drains at the edge of the street and near moving traffic. These injuries could be significant, even resulting in death. The risk of injury can be diminished by use of proper safety equipment and safety precautions, however, the potential risk of injury cannot be eliminated.
- I knowingly and freely assume all such risks, both known and unknown, even if arising from the negligence of others, and assume full responsibility for my participation.
- I willingly agree to comply with the stated and customary guidelines for participation.
- I, for myself and on behalf of my heirs, assigns, personal representative, and next of kin, hereby release and hold harmless the City of Cape Girardeau, their officials, officers, agents, and /or employees, with respect to any and all injury, disability, death or loss or damage to person or property whether arising from the negligence of others or otherwise.
- I have read this release of liability and assumption of risk agreement, fully understand its terms, understand that I have given up substantial rights by signing and sign it freely and voluntarily without any inducement

Name of Volunteer

Signature of Volunteer

OR

Name of Parent or Guardian

Signature of Parent of Guardian

Date Signed

Address of Volunteer

Storm Drain Stenciling Program Overview

The City of Cape Girardeau is excited to have a program that allows volunteers to participate in the City's water pollution prevention efforts. The Storm Drain Stenciling Program is set up to allow volunteers of all ages, and from all areas of the community, to participate.

The Stenciling Program has volunteers paint a message on the storm drain inlets that informs the public "No Dumping Drains to River". This will increase people's awareness of the pollution impact of dumping waste in a drain.

The City will provide the supplies for this program to volunteers or volunteer groups. Coordination of the work should be done through the City's Stormwater Coordinator.

The Guidelines and Liability Waiver Form can be viewed and printed from the City website www.cityofcapegirardeau.org

Volunteers interested in participating in the program can contact:

Stan Polivick, Storm Water Coordinator
573-339-6351
spolivick@cityofcapegirardeau.org

NO DUMPING



DRAINS TO RIVER



NO DUMPING
DRAINS TO RIVER

Appendix 12

Public Notice and Public Hearing Process (Permit Ref. Section 4.2.2)

Cape Girardeau MS4 Stakeholders Listing (Permit Ref. Section 4.2.2.1.3)

MS4 SWMP Public Notice and Public Hearing Protocol

The process described below is to be followed for Public Hearings related to the City of Cape Girardeau MS4 Stormwater Management Plan (SWMP). This describes what will prompt the calling of a Public Hearing, how the Public Hearing will be conducted, the Public Notice procedure to announce the Public Hearing and the Public Comment period.

Public Notice

When a Public Hearing is to be held for the City SWMP a Public Notice will be issued. The Notice will provide information on the date, time, and location of the Public Hearing. It will describe the public comment period associated with the Public Hearing. It will indicate how the public can access the SWMP and provide guidance for how comments can be submitted to the City. It will provide a brief description of the matters to be discussed at the Public Hearing. The Public Notice will be posted on the City website, posted on City social media, and run at least one time in the local newspaper. In addition the Public Notice will be emailed to the stakeholders list. The Public Notice will be issued no less than 3 calendar days prior to the Public Hearing.

Determination For Calling A Public Hearing

The City may call a Public Hearing for the SWMP at any time. Commonly this will be for review of any updates or proposed changes to the SWMP document. The updates or changes could be prompted by the annual review process or a need for changes between annual reviews. A Public Hearing may be called for discussion of credible concerns or complaints from the community.

Public Hearing

A Public Hearing for discussion of the SWMP will be held as an item on an agenda at a City Council meeting. The City Council has established procedures for conducting Public Hearings and these will be followed for the SWMP Public Hearing. The matter will be introduced, comments by the public will be received and noted, discussion by City Council and City Staff may occur, and the Public Hearing will be closed. The public will be advised of how to submit written comments. A record of the Public Hearing will be part of the usual City Council minutes of the meeting.

Public Comment Period

The public comment period for a Public hearing will typically be 30 calendar days. For reasonable and credible circumstances the City may choose to have a shorter public comment period. In no circumstance will the public comment period be less than 15 calendar days. The Public Comment period will begin on the day of the Public Hearing. Interested parties will be able to submit written comments regarding the MS4 SWMP by email, by letter sent through United States Postal Service, by social media, or by hand delivery to Development Services Department or the Public Works Department.

Conclusion of Public Hearing Process

After the Public Hearing and the close of the Public Comment period all comments received will be reviewed by City Staff and stakeholders. This review will be completed within 30 days of the close of the Public Comment period. Upon completion of the review and consideration of the received comments the SWMP update will be completed and submitted to MoDNR.

		MS4 Permit Stakeholders	
		10/30/2017	
	Group	Company	Address
1	Developers	Drury SW	101 S. Farrar Dr. Cape Girardeau, MO 63701
		Drury SW	101 S. Farrar Dr. Cape Girardeau, MO 63701
2		Mid-America Motels	105 S. Mt. Auburn Road Cape Girardeau, MO 63703
3		Mayson Capital Partners, LLC	1610 N. Kingshighway, Suite 301 Cape Girardeau, Mo 63701
4		Rhodes Group	2301 Bloomfield Rd Cape Girardeau, Mo 63701
5		R. Hetzel Properties	309 N. Frederick St Cape Girardeau, MO 63701
6			
8	Government	City of Cape PW	2007 Southern Expressway Cape Girardeau, Missouri 63703
9		City of Cape Planning	401 Independence Street Cape Girardeau, MO 63701
10		City of Cape Engineering	401 Independence Street Cape Girardeau, MO 63701
11		City of Cape Inspections	401 Independence Street Cape Girardeau, MO 63701
12		City of Cape Development Services	401 Independence Street Cape Girardeau, MO 63701
13		City of Cape Public Information	401 Independence Street Cape Girardeau, MO 63701
14		City of Cape Parks	410 Kiwanis Cape Girardeau, MO 63701
15			
16	Community Organization	Old Town Cape	338 Broadway St, Suite 401 Cape Girardeau, MO 63701
17	NonProfit / Community Partner	Community Caring Counsel	937 Broadway, Suite 306 Cape Girardeau, MO 63701
18			

19	Engineer / Arch	Kochler Engineering	194 Coker Lane Cape Girardeau, MO 63701
20		Bowen Engineering	2121 Megan Drive Cape Girardeau, MO 63701
21		KLG Engineering	2909 Baker Farm Circle Cape Girardeau, Mo 63701
22		Phillip Smith Architect, LLC	332 South Silver Springs Road Cape Girardeau, MO 63703
23			
24	Hospitals	St. Francis	211 Saint Francis Dr Cape Girardeau, MO 63701
25		SE Health	1701 Lacey St Cape Girardeau, MO 63701
26			
27	Businesses	Lowes	3440 Lowes Dr Cape Girardeau, MO 63701
		Walmart	3439 William Street Cape Girardeau 63701
28		Sams	Cape G232 Shirley Dr Cape Girardeau, MO 63701
29		Menards	535 Siemers Dr Cape Girardeau, MO 63701
30		Orscheln Farm Supply	338 Christine St Cape Girardeau, MO 63703
31		Tractor Supply	501 South Kings Hwy Cape Girardeau, MO 63701
32		Sunny Hill Nursery	206 N Kingshighway St Cape Girardeau, MO 63701
33		Buzzi	2524 South Sprigg Street Cape Girardeau, Missouri 63702
34		Delta Companies	114 South Silver Springs Rd Cape Girardeau, MO 63701
35		Ameren	45 S. Minnesota Cape Girardeau, MO 63701
36		Finish Line Oil Change	889 N Kingshighway St Cape Girardeau, MO 63701
37		Kidds	1759 Wilson Rd Cape Girardeau, Mo 63703
38		Isle of Capri	777 North Main Street Cape Girardeau, Mo 63701
39			

40				
42	<u>Schools/ Univ</u>	Cape Public Schools	301 Clark St Cape Girardeau, MO 63701	
43		SEMO University	One University Plaza MS 7700 Cape Girardeau, Mo 63701	
44		St. Vincents	1919 Ritter Dr Cape Girardeau, MO 63701	
45		Notre Dame	265 Notre Dame Dr Cape Girardeau, MO 63701	
46				
47	<u>Contractors</u>	Fronabarger Concreters	3290 State Hwy E Oak Ridge, MO 63769	
48		Boulder Construction	2075 Corporate Circle Cape Girardeau, MO 63703	
49		Nip Kelley	41 North Sprigg Cape Girardeau, MO 63701	
50		Zoellner	875 Pcr 500 Perryville, MO 63775	
51		Columbia Construction	P.O. Box 1332 Cape Girardeau, MO 63702	
52		Kiefner Bro's	1459 N Kingshighway Cape Girardeau, MO 63701	
53		Penzel Construction	325 W Jackson Blvd Jackson, MO 63755	
54				

Appendix 13

Illicit Discharge Procedures & Policies

(Permit Ref. Section 4.2.3.1.4)

Dry Weather Screening Process

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 designated outfalls in the priority areas 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 designated outfalls each year. This will accomplish the screening of all designated outfalls during the permit period.

The attached form will be used for the dry weather screening at each of the designated 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 designated 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 Back Tracking Illicit Discharges

(Permit Ref. Section 4.2.3.1.3; 4.2.3.1.6)

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.

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.

Proper actions to correct or clean the impacted areas will be implemented as quickly as possible.

Septic Tank Policy

(Permit Ref. Section 4.2.3.1.4)

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

(Permit Ref. Section 4.2.3.1.1)

Designated Constructed Outfall List

(Permit Ref. Section 4.2.3.1.1)

Designated Constructed Outfall Map

(Permit Ref. Section 4.2.3.1.1)

CAPE GIRARDEAU MS4 OUTFALL LIST

FACILITY ID	OWNERSHIP	OUTFALL	REP	RECEIVING STREAM	X coord	Y coord	Type
10410	City of Cape			VETERAN'S FORK	1081826	544306	PIPE OUTLET
10557	Privately Owned			BRECKENRIDGE BRANCH	1089596	544956	PIPE OUTLET
10955	City of Cape			RAMSEY BRANCH	1092341	522747	PIPE OUTLET
11559	City of Cape			SCIVALLY BRANCH	1096536	546451	PIPE OUTLET
11561	City of Cape			SCIVALLY BRANCH	1096526	546487	PIPE OUTLET
11571	City of Cape	Yes		SCIVALLY BRANCH	1096321	545833	PIPE OUTLET
11614	City of Cape			SCIVALLY BRANCH	1096371	545889	PIPE OUTLET
11617	City of Cape			SCIVALLY BRANCH	1096554	545341	PIPE OUTLET
11618	City of Cape			SCIVALLY BRANCH	1096580	545340	PIPE OUTLET
11623	City of Cape			SCIVALLY BRANCH	1096567	545289	PIPE OUTLET
11624	City of Cape			SCIVALLY BRANCH	1096592	545296	PIPE OUTLET
11659	City of Cape			WALKER BRANCH	1097221	543721	PIPE OUTLET
11680	City of Cape			WALKER BRANCH	1097006	543089	PIPE OUTLET
11684	City of Cape	Yes		WALKER BRANCH	1096370	541332	PIPE OUTLET
11687	City of Cape			WALKER BRANCH	1096921	542661	PIPE OUTLET
11691	City of Cape			WALKER BRANCH	1097036	543295	RIP RAP AREA
11761	City of Cape			WALKER BRANCH	1096747	541753	PIPE OUTLET
11866	City of Cape			WALKER BRANCH	1097107	543451	PIPE OUTLET
12035	City of Cape			SCIVALLY BRANCH	1096564	548721	PIPE OUTLET
12036	City of Cape			SCIVALLY BRANCH	1097012	548228	PIPE OUTLET
12037	City of Cape			SCIVALLY BRANCH	1097020	548183	PIPE OUTLET
12056	City of Cape			SCIVALLY BRANCH	1096147	550966	PIPE OUTLET
12059	City of Cape			SCIVALLY BRANCH	1096220	550531	PIPE OUTLET
12079	City of Cape			SCIVALLY BRANCH	1096412	549296	PIPE OUTLET
12229	City of Cape			SCIVALLY BRANCH	1096159	551514	PIPE OUTLET
12284	City of Cape			CAPE LA CROIX CREEK	1092607	555300	PIPE OUTLET
12302	City of Cape			MISSISSIPPI RIVER	1112466	546324	PIPE OUTLET
12303	City of Cape			MISSISSIPPI RIVER	1112475	546260	PIPE OUTLET
12315	City of Cape			JUDEN CREEK	1108742	550606	PIPE OUTLET
12594	City of Cape			CAPE LA CROIX CREEK	1088632	550699	PIPE OUTLET
12619	City of Cape			CAPE LA CROIX CREEK	1089466	548570	PIPE OUTLET
12622	City of Cape			CAPE LA CROIX CREEK	1089963	547634	PIPE OUTLET
12767	City of Cape			SLOAN CREEK	1106319	541133	PIPE OUTLET
12838	City of Cape			SLOAN CREEK	1103729	544236	PIPE OUTLET
12840	Privately Owned			SLOAN CREEK	1103636	544380	PIPE OUTLET
12842	Privately Owned			SLOAN CREEK	1103530	544456	PIPE OUTLET
12843	Privately Owned			SLOAN CREEK	1103246	544968	PIPE OUTLET

12844	City of Cape		SLOAN CREEK	1103240	545050	PIPE OUTLET
13005	Privately Owned		CAPE LA CROIX CREEK	1095130	536946	PIPE OUTLET
13318	City of Cape		WALKER BRANCH	1096140	540961	PIPE OUTLET
13365	City of Cape		RAMSEY BRANCH	1092132	522430	PIPE OUTLET
13367	City of Cape		RAMSEY BRANCH	1092141	522392	PIPE OUTLET
13418	City of Cape		WALKER BRANCH	1096086	539191	PIPE OUTLET
13422	City of Cape		WALKER BRANCH	1096071	539547	PIPE OUTLET
13460	City of Cape		CAPE LA CROIX CREEK	1090436	542608	PIPE OUTLET
13472	Privately Owned		WALKER BRANCH	1096178	537971	RIP RAP AREA
13535	Privately Owned	Yes	JUDEN CREEK	1109645	550096	PIPE OUTLET
13579	City of Cape		CAPE LA CROIX CREEK	1096020	534972	PIPE OUTLET
13616	City of Cape	Yes	CAPE LA CROIX CREEK	1096133	534204	PIPE OUTLET
13627	City of Cape	Yes	CAPE LA CROIX CREEK	1095845	535519	PIPE OUTLET
13633	City of Cape		WALKER BRANCH	1095819	535897	PIPE OUTLET
13638	City of Cape		WALKER BRANCH	1095822	535986	PIPE OUTLET
13641	City of Cape		CAPE LA CROIX CREEK	1096095	534041	PIPE OUTLET
14194	City of Cape		BRECKENRIDGE BRANCH	1086497	545534	PIPE OUTLET
14230	City of Cape	Yes	BRECKENRIDGE BRANCH	1089110	545033	PIPE OUTLET
14231	City of Cape		BRECKENRIDGE BRANCH	1089402	544993	PIPE OUTLET
14232	City of Cape		BRECKENRIDGE BRANCH	1089402	544997	PIPE OUTLET
14633	City of Cape		WALKER BRANCH	1096084	540926	PIPE OUTLET
14637	City of Cape		WALKER BRANCH	1096101	540079	PIPE OUTLET
14638	City of Cape		WALKER BRANCH	1096014	539113	PIPE OUTLET
14729	City of Cape		CAPE LA CROIX CREEK	1095165	535717	PIPE OUTLET
14730	City of Cape		CAPE LA CROIX CREEK	1095070	535786	PIPE OUTLET
15001	City of Cape		RANNEY CREEK	1083303	521557	PIPE OUTLET
15036	City of Cape		WALKER BRANCH	1095901	536648	PIPE OUTLET
15100	City of Cape		RANNEY CREEK	1083329	521612	PIPE OUTLET
15617	City of Cape	Yes	MISSISSIPPI RIVER	1106315	539730	PIPE OUTLET
15622	City of Cape		MISSISSIPPI RIVER	1105812	536085	PIPE OUTLET
15634	City of Cape		MISSISSIPPI RIVER	1105001	532761	PIPE OUTLET
16068	City of Cape		MISSISSIPPI RIVER	1105057	532962	PIPE OUTLET
16077	City of Cape		MISSISSIPPI RIVER	1105638	534970	PIPE OUTLET
16343	City of Cape	Yes	MISSISSIPPI RIVER	1106024	537542	PIPE OUTLET
16392	City of Cape	Yes	MISSISSIPPI RIVER	1106079	538875	PIPE OUTLET
16703	City of Cape		WALKER BRANCH	1097067	543135	PIPE OUTLET
16759	Privately Owned	Yes	CAPE LA CROIX CREEK	1088757	551145	FLARED END SECTION
16785	Privately Owned		CAPE LA CROIX CREEK	1092110	554637	PIPE OUTLET
16786	Privately Owned		CAPE LA CROIX CREEK	1092044	554658	PIPE OUTLET
17277			CAPE LA CROIX CREEK	1088520	550259	FLARED END SECTION

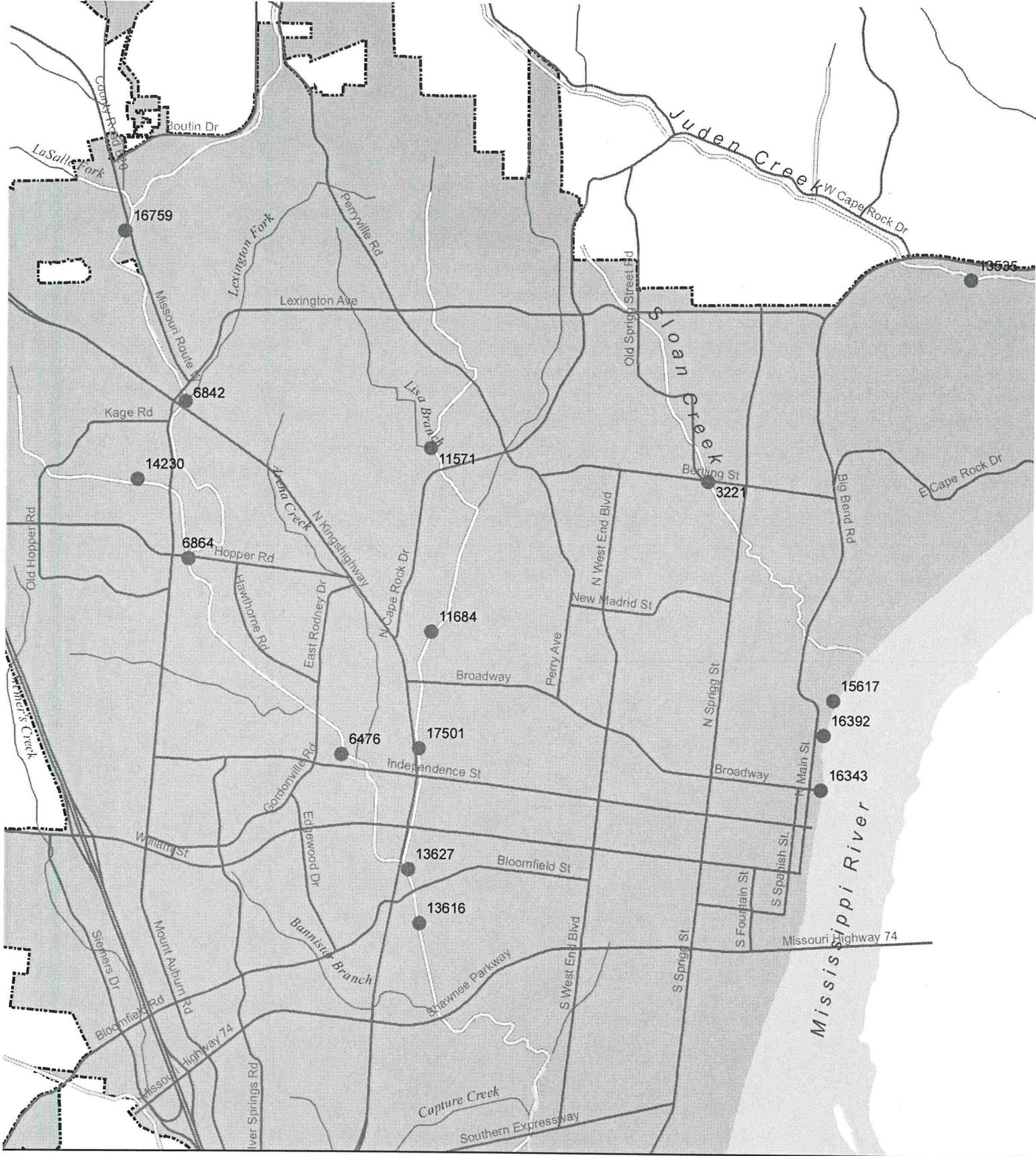
17310			CAPE LA CROIX CREEK	1098420	528547	PIPE OUTLET
17419	City of Cape		WALKER BRANCH	1096160	537816	PIPE OUTLET
17420	City of Cape		WALKER BRANCH	1096049	537372	PIPE OUTLET
17422	City of Cape		WALKER BRANCH	1096053	537147	PIPE OUTLET
17428	City of Cape		CAPE LA CROIX CREEK	1095221	535686	PIPE OUTLET
17501	City of Cape	Yes	WALKER BRANCH	1096090	538483	PIPE OUTLET
17502	City of Cape		WALKER BRANCH	1096112	538340	PIPE OUTLET
17503	City of Cape		WALKER BRANCH	1096114	537897	PIPE OUTLET
17518	City of Cape		WALKER BRANCH	1095980	536757	PIPE OUTLET
17575	City of Cape		WILLIAMS CREEK	1078039	564479	PIPE OUTLET
17671	City of Cape		CAPE LA CROIX CREEK	1090027	546429	PIPE OUTLET
2248	City of Cape		WALKER BRANCH	1096076	538588	PIPE OUTLET
2269	City of Cape		CAPE LA CROIX CREEK	1095608	535820	RIP RAP AREA
2646	City of Cape		CAPE LA CROIX CREEK	1094808	537912	PIPE OUTLET
2652	City of Cape		CAPE LA CROIX CREEK	1094877	537987	PIPE OUTLET
3201	City of Cape		SLOAN CREEK	1104132	543399	PIPE OUTLET
3220	City of Cape		SLOAN CREEK	1103164	545091	PIPE OUTLET
3221	City of Cape	Yes	SLOAN CREEK	1103185	545079	PIPE OUTLET
3222	City of Cape		SLOAN CREEK	1103144	545122	PIPE OUTLET
3836	Privately Owned		WALKER BRANCH	1096012	540441	PIPE OUTLET
3907	City of Cape		WALKER BRANCH	1096083	540144	PIPE OUTLET
3979	City of Cape		WALKER BRANCH	1097445	544040	RIP RAP AREA
3980	City of Cape		WALKER BRANCH	1097110	543287	RIP RAP AREA
3989	City of Cape		WALKER BRANCH	1096055	540356	PIPE OUTLET
3994	Privately Owned		WALKER BRANCH	1096054	540044	PIPE OUTLET
3998	City of Cape		WALKER BRANCH	1096081	539580	PIPE OUTLET
3999	City of Cape		WALKER BRANCH	1096076	539541	PIPE OUTLET
4031	City of Cape		CAPE LA CROIX CREEK	1095113	535748	PIPE OUTLET
4243	City of Cape		CAPE LA CROIX CREEK	1098897	531089	PIPE OUTLET
4305	City of Cape		CAPE LA CROIX CREEK	1097668	531875	PIPE OUTLET
4807	City of Cape		RAMSEY BRANCH	1088438	529934	PIPE OUTLET
4809	City of Cape		RAMSEY BRANCH	1088611	530036	PIPE OUTLET
4813	City of Cape		RAMSEY BRANCH	1088755	529916	PIPE OUTLET
4832	City of Cape		RAMSEY BRANCH	1089246	529851	PIPE OUTLET
5966	City of Cape		CAPE LA CROIX CREEK	1095020	536680	PIPE OUTLET
5968	City of Cape		CAPE LA CROIX CREEK	1095006	536770	PIPE OUTLET
5970	City of Cape		CAPE LA CROIX CREEK	1095027	536946	PIPE OUTLET
5973	City of Cape		CAPE LA CROIX CREEK	1095112	537233	PIPE OUTLET
5974	City of Cape		CAPE LA CROIX CREEK	1095114	537386	PIPE OUTLET
5978	City of Cape		CAPE LA CROIX CREEK	1095148	536662	PIPE OUTLET

6018	City of Cape	VETERAN'S FORK	1081853	541624	PIPE OUTLET
6024	City of Cape	VETERAN'S FORK	1081921	541250	PIPE OUTLET
6099	Privately Owned	TRIBUTARY TO VETERAN'S FORK	1081967	542787	PIPE OUTLET
6107	City of Cape	TRIBUTARY TO VETERAN'S FORK	1082456	542846	PIPE OUTLET
6177	City of Cape	CAPE LA CROIX CREEK	1093550	539390	PIPE OUTLET
6186	City of Cape	CAPE LA CROIX CREEK	1093551	539310	PIPE OUTLET
6317	City of Cape	WALKER BRANCH	1096043	538475	PIPE OUTLET
6325	City of Cape	CAPE LA CROIX CREEK	1094870	538063	PIPE OUTLET
6425	City of Cape	CAPE LA CROIX CREEK	1093324	539438	PIPE OUTLET
6428	City of Cape	CAPE LA CROIX CREEK	1093636	539431	PIPE OUTLET
6431	City of Cape	CAPE LA CROIX CREEK	1093632	539336	PIPE OUTLET
6466	City of Cape	CAPE LA CROIX CREEK	1092472	540089	PIPE OUTLET
6476	City of Cape	CAPE LA CROIX CREEK	1094194	538326	PIPE OUTLET
6842	City of Cape	CAPE LA CROIX CREEK	1090268	546956	PIPE OUTLET
6843	City of Cape	CAPE LA CROIX CREEK	1090260	546882	RIP RAP AREA
6845	City of Cape	CAPE LA CROIX CREEK	1089995	546246	PIPE OUTLET
6848	City of Cape	CAPE LA CROIX CREEK	1090058	545942	PIPE OUTLET
6851	City of Cape	CAPE LA CROIX CREEK	1090178	545226	PIPE OUTLET
6856	City of Cape	CAPE LA CROIX CREEK	1090429	543222	PIPE OUTLET
6858	City of Cape	CAPE LA CROIX CREEK	1090275	543178	PIPE OUTLET
6860	City of Cape	CAPE LA CROIX CREEK	1090275	543121	PIPE OUTLET
6864	City of Cape	CAPE LA CROIX CREEK	1090379	543094	PIPE OUTLET
6866	City of Cape	CAPE LA CROIX CREEK	1090766	542605	PIPE OUTLET
6875	City of Cape	CAPE LA CROIX CREEK	1091025	542275	PIPE OUTLET
6879	City of Cape	CAPE LA CROIX CREEK	1091781	540704	PIPE OUTLET
6883	City of Cape	CAPE LA CROIX CREEK	1092702	540047	PIPE OUTLET
6888	City of Cape	CAPE LA CROIX CREEK	1092163	540388	PIPE OUTLET
6898	City of Cape	CAPE LA CROIX CREEK	1092987	539767	PIPE OUTLET
7181	City of Cape	CAPE LA CROIX CREEK	1091243	544163	PIPE OUTLET
7281	City of Cape	VETERAN'S FORK	1082030	538308	PIPE OUTLET
7643	City of Cape	CAPE LA CROIX CREEK	1091529	540803	PIPE OUTLET
7807	City of Cape	CAPE LA CROIX CREEK	1091037	541278	PIPE OUTLET
7813	City of Cape	CAPE LA CROIX CREEK	1090861	541988	PIPE OUTLET
7931	City of Cape	BRECKENRIDGE BRANCH	1086274	546739	PIPE OUTLET
8233	City of Cape	VETERAN'S FORK	1083732	549238	PIPE OUTLET
8235	City of Cape	VETERAN'S FORK	1083748	549239	PIPE OUTLET
8317	City of Cape	CAPE LA CROIX CREEK	1089915	546480	PIPE OUTLET
8318	City of Cape	CAPE LA CROIX CREEK	1089922	546499	PIPE OUTLET
8322	City of Cape	CAPE LA CROIX CREEK	1089887	546142	PIPE OUTLET
8391	City of Cape	VETERAN'S FORK	1083751	549300	PIPE OUTLET

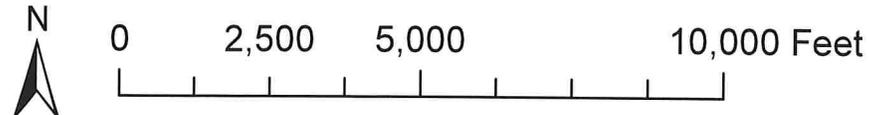
8429	City of Cape		CAPE LA CROIX CREEK	1089959	546641	PIPE OUTLET
8553	City of Cape		CAPE LA CROIX CREEK	1089205	549999	PIPE OUTLET
8564	City of Cape		CAPE LA CROIX CREEK	1089080	550162	RIP RAP AREA
8836	City of Cape		CAPE LA CROIX CREEK	1089824	548022	PIPE OUTLET
8869	City of Cape		CAPE LA CROIX CREEK	1092530	555831	PIPE OUTLET
8969	City of Cape		CAPE LA CROIX CREEK	1091624	553622	PIPE OUTLET
8971	City of Cape		CAPE LA CROIX CREEK	1091022	553438	PIPE OUTLET
9079	City of Cape		CAPE LA CROIX CREEK	1091939	554224	PIPE OUTLET
9083	City of Cape		CAPE LA CROIX CREEK	1091941	554484	PIPE OUTLET
93	City of Cape		WALKER BRANCH	1096107	537289	RIP RAP AREA
9439	City of Cape		SLOAN CREEK	1103136	545039	PIPE OUTLET
9874	City of Cape		CAPE LA CROIX CREEK	1101266	527360	PIPE OUTLET
99	City of Cape		WALKER BRANCH	1096155	537728	PIPE OUTLET

CAPE GIRARDEAU MS4 DESIGNATED OUTFALLS

FACILITY_ID	OWNERSHIP	OUTFALL_REP	RECEIVING_STREAM	X_coord	Y_coord	Type	Material	Size
11571	City of Cape	Yes	SCIVALLY BRANCH	1096321	545833	PIPE OUTLET	RCP	18
11684	City of Cape	Yes	WALKER BRANCH	1096370	541332	PIPE OUTLET	RCP	30
13535	Privately Owned	Yes	JUDEN CREEK	1109645	550096	PIPE OUTLET	RCP	12
13616	City of Cape	Yes	CAPE LA CROIX CREEK	1096133	534204	PIPE OUTLET	RCP	30
13627	City of Cape	Yes	CAPE LA CROIX CREEK	1095845	535519	PIPE OUTLET	RCP	48
14230	City of Cape	Yes	BRECKENRIDGE BRANCH	1089110	545033	PIPE OUTLET	CMP	30
15617	City of Cape	Yes	MISSISSIPPI RIVER	1106315	539730	PIPE OUTLET	RCP	30
16343	City of Cape	Yes	MISSISSIPPI RIVER	1106024	537542	PIPE OUTLET	NRCP	30
16392	City of Cape	Yes	MISSISSIPPI RIVER	1106079	538875	PIPE OUTLET	NRCP	30
16759	Privately Owned	Yes	CAPE LA CROIX CREEK	1088757	551145	FLARED END SECTION	RCBC	24
17501	City of Cape	Yes	WALKER BRANCH	1096090	538483	PIPE OUTLET	RCP	48
3221	City of Cape	Yes	SLOAN CREEK	1103185	545079	PIPE OUTLET	RCP	15
6476	City of Cape	Yes	CAPE LA CROIX CREEK	1094194	538326	PIPE OUTLET	RCP	30
6842	City of Cape	Yes	CAPE LA CROIX CREEK	1090268	546956	PIPE OUTLET	RCP	24
6864	City of Cape	Yes	CAPE LA CROIX CREEK	1090379	543094	PIPE OUTLET	RCP	15



CITY OF CAPE GIRARDEAU *DESIGNATED* **MS4 OUTFALLS**



- Representative Outfall and ID
- Major Street
- ⋯ Cape City Limits

Appendix 14

Public Works Fleet SPCC (Permit Ref. Section 4.2.6.2)

Tier I Qualified Facility SPCC Plan

This template constitutes the SPCC Plan for the facility, when completed and signed by the owner or operator of a facility that meets the applicability criteria in §112.3(g)(1). This template addresses the requirements of 40 CFR part 112. Maintain a complete copy of the Plan at the facility if the facility is normally attended at least four hours per day, or for a facility attended fewer than four hours per day, at the nearest field office. When making operational changes at a facility that are necessary to comply with the rule requirements, the owner/operator should follow state and local requirements (such as for permitting, design and construction) and obtain professional assistance, as appropriate.

Facility Description

Facility Name City of Cape Girardeau Public Works Fleet Service Area

Facility Address 2007 Southern Expressway

City Cape Girardeau State Mo ZIP 63703

County Cape Girardeau Tel. Number (573) 339 - 6351

Owner or Operator Name City of Cape Girardeau Public Works

Owner or Operator Address 2007 Southern Expressway

City Cape Girardeau State MO ZIP 63703

County Cape Girardeau Tel. Number (573) 339 - 6351

I. Self-Certification Statement (§112.6(a)(1))

The owner or operator of a facility certifies that each of the following is true in order to utilize this template to comply with the SPCC requirements:

I, Stan Polivick certify that the following is accurate:

1. I am familiar with the applicable requirements of 40 CFR part 112;
2. I have visited and examined the facility;
3. This Plan was prepared in accordance with accepted and sound industry practices and standards;
4. Procedures for required inspections and testing have been established in accordance with industry inspection and testing standards or recommended practices;
5. I will fully implement the Plan;
6. This facility meets the following qualification criteria (under §112.3(g)(1)):
 - a. The aggregate aboveground oil storage capacity of the facility is 10,000 U.S. gallons or less; and
 - b. The facility has had no single discharge as described in §112.1(b) exceeding 1,000 U.S. gallons and no two discharges as described in §112.1(b) each exceeding 42 U.S. gallons within any twelve month period in the three years prior to the SPCC Plan self-certification date, or since becoming subject to 40 CFR part 112 if the facility has been in operation for less than three years (not including oil discharges as described in §112.1(b) that are the result of natural disasters, acts of war, or terrorism); and
 - c. There is no individual oil storage container at the facility with an aboveground capacity greater than 5,000 U.S. gallons.
7. This Plan does not deviate from any requirement of 40 CFR part 112 as allowed by §112.7(a)(2) (environmental equivalence) and §112.7(d) (impracticability of secondary containment) or include any measures pursuant to §112.9(c)(6) for produced water containers and any associated piping;
8. This Plan and individual(s) responsible for implementing this Plan have the full approval of management and I have committed the necessary resources to fully implement this Plan.

I also understand my other obligations relating to the storage of oil at this facility, including, among others;

1. To report a discharge to navigable waters or adjoining shorelines to the appropriate authorities. Notification information is included in the Plan;
2. To review and amend this Plan whenever there is a material change at the facility that affects the potential for an oil discharge, and at least once every five years. Reviews and amendments are recorded in an attached log [See Five year Review Log and Technical Amendment Log in Attachments 1.1 and 1.2];
3. Optional use of a contingency plan. A contingency plan:
 - a. May be used in lieu of secondary containment for qualified oil-filled operational equipment, in accordance with the requirements under §112.7(k), **and**;
 - b. Must be prepared for flowlines and/or intra-facility gathering lines which do not have secondary containment at an oil production facility, **and**;
 - c. Must include an established and documented inspection or monitoring program; must follow the provisions of 40 CFR part 109; and must include a written commitment of manpower, equipment and materials to expeditiously remove any quantity of oil discharged that may be harmful. If applicable, a copy of the contingency plan and any additional documentation will be attached to this Plan as Attachment 2.

I certify that I have satisfied the requirements to prepare and implement a Plan under §112.3 and all of the requirements under §112.6(a). I certify that the information contained in this Plan is true.

Signature *Stan Polivick* Date 4-25-17
 Name STAN POLIVICK Title ASST. PW DIRECTOR

II. Record of Plan Review and Amendments

Five year Review {§112.5(b)}:

Complete a review and evaluation of this SPCC Plan at least once every five years. As a result of the review, amend this Plan within six months to include more effective prevention and control measures for the facility, if applicable. Implement any SPCC Plan amendment as soon as possible, but no later than six months following the Plan amendment. Document completion of the review and evaluation, and complete the Five Year Review Log in Attachment 1.1. If the facility no longer meets the Tier I qualified facility eligibility, the owner or operator must revise the Plan to meet Tier II qualified facility requirements, or complete a full PE certified Plan.

Table G-1 Technical Amendments {§§112.5(a), (c) and 112.6(a)(2)}	
This SPCC Plan will be amended when there is a change in the facility design, construction, operation, or maintenance that materially affects the potential for a discharge to navigable waters or adjoining shorelines. Examples include adding or removing containers, reconstruction, replacement, or installation of piping systems, changes to secondary containment systems, changes in product stored at the facility, or revisions to standard operating procedures.	<input checked="" type="checkbox"/>
Any technical amendments to this Plan will be re-certified in accordance with Section I of this Plan template. {§112.6(a)(2)} [See Technical Amendment Log in Attachment 1.2]	<input checked="" type="checkbox"/>

III. Plan Requirements

1. Oil Storage Containers (§112.7(a)(3)(i)):

Table G-2 Oil Storage Containers and Capacities		
This table includes a complete list of all oil storage containers (aboveground containers ^a and completely buried tanks ^b) with capacity of 55 U.S. gallons or more, unless otherwise exempt from the rule. For mobile/portable containers, an estimated number of containers, types of oil, and anticipated capacities are provided.		<input checked="" type="checkbox"/>
Oil Storage Container <i>(indicate whether aboveground (A) or completely buried (B))</i>	Type of Oil	Shell Capacity (gallons)
SEE ATTACHED CHART		

Total Aboveground Storage Capacity ^c 3830 gallons
 Total Completely Buried Storage Capacity 0 gallons
 Facility Total Oil Storage Capacity 3830 gallons

^a Aboveground storage containers that must be included when calculating total facility oil storage capacity include: tanks and mobile or portable containers; oil-filled operational equipment (e.g. transformers); other oil-filled equipment, such as flow-through process equipment. Exempt containers that are not included in the capacity calculation include: any container with a storage capacity of less than 55 gallons of oil; containers used exclusively for wastewater treatment; permanently closed containers; motive power containers; hot-mix asphalt containers; heating oil containers used solely at a single-family residence; and pesticide application equipment or related mix containers.

^b Although the criteria to determine eligibility for qualified facilities focuses on the aboveground oil storage containers at the facility, the completely buried tanks at a qualified facility are still subject to the rule requirements and must be addressed in the template; however, they are not counted toward the qualified facility applicability threshold.

^c Counts toward qualified facility applicability threshold.

2. Secondary Containment and Oil Spill Control (§§112.6(a)(3)(i) and (ii), 112.7(c) and 112.9(c)(2)):

Table G-3 Secondary Containment and Oil Spill Control	
Appropriate secondary containment and/or diversionary structures or equipment ^a is provided for all oil handling containers, equipment, and transfer areas to prevent a discharge to navigable waters or adjoining shorelines. The entire secondary containment system, including walls and floor, is capable of containing oil and is constructed so that any discharge from a primary containment system, such as a tank or pipe, will not escape the containment system before cleanup occurs.	<input checked="" type="checkbox"/>

^a Use one of the following methods of secondary containment or its equivalent: (1) Dikes, berms, or retaining walls sufficiently impervious to contain oil; (2) Curbing; (3) Culverting, gutters, or other drainage systems; (4) Weirs, booms, or other barriers; (5) Spill diversion ponds; (6) Retention ponds; or (7) Sorbent materials.

City of Cape Girardeau Public Works
 SPCC Fleet Service Area
 Table G-2 Oil Storage Containers and Capacities

Container ID	Above Ground / Buried			Type of Oil	Shell Capacity (gal)
EO-1	A	inside bldg	mezz	new engine oil	300
EO-5	A	inside bldg	mezz	new engine oil	300
HF-1	A	inside bldg	mezz	new hydraulic fluid	300
ATF-1	A	inside bldg	mezz	new transmission fluid	55
WO-1	A	Inside bldg		waste oil	500
WO-2	A	outside bldg		waste oil	500
WO-3	A	Inside bldg		waste oil	55
WO-4	A	Inside bldg		waste oil	55
WO-5	A	Inside bldg		waste oil	55
AF-1	A	Inside bldg		new antifreeze	55
AF-2	A	Inside bldg		new antifreeze	55
UAF-1	A	Inside bldg		used antifreeze	55
HF-2	A	Inside bldg		new hydraulic fluid	55
HF-3	A	Inside bldg		new hydraulic fluid	55
ATF-2	A	Inside bldg		new transmission fluid	55
EO-2	A	Inside bldg		new engine oil	55
HF-4	A	Inside bldg		new hydraulic fluid	55
DFC-1	A	Inside bldg		new diesel fuel conditioner	55
EO-3	A	Inside bldg		new engine oil	55
EO-4	A	Inside bldg		new engine oil	55
AF-3	A	Inside bldg		new antifreeze	55
AF-4	A	Inside bldg		new antifreeze	55
Gen-1	A	outside bldg	Dbf Wall	diesel fuel for generator	500
ED-1	A	Inside bldg		empty drum	55
ED-2	A	Inside bldg		empty drum	55
ED-3	A	Inside bldg		empty drum	55
ED-4	A	Inside bldg		empty drum	55
ED-5	A	Inside bldg		empty drum	55
ED-6	A	Inside bldg		empty drum	55
ED-7	A	Inside bldg		empty drum	55
ED-8	A	Inside bldg		empty drum	55
ED-9	A	Inside bldg		empty drum	55
Total Aboveground Storage Capacity					3830
Total Buired Storage Capacity					0
Facility total Oil Storage Capacity					3830

Table G-4 below identifies the tanks and containers at the facility with the potential for an oil discharge; the mode of failure; the flow direction and potential quantity of the discharge; and the secondary containment method and containment capacity that is provided.

Table G-4 Containers with Potential for an Oil Discharge						
Area	Type of failure (discharge scenario)	Potential discharge volume (gallons)	Direction of flow for uncontained discharge	Secondary containment method ^a	Secondary containment capacity (gallons)	
<i>Bulk Storage Containers and Mobile/Portable Containers^b</i>						
SEE ATTACHED CHART						
<i>Oil-filled Operational Equipment (e.g., hydraulic equipment, transformers)^c</i>						
<i>Piping, Valves, etc.</i>						
<i>Product Transfer Areas (location where oil is loaded to or from a container, pipe or other piece of equipment.)</i>						
<i>Other Oil-Handling Areas or Oil-Filled Equipment (e.g. flow-through process vessels at an oil production facility)</i>						

^a Use one of the following methods of secondary containment or its equivalent: (1) Dikes, berms, or retaining walls sufficiently impervious to contain oil; (2) Curbing; (3) Culverting, gutters, or other drainage systems; (4) Weirs, booms, or other barriers; (5) Spill diversion ponds; (6) Retention ponds; or (7) Sorbent materials.
^b For storage tanks and bulk storage containers, the secondary containment capacity must be at least the capacity of the largest container plus additional capacity to contain rainfall or other precipitation.
^c For oil-filled operational equipment: Document in the table above if alternative measures to secondary containment (as described in §112.7(k)) are implemented at the facility.

City of Cape Girardeau Public Works
SPCC Fleet Service Area

Table G-4 Oil Storage Containers and Capacities

Container ID	Shell Capacity (gal)	Type of Failure	Potential Discharge Vol (gal)	Direction of Flow	Secondary Containment Method	Secondary Containment Volume (gal)
EO-1	300	Rupture or leakage	300	inside building	Retaining wall	368
EO-5	300	Rupture or leakage	300	inside building	Retaining wall	368
HF-1	300	Rupture or leakage	300	inside building	Retaining wall	368
ATF-1	55	Rupture or leakage	55	inside building	Berm	400
WO-1	500	Rupture or leakage	500	inside building	Berm	748
WO-2	500	Rupture or leakage	500	inside building	Retaining wall	1050
WO-3	55	Rupture or leakage	55	south then west	Retaining wall	66
WO-4	55	Rupture or leakage	55	inside building	spill pallet	66
WO-5	55	Rupture or leakage	55	inside building	spill pallet	66
AF-1	55	Rupture or leakage	55	inside building	spill pallet	66
AF-2	55	Rupture or leakage	55	inside building	spill pallet	66
UAF-1	55	Rupture or leakage	55	inside building	spill pallet	66
HF-2	55	Rupture or leakage	55	inside building	spill pallet	66
HF-3	55	Rupture or leakage	55	inside building	spill pallet	66
ATF-2	55	Rupture or leakage	55	inside building	spill pallet	66
EO-2	55	Rupture or leakage	55	inside building	spill pallet	66
HF-4	55	Rupture or leakage	55	inside building	spill pallet	66
DFC-1	55	Rupture or leakage	55	inside building	spill pallet	66
EO-3	55	Rupture or leakage	55	inside building	spill pallet	66
EO-4	55	Rupture or leakage	55	inside building	spill pallet	66
AF-3	55	Rupture or leakage	55	inside building	spill pallet	66
AF-4	55	Rupture or leakage	55	inside building	spill pallet	66
Gen-1	500	Rupture or leakage	500	east thru pipes	spill pallet	500
ED-1	55	Rupture or leakage	55	inside building	Double wall	0
ED-2	55	Rupture or leakage	55	inside building		0
ED-3	55	Rupture or leakage	55	inside building		0
ED-4	55	Rupture or leakage	55	inside building		0
ED-5	55	Rupture or leakage	55	inside building		0
ED-6	55	Rupture or leakage	55	inside building		0
ED-7	55	Rupture or leakage	55	inside building		0
ED-8	55	Rupture or leakage	55	inside building		0
ED-9	55	Rupture or leakage	55	inside building		0

Ref. 40 CFR 112.6(a)(3)(i) and (ii), 112.7(c) and 112.9(c)(2):

3. Inspections, Testing, Recordkeeping and Personnel Training (§§112.7(e) and (f), 112.8(c)(6) and (d)(4), 112.9(c)(3), 112.12(c)(6) and (d)(4)):

Table G-5 Inspections, Testing, Recordkeeping and Personnel Training	
An inspection and/or testing program is implemented for all aboveground bulk storage containers and piping at this facility. [§§112.8(c)(6) and (d)(4), 112.9(c)(3), 112.12(c)(6) and (d)(4)]	<input checked="" type="checkbox"/>
<p>The following is a description of the inspection and/or testing program (e.g. reference to industry standard utilized, scope, frequency, method of inspection or test, and person conducting the inspection) for all aboveground bulk storage containers and piping at this facility:</p> <p>Facility inspections are conducted monthly and records of these inspections are documented and signed by the inspector. During the inspections all tanks, drums, and piping are visually inspected. The checklist used for these inspections is Attachment 5. Inspection and training records are retained for at least three years. Tank integrity testing will be conducted every 5 years by the Fleet Maintenance Coordinator with a hydrostatic test.</p> <p>Informal visual inspections will be performed weekly to observe any damages to the tanks, drums, or piping, and to check for stains that may indicate a leak. Excess water in exposed containment areas will be checked for oil sheen before being discharged. All discharges from secondary containment will be recorded on the form in Attachment 4, Table G-20.</p>	
Inspections, tests, and records are conducted in accordance with written procedures developed for the facility. Records of inspections and tests kept under usual and customary business practices will suffice for purposes of this paragraph. [§112.7(e)]	<input checked="" type="checkbox"/>
A record of the inspections and tests are kept at the facility or with the SPCC Plan for a period of three years. [§112.7(e)] [See Inspection Log and Schedule in Attachment 3.1]	<input checked="" type="checkbox"/>
Inspections and tests are signed by the appropriate supervisor or inspector. [§112.7(e)]	<input checked="" type="checkbox"/>
Personnel, training, and discharge prevention procedures [§112.7(f)]	
Oil-handling personnel are trained in the operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rules, and regulations; general facility operations; and, the contents of the facility SPCC Plan. [§112.7(f)]	<input checked="" type="checkbox"/>
A person who reports to facility management is designated and accountable for discharge prevention. [§112.7(f)]	<input checked="" type="checkbox"/>
Name/Title: <u>Mike Schott / Fleet Maintenance Coordinator</u>	
Discharge prevention briefings are conducted for oil-handling personnel annually to assure adequate understanding of the SPCC Plan for that facility. Such briefings highlight and describe past reportable discharges or failures, malfunctioning components, and any recently developed precautionary measures. [§112.7(f)]	<input checked="" type="checkbox"/>
[See Oil-handling Personnel Training and Briefing Log in Attachment 3.4]	

4. Security (excluding oil production facilities) §112.7(g):

Table G-6 Implementation and Description of Security Measures

Security measures are implemented at this facility to prevent unauthorized access to oil handling, processing, and storage area.



The following is a description of how you secure and control access to the oil handling, processing and storage areas; secure master flow and drain valves; prevent unauthorized access to starter controls on oil pumps; secure out-of-service and loading/unloading connections of oil pipelines; address the appropriateness of security lighting to both prevent acts of vandalism and assist in the discovery of oil discharges:

All valves to containment areas are to be normally closed.

All containers are in or adjacent to the main Public Works building. These are in view of all fleet maintenance staff during the business day. All containers but one are located inside the Fleet maintenance area such that they are not accessible during non-business hours. The one outside container has a lock on the inlet and outlet.

All piping related to the oil containment and handling is located inside the building and thus is not accessible to the unauthorized personnel.

5. Emergency Procedures and Notifications (§112.7(a)(3)(iv) and 112.7(a)(5)):

Table G-7 Description of Emergency Procedures and Notifications

The following is a description of the immediate actions to be taken by facility personnel in the event of a discharge to navigable waters or adjoining shorelines [§112.7(a)(3)(iv) and 112.7(a)(5)]:

See Attached Table G-7

Table G-7
Emergency Procedures and Notifications

Minor Discharge

Defined

- Quantity is 10 gal or less
- Discharged material is easily and immediately controlled and stopped
- Discharged material is localized near the source
- Discharged material will not reach water or waterway
- Small risk to human health or safety
- Small risk of fire or explosion

Action

- Immediately inform Shop Foreman and Public Works Director or his assigned staff member
- Contain the discharge with absorbent materials and properly dispose of the spent materials

Major Discharge

Defined

- Quantity of material large enough to spread beyond the discharge area
- Discharged material enters water or waterway or entry is imminent
- Discharge requires special equipment or training to clean up
- Discharge poses risk to human health or safety
- Discharge poses risk of fire or explosion

Action

- Immediately inform Shop Foreman and Public Works Director or his assigned staff member
- Evacuate workers from area
- Notify Emergency Contacts List
- Notify National Response Center (1-800-424-8802) and Missouri DNR (1-573-634-2436)
- Record calls to NRC and MODNR on the Spill Notification Form
- Begin clean up efforts in accordance with guidance from agencies

Ref: 40 CFR 112.7(a) (3)(iv) and 112.7(a)(5)

6. Contact List (§112.7(a)(3)(vi)):

Table G-8: Contact List	
Contact Organization / Person	Telephone Number
National Response Center (NRC)	1-800-424-8802
Cleanup Contractor(s)	Safety Kleen 573-335-1616 Kidd Oil 573-335-8160 Interrail 573-334-9437
Key Facility Personnel	
Designated Person Accountable for Discharge Prevention: Mike Schott, Fleet Maintenance Coordinator	Office: 573-339-6351 Emergency: 573-450-6632
Stan Polivick, <i>ASST PW DIRECTOR</i>	Office: 573-339-6351 Emergency: 573-838-8073
Steve Cook, Public Works Director	Office: 573-339-6351 Emergency: 573-579-0510
	Office: : Emergency: .
State Oil Pollution Control Agencies MO DNR Environmental emergency Response	573-634-2436
Other State, Federal, and Local Agencies	
Local Fire Department 573-339-6330	
Local Police Department 537-335-6621	
Hospital	
Other Contact References (e.g., downstream water intakes or neighboring facilities)	

7. NRC Notification Procedure (§112.7(a)(4) and (a)(5)):

Table G-9: NRC Notification Procedure	
In the event of a discharge of oil to navigable waters or adjoining shorelines, the following information identified in Attachment 4 will be provided to the National Response Center immediately following identification of a discharge to navigable waters or adjoining shorelines [See Discharge Notification Form in Attachment 4]: [§112.7(a)(4)]	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> • The exact address or location and phone number of the facility; • Date and time of the discharge; • Type of material discharged; • Estimate of the total quantity discharged; • Estimate of the quantity discharged to navigable waters; • Source of the discharge; 	<ul style="list-style-type: none"> • Description of all affected media; • Cause of the discharge; • Any damages or injuries caused by the discharge; • Actions being used to stop, remove, and mitigate the effects of the discharge; • Whether an evacuation may be needed; and • Names of individuals and/or organizations who have also been contacted.

8. SPCC Spill Reporting Requirements (Report within 60 days) (§112.4):

Submit information to the EPA Regional Administrator (RA) and the appropriate agency or agencies in charge of oil pollution control activities in the State in which the facility is located within 60 days from one of the following discharge events:

- A single discharge of more than 1,000 U.S. gallons of oil to navigable waters or adjoining shorelines or
- Two discharges to navigable waters or adjoining shorelines each more than 42 U.S. gallons of oil occurring within any twelve month period

You must submit the following information to the RA:

- (1) Name of the facility;
- (2) Your name;
- (3) Location of the facility;
- (4) Maximum storage or handling capacity of the facility and normal daily throughput;
- (5) Corrective action and countermeasures you have taken, including a description of equipment repairs and replacements;
- (6) An adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary;
- (7) The cause of the reportable discharge, including a failure analysis of the system or subsystem in which the failure occurred; and
- (8) Additional preventive measures you have taken or contemplated to minimize the possibility of recurrence
- (9) Such other information as the Regional Administrator may reasonably require pertinent to the Plan or discharge

NOTE: Complete one of the following sections (A, B or C) as appropriate for the facility type.

A. Onshore facilities (excluding production) (§§112.8(b) through (d), 112.12(b) through (d))

The owner or operator must meet the general rule requirements as well as requirements under this section. Note that not all provisions may be applicable to all owners/operators. For example, a facility may not maintain completely buried metallic storage tanks installed after January 10, 1974, and thus would not have to abide by requirements in §§112.8(c)(4) and 112.12(c)(4), listed below. In cases where a provision is not applicable, write "N/A".

Table G-10 General Rule Requirements for Onshore Facilities		N/A
Drainage from diked storage areas is restrained by valves to prevent a discharge into the drainage system or facility effluent treatment system, except where facility systems are designed to control such discharge. Diked areas may be emptied by pumps or ejectors that must be manually activated after inspecting the condition of the accumulation to ensure no oil will be discharged. [§§112.8(b)(1) and 112.12(b)(1)]	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Valves of manual, open-and-closed design are used for the drainage of diked areas. [§§112.8(b)(2) and 112.12(b)(2)]	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The containers at the facility are compatible with materials stored and conditions of storage such as pressure and temperature. [§§112.8(c)(1) and 112.12(c)(1)]	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Secondary containment for the bulk storage containers (including mobile/portable oil storage containers) holds the capacity of the largest container plus additional capacity to contain precipitation. Mobile or portable oil storage containers are positioned to prevent a discharge as described in §112.1(b). [§112.6(a)(3)(ii)]	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If uncontaminated rainwater from diked areas drains into a storm drain or open watercourse the following procedures will be implemented at the facility: [§§112.8(c)(3) and 112.12(c)(3)]		
<ul style="list-style-type: none"> • Bypass valve is normally sealed closed • Retained rainwater is inspected to ensure that its presence will not cause a discharge to navigable waters or adjoining shorelines • Bypass valve is opened and resealed under responsible supervision • Adequate records of drainage are kept [See Dike Drainage Log in Attachment 3.3] 	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
For completely buried metallic tanks installed on or after January 10, 1974 at this facility [§§112.8(c)(4) and 112.12(c)(4)]:		
<ul style="list-style-type: none"> • Tanks have corrosion protection with coatings or cathodic protection compatible with local soil conditions. • Regular leak testing is conducted. 	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
For partially buried or bunkered metallic tanks [§112.8(c)(5) and §112.12(c)(5)]:		
<ul style="list-style-type: none"> • Tanks have corrosion protection with coatings or cathodic protection compatible with local soil conditions. 	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Each aboveground bulk container is tested or inspected for integrity on a regular schedule and whenever material repairs are made. Scope and frequency of the inspections and inspector qualifications are in accordance with industry standards. Container supports and foundations are regularly inspected. [See Inspection Log and Schedule and Bulk Storage Container Inspection Schedule in Attachments 3.1 and 3.2] [§112.8(c)(6) and §112.12(c)(6)(i)]	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Outsides of bulk storage containers are frequently inspected for signs of deterioration, discharges, or accumulation of oil inside diked areas. [See Inspection Log and Schedule in Attachment 3.1] [§§112.8(c)(6) and 112.12(c)(6)]	<input checked="" type="checkbox"/>	<input type="checkbox"/>
For bulk storage containers that are subject to 21 CFR part 110 which are shop-fabricated, constructed of austenitic stainless steel, elevated and have no external insulation, formal visual inspection is conducted on a regular schedule. Appropriate qualifications for personnel performing tests and inspections are documented. [See Inspection Log and Schedule and Bulk Storage Container Inspection Schedule in Attachments 3.1 and 3.2] [§112.12(c)(6)(ii)]	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Table C-10 General Rule Requirements for Onshore Facilities

		N/A
<p>Each container is provided with a system or documented procedure to prevent overfills for the container. Describe:</p> <p>Each bulk tank is fitted with a sight tube. This is checked before any fluid is placed in the tank to be certain there is capacity available for the added fluid.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>Liquid level sensing devices are regularly tested to ensure proper operation [See Inspection Log and Schedule in Attachment 3.1]. [§112.6(a)(3)(iii)]</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Visible discharges which result in a loss of oil from the container, including but not limited to seams, gaskets, piping, pumps, valves, rivets, and bolts are promptly corrected and oil in diked areas is promptly removed. [§§112.8(c)(10) and 112.12(c)(10)]</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>Aboveground valves, piping, and appurtenances such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces are inspected regularly. [See Inspection Log and Schedule in Attachment 3.1] [§§112.8(d)(4) and 112.12(d)(4)]</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>Integrity and leak testing are conducted on buried piping at the time of installation, modification, construction, relocation, or replacement. [See Inspection Log and Schedule in Attachment 3.1] [§§112.8(d)(4) and 112.12(d)(4)]</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

B. Onshore Oil Production Facilities (excluding drilling and workover facilities) (§112.9(b), (c), and (d)).

The owner or operator must meet the general rule requirements as well as the requirements under this section. Note that not all provisions may be applicable to all owners/operators. In cases where a provision is not applicable, write "N/A".

Table C-1: General Rule Requirements for Onshore Oil Production Facilities

		N/A
At tank batteries, separation and treating areas, drainage is closed and sealed except when draining uncontaminated rainwater. Accumulated oil on the rainwater is returned to storage or disposed of in accordance with legally approved methods. [§112.9(b)(1)]	<input type="checkbox"/>	<input type="checkbox"/>
Prior to drainage, diked areas are inspected and [§112.9(b)(1)]:		
• Retained rainwater is inspected to ensure that its presence will not cause a discharge to navigable waters	<input type="checkbox"/>	<input type="checkbox"/>
• Bypass valve is opened and resealed under responsible supervision	<input type="checkbox"/>	<input type="checkbox"/>
• Adequate records of drainage are kept [See Dike Drainage Log in Attachment 3.3]	<input type="checkbox"/>	<input type="checkbox"/>
Field drainage systems and oil traps, sumps, or skimmers are inspected at regularly scheduled intervals for oil, and accumulations of oil are promptly removed [See Inspection Log and Schedule in Attachment 3.1] [§112.9(b)(2)]	<input type="checkbox"/>	<input type="checkbox"/>
The containers used at this facility are compatible with materials stored and conditions of storage. [§112.9(c)(1)]	<input type="checkbox"/>	<input type="checkbox"/>
All tank battery, separation, and treating facility installations (except for flow-through process vessels) are constructed with a capacity to hold the largest single container plus additional capacity to contain rainfall. Drainage from undiked areas is safely confined in a catchment basin or holding pond. [§112.9(c)(2)]	<input type="checkbox"/>	<input type="checkbox"/>
Except for flow-through process vessels, containers that are on or above the surface of the ground, including foundations and supports, are visually inspected for deterioration and maintenance needs on a regular schedule. [See Inspection Log and Schedule in Attachment 3.1] [§112.9(c)(3)]	<input type="checkbox"/>	<input type="checkbox"/>
New and old tank batteries at this facility are engineered/updated in accordance with good engineering practices to prevent discharges including at least one of the following:	<input type="checkbox"/>	<input type="checkbox"/>
i. adequate container capacity to prevent overflow if regular pumping/gauging is delayed;		
ii. overflow equalizing lines between containers so that a full container can overflow to an adjacent container;		
iii. vacuum protection to prevent container collapse; or		
iv. high level sensors to generate and transmit an alarm to the computer where the facility is subject to a computer production control system. [§112.9(c)(4)]		
Flow-through process vessels and associated components are:		
• Are constructed with a capacity to hold the largest single container plus additional capacity to contain rainfall. Drainage from undiked areas is safely confined in a catchment basin or holding pond; [§112.9(c)(2)] and	<input type="checkbox"/>	<input type="checkbox"/>
• That are on or above the surface of the ground, including foundations and supports, are visually inspected for deterioration and maintenance needs on a regular schedule. [See Inspection Log and Schedule in Attachment 3.1] [§112.9(c)(3)]	<input type="checkbox"/>	<input type="checkbox"/>
Or		
• Visually inspected and/or tested periodically and on a regular schedule for leaks, corrosion, or other conditions that could lead to a discharge to navigable waters; and	<input type="checkbox"/>	<input type="checkbox"/>
• Corrective action or repairs are applied to flow-through process vessels and any associated components as indicated by regularly scheduled visual inspections, tests, or evidence of an oil discharge; and	<input type="checkbox"/>	<input type="checkbox"/>
• Any accumulations of oil discharges associated with flow-through process vessels are promptly removed; and	<input type="checkbox"/>	<input type="checkbox"/>
• Flow-through process vessels are provided with a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation within six months of a discharge from flow-through process vessels of more than 1,000 U.S. gallons of oil in a single discharge as described in §112.1(b), or a discharge more than 42 U.S. gallons of oil in each of two discharges as described in §112.1(b) within any twelve month period. [§112.9(c)(5)] (Leave blank until such time that this provision is applicable.)	<input type="checkbox"/>	<input type="checkbox"/>

Table G-11 General Rule Requirements for Onshore Oil Production Facilities		N/A
All aboveground valves and piping associated with transfer operations are inspected periodically and upon a regular schedule. The general condition of flange joints, valve glands and bodies, drip pans, pipe supports, pumping well polish rod stuffing boxes, bleeder and gauge valves, and other such items are included in the inspection. [See Inspection Log and Schedule in Attachment 3.1] [§112.9(d)(1)]	<input type="checkbox"/>	<input type="checkbox"/>
An oil spill contingency plan and written commitment of resources are provided for flowlines and intra-facility gathering lines [See Oil Spill Contingency Plan and Checklist in Attachment 2 and Inspection Log and Schedule in Attachment 3.1] [§112.9(d)(3)]	<input type="checkbox"/>	<input type="checkbox"/>
or Appropriate secondary containment and/or diversionary structures or equipment is provided for flowlines and intra-facility gathering lines to prevent a discharge to navigable waters or adjoining shorelines. The entire secondary containment system, including walls and floor, is capable of containing oil and is constructed so that any discharge from the pipe, will not escape the containment system before cleanup occurs.	<input type="checkbox"/>	<input type="checkbox"/>
A flowline/intra-facility gathering line maintenance program to prevent discharges from each flowline has been established at this facility. The maintenance program addresses each of the following:	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> Flowlines and intra-facility gathering lines and associated valves and equipment are compatible with the type of production fluids, their potential corrosivity, volume, and pressure, and other conditions expected in the operational environment; Flowlines, intra-facility gathering lines and associated appurtenances are visually inspected and/or tested on a periodic and regular schedule for leaks, oil discharges, corrosion, or other conditions that could lead to a discharge as described in §112.1(b). The frequency and type of testing allows for the implementation of a contingency plan as described under part 109 of this chapter. Corrective action and repairs to any flowlines and intra-facility gathering lines and associated appurtenances as indicated by regularly scheduled visual inspections, tests, or evidence of a discharge. Accumulations of oil discharges associated with flowlines, intra-facility gathering lines, and associated appurtenances are promptly removed. [§112.9(d)(4)] 	<input type="checkbox"/>	<input type="checkbox"/>
The following is a description of the flowline/intra-facility gathering line maintenance program implemented at this facility:	<input type="checkbox"/>	<input type="checkbox"/>

C. Onshore Oil Drilling and Workover Facilities (§112.10(b), (c) and (d)):

The owner or operator must meet the general rule requirements as well as the requirements under this section.

Table G-12 General Rule Requirements for Onshore Oil Drilling and Workover Facilities	
Mobile drilling or worker equipment is positioned or located to prevent discharge as described in §112.1(b). [§112.10(b)]	<input type="checkbox"/>
Catchment basins or diversion structures are provided to intercept and contain discharges of fuel, crude oil, or oily drilling fluids. [§112.10(c)]	<input type="checkbox"/>
A blowout prevention (BOP) assembly and well control system was installed before drilling below any casing string or during workover operations. [§112.10(d)]	<input type="checkbox"/>
The BOP assembly and well control system is capable of controlling any well-head pressure that may be encountered while the BOP assembly and well control system are on the well. [§112.10(d)]	<input type="checkbox"/>

ATTACHMENT 1 – Five Year Review and Technical Amendment Logs

ATTACHMENT 1.1 – Five Year Review Log

I have completed a review and evaluation of the SPCC Plan for this facility, and will/will not amend this Plan as a result.

Table 9-13: Review and Evaluation of SPCC Plan for Facility

Review Date	Plan Amendment		Name and signature of person authorized to review this Plan
	Will Amend	Will Not Amend	
APRIL 2017	<input checked="" type="checkbox"/>	<input type="checkbox"/>	STAN POLIVICK UPDATED APRIL 2017
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	

ATTACHMENT 12 - Technical Amendment Log

Any technical amendments to this Plan will be re-certified in accordance with Section I of this Plan template.

Table 1 - Description and Certification of Technical Amendments

Review Date	Description of Technical Amendment	Name and signature of person certifying this technical amendment

ATTACHMENT 2 - Oil Spill Contingency Plan and Checklist

An oil spill contingency plan and written commitment of resources is required for:

- Flowlines and intra-facility gathering lines at oil production facilities and
- Qualified oil-filled operational equipment which has no secondary containment.

An oil spill contingency plan meeting the provisions of 40 CFR part 109, as described below, and a written commitment of manpower, equipment and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful is attached to this Plan.	<input type="checkbox"/>
--	--------------------------

Complete the checklist below to verify that the necessary operations outlined in 40 CFR part 109 - Criteria for State, Local and Regional Oil Removal Contingency Plans - have been included.

Table C-15 Checklist of Development and Implementation Criteria for State, Local and Regional Oil Removal Contingency Plans (§109.5)

(a) Definition of the authorities, responsibilities and duties of all persons, organizations or agencies which are to be involved in planning or directing oil removal operations.	<input type="checkbox"/>
(b) Establishment of notification procedures for the purpose of early detection and timely notification of an oil discharge including: <ul style="list-style-type: none"> (1) The identification of critical water use areas to facilitate the reporting of and response to oil discharges. (2) A current list of names, telephone numbers and addresses of the responsible persons (with alternates) and organizations to be notified when an oil discharge is discovered. (3) Provisions for access to a reliable communications system for timely notification of an oil discharge, and the capability of interconnection with the communications systems established under related oil removal contingency plans, particularly State and National plans (e.g., NCP). (4) An established, prearranged procedure for requesting assistance during a major disaster or when the situation exceeds the response capability of the State, local or regional authority. 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
(c) Provisions to assure that full resource capability is known and can be committed during an oil discharge situation including: <ul style="list-style-type: none"> (1) The identification and inventory of applicable equipment, materials and supplies which are available locally and regionally. (2) An estimate of the equipment, materials and supplies which would be required to remove the maximum oil discharge to be anticipated. (3) Development of agreements and arrangements in advance of an oil discharge for the acquisition of equipment, materials and supplies to be used in responding to such a discharge. 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
(d) Provisions for well defined and specific actions to be taken after discovery and notification of an oil discharge including: <ul style="list-style-type: none"> (1) Specification of an oil discharge response operating team consisting of trained, prepared and available operating personnel. (2) Predesignation of a properly qualified oil discharge response coordinator who is charged with the responsibility and delegated commensurate authority for directing and coordinating response operations and who knows how to request assistance from Federal authorities operating under existing national and regional contingency plans. (3) A preplanned location for an oil discharge response operations center and a reliable communications system for directing the coordinated overall response operations. (4) Provisions for varying degrees of response effort depending on the severity of the oil discharge. (5) Specification of the order of priority in which the various water uses are to be protected where more than one water use may be adversely affected as a result of an oil discharge and where response operations may not be adequate to protect all uses. (6) Specific and well defined procedures to facilitate recovery of damages and enforcement measures as provided for by State and local statutes and ordinances. 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

^a The contingency plan must be consistent with all applicable state and local plans, Area Contingency Plans, and the National Contingency Plan (NCP)

ATTACHMENT 3 – Inspections, Dike Drainage and Personnel Training Logs

ATTACHMENT 3 – Inspection Log and Schedule

Table C-16 Inspection Log and Schedule
This book is intended to document compliance with 45 CFR 112.201(a) through 112.201(d) as applicable.

Date of Inspection	Container / Piping / Equipment	Describe Scope (or cite Industry Standard)	Observations	Name/ Signature of Inspector	Records maintained separately ^a
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>

^a Indicate in the table above if records of facility inspections are maintained separately at this facility.

APPENDIX 3/2 Bulk Storage Container Inspection Schedule (onshore facilities, excluding production)

To comply with integrity inspection requirement for bulk storage containers, inspect/test each shop-built aboveground bulk storage container on a regular schedule in accordance with a recognized container inspection standard based on the minimum requirements in the following table.

Table 6.17 Bulk Storage Container Inspection Schedule	
Container Size and Design Specification	Inspection requirement
Portable containers (including drums, totes, and intermodal bulk containers (IBC))	Visually inspect monthly for signs of deterioration, discharges or accumulation of oil inside diked areas
55 to 1,100 gallons with sized secondary containment	Visually inspect monthly for signs of deterioration, discharges or accumulation of oil inside diked areas plus any annual inspection elements per industry inspection standards
1,101 to 5,000 gallons with sized secondary containment and a means of leak detection ^a	
1,101 to 5,000 gallons with sized secondary containment and no method of leak detection ^a	Visually inspect monthly for signs of deterioration, discharges or accumulation of oil inside diked areas, plus any annual inspection elements and other specific integrity tests that may be required per industry inspection standards

^a Examples of leak detection include, but are not limited to, double-walled tanks and elevated containers where a leak can be visually identified.

ATTACHMENT 3 - Dike Drainage Log

Table C-13 Dike Drainage Log

Date	Bypass valve sealed closed	Rainwater inspected to be sure no oil (or sheen) is visible	Open bypass valve and reseal it following drainage	Drainage activity supervised	Observations	Signature of Inspector
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

ATTACHMENT 2 - Oil Handling Personnel Training and Refresher Log

Table G-19 Oil Handling Personnel Training and Refresher Log

Date	Description / Scope	Attendees

ATTACHMENT 4 - Discharge Notification Form

In the event of a discharge of oil to navigable waters or adjoining shorelines, the following information will be provided to the National Response Center [also see the notification information provided in Section 7 of the Plan]:

Table G-20 Information provided to the National Response Center in the Event of a Discharge

Discharge/Discovery Date		Time	
Facility Name			
Facility Location (Address/Lat-Long/Section Township Range)			
Name of reporting individual		Telephone #	
Type of material discharged		Estimated total quantity discharged	Gallons/Barrels
Source of the discharge		Media affected	<input type="checkbox"/> Soil
			<input type="checkbox"/> Water (specify)
			<input type="checkbox"/> Other (specify)
Actions taken			
Damage or injuries	<input type="checkbox"/> No <input type="checkbox"/> Yes (specify)	Evacuation needed?	<input type="checkbox"/> No <input type="checkbox"/> Yes (specify)
Organizations and individuals contacted	<input type="checkbox"/> National Response Center 800-424-8802 Time		
	<input type="checkbox"/> Cleanup contractor (Specify) Time		
	<input type="checkbox"/> Facility personnel (Specify) Time		
	<input type="checkbox"/> State Agency (Specify) Time		
	<input type="checkbox"/> Other (Specify) Time		

Attachment 5

City of Cape Girardeau Public Works
 SPCC Fleet Service Area
 Facility Inspection Check List

Container	Empty Y/N	Leakage Y/N	Comments
EO-1			
EO-5			
HF-1			
ATF-1			
WO-1			
WO-2			
WO-3			
WO-4			
WO-5			
AF-1			
AF-2			
UAF-1			
HF-2			
HF-3			
ATF-2			
EO-2			
HF-4			
DFC-1			
EO-3			
EO-4			
AF-3			
AF-4			
Gen-1			

Inspector _____

Date _____



U.S. ENVIRONMENTAL PROTECTION AGENCY TIER I QUALIFIED FACILITY SPCC PLAN TEMPLATE

Instructions to Complete this Template

This template is intended to help the owner or operator of a Tier I qualified facility develop a self-certified Spill Prevention, Control, and Countermeasure (SPCC) Plan. To use this template, your facility must meet all of the applicability criteria of a Tier I qualified facility listed under §112.3(g)(1) of the SPCC rule. This template provides every SPCC rule requirement necessary for a Tier I qualified facility, which you must address and implement.

You may use this template to comply with the SPCC regulation or use it as a model and modify it as necessary to meet your facility-specific needs. If you modify the template, your Plan must include a section cross-referencing the location of each applicable requirement of the SPCC rule and you must ensure that your Plan is an equivalent Plan that meets all applicable rule requirements of 40 CFR 112.6(a)(3).

You may complete this template either electronically or by hand on a printed copy. This document is a reformatted version of the template found in Appendix G of 40 CFR part 112.^a No substantive changes have been made. Please note that a "Not Applicable" ("N/A") column has been added to both Table G-10 (General Rule Requirements for Onshore Facilities) and Table G-11 (General Rule Requirements for Onshore Oil Production Facilities). The "N/A" column should help you complete your self-certification when a required rule element does not apply to your facility. Use of the "N/A" column is optional and is not required by rule.

All Tier I qualified facility self-certifiers must complete Sections I, II, and III. Additionally, the owner or operator of an:

- Onshore facility (excluding production) must complete Section A.
- Onshore oil production facility (excluding drilling and workover facilities) must complete Section B.
- Onshore oil drilling and workover facility must complete Section C.

Complete and include with your Plan the appropriate attachments. You should consider printing copies of the attachments for use in implementing the SPCC Plan (e.g. Attachment 3.1 - Inspection Log & Schedule; Attachment 4 - Discharge Notification Form).

To complete the template, check the box next to the requirement to indicate that it has been adequately addressed. Either write "N/A" in the column or check the box under the "N/A" column to indicate those requirements that are not applicable to the facility. Where a section requires a description or listing, write in the spaces provided (or attach additional descriptions if more space is needed).

Below is a key for the colors used in the section headers:

Sections I, II, and III: Required for all Tier I qualified facilities
Section A: Onshore facilities (excluding production)
Section B: Onshore oil production facilities (excluding drilling and workover facilities)
Section C: Onshore oil drilling and workover facilities
Attachments: 1. Five Year Review and Technical Amendment Log 2. Oil Spill Contingency Plan and CBQES 3. Inspections, Dike Drains and Personnel Training Log 4. Discharge Notification Form

After you have completed all appropriate sections, certify and date your Plan, and then implement it by the compliance date. If your facility was in operation before August 16, 2002, and you do not already have a Plan, then implement this template immediately. Conduct inspections and tests in accordance with the written procedures that you have developed for your facility. You must keep with the SPCC Plan a record of these inspections and tests, signed by the appropriate supervisor or inspector, for a period of three years.

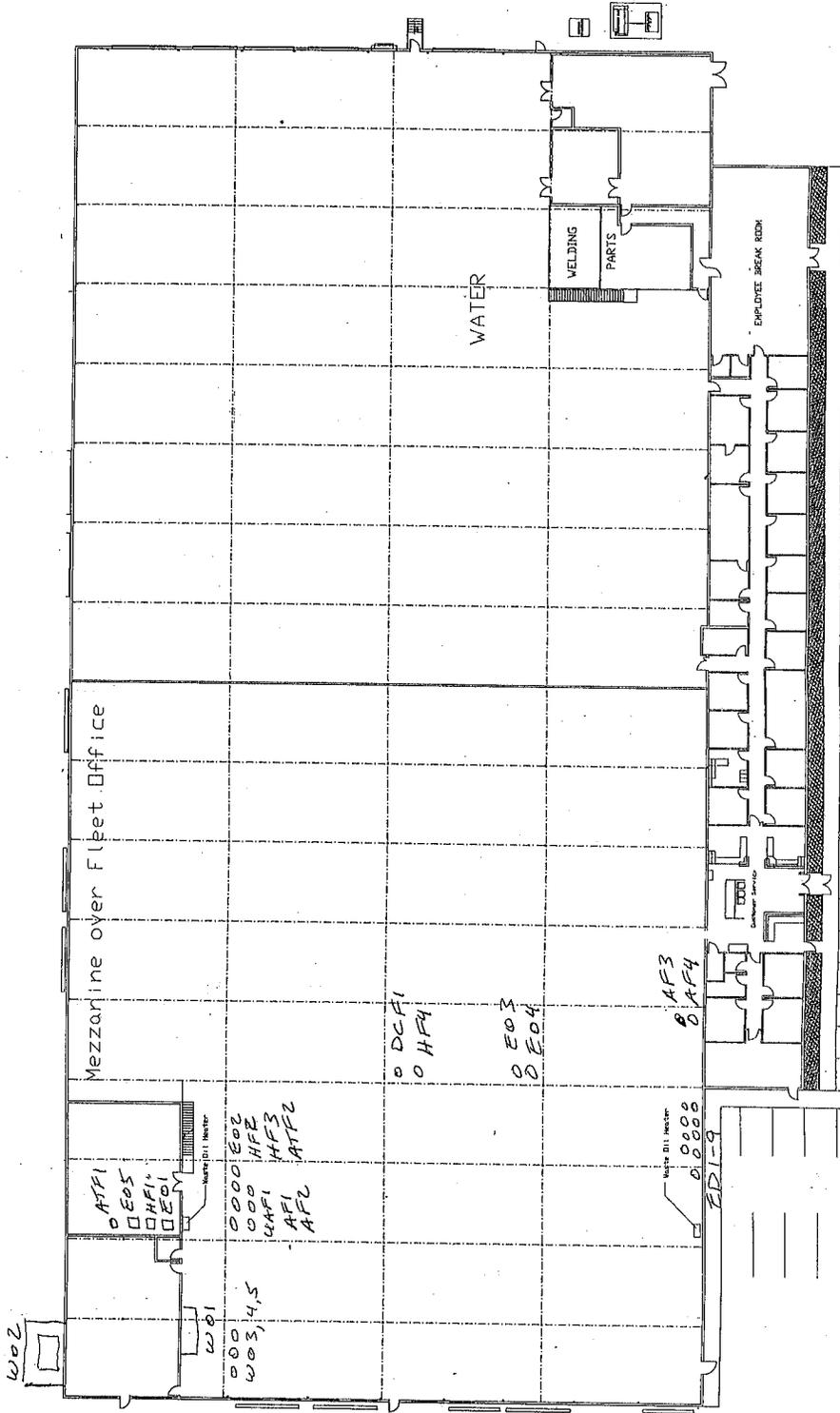
Do not forget to periodically review your Plan (at least once every five years) or to update it when you make changes to your facility. You must prepare amendments within six months of the facility change, and implement them as soon as possible, but not later than six months following preparation of any amendment.

In the event that your facility releases oil to navigable waters or adjoining shorelines, immediately call the National Response Center (NRC) at 1-800-424-8802. The NRC is the federal government's centralized reporting center, which is staffed 24 hours per day by U.S. Coast Guard personnel.

^a Please note that the use of this template is not mandatory for a Tier I qualified facility. You may also meet the SPCC Plan requirement by preparing a satisfactory Tier II qualified facility Plan, preparing a satisfactory Plan that is certified by a Professional Engineer, or by developing an equivalent Plan for a Tier I qualified facility. Further information on the requirements of these methods can be found in 40 CFR part 112.6(a)(1). If you use any of these alternative methods you must include a cross reference in your Plan that shows how the equivalent Plan meets all applicable 40 CFR part 112 requirements.

REVISED /
UPDATED
4-25-11
SFP

Site Map
Fleet Maintenance Area
2007 SOUTHERN EXPRESSWAY



Appendix 15

Fleet Maintenance- Standard Operating Procedures (Permit Ref. Section 4.2.6.1)

STANDARD OPERATING PROCEDURES **FOR** **POLLUTION PREVENTION**

Table of Contents

<u>Standard Operations Procedures Binder</u>	1
<u>Accidents & Injuries</u>	2
<u>Material Safety Data Sheets</u>	2
<u>Fluid Storage</u>	2
<u>Spill Response</u>	3
<u>Used Oil</u>	3
<u>Used Anti-Freeze</u>	3
<u>Used Tires</u>	4
<u>Battery Disposal</u>	4
<u>Salt & Ice Control Products</u>	4
<u>Spraying Operations</u>	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 stock the old tires are to be collected and stored until they are taken to Plaza Tire for disposal. Plaza Tire shreds them for recycling. 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

Training Videos (Permit Ref. Section 4.2.6.1.1)

MS4 Stormwater Education Videos

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

(Permit Ref. Section 4.2.4.1.5)

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 have access to it.

This houses the inspection reports from site inspections.

Share Point Site Home Page

MO - MS4 Services

the City of Cape Girardeau and BFA - MS4 Services.

ed by selecting the project name from the Quick Launch Navigation on the left.

for plan review please use the top navigation bar and choose "Plan Review".

Contacts

Company	Last Name	First Name	Busin
City of Cape Girardeau	Brennan	Nicolette	573.2
City of Cape Girardeau	Brunke	Casey	573.2
City of Cape Girardeau	Haltmar	Jim	573.2
City of Cape Girardeau	Kangas	Anna	573.2
City of Cape Girardeau	Maurer	Andrew	537.2
City of Cape Girardeau	Polivick	Stanley	573.2
City of Cape Girardeau	Richbourg	Todd	573.2
City of Cape Girardeau	Shrimplin	Ryan	573.2
BFA, Inc.	Meyer	Michael	636.2
BFA, Inc.	Theissen	Wes	636.2
Add new item			

Appendix 18

Municipal Operations Impacted by MS4 O & M Program (Permit Ref. Section 4.2.6.1.2)

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