

**City of Sedalia** 

200 S. Osage Sedalia, MO 65301 (660)827-3000 www.cityofsedalia.com

# City of Sedalia MS4 Stormwater Management Plan MOR040001 / 2021 - 2026 April, 2021

# **Table of Contents and Appendices:**

1.1 Contact Information	3
1.2 Regulatory and Background Information	3
1.3 Stormwater Outfalls	4
2.1 Total Maximum Daily Load (TMDL) Information	5
2.2 Co-Permittee Information	6
2.3 Stormwater Program Review and BMP Iterative Process	6
Minimum Control Measures (MCM)	7
MCM1 Public Education and Outreach of Stormwater Impacts	8
MCM2 Public Involvement/Participation in Program Development	14
MCM3 Illicit Discharge Detection and Elimination	.15
MCM4 Construction Site Stormwater Runoff Control	.21
MCM5 Post Construction Stormwater Management in New Development and Redevelopment	.25
MCM6 Pollution Prevention/Good Housekeeping for Municipal Operations	26

### **TABLES**

Table 1	Outfall Locations
Table 2	Total Maximum Daily Load (TMDL)5
Table 3	Target Audiences MCM1

# APPENDICES

Appendix A.1:	Stormwater Outfall Map	.33
Appendix A.2:	Ambient/Open Conveyance Site Map	.35
Appendix A.3	Stormwater Features Map	.37
Appendix B:	City Ordinance #9976 Stormwater Treatment, July, 2012	.38
Appendix C:	City Ordinance #10112 Surface Water Runoff Management, Aug., 2013	.39
Appendix D:	City Ordinance #10467 Additional Design Criteria and Standards, June, 2016	.40
Appendix E:	Stormwater Pollution Prevention Plan	.41
Appendix F:	Illicit Discharge and Detection Elimination Plan	.42
Appendix G:	Spill Prevention and Response Plan	.43

# **1.1 Contact Information:**

#### Primary Contacts for Stormwater Management Plan

Bob Summers, Alliance Water Resources, Operations Manager Phone: (660) 619- 0659 / Email: bsummers@alliancewater.com

Brenda Ardrey, City of Sedalia, Public Works Director Phone: (660) 827-3000 / Email: <u>bardrey@cityofsedalia.com</u>

#### **Primary Persons Responsible for all MCMs:**

Vacant, Pretreatment and Stormwater Coordinator Phone: (660) / Email:

Secondary Contact Person Responsible for all MCMs: Dave Gerken, Collection System Foreman Phone: (660) 827-7820 / Email: dgerken@cityofsedalia.com

# **1.2 Regulatory and Background Information:**

Stormwater runoff is from rain and snow melt that flows over land or impervious surfaces, such as paved streets, parking lots, and building rooftops, and does not soak into the ground. The runoff picks up pollutants, such as chemicals, oils, sediment and trash that can prove harmful to rivers, streams, and lakes.

In 1987, the federal Clean Water Act was amended to require the U.S. Environmental Protection Agency (US EPA) to implement a two-phase program to address stormwater discharges as part of the National Pollutant Discharge Elimination System (NPDES) permit program. The responsibility for issuing MS4 permits is delegated by US EPA to the Missouri Department of Natural Resources (MDNR). Promulgated in 1990, Phase 1, generally required medium and large municipal separate storm sewer systems (MS4s) serving populations of 100,000 or more to be permitted. The 1999 Phase II federal regulation required small MS4s in U.S. Census Bureau defined urbanized areas, as well as MS4s designated by the permitting authority (MDNR), to obtain NPDES permit coverage for their stormwater discharges. Phase II also includes nontraditional MS4s such as public universities, departments of transportation, hospitals and prisons.

The City of Sedalia, Missouri (City) is a Phase II Small MS4 and has been regulated under the statewide General Permit MOR040000 as part of the City's National Pollutant Discharge Elimination System permits which regulate the City's three (3) wastewater treatment plants. Under the statewide permit, the City was required to develop and implement a Stormwater Management Program and Plan.

The City's initial Stormwater Management Plan (SWMP) was written in 2003 and served the purpose of meeting the stormwater permit compliance requirement. During the first ten years of the Municipal Separate Storm Sewer System (MS4) program, the following milestones were accomplished by the City: 1. adopting key stormwater ordinances (stream bank protection, construction, post-construction, and illicit discharge detection elimination); 2. GIS mapping of the stormwater and sanitary sewer collection systems; 3. developing and implementing an Illicit Discharge Detection and Elimination Plan; 4. developing and implementing a multi-faceted public education/public participation program; and 5. making significant progress in municipal facility inspections, stormwater pollution prevention plans, and municipal employee education.

As part of the review of the initial SWMP, the City worked to develop and implement best management practices. These BMPs are designed to filter out pollutants and/or prevent pollution by controlling it at its source. The primary focus used to develop the 2013 Updated Stormwater Management Plan was to create BMPs using the permit framework, and the past 10 years of experience, to create a more concise and effective structure for reducing stormwater pollution discharges within the City to the maximum extent practicable and to focus on education activities to focus community efforts on pollutant reduction. The secondary focus used to develop the 2013 Stormwater Management Plan was to create a basket of BMPs easier to manage than the BMPs written into previous plans. This effort required the consolidation of some of the old BMPs to increase the overall effectiveness of the program. The City's current Stormwater Management Plan was approved in 2013.

In the first quarter of 2020, MDNR notified municipalities and other permitted entities of the opportunity to review and provide comments on the State's two (2) draft MS4 permits and the availability of meetings/classes to review those drafts and the need to begin the process to update Stormwater Management Plans. This document is the City's required submission of a Stormwater Management Plan under the MDNR's MOR40000 which is a Two-Step General Permit for Phase II MS4s.

# **1.3 Stormwater Outfalls**

As part of the City's GIS mapping effort a period of time was spent during the prior MS4 permit cycle identifying all the stormwater outfalls in the City of Sedalia. The definition of an outfall is: any concentrated flow of stormwater that is exiting the Sedalia City limits. Criteria used for identifying outfalls were: flow that is concentrated in a ditch, pipe, or other structure specifically designed to carry stormwater. After identification, all stormwater outfalls were inventoried on GIS.

The 2008 SWMP listed 10 major stormwater outfalls. The 2013 review identified 19 major stormwater outfalls which are listed in the Plan. The table below shows the outfalls and their locations for the 2008 and the 2013 combined plans. The outfall listed as 009 in the 2008 plan

was eliminated since the creek re-enters the City before leaving again at outfall #001. For reporting purposes the #009 was not re-used. Outfall #011 and #012 were added to the 2013 plan.

Outfall #	Location/Comment Outfall location (UTM) First Classified		First Classified	Enters Clas	sified	303 d	
		Easting	Northing	Stream	Eacting	Northing	
001	28 <sup>th</sup> & Now York	191017	1291007	Elat Crook	181606	101011111g	Voc
001	Washington & 28 <sup>th</sup>	401917	4281907	Flat Creek	484090	4279737	Voc
002	22 <sup>nd</sup> & Kontucky	480430	4282004	Flat Creek	484090	4279737	Vec
003	32 & Kentucky	479720	4281028	Flat Creek	479992	4279299	Yes
004	W.32 & Erika	4/83/3	4281711	Flat Creek	479992	4279299	Yes
005	Airport	485064	4284206	Shaver Creek	485530	4284394	NO
006	Boonville	483084	4284804	Cedar Creek	482923	4287951	No
007	Sedalia Rd.	479060	4286206	Sewer Branch	479620	4290969	No
008	Central WWTP	477143	4285080	Brushy Creek	476282	4286381	Yes
009	E. Sacajawea	477155	4280145	Flat Creek – Trib.	476388	4280551	No
010	W. 32 <sup>nd</sup>	476608	4281806	Flat Creek – Trib.	476388	4280551	Yes
011	E. Sacajawea	477164	4280156	Flat Creek – Trib.	476388	4280551	No
012	W. Main	475694	4285128	Brushy Creek	476282	4286381	Yes
013	35 <sup>th</sup> St. Terrace	479092	4281262	Flat Creek	479992	4279299	Yes
014	28 <sup>th</sup> & New York-W side	481787	4281642	Flat Creek	484696	4279737	Yes
015	Sneed & Booneville	485202	4284875	Shaver Creek	485530	4284394	No
016	Heard & Griessen	482310	4286046	Shaver Creek	485530	4284394	No
017	Reine Ave	481805	4286092	Shaver Creek	485530	4284394	No
018	State Fair Comm College	475955	4283023	Flat Creek – Trib.	476388	4280551	Yes
019	Martin Luther King Jr	479588	4285764	Sewer Branch	479620	4290969	No

#### Table 1 Outfall Locations

## **2.1 TMDL Information:**

#### Water Quality

Yes, our MS4 is impacted by waterways with a TMDL. The City of Sedalia is in Pettis County, Missouri. The TMDL in and nearby the City are listed below in Table 2.

Table 2	2 TMDL's

Year	WBID	Water Body	Pollutant	Source
2001	0856, 3490	Little Muddy Creek and Tributary to Little Muddy Creek	Temperature,	Tyson Foods
2002	0855, 0859	Muddy Creek and Brushy Creek	Biochemical	Central WWTP
			Oxygen Demand	
			(BOD), Ammonia	
			(NH <sub>3</sub> ), Ammonia	
			Nitrogen (NH <sub>3</sub> -N),	
			Non-filterable	
			Residues (NFR),	
			Volatile	
			Suspended Solids	
			(VSS), Organic	
			Sediment	
Year	WBID	Water Body	Pollutant	Source
2006	0865	Flat Creek, Pettis and Benton Counties	Sediment, Non-	Agricultural
			volatile	Non-point
			Suspended Solids	Source
			(NVSS), Inorganic	
			Sediment	

No. We do not have a completed Assumptions and Requirement Attainment Plan (ARAP) in relation to Little Muddy Creek and the Tributary to Little Muddy Creek as the source of the pollutant is identified as a specific source and limited to temperature. We do not have a completed Assumptions and Requirement Attainment Plan (ARAP) in relation to Flat Creek, Pettis and Benton Counties) as the source identified is agricultural. In relation to Muddy Creek and Brushy Creek, the source was identified as the City's Central Wastewater Treatment Plant, in 2000, since that time the City has added enhanced treatment technology and the plant discharges have been protective of the receiving streams designated uses and monitors closely the plant operations for impacts to the receiving streams and to remain in compliance with the Central Wastewater Treatment Plant's NPDES permit.

# **2.2 Co-Permittee Information:**

Not Applicable

# 2.3 Stormwater Program Review and BMP Iterative Process:

The City annually reviews and evaluates the Stormwater Management Program and BMPs for effectiveness and to identify areas for improvement. Historically, these reviews have been presented to the City's Smart Growth Committee and to the Public Works Board. The information collected during these reviews is then included as a part of the City's biennial report.

# Minimum Control Measures (MCMs)

- 1. Public Education and Outreach of Stormwater Impacts
- 2. Public Involvement/Participation in Program Development
- 3. Illicit Discharge Detection and Elimination
- 4. Construction Site Stormwater Runoff Control
- 5. Post-Construction Stormwater Management in New Development and Redevelopment
- 6. Pollution Prevention/Good Housekeeping for Municipal Operations

# MCM 1 – Public Education and Outreach of Stormwater Impacts

The permittee shall implement a public education program to distribute educational materials to the community and/or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and the steps the public can take to reduce pollutants in stormwater runoff.

**4.1.A** Identify target audiences and explain why the target audiences are likely to have significant stormwater pollution impacts in the SWMP;

**4.1.B** Identify target pollutants and/or sources of pollution that the permittee's education program is designed to address and how those pollutants/sources relate to the specific target audience(s); and **4.1.C** Develop or utilize appropriate educational BMPs (materials, events, activities, etc.) to be used in conjunction with the target pollutants and target audiences. Explain opportunities about the BMPs and how the BMPs inform and educate target audiences to reduce pollutants in stormwater runoff.

**4.1.A** Public Education and Outreach on the potential impacts from stormwater and stormwater contamination will rely on two primary focus areas: 1) the dissemination of public information to specific groups related to BMP's for the effective management of waste materials; 2) an education program designed to reach identified focus groups: contractors/developers, lawn care businesses, residents, municipal employees, automotive shops and restaurants.

I usie e					
Target	Why audience	Target	Sources of	Educational	Goal of BMP
Audiences: Contractors/ Developers	Was chosen: Improperly managed land disturbance sites lead to sediment runoff, chemical/toxics spills, trash / waste/floatables leaving the site	Sediment/ Suspended Solids, chemicals/ toxics, floatables	Construction workers	<b>BIVIP(S)</b> Site management discussion during pre-construction meeting	Educate construction workers on the importance of proper installation of site BMPS and site management to reduce target pollutants in runoff
Lawn Care Businesses	Improperly managed lawn care activities lead to over-application of fertilizers or weeding chemicals and improper disposal of leaf litter or grass clippings	fertilizers (nutrients), chemicals/ toxics, yard waste	Lawn care workers	Educational mailers to lawn care businesses on proper yard care and waste disposal annually.	Educate lawn care professionals on the importance of proper application of fertilizers, chemicals and proper disposal of yard waste to reduce target pollutants in runoff
Residents	Improper collection/disposal of yard waste leads to clogged stormwater inlets and storm drains as well as pushing excess nutrients from fertilizers, pet waste and other sources into streams.	Grass, leaves, fertilizers and pet wastes	Residents	Stormwater flyers semi-annually and door hangers telling them to clean up	Proper disposal of yard waste to reduce target pollutants in runoff
Municipal Employees	Improperly managed land disturbance sites lead to sediment runoff, chemicals, toxic spills, trash and wastes leaving the site	Sediment/ Suspended Solids, chemicals/ toxics, floatables	Municipal Employees	Semi-annual stormwater training	Educate municipal employees on the importance of proper site management to reduce target pollutants in runoff

Measurable Goal MCM1 BMP1	Stormwater informational webpage and content. <u>http://www.cityofsedalia.com/content/11298/11388/11505.as</u> <u>px</u>						
Purpose of BMP1	The internet allows for unlimited access to our target audiences to provide education, readily available information, and a platform for 24/7/365 access to submit feedback, questions, or concerns on environmental issues.						
BMP Goal/ Intended Outcome	Educate the public and target audiences on environmental issues. The intended outcome for BMP1 is to see an increase in webpage use as the public becomes more aware of environmental issues						
Visitors to Stormwater Webpage Annually	Year # of Visitors	2021	2022	2023	2024	2025	

Yr. 1 Progress to Goal:	Satisfactory:	YES:	NO: 🗆
Explanation:			
Yr. 2 Progress to Goal:	Satisfactory:	YES: □	<b>NO:</b> □
Explanation:			
Yr. 3 Progress to Goal:	Satisfactory:	YES:	NO: 🗆
Explanation:			
Yr. 4 Progress to Goal:	Satisfactory:	YES: □	<b>NO:</b> □
Explanation:			
Yr. 5 Progress to Goal:	Satisfactory:	YES: □	NO: 🗆
Explanation:			

Measurable Goal MCM1 BMP2	Provide a fact sheet to all contractors/developers obtaining construction permits from the City on proper construction job site management practices and the City's related ordinances.						
	Annually review inspection results of job sites to determine problem areas to be addressed in updated fact sheet, as						
	needed.						
Purpose of BMP2	To provide an easy to retain copy of information related to construction job site best management practices, information about City Code and sources of other related information to increase awareness of environmental issues impacted by construction						
BMP Goal/	Increase awar	reness in t	he develo	pment/coi	nstruction		
Intended Outcome	industries of t each job site.	the need f	or approp	riate storn	nwater co	ntrols on	
Number of fact sheets	Year	2021	2022	2023	2024	2025	
distributed annually	#						
	Distributed						
Number of Inspection Reports	Year 2021 2022 2023 2024 2025						
with Violations Related to	# of						
Stormwater Controls	Violations						

Satisfactory:	YES:	NO: 🗆
Satisfactory:	YES: 🗆	NO: 🗆
Satisfactory:	YES:	NO: □
Satisfactory:	YES:	<b>NO:</b> □
Satisfactory:	YES: □	<b>NO:</b> □
Satisfactory:	YES:	<b>NO:</b> □
	Satisfactory: Satisfactory:	Satisfactory: YES:  Satisfactory: YES:

Measurable Goal MCM1 BMP3	Provide a util	ity billing	; insert/pu	blic servi	ce announ	cement	
	to residents an	nd lawn c	are compa	nies at le	ast annual	ly related	
	to lawn care activities and their impact to stormwater runoff.						
Purpose of BMP3	To educate la	wn care p	rofession	als and rea	sidents on	ways to	
	properly care for their lawns and reduce the amount of grass						
	clippings and leaves discharged/not properly disposed ending						
	up in City stre	eets/storm	drains. A	lso, provi	ide inform	ation	
	related to the	issues of	over-appl	ication of	fertilizers	or	
	weeding chen	nicals and	l their imp	oact on the	e environn	nent.	
BMP Goal/	Increase awar	reness in t	he develo	pment/co	nstruction		
Intended Outcome	industries of t	the need f	or approp	riate storr	nwater co	ntrols on	
	each job site.				-		
	Year	2021	2022	2023	2024	2025	
Number of fact sheets	#						
distributed annually	Distributed						
Number of public service	#						
announcements distributed	of PSAs						
annually							
Number of Grass/Leaf Door	# of Door						
Hangers Distributed Annually	Hangers						
Due to Complaints							
Number of Storm Drains							
Cleaned Due to Grass/Leaves	# Cleaned						

Yr. 1 Progress to Goal:	Satisfactory:	<b>YES:</b> $\Box$	NO: □
Explanation:			
Yr. 2 Progress to Goal:	Satisfactory:	YES:	NO: □
Explanation:			
Yr. 3 Progress to Goal:	Satisfactory:	YES:	NO: □
Explanation:			
Yr. 4 Progress to Goal:	Satisfactory:	YES:	NO: □
Explanation:			
Yr. 5 Progress to Goal:	Satisfactory:	YES:	NO: □
Explanation:			

Purpose of BMP4Provide, at least, annual update training to City staff to teach employees about potential sources of contaminants, stormwater management, and BMPs. The employee training program will provide employees with comprehensive review of the City's Stormwater Pollution Prevention Plan (SWPPP), including BMPs, processes and materials they are working with, safety hazards, practices for preventing discharges, and procedures for responding quickly and properly to toxic and hazardous material incidents.Provide new employee training sessions to familiarize the employee with the City's Stormwater Pollution Prevention Plan (SWPPP), including BMPs, processes and materials they are working with, safety hazards, practices for preventing discharges, and procedures for responding quickly and properly to toxic and hazardous material incidents.BMP Goal/ Intended OutcomeThe intended outcome is the municipal employees become more aware of environmental issues.Year2021202320242025Municipal employees provided amuel undate training	Measurable Goal MCM1 BMP4	Provide training to 95% of municipal employees about potential sources of contaminants, stormwater management					
BMP Goal/ Intended Outcome       The intended outcome is the municipal employees become more aware of environmental issues.         Year       2021       2022       2023       2024       2025         Municipal employees provided annual undate training       Image: Comparison of the second	Purpose of BMP4	<ul> <li>Provide, at least, annual update training to City stall to teach employees about potential sources of contaminants, stormwater management, and BMPs. The employee training program will provide employees with comprehensive review of the City's Stormwater Pollution Prevention Plan (SWPPP), including BMPs, processes and materials they are working with, safety hazards, practices for preventing discharges, and procedures for responding quickly and properly to toxic and hazardous material incidents.</li> <li>Provide new employee training sessions to familiarize the employee with the City's Stormwater Pollution Prevention Plan (SWPPP), including BMPs, processes and materials they are working with, safety hazards, practices for preventing discharges, and procedures for responding quickly and properly to toxic and hazardous materials they are working with, safety hazards, practices for preventing discharges, and procedures for responding quickly and properly to toxic and hazardous material incidents. This program will be tailored to the specific facility and position held by the new employee.</li> </ul>					
Intended Outcome     more aware of environmental issues.       Year     2021     2022     2023     2024     2025       Municipal employees provided annual undate training     Image: Comparison of environmental issues.     Image: Comparison of environmental issues.	BMP Goal/	The intended outcome is the municipal employees become					
Year20212022202320242025Municipal employees provided </th <th>Intended Outcome</th> <th colspan="3">more aware of environmental issues.</th>	Intended Outcome	more aware of environmental issues.					
amuai upuati ti aming	Municipal employees provided annual update training	Year	2021	2022	2023	2024	2025
New municipal employees       provide initial SWMP training	New municipal employees provide initial SWMP training						

Yr. 1 Progress to Goal:	Satisfactory:	YES:	NO: 🗆
Explanation:			
Yr. 2 Progress to Goal:	Satisfactory:	YES:	NO: 🗆
Explanation:			
Yr. 3 Progress to Goal:	Satisfactory:	YES:	NO: 🗆
Explanation:			

Yr. 4 Progress to Goal:	Satisfactory:	YES: □	NO: □
Explanation:			
Yr. 5 Progress to Goal:	Satisfactory:	YES: 🗆	NO: □
Explanation:			

# MCM 2 – Public Involvement/Participation in Program Development

The permittee shall implement a public education program to distribute educational materials to the community and/or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and the steps that the public can take to reduce pollutants in stormwater runoff.

**4.2.A** The permittee shall hold a public notice period for a minimum of thirty (30) days on the draft SWMP. The permittee shall respond to public comments received during the public notice period. The permittee shall retain copies of any public comments and responses, for a minimum of three years.

4.2.A. The City's policy is to hold a public notice period for 30 days on the City's draft SWMP each time significant revisions to the SWMP are made. The City advertises the public notice of the SWMP on the City's website under the stormwater webpage (http://www.ci.sedalia.mo.us/content/11298/11388/11505.aspx) notifying the public that the draft SWMP will be posted for review and public comment for 30 days. The City also advertises the public notice period in the City's local newspaper (Sedalia Democrat). The advertisement in the local newspaper directs the readers to the City's website to review the draft SWMP. The City provides public comment submission through the City's website as well as a U.S.P.S. and electronic mail-in options with the addresses posted on the website and in the local paper. The

City's policy is to respond to all comments submitted by the public within 30 days of receipt and copies of all comments submitted by the public and the corresponding responses are retained by the City for at least 3 years.

The City held a public notice period for the draft SWMP beginning on February 24; 2021 and concluding at the close of the Public Hearing on March 29, 2021. Add information here concerning types of comments received and numbers.

**4.2.B** The permittee shall hold a public hearing regarding the proposed Stormwater Management Program and Plan within the MS4 service area. Public notice of the public hearing shall be given at least thirty (30) days before the hearing. Public notice of the hearing may be given at the same time as public notice of the draft SWMP and the two notices may be combined.

**4.2.B** The City's policy is to hold a public hearing for the proposed SWMP. Public notice to announce the hearing is posted on the City's website and in the City's local paper 30 days prior to the hearing. Routinely, the hearing announcement is a part of the public notice issued in relation to 4.2.A above. The hearing announcement will remain posted on the website the entire 30 days. As feasible, the public hearing will be held in conjunction with a regularly scheduled Council Meeting.

The City held a public hearing for the proposed SWMP on March 29, 2021. The meeting agenda and summary notes are available to view on the City's website at: <u>http://www.cityofsedalia.com/content/11298/11388/11505.aspx</u>.

**4.2.C** The permittee shall have a publicly available method to accept public inquiries or concerns, and to take information provided by the public about stormwater and stormwater related topics. This method, or a combination of methods, shall cover all MCMs.

**4.2.C** The City utilizes a web-based public comment submission platform located on the City's main web page at: <u>http://www.cityofsedalia.com/</u> under a button on the right side of the webpage titled: Report Issues/Ask Questions. The City is adding a new section to this platform for Public Works during the current year (2021) and will include a portion to allow for collection of Stormwater questions/comments. The City also provides a place for customer comments in the lobby of the Municipal Building for hand written comments/concerns/inquiries. Both the submission options are monitored by City staff daily. The City's policy is to respond to all comments/concerns/inquires within 30 days of receipt.

**4.2.D** If the permittee utilizes a stormwater management panel or committee, the permittee shall provide opportunities for citizen representatives on the panel or committee.

**4.2.D** The City does not utilize a stormwater management panel or committee, but rather utilizes a Public Works Board (PWB) and Public Works Committee of the City Council who review and evaluate periodically the stormwater program/plan and seek public input through a variety of methods on how to improve the stormwater program.

# MCM 3 – Illicit Discharge Detection and Elimination

# The permittee shall implement and enforce a program to detect and eliminate illicit discharges (as defined in 10 CSR 20-6.200 at 40 CFR 122.26(b)(2)) into the permittee's regulated MS4.

**4.3.A** Develop, and maintain an up-to-date storm sewer system map, show the location of all outfalls, the names and location of all waters of the state that receive discharges from those outfalls, and the boundary of the regulated MS4 area.

- 1. A description of the sources of information or procedures used for the map(s), how the permittee plans to verify the outfall locations with field surveys, and how the map will be regularly updated shall be included in the SWMP.
- 2. The permittee shall make the map and any accompanying necessary information available to the Department upon request.

**4.3.A** A GIS map of the City's MS4 system was developed in 2011-2012 and is periodically updated to include system improvements/additions.. The map has a stormwater layer that shows the outfalls, open conveyances, drainage ditches and storm culverts that make up the stormwater collection system.

- 1. Information placed on the map helps the stormwater program administrators better manage the MS4 permit requirements to include: stormwater outfalls, watersheds, stormwater pollution priority areas, occurrences of Illicit Discharge Detection, stenciling activities, adopt a storm drain activities and other information deemed necessary.
- 2. The map is completed and is consistently updated as new information becomes available. (See Appendix A)

**4.3.B.** To the extent allowable under state, or local law, through ordinance(s), or other regulatory mechanism(s), the permittee shall effectively prohibit, unauthorized non-storm water discharges into the storm sewer system and implement appropriate enforcement procedures and actions. Identify in the SWMP the regulatory mechanism(s) the permittee will use to effectively prohibit illicit discharges into the MS4 by including a link to or a copy of the relevant sections.

**4.3.B** The City has an Illicit Discharge Ordinance in place. The City Code is Section 22-105 and is available via the City's website at:

https://library.municode.com/mo/sedalia/codes/code of ordinances?nodeId=CD\_ORD\_CH22E <u>N\_ARTIVSTTR\_S22-105DIDEEL</u> or can be found within Appendix B, a part of Ordinance 9976 attached hereto. The City Code is reviewed annually and updates are made as needed.

**4.3.C** Develop and implement a plan to detect and address unauthorized non-stormwater discharges, including illegal dumping, to the system. An explanation of these strategies shall be included in the SWMP with:

- 1. Applicable response timelines;
- 2. Procedures for tracing the source of an illicit discharge, including specific techniques used to detect the location of the source;
- 3. Procedures for removing the illicit discharge; and
- 4. Other practices that are a part of this plan.

**4.3.C** The City has in place an Illicit Discharge Detection and Elimination (IDDE) plan to assist in detecting and addressing non-stormwater discharges, including discharges from illegal dumping and spills, to the City's system. The IDDE plan is available upon request.

- 1. All reported dumping or spills are investigated immediately.
- 2. Outfalls, open conveyances and ambient sites are inspected monthly and outfalls are physically tested quarterly or if an abnormality is detected. The phone number for the City's stormwater hotline appears on the City's website and on most printed material that comes from the City on stormwater related issues. The City's website has how to report Illicit Discharges.
- 3. Enforcement procedures include, but are not limited to: identify the source, verbal communication with proprietor informing of the discharge and to cease the discharge, send Notice of Violation letter, pursuit of legal remedies including fines, when applicable.

4. Restaurants, automotive shops and car washes are on an annual inspection schedule to assist in eliminating illicit discharges.

**4.3.D** The permittee shall inform public employees, businesses, and the general public of hazards associated with illegal discharges and the improper disposal of waste. The SWMP shall include a description of how this plan will coordinate with all other minimum control measures, monitoring, Integrated Planning (where applicable), and TMDL implementation (where applicable).

**4.3.D** The City informs the employees, businesses and the general public of hazards associated with illegal discharges and the improper disposal of waste through semiannual mailings with the utility billings. Restaurants, automotive shops and car washes are inspected annually and best management practice materials are handed out and training is held for all City employees annually. The Stormwater Coordinator responds to public complaints, tracks complaint areas and responds appropriately. Further, the City coordinates all the MCM's through employee training, provision of one-on-one training during inspections and guidance documents, as described below:

- 1. The City coordinates implementation of MCM #1 by using different methods of training for City employees, restaurants, automotive shops, car washes and the general public through guidance documents and one-on-one training during inspections/complaint-concern investigations providing information specific to improper disposal of waste and illicit discharges.
- 2. The City coordinates MCM #2 by having a Pearl River and a Brushy Creek stream cleanup using volunteers from the general public and through public meetings including twice per month Council Meetings that provide an opportunity for community feedback on the program. Discussions with these stream clean-up volunteers, include information specific to impacts on the environment due to improper disposal of waste and illicit discharges and educational materials is shared at these events.
- 3. The City coordinates MCM #3 Illicit Discharge Detection and Elimination by encouraging the public to report any illicit discharges they may see through the City's 24 hour hotline via telephone or the new online system currently under development that will allow for reporting/receiving feedback on reports via an on-line service.
- 4. The City coordinates MCM #4 Construction Site Stormwater Runoff Control by distributing written requirements, policies and protocols for construction site management. The City in the past had attempted to hold semi-annual meetings with contractors and developers with little to no attendance. We found that one-on-one meetings with contractors/developers were better received so that specific areas could be focused upon.
- 5. The City coordinates MCM #5 Post-Construction Stormwater Management in New Development and Redevelopment in the past had attempted to hold semi-annual meetings with contractors and developers with little to no attendance. We found that one-on-one

meetings with contractors/developers were better received so that specific areas could be focused upon. Additionally, the Department of Natural Resources did approve the City's O&M Manual complying with the post-construction runoff control program requirements.

6. MCM #6 Pollution Prevention/Good Housekeeping for Municipal Operations is coordinated by the City through provision of annual update training including information on the other 5 MCMs. Employees are trained and complete tasks to ensure operations within departments assist in pollution prevention and ensure good housekeeping practices are followed. City Operations include sweeping 201 miles of curb and gutter which, on average, removes 468 cubic yards of debris. Last year there were 838 storm features cleaned. The City Pretreatment and Stormwater Coordinator currently inspects twelve (12) facilities, nineteen (19) stormwater outfalls and ten (10) open conveyance/ambient sites on a monthly basis

**4.3.E** Implement a dry weather field screening strategy for unauthorized non-stormwater flows. The SWMP shall include a description of diagnostic monitoring procedures, including procedures for visual screening, sampling, or field analyzation and what parameters are sampled for to be used as indicators of discharge sources.

**4.3.E** The dry weather field screening process is a part of the City's IDDE plan. Stormwater outfalls are inspected monthly and chemical analysis is performed on outfalls once per quarter. If an illicit discharge is suspected, it is investigated. The site is tested and if the test values fall outside expected ranges which are pH 5.0 to 9.0 SU, temperature less than 30 degrees Celsius and dissolved oxygen greater than 5.0mg/L. An IDDE investigation is initiated and an investigation and follow-through occurs.

**4.3.F** Maintain and describe procedures to identify priority areas likely to have illicit discharges such as, but not limited to, any area where there is ongoing evidence of illicit discharges, or dumping; areas with higher likelihood of illicit connections such as neighborhoods with onsite sewage; or regions with a high percentage of directly connected impervious areas.

**4.3.F** The City has an IDDE plan that provides procedures and checklists for staff assigned monitoring and inspection tasks. The IDDE plan is reviewed annually for any needed updates/additions/deletions. (See Appendix F.)

**4.3.G** Provide procedures to ensure the permittee's illicit discharge ordinance (or other regulatory mechanism) is implemented by means of appropriate enforcement procedures, including fines, and actions. A description of these enforcement procedures shall be included in the SWMP.

**4.3.G** The City has an Illicit Discharge Ordinance which includes enforcement procedures The ordinance is reviewed annually and updates are made as needed. A copy of the ordinance is attached to the SWMP. (Appendix B) Enforcement provisions are as follows:

#### Sec. 22-105. - Discharge detection and elimination.

#### (1) Applicability.

a. This section shall apply to all water entering the storm drain system generated on any developed and undeveloped lands unless explicitly exempted.

#### (2) Ultimate responsibility.

a. The standard set forth in this section and promulgated pursuant to this section are minimum standards. Compliance with this section does not insure that there will be no contamination, pollution or unauthorized discharge of pollutants into the waters of the United States. This section shall not create liability on the part of the city or any agent or employee of the city for any damages that result from any discharges, reliance on this section or any administrative decision made under this section.

#### (3) Prohibitions.

a. *Illegal discharges:* It shall be unlawful for any person to discharge or cause to be discharged into the municipal separate storm sewer system or into any water course any material other than stormwater. The following discharges are exempt from the discharge prohibitions established by this article:

- 1. Waterline flushing or other potable sources.
- 2. Landscape irrigation or lawn watering.
- 3. Diverted stream flows.
- 4. Rising groundwater.
- 5. Groundwater infiltration.
- 6. Uncontaminated pumped groundwater.
- 7. Foundation or footing drains excluding active groundwater de-watering systems.
- 8. Crawlspace pumps, air conditioning, condensation.
- 9. Springs.
- 10. Non-commercial washing of vehicles.
- 11. Natural riparian habitat or wetland flows.
- 12. Swimming pools if dechlorinated to less than 1 ppm chlorine.
- 13. Fire fighting activities.
- 14. Other water not containing pollutants.
- 15. Discharges specified by the city as necessary to protect public health and safety.
- 16. Dye testing if notification is given to the city before the test, and

17. Any non-storm water discharge permitted under an NPDES permit, waiver or waste discharge order issued to the discharger and administered under the authority of the Environmental Protection Agency, provided that the discharger is in full compliance with all requirements of the permit, waiver or order and

other applicable laws and regulations, and provided that written approval has been granted for any discharge to the municipal separate storm sewer system.

#### (4) Illicit connections.

a. It shall be unlawful for any person to construct, use, maintain or have an illicit connection.

b. This section expressly applies to illicit connections made in the past even if the connection was permissible under law or practices applicable or prevailing at the time of connection.

#### (5) Waste disposal prohibitions.

a. It shall be unlawful for any person to place, deposit, or dump or cause or allow the placing, depositing or dumping any refuse, rubbish, yard waste, paper litter or other discarded or abandoned objects, articles and accumulations containing pollutants into the municipal separate storm sewer system or into any waterway.

#### (6) Connection of sanitary sewer prohibited.

a. It shall be unlawful for any person to connect a line conveying sewage to the municipal separate storm system or to allow such connection to continue.

b. It shall be unlawful for any person subject to an industrial activity or construction NPDES storm water discharge permit to fail to comply with all provisions of such permit.

#### (7) Continuing violation.

a. Each day that a violation of this article continues shall be deemed a separate offense.

#### (8) Notification of spills.

a. Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information or any known or suspected release of materials which are resulting or may result in illicit discharges or pollutants discharging into storm water, the storm drain system, or water of the U.S. said person shall take all necessary steps to insure the discovery, containment, and cleanup of such release. In the event of such release of hazardous materials said person shall immediately notify emergency response agencies of the occurrence via emergency dispatch services. In the event of a release of non-hazardous materials, said person shall notify the city in person or by phone or facsimile no later than next business day. Notification in person or by phone shall be confirmed by written notice addressed and mailed to the city within five business days of the phone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on- site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for three years.

#### (9) Regulations and monitoring.

a. The governing body may, by ordinance, adopt standards identifying best management practices (BMP) for any activity, operation or facility which may cause or contribute to pollution or stormwater, the storm drain system, waters of the state, or waters of the U.S. These standards should be on file at city hall. It shall be unlawful for any person undertaking any activity or owning or operating any facility subject to such standards to fail to comply with the standards.

b. The owner or operator of a commercial or industrial establishment shall provide reasonable protection from accidental discharge of prohibited materials or other wastes into the municipal separate storm sewer system or water courses through the use of structural or non-structural BMPs. Any person responsible for property which is or may be the source of an illicit discharge may be required to implement additional structural or non-structural BMP's to prevent further discharge. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of stormwater associated with industrial activity to the extent practicable shall be deemed in compliance with provisions of this section. These BMPs shall be part of the storm water pollution prevention plan as necessary for compliance with the requirements of the NPDES permit.

(10) Nuisance declared.

a. Any discharge in violation of this article is a nuisance.

b. Any illicit connection is a nuisance.

(Ord. No. 9976, § 1, 7-2-2012)

#### Sec. 22-106. - Enforcement and penalties.

*Violations:* Any person or entity violating any provision of this chapter is guilty of a public offense and shall be subject to penalties as provided in the Municipal Code.

The city shall be permitted to cite the owner, or any/all persons identified on the permit as being legally responsible to the city for any violations of this chapter pertaining to that permit.

*Restoration of lands:* Any violator may be required to restore land to its undisturbed condition. In the event that restoration is not undertaken within a reasonable time after notice, the director of public works may take necessary corrective action, of which the cost to the city shall become a lien upon the property until paid.

(Ord. No. 9976, § 1, 7-2-2012)

# MCM 4 – Construction Site Stormwater Runoff Control

The permittee shall develop, implement, and enforce a program to reduce pollutants in any stormwater runoff to the MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of stormwater discharges from construction activity disturbing less than one acre must be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more.

**4.4.A** The permittee shall have an ordinance and/or other regulatory mechanism to require construction site operators to implement erosion and sediment control BMPs at construction/land disturbance sites.

- 1. The ordinance or regulatory mechanism shall include sanctions which are designed to ensure compliance, to the extent allowable under state, or local law.
- 2. The SWMP must contain a copy of or a link to the relevant ordinance or regulatory mechanism.

**4.4.A** The City of Sedalia adopted Ordinance 9976 (Appendix B) which amended City Code to include Chapter 22 relating to stormwater treatment; in August, 2013 adopted Ordinance 10112 relating to Design Criteria and Standards for Stormwater Management (Appendix C) and Ordinance 10467 which added certain subsections related to Design Criterial and Standards for Stormwater Management (Appendix D). These sections set forth the City's Standards for Stormwater Management including pre-construction, construction and post-construction

requiring use of the latest edition American Public Works Association Manual of Best Management Practices Standard Specifications and Design Criteria for Storm Drainage Systems and Facilities, Section 5600 and of the Mid-America Regional Council's Manual of Best Management Practices (MARC BMP) and all appendices. The City's Public Works Department and the consulting professional engineer review and through an iterative review process provide feedback on potential water quality impacts and on site control plans for managing stormwater runoff throughout the development or redevelopment processes. These processes and checklists are reviewed annually and updates are made as needed.

- **4.4.B** The permittee shall maintain requirements for construction site operators to:
  - 1. Implement appropriate erosion and sediment control best management practices; and
  - 2. Control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality.

**4.4.B** The City of Sedalia adopted Ordinance 9976 (Appendix B) which amended City Code to include Chapter 22 relating to stormwater treatment; in August, 2013 adopted Ordinance 10112 relating to Design Criteria and Standards for Stormwater Management (Appendix C) and Ordinance 10467 which added certain subsections related to Design Criterial and Standards for Stormwater Management (Appendix D). These sections set forth the City's Standards for Stormwater Management including pre-construction, construction and post-construction requirements which use the latest editions of the American Public Works Association Manual of Best Management Practices Standard Specifications and the Design Criteria for Storm Drainage Systems and Facilities, Section 5600 and of the Mid-America Regional Council's Manual of Best Management Practices (MARC BMP) and all appendices which include requirements for control of erosion and sediment through best management practices. The City's Public Works Department and the consulting professional engineer review and through an iterative review process provide feedback on potential water quality impacts and on site control plans for managing stormwater runoff throughout the development or redevelopment processes. These processes and checklists are reviewed annually and updates are made as needed.

The City utilizes an SOP for construction site operators to ensure construction sites are managed appropriately. The City's SOP requires inspection of construction sites. The City's SOP includes the issuance of a City- construction permit requiring the construction site operator to develop, implement and maintain a Stormwater Pollution Prevention Plan (SWPPP) for the site throughout the life of the project or active construction activity at the site. The permit requires a SWPPP for the site including the details on appropriate installation, implementation, and maintenance of all BMPs used on the site for the life of the project, as well as details on controlling construction site waste, containing, but not limited to discarded building materials, concrete truck washout, chemicals, trash/litter, and sanitary waste. The SOP and construction site permit are reviewed annually and updates are made as needed.

**4.4.C** The permittee shall maintain and apply procedures for review of all pre-construction site plans for consideration of potential water quality impacts.

**4.4.C** The City of Sedalia adopted Ordinance 9976 (Attachment B) which amended City Code to include Chapter 22 relating to stormwater treatment; in August, 2013 adopted Ordinance 10112 relating to Design Criteria and Standards for Stormwater Management (Attachment C) and Ordinance 10467 which added certain subsections related to Design Criterial and Standards for Stormwater Management (Attachment D). These sections set forth the City's Standards for Stormwater Management including pre-construction, construction and post-construction requirements which use the latest editions of the American Public Works Association Manual of Best Management Practices Standard Specifications and the Design Criteria for Storm Drainage Systems and Facilities, Section 5600 and of the Mid-America Regional Council's Manual of Best Management Practices (MARC BMP) and all appendices which include requirements for consideration of potential water quality impacts. The City's Public Works Department and the consulting professional engineer review and through an iterative review process provide feedback on potential water quality impacts and on site control plans for managing stormwater runoff throughout the development or redevelopment processes. These processes and checklists are reviewed annually and updates are made as needed.

**4.4.D** The permittee shall maintain and apply mechanisms for receipt and consideration of information submitted by the public.

**4.4.D** The City utilizes a physical submission system and electronic submission systems for the public to submit concerns, complaints, or comments on any construction projects (development/redevelopment). The physical submission system is located at the Office of the City Clerk which accepts written concerns, complaints or comments from the public which are forwarded to the Public Works Department and then to the Public Works Project Manager responsible for review of the construction project for consideration and response during the pre-and construction project reviews. The City's new electronic submission system is being expanded to include Public Works and we plan to include a question "Do you have a concern about a construction project in the City"? These questions will be directed to appropriate Public Works staff for response and consideration during the pre- and construction review processes. As the review and approval process moves forward, members of the public requesting information will be included to allow further comment or to show where comments were addressed, as appropriate.

In the case of an environmental concern (i.e., failure to implement controls, hazardous material or chemical spills, etc.) deadlines for review and action are immediate to 24 hours and response to submitter within 48 to 72 hours based on completing review and/or an investigation, if necessary.

**4.4.E** The permittee shall maintain and apply procedures for site inspection and enforcement of control measures, this shall include prioritization of site inspection processes; AND

**4.4.F** 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. This shall include a monitoring plan and\or documentation with implementation schedules described in the SWMP.

**4.4.E and 4.4.F** The City of Sedalia adopted Ordinance 9976 (Appendix B) which amended City Code to include Chapter 22 relating to stormwater treatment; in August, 2013 adopted Ordinance 10112 relating to Design Criteria and Standards for Stormwater Management (Appendix C) and Ordinance 10467 which added certain subsections related to Design Criterial and Standards for Stormwater Management (Appendix D). These sections set forth the City's Standards for Stormwater Management including pre-construction, construction and post-construction requiring use of the latest edition American Public Works Association Manual of Best Management Practices Standard Specifications and Design Criteria for Storm Drainage Systems and Facilities, Section 5600 and of the Mid-America Regional Council's Manual of Best Management Practices (MARC BMP) and all appendices. The City's Public Works Department and the consulting professional engineer review and through an iterative review process provide feedback and inspection throughout construction.

In 2011, the City increased staff dedicated to monitoring construction sites and improved training for these inspectors. During construction permitting, Community Development distributes a guidance document to contractors/developers providing the weblink to City Code and specific written requirements set forth in the Code related to construction site stormwater management. The City's Building Department and Code Enforcement Sections as well as the Public Works Inspection staff monitor construction projects for compliance with City Code. (See Appendix B.)

The City's inspection staff annually inspect BMPs for maintenance and effectiveness; follow-up throughout the year on any resident complaints related to BMPs and seek corrective action related to any issues related to the BMPs.

**4.4.G** The permittee shall maintain and apply a plan designed to ensure compliance with the permittee's erosion and sediment control regulatory mechanism, this shall include the sanctions and enforcement mechanisms to be used to ensure compliance.

**4.4.G** City Code Section 22-105, Construction, has an enforcement process including sanctions (i.e., notice of noncompliance, stop work orders and revocation of permits), penalties, and fines to ensure compliance. The ordinance and code is attached. (Appendix B) The enforcement process is reviewed annually along with the rest of the City Code and updates are made as needed.

# MCM 5 – Post Construction Stormwater Management in New Development and Redevelopment

The permittee shall develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that would disturb one acre or more, and that discharge into the permittee's regulated MS4.

**4.5.A** The permittee shall develop, and implement strategies which include a combination of structural and/or non-structural best management practices (BMPs) appropriate for the 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, utilize BMPs that effectively remove stormwater pollution, and attempt to maintain predevelopment runoff conditions.

- 1. Details of these strategies to minimize water quality impacts shall be included in the SWMP.
- 2. The SWMP shall include a link to or copy of standards developed or adopted.

**4.5.A** The City enacted Ordinance #9976 (Appendix B) that covers the City's strategies to be protective of sensitive areas, minimize the creation of stormwater pollution, utilize BMPs that effectively remove stormwater pollution, and attempt to maintain predevelopment runoff conditions. The MS4 permit requires a mandate for pre-construction runoff conditions (the water quality component) in all new >1 acre land-disturbance projects (even smaller parcels if part of a common plan) and these requirements are met through implementation of the City Code. The City Code is reviewed annually to determine the need for update..

**4.5.B** To the extent allowable under state, or local law, through ordinance, or other regulatory mechanism, the permittee's Stormwater Management Program shall address post-construction runoff from new development and redevelopment projects. The regulatory mechanism the permittee will use shall be identified in the SWMP by including a link to or a copy of the ordinance(s) or regulatory mechanism(s). If the permittee needs to develop a mechanism, the schedule for implementation shall be described in the SWMP.

**4.5.B** The City of Sedalia through Ordinance #9976 (Appendix B) established requirements for post construction stormwater management. Emphasis was placed on enforcing performance criteria and long term Operation and Maintenance (O&M) requirements. The City Code is reviewed annually to determine the need for update.

**4.5.C** The permittee shall maintain a plan to ensure adequate long-term operation and maintenance of Post-Construction BMPs, both structural and non-structural. Descriptions of and/or examples of agreements between the permittee and other parties such as post-development landowners or regional authorities shall be included in the SWMP.

**4.5.C** The City increased staff dedicated to monitoring construction sites and improved training for these inspectors. The Community Development Department, Public Works Project Managers, Public Works Inspector and Code Enforcement staff distributes written requirements, and protocols for construction site stormwater management. The Public Works Project Managers, Public Works Inspector and as applicable, contracted consulting professional engineer monitor and inspect completed construction for conformance with the original plans. Annual inspections occur with an iterative follow-up process to ensure any needed corrective actions are taken.

**4.5.D** The permittee shall maintain and apply an inspection plan with implementation schedules for post-construction BMPs.

4.5.D The City has implemented a process to annually inspect post-construction BMPs. Letters are sent annually to owners (inspection complete and inspection requires corrective action), corrective action plan required within 30 days, as applicable, and visits are made to ensure return to compliance. Further, the City will inspect BMPs upon receiving a public concerns/complaints about a BMPs. The process follows the same process as the annual inspection. The City Code (Appendix B) is reviewed annually to determine the need for update.

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

**4.5.E** The City Code provides details of the City's process to ensure all BMPs are implemented and effective. The enforcement process is reviewed annually along with the rest of the ordinance and updates are made as needed. The City Code (Appendix B) is reviewed annually to determine the need for update.

# MCM 6 – Pollution Prevention/Good Housekeeping for Municipal Operations

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.

**4.6.A** An employee training program for municipal operations staff who work with material handling, at municipal vehicle or equipment maintenance areas, storage yards, and material storage facilities. The training shall be used to prevent and reduce stormwater pollution from activities such as, but not limited to, park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance. The SWMP shall include:

- 1. A description of any existing, available training material the permittee plans to use such as those available from EPA, the state, or other organizations. Include the frequency of training and topics covered.
- 2. A description of how this training will coordinate with all other MCMs.
- 3. A description of how this training will coordinate with monitoring, integrated planning, and TMDL implementations where applicable.

**4.6.A** The City has a training program for all municipal operations staff. The education program for municipal workers is administered semi-annually; half in the spring and half in the fall to ensure all employees have an opportunity to attend. Education is presented at the shop or facility that is being trained with a focus on pollutants of concern, spill plan, trash, watersheds and other stormwater policy. The City utilizes the SWPPP and the SWMP as training materials on proper management of municipal vehicle and equipment maintenance areas and storage yards; proper land disturbance site management; long-term BMP maintenance; and proper material handling at storage facilities. Facility specific training materials may be obtained from US EPA or MDNRs websites or through training organizations. Trainings are conducted for each new hire, and annual refreshers for each applicable department are held. If an employee misses their annual training, a make-up training date is scheduled.

The City's training program coordinates with all other MCMs as follows:

- 1. MCM #1 Public Education and Outreach of Stormwater Impacts: The City's employee training program is a component unit of the overall education effort under this MCD.
- 2. MCM #2 Public Involvement/Participation in Program Development: The City's employee training program is made available for review and comment through the public notice process. Any suggestions for improvement or areas requiring concentration are considered during the annual review process.
- 3. MCM #3 Illicit Discharge Detection and Elimination: As part of the City employee training, for those employees not routinely involved in IDDE monitoring, those other employees are trained to be aware of the potential for illicit discharges within the City and to be observant of such discharges and the process for reporting to appropriate staff for follow-up. IDDE training for those employees responsible for monitoring and inspection is conducted as part of their new employee training.
- 4. MCM #4 Construction Site Stormwater Runoff Control: As part of the City employee training, for those employees not routinely involved in construction site monitoring and inspection, those other employees are trained to be aware of the potential for construction site runoff within the City and to be observant in construction zones of such potential for runoff during rain/storm events and the process for reporting to appropriate staff for follow-up. Training for those employees responsible for reviewing construction plans, monitoring and inspection of construction sites, and post construction inspection monitoring is conducted as part of their new employee training.
- 5. MCM #5 Post-Construction Stormwater Management in New Development and

Redevelopment: As part of the City employee training, for those employees not routinely involved in post-construction site monitoring and inspection, those other employees are trained to be aware of the potential for post-construction site runoff and to be observant in areas where new construction or redevelopment has occurred and when runoff is seen during or following rain/storm events to notify to appropriate City staff for follow-up. Training for those employees responsible for reviewing construction plans, monitoring and inspection of construction sites, and post construction inspection monitoring is conducted as part of their new employee training.

6. MCM #6 - Pollution Prevention/Good Housekeeping for Municipal Operations: This MCM requires training of City staff in behaviors to prevent pollution from City Municipal Operations and to ensure employees are trained in good housekeeping practices. This MCM fits as part of the overall educational effort to prevent stormwater pollution within the City and can incorporate education pertaining to observing/reporting incidents related to illicit discharges and other stormwater runoff.

Monitoring, integrated planning, or TMDL implementations are not applicable at this time.

**4.6.B** The permittee shall maintain an updated list of all municipal operations/facilities that are impacted by this operation and maintenance program.

**4.6.B** The City has 12 City-owned and operated municipal facilities impacted by the City's operations and maintenance program. The facilities include:

- 1. Airport 1900 E. Boonville Road
- 2. Animal Shelter 2420 S. New York Avenue
- 3. Building Maintenance 3000 W. Main Street #100
- 4. Cemetery 701 N. Engineer
- 5. Parks
  - Centennial Park is located at 1400 E. 16th Street
  - Clover Dell Park is at 5257 W. 32nd Street
  - Housel Park is at 109 E. Howard Street
  - Hubbard Park is at 701 N. Missouri Avenue
  - KATY Park is at 2200 S. Grand Avenue
  - Liberty Park is at 1200 W. 3rd Street
  - Vermont Park is at 1200 S. Vermont Avenue
- 6. Public Works Complex 901 E. 3rd Street
  - Streets
  - Sanitation
  - Water Pollution Control
  - Municipal fueling station
- 7. Vehicle Maintenance 200 S. Kentucky Avenue

- 8. Water Treatment Plant / Water Department 28200 Water Works Road
- 9. Compost Facility 27882 Hwy U
- 10. Central Wastewater Treatment Plant 3000 W. Main Street #300
- 11. North Wastewater Treatment Plant 23985 Georgetown Road
- 12. South East Wastewater Treatment Plant 26999 Goodwill Chapel Road

The City's list of facilities is reviewed annually and updated, as needed.

**4.6.C** The permittee shall maintain an updated 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 in the SWMP. NPDES permitted facilities not owned or operated by the permittee are not required to be part of the list, however the permittee should be familiar with all such facilities in their MS4 service area as they may signify a priority area for the IDDE (MCM #3) program.

**4.6.C** The City has six (6) City-owned and operated municipal facilities subject to NPDES permits. The facilities are:

- 1. Airport 1900 E. Boonville Rd. (MOR80F005)
- 2. Central Wastewater Treatment Plant 3000 W. Main St. #300 (MO-0023019)
- 3. North Wastewater Treatment Plant 23985 Georgetown Rd. (MO-0023027)
- 4. South East Waste Water Treatment Plant 26999 Goodwill Chapel Rd. (MO-0101567)
  - Compost Facility, 27882 Highway U regulated and permitted under the wastewater treatment plants -- sludge management.
- Water Treatment Plant 28200 Water Works Rd. (MO-3010728) Note: The City currently operates its SWMP and program under the State's General Stormwater Permit (MOR040000)

**4.6.D** The permittee shall develop or maintain controls for reducing or eliminating the discharge of floatables and pollutants from municipal parking lots, maintenance and storage yards, waste transfer station, fleet or maintenance shops with outdoor storage areas, salt/sand storage locations, snow disposal areas owned or operated by the permittee, or other locations expected to contribute floatables and/or pollutants.

**4.6.D** The City's Storm Water Pollution Prevention Plan (SWPPP) covers all 12 municipal facilities. This plan is designed to assist in reducing or eliminating the discharge of floatables and pollutants from municipal parking lots, maintenance and storage yards, waste transfer station, fleet or maintenance shops with outdoor storage areas, salt/sand storage locations, snow disposal areas owned or operated by the permittee, or other locations expected to contribute floatables and/or pollutants and includes associated SOPs. (See Appendix E.)

**4.6.E** The permittee shall maintain and apply maintenance procedures, maintenance schedules, and long-term inspection schedules for controls to reduce floatables and other pollutants to the permittee's regulated MS4.

**4.6.E** The City Facilities have been evaluated with respect to possible illicit non- stormwater discharges. No illicit non-stormwater discharge connections, or risk of connections, were identified as part of the evaluation of these facilities. The Pretreatment and Stormwater Coordinator inspects City-owned sites where equipment maintenance, storage or material storage are exposed to stormwater and assess how well stormwater BMPs are operating. Complete routine inspections must occur quarterly; after trees have lost their leaves, is required to ensure that trash, debris, sediment and/or vegetation is not blocking more than 10 percent of the inlet capacity. Additional inspections are performed as appropriate after major storm and winter storm events (e.g., >1 inch of precipitation in 24 hours or environmental incident that causes contaminant release). Results of the inspections are performed on the Pretreatment and Stormwater Coordinator's Inspection Report forms, facilities are provided the information and corrective action monitored.

**4.6.F** The permittee shall utilize procedures for the proper disposal of waste removed from the separate storm sewers and areas of jurisdiction, including dredged material, accumulated sediments, floatables and other debris.

**4.6.F** The City has an SOP for the proper disposal of waste removed from the separate storm sewers and areas of jurisdiction. The City's SOP results in leaves and brush removed being taken to the City's Compost Facility for yard waste, as yard waste is banned from Missouri landfills; accumulated sediments are used as inert fill material by the City; floatables and other debris are picked up and placed in garbage bins for landfill disposal.

**4.6.G** The permittee shall utilize procedures for the washing of municipal vehicles and equipment.

- 1. Use of any soap or detergent shall only be where there is connection to sanitary sewer or equivalent; and
- 2. Any wash water that contains pollutants such as salt, oils, grease, sediment, grass clippings, lawn chemicals, or pesticides shall not be discharged to waters of the state or the MS4 system without appropriate treatment to ensure the discharged effluent is in compliance with Missouri Water Quality Standards.

**4.6.G** The City utilizes a wash bay at the Public Works Complex for washing of municipal vehicles and equipment. The drain for the wash bay is connected to the City's sanitary sewer system to ensure that any salt, oil, grease, sediment, grass clippings, lawn chemicals or pesticides are not discharged into waters of the state or the MS4 system without proper treatment. The sediment trap in the wash bay catches all mud and is cleaned out, at least, quarterly or more frequently, if needed. During any period that the City's wash bay is unavailable (i.e., being maintained or repaired), City vehicles use one of the car/truck washes within the City also connected to the City's sanitary sewer system.

**4.6.H** 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.

- 1. 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.
- 2. 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.

**4.6.H** All paints, solvents, petroleum products and petroleum waste products (except fuels) under the control of the City are stored so that these materials are not exposed to stormwater. Security measures for potential spill sources include: secondary containment specific to the type of material, locked flame proof storage containers, fenced and locked gates around the site perimeters, where practical. Secondary containment practices for hazardous materials are used. A spill response for each type of hazardous material at each City Facility is identified in the Spill Prevention and Response Plan. (Appendix G)

**4.6.I** If the permittee has new flood management projects (projects developed or designed to reduce flooding), the permittee shall utilize procedures to assess all flood management projects for impacts of water quality, incorporating water quality protection devices or practices.

**4.6.I** The City does not have any new flood management projects.

# Appendix A

- A.1. Stormwater Outfall Map
- A.2. Ambient/Open Conveyance Site Map
- A.3. Stormwater Features Map

# A.1. Stormwater Outfall Map



### Stormwater Outfall Map Legend

Stormwater Outfall Locations		
Outfall	Address	
1	28th St. and New York - S. side	
2	28th St. between Washington and Lafayette - S. side	
3	West of Kentucky on 32nd St S. side	
4	W. 32nd St. East of S. Limit St S. side	
5	Airport - E. side of N/S Runway	
6	Marshall and Booneville - NW Missouri Pressed Metal	
7	Sedalia Rd. W. of TCI Tire Center - N. side	
8	W. Main St. at bridge close to CWWTP Entrance - N. side	
9	South of High School on E. Sacajawea bottom of 1st hill - S. side	
10	32nd St. West City Limits - Just Past Lift Station - S. side	
11	South of High School on E. Sacajawea past high school - S. side	
12	Behind Movie Theater on Main St N. side	
13	Behind Bus Barn Lot on S. Park N. back corner	
14	Tree line past A-OK Storage to the South on the West side of the road	
15	Sneed Rd. W. side right before turn onto Booneville Rd.	
16	Next to intersection of Heard Ln. and Gressen Rd N. side	
17	Between Engineer Ave. and Cedar Dr. on Reine Ave N. side	
18	Southwest corner of State Fair College property	
19 (Old CSO)	Martin Luther King Jr. Rd. N. side behind building	

# A.2. Ambient/Open Conveyance Site Map



# Ambient/Open Conveyance Legend

Open Conveyances/Ambient Sites		
Outfall	Address	
West Clay	N. Osage between W. Hogan St and W. Clay St.	
Parkhurst Rd. Bridge	Close to the intersection of Parkhurst Rd and Market St.	
W. 5th	W. 5th St. ditch at State Fair Bridge	
Starbucks	NE side of Starbucks	
Hwy 50	Hwy 50 Ditch located S. side of Thompson Hills parking lot	
Tractor Supply	Tractor Supply going N. towards Menards	
W. 16th	Ditch at W. 16th St. at Pittsburg Corning	
W. 12th	W. 12th St. ditch at S. Park St.	
Washington	Washington ditch at 24th St. Bridge	
Centennial Park	Centennial Park Ditch at 24th St. Bridge	
#### A.3 Stormwater Features Map

The City's storm drainage system consists of 48 miles of stormwater ditches, 39 miles of stormwater piping, 245 miles of curb and gutter drainage, 119 storm culverts and 2,176 storm drain features.



## Appendix **B**

1. City Ordinance #9976 related to Stormwater Treatment issued July, 2012

### BILL NO. <u>2012 - 48</u> ORDINANCE NO. **9976**

#### AN ORDINANCE AMENDING CHAPTER 22 OF THE CODE OF ORDINANCES OF THE CITY OF SEDALIA, MISSOURI, AND ENACTING NEW ARTICLE IV OF SAID CHAPTER 22 OF THE CODE OF ORDINANCES OF THE CITY OF SEDALIA, MISSOURI, RELATING TO STORMWATER TREATMENT.

**BE IT ORDAINED** by the Council of the City of Sedalia, Missouri as follows:

**Section 1.** New Article IV of Chapter 22 of the Code of Ordinances of the City of Sedalia, Missouri, is added which reads as follows:

#### **"ARTICLE IV. STORMWATER TREATMENT**

#### Section 22-100: General

The purpose of this ordinance is to provide for the health, safety, and general welfare of the Citizens of the City through the regulation of stormwater and non-stormwater discharges into the City of Sedalia's Municipal Separate Storm Sewer System. The Governing Body has determined that there are two sets of regulatory controls that will accomplish this purpose.

- 1. Minimize to the maximum extent practicable the discharge of pollutants from developed land into the surface waters of the City by establishing reasonable requirements for the treatment of stormwater runoff from construction sites, new development, and redevelopment activities.
- 2. Eliminate to the maximum extent practicable non-storm water discharges (illicit discharges) into the Municipal Separate Storm Sewer System.

The Governing Body finds that land development and the associated increases in impervious cover can increase the quantity and nature of pollutants carried by storm water runoff, increase stormwater runoff rates and volumes, aggravate stream channel erosion and sediment transport, alter the hydrologic response of watersheds, and degrade the ecological function of downstream rivers, creeks, streams, lakes and other water bodies.

The Governing Body finds that stormwater treatment facilities and requirements can minimize those impacts by: reducing pollutant levels carried in stormwater runoff; removing or reducing the concentrations of those pollutants that are carried; reducing stream bank erosion, and by restoring stormwater runoff rates and volumes to levels closer to the predevelopment hydrologic regimes. Further, the Governing Body finds that there are established methods for controlling the introduction of pollutants into the Municipal Separate Storm Sewer System (MS4) in order to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit process. These methods are: to regulate the contribution of pollutants to the municipal separate storm sewer system (MS4) by stormwater discharges by any user; to prohibit Illicit Connections and Discharges to the MS4; and to establish legal authority to carry out all inspection, surveillance, and monitoring procedures necessary to ensure compliance with this ordinance.

#### Section 22-101: Definitions

- 1. "Applicant" means a property owner or agent of a property owner who had filed an application for a permit that is subject to the requirements of this Ordinance.
- 2. "Best Management Practice" shall mean a stormwater management facility or practice that provides the necessary level of water quality protection and runoff reduction for a given site.
- 3. "Channel" means a natural or artificial watercourse with defined bed and banks that conducts continuously or periodically flowing water
- 4. "City" means the City of Sedalia, Missouri
- 5. "Code" means the most current edition of the City of Sedalia Missouri, Code of Ordinances.
- 6. "Dedication" means the deliberate appropriation of property by its owner for general public use.
- 7. "Developer" means a person who engages in development of real estate, whether or not that person is the landowner.
- 8. "Development" means any man-made changes to improved or unimproved real estate, including, but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations.
- 9. "Director" means the Director of the Community Development Department or the Director's authorized representative.
- 10. "Director of Public Works" means the Director of Public Works Department or the Director's authorized representative.
- 11. "Impervious Cover" means those surfaces that cannot effectively infiltrate rainfall, including building rooftops, pavement, sidewalks, and driveways.
- 12. "Infiltration" means the process of percolating stormwater in the subsoil.
- 13. "Infill Development" means development on a vacant or substantially vacant tract of land surrounded by existing development.
- 14. "Land Disturbance" means any activity that changes the physical conditions of landform, vegetation and hydrology, creates bare soil, or otherwise may cause erosion or sedimentation. Such activities include, but are not limited to, clearing, removal of

vegetation, stripping, grading, grubbing, excavating, filling, logging and storing of materials.

- 15. "Landowner" means the legal or beneficial owner or owners of a lot or tract. The holder of a contract to purchase or other person having an enforceable proprietary interest in a lot or tract shall be deemed a landowner.
- 16. "Maintenance Agreement" means a legally recorded document that act as a property deed restriction, and which provides for long-term maintenance of stormwater management practices.
- 17. "Off-Site Facility" means a stormwater treatment facility located outside the subject property boundary described in the permit application for land development activity, including facilities that may accept runoff from multiple projects.
- 18. "Ordinary High Water Mark" means the point along a channel section where vegetation ceases to grow and be present due to frequent inundation and erosion caused by regular channel flows.
- 19. "Pollutant" means any substance or material which contaminates or adversely alters the physical, chemical or biological properties of water, including changes in temperature, taste, odor, turbidity, or color.
- 20. "Redevelopment" means development on a tract of land with existing structures where all or most of the existing structures would be razed and a new structure or structures built.
- 21. "Stop Work Order" means an order issued which requires that all construction activity on a site stopped.
- 22. "Stormwater" means stormwater runoff, snow melt runoff, and surface runoff and drainage from precipitation.
- 23. "Stormwater Pollution Prevention Plan" (SWPP Plan) shall mean a plan developed in accordance with EPA and Missouri Division of Natural Resources regulations for the prevention of downstream surface water pollution caused by construction activities.
- 24. "Stormwater Treatment Facilities" or "Facilities" means all structures, plantings natural features, or other physical elements that are designed, constructed and maintained in accordance with this Ordinance and which are provided to prevent or reduce stormwater pollution or to control stormwater runoff volume and discharges.
- 25. "Stormwater Treatment Standards" or "Standards" means the detailed design criteria, Specifications, standard details, and maintenance requirements adopted in writing by the Director.
- 26. "Stream Corridor" shall mean the area reserved for stream preservation under this Ordinance, and shall include the stream and adjacent vegetated area either side of the stream banks a prescribed distance per this Ordinance.
- 27. "Watercourse" means a permanent or intermittent stream or other body of water, either natural or man-made, which gathers or carries surface water.

#### Section 22-103: Stream Buffers

1. Natural stream protection on developments platted after September 1, 2012:Natural streams shall be buffered by a riparian zone which shall include the stream and all lands adjacent to the stream on both sides for the minimum distance from the ordinary high water mark (OHM) as specified in Table 1 below:

Table 1					
Tributary Area	Riparian Zone				
	Width (each side of				
	OHM)				
25 to 160 acres	40				
160 to 1,000 acres	70				
Over 1,000 acres	100				

buffer	zone	shall	be

The riparian delineated on preliminary plats, preliminary plans, final plans, and final plats based on the criteria stated above. The boundary of the riparian buffer zone shall be delineated by a separate tract of land of conservation easement and dedicated by plat or separate instrument with a legal boundary description.

- 2. The requirements in this section do not apply to Engineered Channels, which are identified as previously modified from the original stream alignment and fully armored below the ordinary high water mark with concrete, rip-rap, or similar man-made materials.
- 3. Riparian buffer zones shall remain undisturbed to the maximum extent practicable. This zone prohibits any land disturbance, clearing, grubbing or any other construction activities except as necessary for utility construction and road access. Such construction shall minimize disturbance of the stream and riparian buffer zone. Naturally occurring vegetation within the riparian buffer zone shall not be removed, diminished, inhibited, mowed, or substantially altered from its natural state or growth.
- 4. Certain other disturbances will be allowed in the riparian buffer zone provided that best management practices are employed to minimize disturbance. Examples of allowable uses include: Recreational trails, Stream restoration and bank stabilization projects, Recreational field and Parklands, Approved roadway crossings, and Lakes (with appropriate state and federal approvals).
- 5. Adjustments in widths of the riparian buffer zone may be made when approved by the City Administrator or his designee when local conditions justify deviation from the standard widths.
- 6. Whenever the designated riparian buffer zone must be disturbed, mitigation measures shall be taken to re-establish vegetative stream stabilization to the maximum extent practicable.
- 7. The City may approve deviations from the requirements of this Section if the Developer is able to show through an engineering and economic evaluation report that:

- a. The integrity of the stream and water quality in the natural stream can be maintained;
- b. All property, buildings and structures planned as part of the development will be protected from stream migration long-term;
- c. The requirements as stated herein would create an undue economic burden to the development and thereby eliminate the feasibility of the project;
- d. Proposed stream changes are approved by the US Army Corps of Engineers and Missouri Department of Natural Resources.

#### Section 22-104: Post Construction

- 1. Applicability
  - a. No land shall be developed without full compliance with this Chapter unless development occurs as allowed by the following exceptions:
    - i. Land disturbances of less than one acre that are not part of the common plan for development that will cumulatively disturb more than one acre
    - ii. Expansions and modifications to previously constructed developments, otherwise subject to this Chapter where the proposed increase in impervious surface is less than 5,000 square feet.
    - iii. Land disturbances for utility construction
    - iv. Agricultural land uses
    - v. Single lot residential developments that are not part of a larger common plan for development
    - vi. Repairs to any stormwater management facility or practice deemed necessary by the Director of Public Works.
  - b. City Administered Street Construction:
    - i. Street and thoroughfare construction projects administered and constructed directly by the City shall comply with this Ordinance except that compliance is not required for street and thoroughfare construction:
      (1) that would be exempt under the standard exceptions in Part 1 of this Section and (2) that will maintain, enhance, or reconstruct existing roadways, including the intersection improvements, turn lane additions, safety improvements, or new entrances, but which will not add additional through lanes.
    - ii. Unless subject to another agreement, stormwater treatment facilities installed as part of City administered projects are owned and maintained by the City.
    - iii. The City does not assert jurisdiction under this Ordinance over any construction work on State of Missouri Right-of-Way.
  - c. Previously Approved Development Plans:

- i. Projects having a preliminary development plan or plat approved prior to adoption of this Ordinance are exempt from the provisions of this Chapter, except as follows:
  - 1. Development plans approved prior to the effective date of this Ordinance may make "substantial or significant changes" as determined by the Director of Public Works until December 31, 2012, without invoking this Ordinance. Substantial or significant changes to development plans after January 1, 2012 must comply with this Ordinance in the same manner as a new development.
- 2. Performance Criteria
  - a. Stormwater Treatment Standards (Standards): The City shall adopt and maintain Stormwater Treatment Standards to implement and interpret the provisions of this Ordinance. The latest edition of Mid-America Regional Council and American Public Works Association Manual of Best Management Practices for Stormwater Quality (MARC BMP Manual) and all appendices shall be the basis of these Standards. Included in the Standards shall be additional technical guidance or exceptions to the MARC BMP Manual which have been adopted by the City. The additional guidance or exceptions may include, but not be limited to, modified best management practices, design criteria, construction specifications, or standard details. Copies of all adopted standards shall be on file and available in the Community Development Department.
  - b. Modifications to Standards: The Standards may be adopted and amended by the Director of Public Works following a public input process. The public input process shall include the following minimum steps: 1) posting proposed documents in draft form a minimum of 30 days prior to the City holding a public informational meeting; and 2) extending a written comment period for a minimum of 30 days after the public informational meeting. A new public input process is not required for revisions to the proposed draft documents if the Standards are adopted within 180 days of the public informational meeting
  - c. Minimum Control Requirements: All stormwater treatment facilities shall be designed to provide a combination of pollutant removal and water volume control that satisfies the level of service and value rating calculations set forth in the Stormwater Treatment Standards and other requirements established by City approved watershed management plans or studies.
  - d. Non-Structural Stormwater Practices: Non-structural stormwater treatment practices are encouraged to minimize the reliance on structural practices. Applicants wishing to obtain credit for using non-structural practices must ensure that these practices are documented and will remain unaltered by subsequent property owners by locating the facility in a conservation easement, separate tract

dedicated for stormwater treatment facilities or similar instrument as approved by the City Administrator or his designee.

- e. Modifications to Allow Alternate Compliances: In addition, the Director of Public Works may waive or modify any of the Stormwater Treatment Standards to encourage the implementation of alternative or innovative practices that implement the intent of the modified standards and provide equivalent public benefits without significant adverse impacts on surrounding developments. Such modifications may be granted for issues including, but not limited to:
  - i. Approval of alternative materials, devices, techniques, details or specifications for individual treatment facilities that would be expected to provide similar or better performance.
  - ii. Evaluations of credits, ratings, or level of service calculations to account for unique or special technical considerations
  - iii. Corrections, clarifications or modifications to requirements which the Director has found to give inadequate or undesirable performance
- f. Appeals of decisions made by the Public Works Director related to the Standards shall be made to the Governing Body.
- 3. Site Location and Placement

The location of stormwater treatment facilities shall be consistent with their functions while also conforming to the uses and constraints of the site. The facilities' location shall be approved by the City, and ownership and maintenance responsibility established. At a minimum, all stormwater treatment facilities will be shown on final construction plans and in the maintenance plan.

- a. Centralized and Common Stormwater Treatment Facilities: Most centralized and common facilities for stormwater management will be shown on preliminary plats, preliminary plans, final plans and final plats. The perimeter of the facility shall be documented by a legal boundary description as required by the Director, which could include, but not limited to, a separate tract, a conservation easement, or a dedication on the final plat.
- b. Distributed Stormwater Treatment Facilities: The City may determine that some distributed stormwater treatment facilities cannot be described practically by separate legal boundaries on plans or plats; in such circumstances, provisions will be made for maintenance of the facilities, documentation of their presence, and easements and rights of access, as set forth in Section 4, Part 8.
- c. Residential Single-Family and Two-Family Areas: Generally stormwater treatment facilities for residential single-family and two-family developments shall be centralized and located on a common tract, to be owned and maintained by a homeowner/home's association.

- d. The City may allow a limited number of distributed facilities on individual residential tracts, provided the applicant demonstrates that substantial provisions are in place to ensure long-term operation, maintenance and inspection of such facilities without undue burden to the City for tracking or monitoring compliance.
- e. Private Facilities in the Public Street Right-of-Way: Privately owned and operated stormwater treatment facilities shall be located outside of the public street right-of-way.
- f. Coordination with Utility Easements: Stormwater treatment facilities shall not be co-located within utility easements unless approved by the Director of Public Works.
- g. Detention Ponds: When detention facilities for peak flood control are required, such basins may be co-located with stormwater treatment facilities, provided that the facilities are designed to meet the requirements of both uses.
- h. Off-site Facilities: The City may consider proposals to manage stormwater runoff in off-site facilities that treat runoff from the proposed development and comply with the stormwater Treatment Standards. The off-site facility shall be in place prior to or concurrently with the proposed development. Long-term operations and maintenance responsibilities for the facilities must be established by legal agreements, approved by the City and recorded with County Records and Tax Administration.
- i. Stream buffers as required in Section 3 are considered a beneficial Stormwater Treatment Facility, therefore credit will be granted by the Stormwater Treatment Standards. In limited circumstances, which are specifically included in the Stormwater Treatment Standards, the outer one-third (1/3) of the designated stream buffer may incorporate additional features which enhance the buffer's stormwater treatment function. Such facilities must be consistent with the longterm integrity of the stream buffer as a natural, riparian zone.

#### 4. Deviations

- a. The Planning and Zoning Commission or Governing Body may, in the process of approving preliminary plats, final plats, preliminary development plans or final development plans, approve deviations from the specific terms of this Ordinance which would not be contrary to the public interest and where, owing to special conditions, a literal enforcement of the provisions of this Ordinance would result in unnecessary hardship for the applicant, and provided that the spirit of this Ordinance shall be observed, the public safety and welfare secured and substantial justice done for the application.
- b. An application for the deviation may only be granted upon a finding that all of the following conditions have been met:

- i. That the granting of the deviation will not adversely affect the rights of adjacent landowners
- ii. That the strict application of the provisions of this Ordinance would constitute unnecessary hardship upon the landowner represented in the application.
- iii. That the deviation desired will not adversely affect the public health, safety, morals, order, convenience, prosperity or general welfare.
- iv. That granting the deviation will comply with the general spirit and intent of this Ordinance.
- v. That it has been determined the granting of a deviation will not result in extraordinary public expense, create nuisances, cause fraud on or victimization of the public or conflict with existing local, federal, or state laws.
- vi. Upon consideration of the factors listed above and the purposes of this Ordinance, the City may attach such conditions to the granting of deviations as it deems necessary to further the purpose of this Chapter.
- c. In considering deviation applications, the City has the discretion of using any or all of the following project evaluations when, in the judgment of the Planning and Zoning Commission or Governing Body, these evaluations are relevant and appropriate. No individual or combination of evaluations are necessarily required for an application to be approved and the Planning Commission or Governing Body may weigh these evaluations in light of all relevant considerations in determining whether or not to approve an application.
  - i. That alternative standard for stormwater management, water quality protection and ecological preservation has been established, and/or that mitigation measures are undertaken.
  - ii. That existing physical or natural characteristics of the site make strict application of the Ordinance infeasible.
  - iii. That concerns for flooding, stream bank erosion, stream instability, and maintenance of culverts, bridges and other structures are addressed.
  - iv. That the deviation is the minimum necessary to afford relief
- d. For City administered street construction, a request for deviation will be initiated and recommended by the Director of Public Works and must be approved by the Governing Body. The City may consider, as part of a deviation request, the constraints posed by lack of available right-of-way, interaction with previously planned or approved stormwater drainage systems, and the nature of surrounding land uses.
- 5. Stormwater Management Plan Requirements

- a. Preliminary Stormwater Management Plan Requirements: No application for development shall be accepted unless it includes a preliminary stormwater management plan detailing in concept how runoff and associated water quality impacts resulting from the development will be controlled or managed. This plan must be prepared by a registered professional engineer in the State of Missouri and must show whether stormwater will be managed on-site or off-site, and show the general location and type of practices.
- b. The preliminary stormwater management plan must include: conceptual stormwater management plans, sufficient information to evaluate the existing environmental characteristics of the project site, impacts of the proposed development, preliminary sizing for stormwater treatment facilities, and locations of any proposed access easements or conservation easements, and a description of the maintenance responsibility for proposed stormwater treatment facilities. Final Stormwater Management Plan Requirements: Unless waived by the City Administrator or his designee, the applicant shall obtain City approval for the final stormwater management plan prior to obtaining a permit. The final stormwater management plan, in addition to the information from the preliminary stormwater management plan, shall include all of the information required in the Standards and any other submittal requirements.
- c. Landscaping and Stabilization Requirements: The landscape plan for permitting purposes shall include all of the following:
  - i. Vegetative stabilization and management techniques to be used at a site after construction is completed
  - ii. An explanation of how the site will be stabilized after construction.
  - iii. Identify the responsible party for the maintenance of vegetation at the site.
  - iv. Identify the practices that will be employed to ensure adequate vegetative cover is preserved.
  - v. The design is prepared by a registered landscape architect in the State of Missouri
  - vi. The design is approved prior to receiving a permit to construct the stormwater treatment facility.
- 6. Permit Procedures, Requirements, and Performance Surety
  - a. Permit Required: No person shall receive any permits for building, grading, or other land development without meeting the requirements of this Ordinance. Generally, permits for stormwater treatment facility construction will be completed under the authorization of a building, site development, or land disturbance permit.

- b. Construction Plan Requirements: Minimum construction plan submittal requirements shall be set by written policy or checklist.
- c. Performance Surety Required: The submittal of a performance Surety in the form of an irrevocable letter of credit or cash deposit shall be required. If a letter of credit is provided, it shall be on the form as prescribed by the City Attorney. The amount of the performance surety shall be 1.1 times the total construction cost of the stormwater treatment facility as estimated by the project designer

Performance Surety Waiver for Single Lot Developments: If stormwater treatment facilities only serve a single building lot and a building is being constructed, a performance surety may be waived by the Director provided all stormwater treatment facilities are constructed and certified prior to issuance of a Certificate of Occupancy, When seasonal or environmental conditions cause a delay in constructing the stormwater treatment facilities, the Director may approve issuing a Certificate of Occupancy provided a performance surety is posted in accordance with Section 5 Part 6 c.

- d. Release of Performance Surety: The performance surety will be released only when all of the following conditions have been met:
  - i. At least 100% of the land area served by the stormwater treatment facilities has permanent stabilization in place.
  - ii. All of the stormwater treatment facilities covered by the surety have been constructed and certified in accordance with this Chapter.
  - iii. If the stormwater treatment facility is constructed prior to final stabilization of at least 100% of the land area served by the facility, and the most recent certification of the facility is more than 90 days old; an updated certification shall be required to verify that the facility is fully functional.
- e. Maintenance Surety: Prior to issuance of a permit for construction of a stormwater treatment facility, the contractor shall submit cash, a letter or credit, or a maintenance bond. The contractor shall be responsible for all regular maintenance and repairs to of the stormwater treatment facility while the maintenance surety is in effect including, but not limited to repairs necessary due to damage caused by intentional or unintentional acts of others. The maintenance surety shall be in the amount of 50% of the construction cost of the facility and be utilized for any maintenance or rehabilitation costs associated with the stormwater treatment facility deemed necessary by the City, including, but not limited to; removal of siltation, mowing, replacement of vegetation, piping repairs, replacement of under drains, other repairs to the facility, and any administrative or

engineering costs associated with such maintenance and repairs. Maintenance sureties shall conform to the following:

- i. If the maintenance surety is in the form of a maintenance bond, it shall remain in effect for a period of three (3) years following initial certification of the stormwater treatment facility.
- ii. If the maintenance surety is in the form of a Letter of Credit, the contractor or developer shall deposit with the City Director of Finance, Budget and Administration an irrevocable letter of credit from an acceptable financial institution payable to the City collectable no later than three years from the date of initial certification of the stormwater treatment facility.
- iii. If the maintenance surety is in the form of cash, or letter of credit, all remaining money and any interest accrued thereon shall be returned to the contractor no later than four (4) years after the date of initial certification of the stormwater treatment facility.
- f. Timing of Stormwater Treatment Facility Construction: Stormwater treatment facilities shall be constructed as early as feasible during the development process. However, since some commonly used stormwater treatment facilities are sensitive to construction generated silt when upstream areas are under construction, the following provisions are allowable for timing of such facility construction:
  - i. For a stormwater treatment facility serving a single building lot, the facility shall be constructed concurrently with the development of the site and building, subject to exceptions set forward in Section 4, Part 6 d. of this Chapter.
  - ii. When stormwater treatment facilities serve multiple development lots within a Common plan of development, a stormwater treatment facility can be final graded and permanent vegetation installed only after 90% of the land area served by the facility has achieved permanent stabilization unless the Director approves a shortened schedule.
  - iii. For stormwater treatment facilities serving multiple development lots within a common plan of development, no Certificate of Occupancy shall be issued for any building or site unless a permit has been issued authorizing construction of required facility to serve the building or site.
- g. Failure to Construct a Required Stormwater Treatment Facility: When construction of a stormwater treatment facility is delayed beyond the limits as provided in this Section, the City may utilize any or all of the following enforcement mechanisms:
  - i. Draw upon performance surety funds as necessary to construct the stormwater treatment facility.

- ii. Withhold issuance of building permits for properties proposed to be served by such stormwater treatment facility.
- iii. Withhold issuance of Certificates of Occupancy or Certificates of Compliance for permitted work that is proposed to be served by such stormwater treatment facility.
- iv. Issue stop work orders for permitted work for any property that is proposed to be served by such stormwater treatment facility.
- 7. Construction Inspections
  - a. Inspections: Regular inspections of the stormwater management system construction shall be the responsibility of the project designer or other owner's representative and inspection results forwarded to the City. For certain types and locations of Stormwater Treatment Facilities, the City Administrator or his designee may at his discretion require additional or parallel inspections by City Staff.
  - b. As-Built Plans: All applicants are required to submit actual "as-built" plans for any constructed stormwater treatment practices. The plan must show the final design specifications for all stormwater treatment facilities and must be certified by the project designer. A final inspection by the City is required before the release of any performance securities can occur. The Director will determine required elements of the as-built plans.
  - c. Post Construction Certification: Prior to refunding of performance securities, the project designer, or other party approved by the Director, must certify that the stormwater treatment facility is fully functional and has been installed in accordance with the approved plans. For developments not requiring a performance surety, the certification shall be made prior to issuance of a Certification of Occupancy or Certificate of Compliance.
- 8. Maintenance and Repair of Facilities
  - a. Required Maintenance Agreement: Prior to issuance of any permit that includes construction of a stormwater treatment facility, the applicant or owner of the site shall provide a Maintenance Agreement for approval. At a minimum, the Maintenance Agreement shall:
    - i. Identify the responsible party for maintaining all stormwater treatment facilities.
    - ii. Include an attachment showing the locations of all stormwater treatment facilities.
    - iii. Provide access easements reserved for the responsible party to access and maintain all stormwater treatment facilities, as well as right of access to the City as provided in other sections of this Chapter.

- iv. Establish minimum frequency and levels of maintenance to be done.
- v. Identify and itemize anticipated annual maintenance expenditures that will be required during each of the first five (5) years of operation after termination of the contractor maintenance period, so that the responsible party may better plan for future maintenance costs. Establish the frequency of inspections to meet or exceed the requirements of this Chapter.
- vi. Identify resources available to provide maintenance.
- vii. Identify prohibited practices and homes or business association enforcement process for restoration.
- viii. Identify the City's rights in the event that the responsible party fails or is unable to perform any of the obligations of the Maintenance Agreement.
  - ix. Clarify how modifications or additions can be made to the Maintenance Agreement.
  - x. Be filed as a covenant to the recorded deeds of all lots to enforce the imposition of any special tax assessment that may be necessary to maintain stormwater treatment facilities if the responsible party fails or is unable to perform any of the obligations in the Maintenance Agreement.
- b. Formation of Homes or Business Association: If any of the Best Management Practices used to meet the Post Construction requirements for stormwater treatment on a developed site will require maintenance activities beyond what can be normally expected from any home owner/occupant, the owner or developer shall form a homes or business association prior to the sale of any lots, and the homes or business association covenants shall include, or reference, the provision of the approved Maintenance Agreement. The homes association or business association covenants shall include provisions collecting maintenance costs for stormwater treatment facilities.
- c. Notice on Plat or Title: The final plat and homes or business association deed restrictions shall contain language to provide notice of facility presence and maintenance obligations. Said deed restriction shall be recorded with the County Records and Tax Administration concurrent or prior to recording of the final plat or approval of final plans. The notice shall run with the land and failure to provide this notice to any purchaser prior to transferring any interest in the property shall be in violation of this Chapter. The notice shall be in an approved form and substantially as set forth below:
  - i. Notice: This site includes Stormwater Treatment Facilities, as defined and regulated in the most current edition of the City of Sedalia Missouri, Code of Ordinances. Restrictions on the use or alteration of the said facilities may apply. This property is also subject to the obligations and requirements of the Stormwater Treatment Facility Maintenance Agreement approved by the City"

- ii. When the proposal involves a final plat, this noticed shall appear on the face of the plat, as recorded. When the proposals do not involve a final plat, the notice shall be in the form of a notice of presence recorded with the County Records and Tax Administration, and the notice shall include the legal description of the property, the current owner, the application date and other reference to the project, and the notarized signature of the property owner or owners.
- d. Maintenance Inspections and Certifications by Property Owner: The property owners of all stormwater treatment facilities, except for distributed facilities serving individual residential lots, must submit an inspection report to the City, at the minimum of one (1) year following initial certification, and subsequently every two (2) years thereafter, or as required by the City Administrator or his designee. The inspection report shall be completed and sealed by a registered professional engineer in the State of Missouri. Such inspection shall document each item including, but not limited to, the needs for removal of silt, litter and other debris, grass cutting, removal of undesirable vegetation, and replacement of landscape vegetation. Any maintenance needs found must be addressed in a timely manner, and the inspection and maintenance requirement may be increased as deemed necessary to ensure proper functioning of the stormwater treatment facility.
- e. City Inspection of Stormwater Treatment Facilities: The City may establish an inspection program, including but not limited to: routine inspections, random inspections, inspections based upon complaints or other notice of possible violations, inspection of drainage basins or areas identified as higher than typical sources of sediment or other contaminants or pollutants, inspections of businesses or industries of a type associated with higher than usual discharges of contaminants or pollutants or with discharges of a type which are more likely than the typical discharge to cause violations of state or federal water or sediment quality standards or the NPDES stormwater permit, and joint Inspections may include, but are not limited to, reviewing maintenance and repair records, sampling discharges, surface water, groundwater, and material or water in drainage control facilities, and evaluating the condition or drainage control facilities and other stormwater treatment practices.
- f. Right of Entry Inspection: When any stormwater treatment facility is installed on private property, or when any new connection is made between private property and a public storm sewer system, the property owner shall grant to the City the right to enter the property at reasonable times and in a reasonable manner for the purpose of inspection. This includes the right to enter a property when it has a reasonable basis to believe that a violation of this Ordinance is occurring or has

occurred, and to enter when necessary for abatement of a public nuisance or correction of a violation of this Ordinance.

- g. Records of Installation and Maintenance Activities: Parties responsible for the operation and maintenance of a stormwater management facility shall make records of the installation and of all maintenance and repairs, and shall retain the records for at least five years. These records shall be made available during inspection of the facility and at other reasonable times upon request.
- h. Failure to Maintain Practices: If a responsible party fails or refuses to meet the requirements of the maintenance covenant, the City, after reasonable notice, may correct a violation of the Standards or maintenance needs by performing all necessary work to place the facility in proper working condition. In the event that the stormwater management facility becomes a danger to public safety or public health, the City shall notify the party responsible for maintenance of the stormwater management facility in writing. Upon receipt of that notice, the responsible person shall have90 days to effect maintenance and repair of the facility in an approved manner. In the event of an emergency, when the City Administrator or his designee determines that the facility poses an immediate danger to life or property, no notification period shall be required prior to beginning mitigation work. After proper notice, the Director will enforce the maintenance provisions of this Chapter with any or all of the following enforcement measures:
  - i. Notice of Violation: The City Administrator or his designee is authorized to serve a Notice of Violation or order on any person or entity responsible for maintaining the facility. Such notice shall order abatement of the violation by the responsible person or entity.
  - ii. Lien on Property: The City Administrator or his designee may assess the owner(s) of the facility for the cost of repair work and penalties; and the cost of the work shall be a lien on the property, or prorated against the beneficial users of the property, and may be placed on the tax bill and collected as ordinary taxes by the county.

#### Section 22-105 - Construction

1. Purpose

During the construction process, soil is highly vulnerable to erosion by wind and water. Eroded soil endangers water resources by reducing water quality and causing the siltation of aquatic habitat for fish and other desirable species. Eroded soil also necessitates repair of sewers and ditches. Clearing and grading during construction cause the loss of native vegetation necessary for terrestrial and aquatic habitat. In addition, constructions sites usually increase the potential for discharges of bulk chemicals and or oil based fluids, trash and debris, portable sanitary toilets, soils attached to vehicles leaving the site, and concrete wash out materials, among other pollutants of concern.

As a result, the purpose of this ordinance is to safeguard persons, protect property, and prevent damage to the environment in and around the City of Sedalia, Missouri. This ordinance will also promote the public welfare by guiding, regulating, and controlling the design, construction, use, and maintenance of any development or other activity that disturbs or breaks the topsoil of results in the movement of earth on land in the City of Sedalia.

- 2. Definitions
  - a. Clearing Any activity that removes the vegetative surface cover
  - b. Drainage Way Any channel that conveys surface runoff through the site
  - c. Erosion Control A measure that prevents erosion
  - d. Erosion and Sediment A set of plans prepared by or under the direction of a licensed engineer
  - e. Control Plan Indicating the specific measures and sequencing to be used to control sediment and erosion on a development site during and after construction
  - f. Grading Excavating or fill of material, including the resulting conditions thereof
  - g. Perimeter Control A barrier that prevents sediment from leaving a site by filtering sediment-laden runoff or diverting it to a sediment trap or basin
  - h. Phasing Clearing a parcel of land in distinct phases, with the stabilization of each phase completed before the clearing of the next
  - i. Sediment Control Measures the prevent eroded sediment from leaving the site
  - j. Site A parcel of land or a contiguous combination thereof, where grading work is performed as a single unified operation
  - k. Site Development A permit issued by the municipality for the construction or alteration of ground
  - 1. Permit Improvements and structures for the control of erosion, runoff, and grading
  - m. Stabilization The use of practices that prevent exposed soil from eroding
  - n. Start of Construction The first land-disturbing activity associated with a development, including land preparation such as clearing, grading, and filling; installation of streets and walkways; excavation for basements, footings, piers, or foundations; erection of temporary forms; and installation of accessory buildings such as garages
  - o. Watercourse Any body of water, including, but not limited to lakes, ponds, rivers, streams, and bodies of water delineated by the City of Sedalia
  - p. Waterway a channel that directs surface runoff to a watercourse of to the public storm drain

#### 3. Permits

Any land-disturbing activity that would require the uncovering of over one (1) acre of ground requires an application for a site development permit and the approval of an erosion and sediment control plan by the City of Sedalia.

The site development permit also requires that the owner or developer submit any other applicable permits such as the Corps of Engineers 404 permit, the State of Missouri's 401 permit, the State of Missouri's Land Disturbance permit, and permits for burning and/or blasting if these activities are required for the construction project.

No site development permit is required for the following activities:

- 1. Any emergency activity that is immediately necessary for the protection of life, property, or natural resources
- 2. Existing nursery and agriculture operations conducted as a permitted main or accessory use

Each application shall bear the names and addresses of the owner or developer of the site and of any consulting firm retained by the applicant together with the name of the applicant's principle contact at such firm and shall be accompanied by a filing fee as set in the City Ordinance.

Each applicant shall include a statement that any land clearing, construction, or development involving the movement of earth shall be in accordance with the Erosion and Sediment Control Plan and that a certified contractor shall be on site on all days when construction of grading activity takes place.

The applicant will be required to file with the City of Sedalia a faithful performance bond, letter of credit, or other improvement security in an amount deemed sufficient by the City of Sedalia to cover all costs associated with the repair and/or replacement of the erosion and sediment control devices required by the Storm Water Pollution Prevention Plan as approved for the site.

4. Review and Approval

The City of Sedalia will review each application for a site development permit to determine its conformance with the provisions of this regulation. Within 30 days after receiving an application, the City of Sedalia shall, in writing:

- 1. Approve the permit application;
- 2. Approve the permit application subject to such reasonable conditions as may be necessary to secure substantially the objectives of this regulation; and issue the permit subject to these conditions; or
- 3. Disapprove the permit application, indicating the reason(s) and the procedure for submitting a revised application and/or submission.

Failure of the City of Sedalia to act on an original or revised application within 30 days if receipt shall authorize the applicant to proceed in accordance with the plans as filed unless such time is extended by agreement between the applicant and the City of Sedalia. Pending preparation and approval of a revised plan, development activities shall be allowed to proceed in accordance with conditions established by the City of Sedalia.

5. Erosion and Sediment Control Plan

The Erosion and Sediment Control Plan shall meet all the requirements set forth in the most recent version of the Missouri Department of Natural Resources Land Disturbance Permit.

Modifications to the Erosion and Sediment Control Plan shall be documented whenever the modification is made; and the documentation shall be located at the land disturbance site at all times and available for inspection.

- 6. Design Requirements
  - a. Grading, erosion control practices, sediment control practices, and waterway crossings shall meet the design criteria set forth in the most recent version of the KC AWPA 5100, and shall be adequate to prevent transport of sediment from the site to the satisfaction of the City of Sedalia. Cut and fill slopes shall be no greater than 2:1, except as approved by the City of Sedalia to meet other community or environmental objectives.
  - b. Clearing and grading of natural resources, such as forests and wetlands, shall not be permitted, except when given a variance specifically for these activities by the City of Sedalia. Clearing techniques that retain natural vegetation and drainage patterns, as described in KC APWA 5100, shall be used. Clearing, except that necessary to establish sediment control devices, shall not begin until all sediment control devices have been installed and have been stabilized. Phasing shall be required on all sites disturbing greater than 30 acres, with the size of each phase to be established at plan review and as approved by the City of Sedalia.
  - c. Erosion control requirements shall include the following:
    - i. Soil stabilization shall be completed within fourteen (14) days of clearing or inactivity in construction.
    - ii. If seeding or another vegetative erosion control method is used, it shall become established within two weeks or the City of Sedalia may require the site to be re-seeded or a non-vegetative option may be employed.
    - iii. Special techniques that meet the design criteria outlined KC APWA 5100 on steep slopes or in drainage ways shall be used to ensure stabilization.
    - iv. Soil stockpiles must be stabilized or covered at the end of each work day.

- v. The entire site must be stabilized, using a heavy mulch layer or another method that does not require germination to control erosion, at the close of the construction season.
- vi. Techniques that divert upland runoff past disturbed slopes may be employed.
- d. Sediment controls requirements shall include:
  - i. Settling basins, sediment traps, or tanks and perimeter controls.
  - ii. Settling basins that are designed in a manner that allows adaptation to provide long term stormwater management, if required by the City of Sedalia.
  - iii. Protection for adjacent properties by use of a vegetative buffer strip in combination with perimeter controls.
- e. Waterway and watercourse protection requirements shall include:
  - i. A temporary stream crossing installed and approved by (404 Permit –Army Corps of Engineers and/or 401 Water Certification Permit Missouri Department of Natural Resources) if a wet watercourse will be crossed regularly during construction.
  - ii. Stabilization of the watercourse before, during, and after any in-channel work.
  - iii. All on-site stormwater conveyance channels designed according to criteria outlined in KC APWA 5600 and/or 5100.
  - iv. Stabilization adequate to prevent erosion located at the outlets of all pipes and paved channels.
- f. Construction site access requirements shall be include:
  - i. A temporary access road provided at all sites.
  - ii. Other measures required by KC APWA 5100 in order to ensure that sediment is not tracked onto public streets by construction vehicles or washed into storm drains.
- 7. Inspection

The City of Sedalia or designated agent shall make inspections as hereinafter required and either shall approve that portion of the work completed or shall notify the permittee wherein the work fails to comply with the Erosion and Sediment Control Plan as approved. Plans for grading, stripping, excavating, and filling work bearing the stamp of approval of the City of Sedalia shall be maintained at the site during the process of the work. To obtain inspections, the permittee shall notify the City of Sedalia at least two working days before the following:

- a. Start of construction.
- b. Installation of sediment and erosion controls.
- c. Completion of site clearing.
- d. Completion of rough grading.
- e. Completion of final grading.

- f. Close of the construction season.
- g. Completion of final landscaping.

The permittee or his/her agent shall make regular inspections of all control measures in accordance with the inspection schedule outlined on the approved Erosion and Sediment Control Plan(s). The purpose of such inspections will be to determine the overall effectiveness of the control plan and the need for additional control measures. All inspections shall be documented in written form and submitted to the City of Sedalia at the time interval specified in the approved permit.

The City of Sedalia or its designated agent shall enter the property of the applicant as deemed necessary to make regular inspections to ensure compliance with the approved Erosion and Sediment Control Plan.

8. Enforcement

Stop-Work Order/Revocation of Permit: In the event that any person holding a site development permit pursuant to this ordinance violates the terms of the permit or implements site development in such a manner as to materially adversely affect the health, welfare, or safety of persons residing in or working in the neighborhood or development site so as to be materially detrimental to the public welfare or injurious to property of improvements in the neighborhood, the City of Sedalia my suspend or revoke the site development permit.

Violation and Penalties; no person shall construct, enlarge, alter, repair, or maintain any grading, excavation, or fill, or cause the same to be done, contrary to or in violation of any terms of this ordinance. Any person violating any of the provisions of this ordinance shall be deemed guilty of a misdemeanor and each day during which any violation of any of the provisions of this ordinance is committed, continued, or permitted, shall constitute a separate offense. In addition to any other penalty authorized by this section, any person, partnership, or corporation convicted of violating any of the provisions of this ordinance shall be required to bear the expense of such restoration.

9. Separability

The provisions and sections of this ordinance shall be deemed to be separable, and the invalidity of any portion of this ordinance shall not affect the validity of the remainder.

#### Section 22-106: Discharge Detection and Elimination

- 1. Applicability:
  - a. This section shall apply to all water entering the storm drain system generated on any developed and undeveloped lands unless explicitly exempted.

#### 2. Ultimate Responsibility:

- a. The standard set forth in this section and promulgated pursuant to this section are minimum standards. Compliance with this section does not insure that there will be no contamination, pollution or unauthorized discharge of pollutants into the waters of the United States. This section shall not create liability on the part of the City or any agent or employee of the City for any damages that result from any discharges, reliance on this section or any administrative decision made under this section.
- 3. Prohibitions
  - a. Illegal Discharges: It shall be unlawful for any person to discharge or cause to be discharged into the municipal separate storm sewer system or into any water course any material other than stormwater. The following discharges are exempt from the discharge prohibitions established by this article:
    - i. Waterline flushing or other potable sources
    - ii. Landscape irrigation or lawn watering
    - iii. Diverted stream flows
    - iv. Rising groundwater
    - v. Groundwater infiltration
    - vi. Uncontaminated pumped groundwater
    - vii. Foundation or footing drains excluding active groundwater de-watering systems
    - viii. Crawlspace pumps, air conditioning, condensation
    - ix. Springs
    - x. Non-commercial washing of vehicles
    - xi. Natural riparian habitat or wetland flows
    - xii. Swimming pools if dechlorinated to less than 1 ppm chlorine
    - xiii. Fire fighting activities
    - xiv. Other water not containing pollutants
    - xv. Discharges specified by the City as necessary to protect public health and safety
    - xvi. Dye testing if notification is given to the City before the test, and
    - xvii. Any non-storm water discharge permitted under an NPDES permit, waiver or waste discharge order issued to the discharger and administered under the authority of the Environmental Protection Agency, provided that the discharger is in full compliance with all requirements of the permit, waiver or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the municipal separate storm sewer system.

- 4. Illicit connections
  - a. It shall be unlawful for any person to construct, use, maintain or have an illicit connection.
  - b. This section expressly applies to illicit connections made in the past even if the connection was permissible under law or practices applicable or prevailing at the time of connection.
- 5. Waste disposal prohibitions
  - a. It shall be unlawful for any person to place, deposit, or dump or cause or allow the placing, depositing or dumping any refuse, rubbish, yard waste, paper litter or other discarded or abandoned objects, articles and accumulations containing pollutants into the municipal separate storm sewer system or into any waterway.
- 6. Connection of sanitary sewer prohibited
  - a. It shall be unlawful for any person to connect a line conveying sewage to the municipal separate storm system or to allow such connection to continue.
  - b. It shall be unlawful for any person subject to an industrial activity or construction NPDES storm water discharge permit to fail to comply with all provisions of such permit.
- 7. Continuing violation
  - a. Each day that a violation of this article continues shall be deemed a separate offense.
- 8. Notification of Spills
  - a. Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information or any known or suspected release of materials which are resulting or may result in illicit discharges or pollutants discharging into storm water, the storm drain system, or water of the U.S. said person shall take all necessary steps to insure the discovery, containment, and cleanup of such release. In the event of such release of hazardous materials said person shall immediately notify emergency response agencies of the occurrence via emergency dispatch services. In the event of a release of non-hazardous materials, said person shall notify the City in person or by phone or Facsimile no later than next business day. Notification in person or by phone shall be confirmed by written notice addressed and mailed to the City within five business days of the phone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-

site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for three years.

- 9. Regulations and Monitoring
  - a. The Governing Body may, by ordinance, adopt standards identifying best management practices (BMP) for any activity, operation or facility which may cause or contribute to pollution or stormwater, the storm drain system, waters of the State, or waters of the U.S. These standards should be on file at City Hall. It shall be unlawful for any person undertaking any activity or owning or operating any facility subject to such standards to fail to comply with the standards.
  - b. The owner or operator of a commercial or industrial establishment shall provide reasonable protection from accidental discharge of prohibited materials or other wastes into the municipal separate storm sewer system or water courses through the use of structural or non-structural BMPs. Any person responsible for property which is or may be the source of an illicit discharge may be required to implement additional structural or non-structural BMP's to prevent further discharge. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of stormwater associated with industrial activity to the extent practicable shall be deemed in compliance with provisions of this section. These BMPs shall be part of the storm water pollution prevention plan as necessary for compliance with the requirements of the NPDES permit.
- 10. Nuisance declared
  - a. Any discharge in violation of this article is a nuisance.
  - b. Any illicit connection is a nuisance.

#### Section 22-107: Enforcement and Penalties

Violations: Any person or entity violating any provision of this Chapter is guilty of a public offense and shall be subject to penalties as provided in the Municipal Code.

The City shall be permitted to cite the owner, or any/all persons identified on the permit as being legally responsible to the City for any violations of this Chapter pertaining to that permit.

Restoration of Lands: Any violator may be required to restore land to its undisturbed condition. In the event that restoration is not undertaken within a reasonable time after notice, the Director of Public Works may take necessary corrective action, of which the cost to the City shall become a lien upon the property until paid.

#### Section 22-108: Miscellaneous

Compatibility with Other Permit and Ordinance Requirements: This Ordinance is not intended to interfere with, abrogate, or annul any other ordinance, rule of regulation, stature, or other provision of law. The requirements of this Ordinance should be considered minimum requirements, and where any provision of this Ordinance imposes restrictions different from those imposed by any other ordinance, rule or regulation or other provision of law, whichever provisions are more restrictive or impose higher protective standards for human health or the environment shall be considered to take precedence.

Severability: If the provisions of any article, section, subsection, paragraph, subdivision or clause of this Ordinance shall be judged invalid by a court of competent jurisdiction, such order of judgment shall not affect or invalidate the remainder of any article, section subsection, paragraph, subdivision or clause of this Ordinance.

Authority: The Director of Public Works shall be responsible for the administration and enforcement of this Ordinance. The City shall have the authority to adopt regulations, policies and procedures as necessary for the enforcement of this Ordinance."

is hereby enacted.

Section 2. This ordinance shall be in full force and effect from and after its passage and approval.

Read two times by title, copies of the proposed ordinance having been made available for public inspection prior to the time the bill is under consideration by the Council and passed by the Council of the City of Sedalia, Missouri this 2<sup>nd</sup> day of July, 2012.

<u>Many Elaino</u> Horn Presiding Officer of the Council

Approved by the Mayor of said City this 2<sup>nd</sup> day of July 2012.

Mary Chaine Horn Mary Elaine Horn, Mayor

ATTEST:

<u>Arlene Schuey</u> MRCC Arlene Silvey, MRCC City Clerk

## Appendix C

# 1. Ordinance 10112 relating to Design Criteria and Standards for Stormwater Management issued August, 2013

#### BILL NO. 2013 – 74

### ORDINANCE NO. 10112

#### AN ORDINANCE ADDING SECTION 22-56 AND REPEALING SECTIONS 22-48, 22-51, 22-53, 22-54 AND 22-55 OF THE CODE OF ORDINANCES RELATING TO SURFACE WATER RUNOFF MANAGEMENT.

### NOW THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF SEDALIA, MISSOURI, AS FOLLOWS:

Section 1. Section 22-56 is added to read as follows:

#### "Section 22-56 - Design Criteria and Standards for Stormwater Management

(a). Authority

As set forth in the City of Sedalia's Code of Ordinances, the Director of Public Works is authorized to adopt minimum design criteria for stormwater management facilities. All stormwater management facilities within the City of Sedalia (City) falling under the jurisdiction of the Code of Ordinances shall be designed in accordance with the requirements of this Design Criteria.

- (b) Adoption of the Mid-America Regional Council and American Public Works Association design criteria manuals ("Design Criteria") by Reference:
  - (1) Flood Control and Channel Protection Requirements:

Standard Specifications and Design Criteria, Section 5600, published by the Kansas City Metropolitan Chapter American Public Works Association (APWA 5600) is hereby adopted by reference as the Stormwater System Design Criteria for the City, except as amended in the following sections. This adoption shall apply to the most current (February 2011 at the time of this issuance) edition.

(2) <u>Water Quality Requirements:</u>

*Manual of Best Management Practices*, published by the Mid-America Regional Council (MARC BMP Manual), is hereby adopted by reference as the Water Quality Design Criteria for the City, except as amended in the following sections. This adoption shall apply to the most current edition (October 2012 at the time of this issuance).

- (c) Amendments to APWA 5600 Manual
  - (1) 5601.5 System Types and Applications

A.1.c. The requirement to provide 60 feet of clearance from an engineered channel to a building may be waived if existing site conditions prohibit achieving this requirement.

A.4. The City, through its Stormwater Master Plan, has defined the subsheds to which the detention strategies outlined in Part A.4.b shall be applied. This map is available at the Public Works Department and detention strategy requirements for any new development will be determined by the City at the pre-application meeting.

(2) 5601.6 - Waivers

Part A. replace "...in accordance with Section 5609..." with "...in accordance with the City's current checklist for Stormwater Management Studies..."

Add the following:

- C. For developments in areas identified by the City as "Extreme Event Control Only" zones, requirements for 1% and 10% control may be waived and/or release rates other than those required by Section 2.8 may be approved when the developer makes satisfactory arrangements to improve or provide a downstream conveyance system of hydraulic capacity meeting this criteria for peak rates of discharge to the system including discharge from the developer's site. The City Engineer or Public Works Director may also permit combined downstream conveyance improvements and other detention combinations that provide an equal or better level of control.
- (3) 5602.3, Table 5602-3: Gravel surfaces shall be assigned a Rational "C" value of 0.43 and a SCS Curve Number of 79.
- (4) 5608.4.B. For developments less than 10 acres in total planned area, detention volume may be evaluated using the "Simplified Volume" chart below, provided:
  - a. the total tributary area above the facility, including the development property and off-site area, is less than 10 acres;
  - b. at least 90% of the development property is tributary to the facility;
  - c. the discharge rates from the facility comply with those required by Section 5608.4.C.



#### (d) Amendments and Clarifications to MARC BMP Manual

The following amendments and clarifications to the MARC/APWA BMP Manual shall apply to stormwater treatment practices within the City:

- 1. Redevelopment sites smaller than 3 acres shall be required to meet a Level of Service no greater than 5.
- 2. For planned developments where construction will be phased, a Stormwater Management Plan for water quality treatment is required for the entire planned development. As development occurs, BMPs that receive runoff from the built areas shall be constructed with the new development in accordance with the Design Criteria.
- 3. Hydrodynamic separators (i.e. Hancor, Contech brand) and other proprietary systems providing a maximum effluent TSS of 20 mg/l shall be assigned a Value Rating of 5. These units shall only be used in high density developments with at least 75% impervious cover.
- 4. Limited Application Stormwater Treatment Facilities within a required Stream Corridor. It is recognized that Stormwater Treatment Facilities are intended to protect the health and quality of streams and riparian corridors, and thus should be implemented within development sites rather than within dedicated stream corridors. However, certain BMPs (described below) that maintain or enhance the character and function of a stream corridor may be included as part of the Stormwater Management Plan under the following conditions:
  - i. Installation of wetland swales or native vegetation swales to convey stormwater to the main stream channel when it is not practical to convert such flows into sheet flow (as approved by the Director).
  - ii. Installation of vegetated filter strips (ref. section D.1 above) to treat flows entering the stream corridor. Constructed filter strips shall be limited to the outer  $1/3^{rd}$  of required the minimum stream corridor width as defined under the Code of Ordinances. Generally, trees within the dedicated stream corridor should not be removed in order construct filter strips.
  - iii. Value Ratings:

**Swales**: Apply a value rating as indicated in the BMP manual to the total area treated by the swale – including areas treated by the swale within or outside of the stream corridor. No additional credit shall be taken for "native vegetation preserved or established" for the area including or treated by the swale.

**Vegetated Filter Strip**: Apply the value rating as described above in section D.1.c to upland areas tributary to a vegetated filter strip.

5. Recommended Applications

The table below is provided as a guide in selecting BMPs for various site development conditions.

Land Use	Rain Gardens & Bioretention	Native Veg. & Filter Strips	Vegetated Swales	Pervious Pavement	Wet & Dry Detention, Wetlands	Hydro- dynamic Separators
Commercial & Industrial	0	<b>17</b> 1		+	+	+
High Density Residential	+	0	0	0	+	0
Low Density Residential	0	+	+	-	+	-
Notes	Tend to catch trash and debris requiring frequent removal and maintenance. Good P & N removal.	Larger areas required for installation. Low maintenance.	Swales typically work well into single-family development drainage design, less so in high density.	Best used on sites where space is a premium, minimal sediment runoff and tree debris.	Highly applicable for any site type if space is available. Pre- treatment required to control sedimentation.	Often clog when overloaded with tree and lawn debris; best for high density applications.
Legend Not Recommended 0 Somewhat Applicable + Highly Applicable						

#### **BMP** Applicability Guide

#### 6. Signage

Informational signage is recommended at readily visible locations along the perimeter of preserved or established native vegetation defined as effective elements of the Stormwater Management Plan (i.e. filter strips, restored or enhanced stream corridors, swales, bioretention areas) in order to prevent routine mowing and other practices not in conformance with the approved Maintenance Plan for the site. If signage is to be provided, locations should be shown on the Stormwater Management Plan.

7. Minimum Easement and Setback Requirements:

Maintenance/access easements shall be provided per Code of Ordinances for all stormwater treatment facilities. In addition, minimum setbacks from buildings shall be provided to ensure desirable site designs and to prevent potential water damage to buildings. The following establishes minimum easement and setback dimensions for BMPs installed under the Code:

a. Setbacks for Infiltration Facilities: Any facility that causes water to pond and infiltrate into the subsurface after a rainfall event shall be located a minimum of 20 feet away from any residential structure, measured from the design WQv pool elevation to the outside face of the structure. Representative BMPs include bioretention cells and infiltration basins. Rain gardens installed to treat stormwater from individual residential building lots shall generally be located a minimum of 10 feet away from any residential structure and located on the downslope side of the building.

- b. Setbacks for Natural Conveyance Swales: The design WQv pool elevation shall be located a minimum of 20 feet from any residential structure.
- c. Access Route: All stormwater treatment facilities shall maintain a minimum 15foot wide access route from a paved public access route.
- d. Easements for Basins and Ponds: A 15-foot wide maintenance access strip with a maximum 5:1 slope, shall be provided around the perimeter of ponds and basin-type stormwater treatment facilities (see examples below). Additionally, a 20-foot minimum setback shall be provided from the 1% design storm water surface elevation in such facilities to all residential structures. Examples of ponds and basin-type stormwater treatment facilities as defined in the MARC/APWA BMP Manual include:
  - Extended Detention Wetlands
  - Extended Wet Detention
  - Extended Dry Detention Basins
  - Wet Ponds
- e. Setbacks on Non-Residential Developments: The City recognizes that higher density developments (office, retail, mixed-use, etc.) may require stormwater treatment facilities to be placed closer to buildings than noted above for residential construction. In these cases, the Design Engineer shall show that the facilities are completely separated from the building foundation to address geotechnical and structural concerns, including but not limited to sub-drainage, differential movement and shrink/swell factors.
- f. **Protection of Property:** In addition to the above setback requirements, the 1% design storm shall be routed through all stormwater treatment systems to ensure minimum freeboard requirements are met as described in Section D.4.a of the Design Criteria Stormwater Conveyance Facilities.
- (e) Construction Specifications and Details

All storm drainage construction performed pursuant to these design criteria shall utilize construction specifications and details provided in the MARC/APWA BMP Manual and as approved by the City.

(f) Modifications to Allow Alternate Compliance

Waivers or modifications of specific requirements from these Standards shall conform with the requirements of the Sedalia Code of Ordinances. Variance requests must be made to the Governing Body or by such process as the Governing Body has established.

Section 2. Sections 22-48, 22-51, 22-53, 22-54 and 22-55 of the Code of Ordinances are repealed in their entirety.

Section 3. This ordinance shall be in full force and effect from and after its passage and approval.

Read two times by title, copies of the proposed ordinance having been made available for public inspection prior to the time the bill is under consideration by the Council and passed by the Council of the City of Sedalia, Missouri this 19th day of August, 2013.

Mary Claime Horn Presiding/Officer of the Council

Approved by the Mayor of said City this 19th day of August, 2013.

<u>Mary Flaine Vorn</u> Mary Elaine Horn, Mayor

ATTEST:

Arlene Schiey MRCC

City Clerk

### Appendix D

 Ordinance 10467 relating to additional sections on Design Criteria and Standards for Stormwater Management issued June, 2016
## BILL NO. 2016 – 58

# ORDINANCE NO. 10467

## AN ORDINANCE AMENDING AND ADDING CERTAIN SUBSECTIONS OF SECTION 22-56 OF THE CODE OF ORDINANCES OF THE CITY OF SEDALIA, MISSOURI RELATING TO DESIGN CRITERIA AND STANDARDS FOR STORMWATER MANAGEMENT.

# NOW THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF SEDALIA, MISSOURI, AS FOLLOWS:

Section 1. Certain subsections of Section 22-56 are amended and added as follows:

### "Section 22-56 - Design Criteria and Standards for Stormwater Management

A.4. The City adopts the following watershed control strategy for allowable runoff from a site:

- a. Provide peak runoff control for the 1% chance storm and 10% chance storm by detention or other runoff controls so that post-development peak flows are less than or equal to pre-development peak flows.
- b. Provide volumetric and/or extended detention control of the 90% mean annual event storm.
- c. In locations where existing downstream structures are known to experience flooding, peak runoff control will be provided for the 1%, 2%, 4%, 10%, and 50% chance storms so that post-development peak flows are less than or equal to pre-development peak flows.
- d. The City recognizes that in some locations detention may actually increase downstream flooding. Drainage evaluations for development projects will include consideration of the timing of watershed hydrographs. In locations where detention will increase peak flows in downstream tributaries and creeks, stormwater management strategies will be adjusted to minimize flooding....
- (1) 5602.2 The preferred computation method for runoff will be the Curve Number methods for abstractions developed by the NRCS, the watershed lag method for time of concentration, and the SCS dimensionless unit hydrograph as outlined in the NRCS National Engineering Handbook and other NRCS technical publications. The City will allow other methods when engineering analysis demonstrates that the methods provide more accurate results....
- (2) 5602.3B Runoff Coefficients. Runoff Coefficients ("C") and Curve Numbers (CN) for non-paved pre-development land use and cover will reflect actual existing conditions but will be no greater than the established values for "Pasture (Fair)" or

"Open Space (Fair)". Hydrologic Soil Group will be based on NRCS soil survey data or geotechnical analysis....

(3) 5608.4C. Release Rates. Design of runoff controls shall be based on postdevelopment peak flows mitigated to less than or equal to pre-development peak flows."

Section 2. This ordinance shall be in full force and effect from and after its passage and approval.

Read two times by title, copies of the proposed ordinance having been made available for public inspection prior to the time the bill is under consideration by the Council and passed by the Council of the City of Sedalia, Missouri this 20<sup>th</sup> day of June, 2016.

esiding Officer of the Council

Approved by the Mayor of said City this 20<sup>th</sup> day of June 2016.

ephen J. Galliher, Mayor

ATTEST:

Irlene Selver MPCC

Arlene Silvey, MPCC Clerk

# Appendix E

# **1. Stormwater Pollution Prevention Plan**



# City of Sedalia, Missouri

In Compliance with the Missouri Department of Natural Resources Sedalia Central Wastewater Treatment Facility (MO-0023019 effective April 1, 2019) Sedalia North Wastewater Treatment Facility (MO-0023027 effective April 1, 2019) Sedalia Southeast Wastewater Treatment Facility (MO-0101567 effective April 1, 2019) City of Sedalia Small MS4 (MOR040001 effective April 1, 2017)

Airport, Animal Shelter, Facilities Maintenance, Cemetery, Parks & Recreation & Recreation, Public Works Complex, Vehicle Maintenance, Water Treatment Plant/Water Division, Central Wastewater Treatment Plant, North Wastewater Treatment Plant, Southeast Wastewater Treatment Plant and Compost Facility

# TABLE OF CONTENTS

1.0	Background And General Requirements	5
1.1	Objectives Of The SWPPP	5
1.2	NPDES Permit Coverage	6
1.3	Integration With Other Coverage	6
1.4	SWPPP Availability	6
2.0	Facility Assessment	6
2.1	Operations At City of Sedalia Facilities	6
2.2	Vicinity Map And Site Drainage Plans	. 12
2.3	Receiving Waters And Wetlands	. 13
3.0	Areas Associated With Permit-Covered Activity	.13
3.1	Activities In The Area	.13
3.2	Pollutants	.13
4.0	Historical Spills and Leaks	. 18
5.0	Monitoring Plan	. 18
6.0	Illicit Non-Stormwater Discharges	. 18
7.0	Schedule for Implementing Additional or Enhanced BMPs	. 19
8.0	BMPs for Compliance with the NPDES Permit	. 19
		~~
9.0	Operational Source Control BMPs	. 20
9.0 9.1	Operational Source Control BMPs Required Citywide BMPs	. 20 . 20
9.0 9.1 9.2	Operational Source Control BMPs Required Citywide BMPs Formation Of A Pollution Prevention Team	. 20 . 20 . 21
9.0 9.1 9.2 9.3	Operational Source Control BMPs Required Citywide BMPs Formation Of A Pollution Prevention Team Reporting And Recordkeeping	. 20 . 20 . 21 . 22
<ul><li>9.0</li><li>9.1</li><li>9.2</li><li>9.3</li><li>9.4</li></ul>	Operational Source Control BMPs Required Citywide BMPs Formation Of A Pollution Prevention Team Reporting And Recordkeeping Inspections	. 20 . 20 . 21 . 22 . 22
<ul><li>9.0</li><li>9.1</li><li>9.2</li><li>9.3</li><li>9.4</li><li>10.0</li></ul>	Operational Source Control BMPs Required Citywide BMPs Formation Of A Pollution Prevention Team Reporting And Recordkeeping Inspections. Source-Specific Structural Source Control BMPs.	. 20 . 20 . 21 . 22 . 22 . 22
<ul> <li>9.0</li> <li>9.1</li> <li>9.2</li> <li>9.3</li> <li>9.4</li> <li>10.0</li> <li>11.0</li> </ul>	Operational Source Control BMPs Required Citywide BMPs Formation Of A Pollution Prevention Team Reporting And Recordkeeping Inspections Source-Specific Structural Source Control BMPs Treatment BMPs	. 20 . 20 . 21 . 22 . 22 . 22 . 22 . 30
<ul> <li>9.0</li> <li>9.1</li> <li>9.2</li> <li>9.3</li> <li>9.4</li> <li>10.0</li> <li>11.0</li> <li>12.0</li> </ul>	Operational Source Control BMPs Required Citywide BMPs Formation Of A Pollution Prevention Team Reporting And Recordkeeping Inspections. Source-Specific Structural Source Control BMPs Treatment BMPs Flow Control BMPs	. 20 . 20 . 21 . 22 . 22 . 22 . 22 . 30 . 31
<ul> <li>9.0</li> <li>9.1</li> <li>9.2</li> <li>9.3</li> <li>9.4</li> <li>10.0</li> <li>11.0</li> <li>12.0</li> <li>13.0</li> </ul>	Operational Source Control BMPs Required Citywide BMPs Formation Of A Pollution Prevention Team Reporting And Recordkeeping Inspections. Source-Specific Structural Source Control BMPs Treatment BMPs Flow Control BMPs Erosion and Sediment Control BMPs.	. 20 . 20 . 21 . 22 . 22 . 22 . 30 . 31 . 31
9.0 9.1 9.2 9.3 9.4 10.0 11.0 12.0 13.0 14.0	Operational Source Control BMPs Required Citywide BMPs Formation Of A Pollution Prevention Team Reporting And Recordkeeping Inspections. Source-Specific Structural Source Control BMPs Treatment BMPs Flow Control BMPs Erosion and Sediment Control BMPs. Operation and Maintenance	. 20 . 20 . 21 . 22 . 22 . 30 . 31 . 31 . 31
<ul> <li>9.0</li> <li>9.1</li> <li>9.2</li> <li>9.3</li> <li>9.4</li> <li>10.0</li> <li>11.0</li> <li>12.0</li> <li>13.0</li> <li>14.0</li> <li>15.0</li> </ul>	Operational Source Control BMPs Required Citywide BMPs Formation Of A Pollution Prevention Team Reporting And Recordkeeping Inspections Source-Specific Structural Source Control BMPs Treatment BMPs Flow Control BMPs Erosion and Sediment Control BMPs Operation and Maintenance Handling and Disposal of Solid and Liquid	. 20 . 20 . 21 . 22 . 22 . 30 . 31 . 31 . 31
<ul> <li>9.0</li> <li>9.1</li> <li>9.2</li> <li>9.3</li> <li>9.4</li> <li>10.0</li> <li>11.0</li> <li>12.0</li> <li>13.0</li> <li>14.0</li> <li>15.0</li> <li>16.0</li> </ul>	Operational Source Control BMPs Required Citywide BMPs Formation Of A Pollution Prevention Team Reporting And Recordkeeping Inspections. Source-Specific Structural Source Control BMPs Treatment BMPs Flow Control BMPs Erosion and Sediment Control BMPs. Operation and Maintenance Handling and Disposal of Solid and Liquid. Concluding Statement	. 20 . 20 . 21 . 22 . 22 . 30 . 31 . 31 . 31 . 32 . 32

## TABLES

Table 1 – Addresses and points of discharge for the City of Sedalia Facilities	13
Table 2 – Pollution-generating activities, potential pollutants and relevant BMPs	14
Table 3 – Pollution prevention team for the City Facilities	22
Table 4 – Pollution-generating activities, existing BMPs and corrective actions for the Airport	23
Table 5 – Pollution-generating activities, existing BMPs and corrective actions for the Animal Shelter	23
Table 6 – Pollution-generating activities, existing BMPs and corrective actions for the Facilities Maintenance Shop	24
Table 7 – Pollution-generating activities, existing BMPs and corrective actions for the Cemetery	24
Table 8 – Pollution-generating activities, existing BMPs and corrective actions for the Parks & Recreation	25
Table 9 – Pollution-generating activities, existing BMPs and corrective actions for the Public Works Complex	27
Table 10 – Pollution-generating activities, existing BMPs and corrective actions for the Vehicle Maintenance Shop	28
Table 11 – Pollution-generating activities, existing BMPs and corrective actions for the Water Plant/Water           Department	28
Table 12 – Pollution-generating activities, existing BMPs and corrective actions for the Central Wastewater Treatment Plant	29
Table 13 – Pollution-generating activities, existing BMPs and corrective actions for the North Wastewater Treatment Plant	29
Table 14 – Pollution-generating activities, existing BMPs and corrective actions for the Southeast Wastewater Treatment Plant	30
Table 15 – Pollution-generating activities, existing BMPs and corrective actions for the Compost Facility	30

# **APPENDICES**

APPENDIX A	City Vicinity Map and Site Specific Maps for each facility
APPENDIX B	City Spill History and Spill Reporting Form
APPENDIX C	City Stormwater O&M Requirements Table
APPENDIX D	City Annual Inspection Forms
APPENDIX E	Spill Prevention Plan for each specific facility
APPENDIX F	Source-Specific Best Management Practices (BMPs)

## 1.0 Background and General Requirements

The Missouri Department of Natural Resources (MDNR) requires that the City of Sedalia (City) meet the requirements of the National Pollutant Discharge Elimination System (NPDES) Sedalia Small MS4 (MOR040001), Sedalia Central Wastewater Treatment Facility (MO-0023019), Sedalia North Wastewater Treatment Facility (MO-0023027) and Sedalia Southeast Wastewater Treatment Facility (MO-0101567). These NPDES permits cover Storm Water Pollution Prevention Plans (SWPPP) regarding discharges from the City's municipal separate storm sewer system (MS4) which is defined as:

"Through the implementation of the SWPPP, the permittee shall minimize the release of pollutants in stormwater from the facility to the waters of the state. The SWPPP shall be developed in consultation with the concepts and methods described in the following document: <u>Developing Your Stormwater Pollution Plan, A Guide for Industrial Operators</u>, (Document number EPA 833-B-09-002) published by the United States Environmental Protection Agency (USEPA) in February 2009."

NPDES Central Wastewater Treatment Plant Permit MO-0023019 special condition number 20 and 21 requires the City to develop and implement a SWPPP for all facilities owned or operated by the City in areas subject to the NPDES Permit. The City has developed this SWPPP to be implemented at applicable facilities in compliance with the NPDES Permit requirement based on the *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators.* 

#### **1.1 Objectives of the SWPPP**

This document serves as the SWPPP for facilities owned or operated by the City. Twelve facilities discharge to the City's MS4; the Airport, Animal Shelter, Facilities Maintenance, Cemetery, Parks & Recreation, Public Works Complex, Water Treatment Plant/Water Department, Central Wastewater Treatment Plant (CWWTP), North Wastewater Treatment Plant (NWWTP), Southeast Wastewater Treatment Plant (SEWWTP) and the Compost Facility. These twelve sites are included in this SWPPP since activities at these sites can be categorized as material storage and operational facilities. These twelve facilities will be discussed in detail in the subsequent sections of this SWPPP.

The objectives of this SWPPP are:

- To implement and maintain best management practices (BMPs) that identify, reduce, eliminate, and/or prevent the discharge of stormwater pollutants
- To prevent violations of surface water quality, groundwater quality and sediment management standards
- To prevent adverse impacts to receiving water by controlling peak rates and volumes of stormwater runoff
- To eliminate unpermitted discharges and other illicit discharges to the City's MS4

The SWPPP contains the methods, procedures and BMP's that City facilities implement to reduce or eliminate the release of pollutants to the City's MS4 and/or surface waters. The mechanisms for such a release may include the inadvertent contamination of stormwater to the MS4. This document includes the following information:

- Definition of SWPPP Coordinator requirements and responsibilities
- Identification of Pollution Prevention Team personnel
- Facility descriptions and activities

- Description of BMPs
- Description of monitoring, inspection and recordkeeping requirements

The following appendices are also included:

- Appendix A City Vicinity Map and Site Specific Maps for each facility
- Appendix B City Spill History and Spill Reporting Forms
- Appendix C City Stormwater O&M Requirements Table
- Appendix D City Annual Inspection Form
- Appendix E Spill Prevention Plan for each specific facility
- Appendix F Source Specific Best Management Practices (BMPs)

This SWPPP is updated annually or whenever there is a significant impact on discharges of pollutants from City facilities (e.g., construction or a change in facility design).

### **1.2 NPDES Permit Coverage**

The City's stormwater discharges are authorized under the terms and conditions of the Sedalia Small MS4 NPDES Permit (MOR040001) effective April 1, 2017 and the CWWTP NPDES Permit (MO-0023019), effective on April 1, 2019, until both the NPDES Permits expire. The City owns and manages property throughout the City. In general, Street & Alley and Water Pollution Control (WPC) is responsible for operation and maintenance (O&M) of the separate stormwater drainage system.

#### **1.3 Integration with Other Coverage**

This SWPPP identifies:

- Citywide operational BMPs
- Source-specific structural BMPs
- Erosion and sediment control BMPs
- O&M requirements
- Stormwater control waste management requirements

Applicable City-wide BMPs and source-specific BMPs are provided in this SWPPP, referenced from the Missouri Department of Natural Resources list of BMPs.

#### **1.4 SWPPP Availability**

A copy of this SWPPP will be kept at each applicable City facility or within reasonable access to the facility. It will be made immediately available to MDNR personnel at each site upon request. If the public request to view the SWPPP, a copy of the document will be made available within a reasonable time frame.

### 2.0 Facility Assessment

#### 2.1 Operations at City Facilities

The City facilities covered by this SWPPP include O&M facilities that maintain, store heavy equipment and store materials used at City facilities. The 12 City facilities that require a SWPPP, according to NPDES Permit requirements, include:

- Airport
- Animal Shelter

- Facilities Maintenance
- Cemetery
- Parks & Recreation
- Public Works Complex
- Vehicle Maintenance
- Water Treatment Plant / Water Department
- CWWTP
- NWWTP
- SEWWTP
- Compost

### 2.1.1 <u>Airport</u>

The Airport is located at 1900 E. Boonville Road in Sedalia, Missouri. The 545 acre parcel includes the Airport Terminal, 16 maintenance hangars and 2 fueling stations. The Airport Terminal is 1,350 square feet and hangars of various sizes. All materials and equipment are stored under cover in the fuel barn with the exception of the above ground fuel storage tanks which have secondary containment.

The primary use of the Airport includes storage, maintenance of aircraft, above ground fuel storage tanks, refueling trucks and Airport crew office space. Most activities are completed in the covered hangar with the exception of outdoor aircraft storage and refueling operations. Staff onsite include the Airport crew and Airport Director. A copy of the SWPPP is located on-site in the Airport Director's office and is available to all staff.

Nine pollution-generating activities conducted at the Airport were identified:

- Washing, pressure washing and cleaning of equipment and aircraft
- Loading and unloading of liquid or solid material
- Fueling of equipment at dedicated stations and refueling operations
- Minor aircraft repair and maintenance
- Landscaping, lawn and vegetation management
- Painting, finishing and coating of equipment
- Storage of liquids in permanent above ground tanks
- Runway, taxiway and parking lot maintenance
- Storage of aircraft and vehicles

#### 2.1.2 Animal Shelter

The Animal Shelter is located at 2420 S. New York Avenue in Sedalia, Missouri. The 4 acre parcel includes the Animal Shelter building which is 174,240 square feet and an outside area to exercise animals. All materials and equipment at the site are stored inside the covered building.

The primary use of the Animal Shelter includes providing care and support to unwanted and abandoned animals while trying to find them forever homes. All activities are completed inside the building with the exception of walking the dogs as needed and the outside kennel area. Staff onsite include the Animal Shelter workers and the Director. A copy of the SWPPP is located on-site in the supervisor's office and is available to all staff.

Four pollution-generating activities conducted at the Animal Shelter were identified:

- Washing, pressure washing, cleaning of equipment and kennels
- Loading and unloading of liquid or solid material
- Painting, finishing and coating of equipment
- Landscaping and lawn and vegetation management

### 2.1.3 Facilities Maintenance

The Facilities Maintenance Shop is located at 3000 W. Main Street #100 in Sedalia, Missouri. The 0.5 acre parcel includes the Facilities Maintenance Shop which is 2,958 square feet inside with an overhang area of 800 square feet and a garage for storage. The primary uses of the facility are to store and maintain materials and equipment used for repair and maintenance for City facilities. All materials and equipment at the site are stored inside the covered building or in the covered areas attached to the building.

The primary use of the Facilities Maintenance Shop is maintenance of City facilities. All activities are completed under the covered portion of the site. Facilities Maintenance staff onsite include the Facilities Maintenance crew and Facilities Maintenance Supervisor. A copy of the SWPPP is located on-site in the supervisor's office and is available to all staff.

Five pollution-generating activities conducted at the Facilities Maintenance facility were identified:

- Loading and unloading of liquid or solid material
- Minor repair and maintenance
- Storage of liquids
- Painting, finishing and coating of equipment
- Storage of florescent lights

#### 2.1.4 <u>Cemetery</u>

The Crown Hill Cemetery burial area is located at 701 N. Engineer Sedalia, Missouri and includes 69.2 acres. The grounds keeping facilities are located at 108 E. Tower Road and 110 E. Tower Road Sedalia, Missouri and include 0.76 acres of ground and 2,592 square feet and 1,803 square feet of shop space respectively. All materials and equipment at the site are stored inside the covered buildings.

The primary uses of the Cemetery Shop include storage and maintenance of Cemetery vehicles, fuel storage station for small (hand-held) equipment and cemetery field crew office space. All maintenance activities are completed under the covered portion of the site. Cemetery staff onsite include the cemetery crew and supervisor in charge of Cemetery operations. A copy of the SWPPP is located on-site in the supervisor's office and is available to all staff.

Six pollution-generating activities conducted at the Cemetery were identified:

- Cleaning and storage of vehicles and equipment
- Loading and unloading of liquid or solid material
- Fueling of equipment
- Landscaping and lawn and vegetation management
- Painting, finishing and coating of equipment
- Storage of liquids

#### 2.1.5 Parks & Recreation

The City of Sedalia Parks & Recreation are located throughout the city. Centennial Park is located at 1400 E. 16<sup>th</sup> Street and 38.7 acres and Centennial Park Pool is 11,900 square foot surface water area.

Clover Dell Park is at 5257 32<sup>nd</sup> Street and 178.7 acres. Housel Park is at 109 E. Howard Street and 2.03 acres. Hubbard Park is at 701 N. Missouri Avenue and 24.9 acres. KATY Park is at 2200 S. Grand Avenue and 16 acres. Liberty Park is at 1200 W. 3<sup>rd</sup> Street and 41.1 acres and Liberty Park Pool is 12,400 square foot surface area. Vermont Park is at 1200 S. Vermont Avenue and 5.2 acres. The Park's shops are located at Centennial Park 1400 E. 16<sup>th</sup> St. has a 750 square feet and 900 square feet shop space, Clover Dell Park 5257 32<sup>nd</sup> St. has 3,750 square foot shop and Liberty Park 1200 W. 3<sup>rd</sup> St. has 2,500 square foot and 3,750 square feet of shop space. All materials and equipment at the sites are stored inside a covered building with the exception of extra pieces of playground equipment, extra trash cans and various picnic tables stored at Liberty Park shop yard.

The primary uses of the Park's shops include storage and maintenance of Park vehicles, fuel storage for equipment and park's field crew's office space. All activities are completed under the covered portion of the site with the exception of outdoor equipment storage. Park's staff onsite include the Parks & Recreation crews and supervisor. A copy of the SWPPP is located on-site in the Parks & Recreation Director's office and is available to all staff.

Eight pollution-generating activities conducted at the Parks & Recreation were identified:

- Washing, pressure washing and cleaning of equipment
- Loading and unloading of liquid or solid material
- Fueling of equipment
- Minor repair and maintenance
- Landscaping and lawn and vegetation management
- Painting, finishing and coating of equipment
- Storage of liquids
- Shelter and parking lot maintenance

### 2.1.6 Public Works Complex

The Public Works Building Complex is located at 901 E. 3<sup>rd</sup> Street in Sedalia, Missouri. The 1.19 acre parcel includes the Streets Buildings which are 11,600 square foot office and shop area and 7,500 square foot garage and 5,625 square foot shed, Sanitation Building, Water Pollution Control building, parking for utility trailers, towed equipment and a fueling station. The fueling station is used for fueling City vehicles.

The primary uses of the Public Works complex include storage and maintenance of Public Works vehicles, fueling station, two below ground double-walled diesel and gasoline storage tanks, Public Works vehicle storage, Public Works field crew office space and one 1,000-gallon de-icier tank. All activities are completed under the covered portion of the site with the exception of outdoor equipment storage. Public Works staff onsite include the Public Works crews and supervisor in charge of street maintenance, sanitation and water pollution control. A copy of the SWPPP is located on-site in each Supervisor's office and is available to all staff.

Eight pollution-generating activities conducted at the Public Works Complex were identified:

- Pressure washing and cleaning of equipment and vehicles
- Loading and unloading of liquid or solid material
- Fueling at dedicated stations
- Landscaping and vegetation management
- Painting, finishing and coating of equipment

- Storage of liquids in permanent above and below ground tanks
- Parking lot and road maintenance
- Storage of equipment and vehicles

### 2.1.7 Vehicle Maintenance

The Vehicle Maintenance Shop is located at 200 S. Kentucky Avenue Sedalia, Missouri and covers approximately 0.65 acres and includes one 17,009 square foot Vehicle Maintenance building. All materials and equipment at the site are stored inside the covered building.

The primary uses of the Vehicle Maintenance Shop include storage and maintenance of City vehicles, field crew office space and storage of vehicle fluids, greases and tires. All activities are completed inside the covered building. Vehicle Maintenance staff onsite include the crew and supervisor in charge of Vehicle Maintenance. A copy of the SWPPP is located on-site in the Vehicle Maintenance Supervisor's office and is available to all staff.

Six pollution-generating activities conducted at Vehicle Maintenance were identified:

- Washing and cleaning of equipment
- Loading and unloading of liquid or solid material
- Painting, finishing and coating of equipment
- Storage of vehicles and equipment
- Storage of vehicles and equipment fluids
- Repair and maintenance of vehicles and equipment

### 2.1.8 <u>Water Treatment Plant / Water Division</u>

The Water Plant and Water Division is located at 28200 Water Works Road Sedalia, Missouri. The site covers approximately 48.6 acres and includes a 13,960 square foot lab and treatment building, 8,606 square foot pump house and 7,800 square foot metal garage. All materials and equipment at the site are stored inside the covered building with the exception of Water Division vehicles.

The primary uses of Water Plant include storage and maintenance of water main parts, above ground water treatment tanks, vehicle storage, Water Division field crew office space, chemical storage and pumping equipment. Water Division staff onsite include the water plant crew, Water Division main crews and the Water Division Supervisor. A copy of the SWPPP is located on-site in the Water Division Supervisor's office and is available to all staff.

Eight pollution-generating activities conducted at the Water Treatment Plant were identified:

- Washing, pressure washing and cleaning of equipment
- Loading and unloading of liquid or solid material
- Adding chemicals at dedicated stations
- Minor repair and maintenance
- Painting, finishing and coating of equipment
- Storage of liquids in permanent aboveground tanks
- Storage of vehicles and equipment
- Landscaping and vegetation management

#### 2.1.9 <u>Central Wastewater Treatment Plant (CWWTP)</u>

The CWWTP is located at 3000 W. Main Street Sedalia, Missouri. The site covers approximately 22 acres and includes 3,183 square foot wastewater treatment facility, 1,260 square foot lab building,

#### Adopted XXXXXXXX XX, 2021

1,800 square foot UV building and various sizes of tanks. All materials and equipment at the site are stored inside the covered building with the exception of vehicles.

The primary uses of the CWWTP include storage of vehicles, fuel storage for equipment, above ground wastewater storage tanks and CWWTP field crew office space. All activities are completed under the covered portion of the site with the exception of outdoor equipment storage and some wastewater treatment. CWWTP crew onsite include the head operator and an operator in training. A copy of the SWPPP is located on-site in the CWWTP crew's office and is available to all staff.

Seven pollution-generating activities conducted at the CWWTP were identified:

- Washing and cleaning of equipment
- Loading and unloading of liquid or solid material
- Minor repair and maintenance
- Adding chemicals at dedicated stations
- Painting, finishing and coating of equipment
- Storage of liquids in permanent aboveground tanks
- Storage of vehicles and equipment

### 2.1.10 North Wastewater Treatment Plant (NWWTP)

The NWWTP is located at 23985 Georgetown Road Sedalia, Missouri. The site covers approximately 5 acres and includes 3,300 square foot wastewater treatment facility and various sizes of tanks. All materials and equipment at the site are stored inside the covered building with the exception of vehicles.

The primary uses of the NWWTP include storage of vehicles, fuel storage for equipment, above ground wastewater storage tanks and NWWTP field crew office space. All activities are completed under the covered portion of the site with the exception of outdoor equipment storage and some wastewater treatment. NWWTP crew onsite include two operators. A copy of the SWPPP is located on-site in the NWWTP crew's office and is available to all staff.

Seven pollution-generating activities conducted at the NWWTP were identified:

- Washing and cleaning of equipment
- Loading and unloading of liquid or solid material
- Minor repair and maintenance
- Adding chemicals at dedicated stations
- Painting, finishing and coating of equipment
- Storage of liquids in permanent aboveground tanks
- Storage of vehicles and equipment

#### 2.1.11 Southeast Wastewater Treatment Plant (SEWWTP)

The SEWWTP is located at 26999 Goodwill Chapel Road Sedalia, Missouri. The site covers approximately 14 acres and includes 4,609 square foot wastewater treatment facility, 1,960 square foot UV building and tanks of various sizes. All materials and equipment at the site are stored inside the covered building with the exception of vehicles.

The primary uses of the SEWWTP include storage of vehicles, fuel station for equipment, above ground wastewater storage tanks and SEWWTP field crew office space. All activities are completed under the

covered portion of the site with the exception of outdoor equipment storage and some wastewater treatment. SEWWTP crew onsite include two operators. A copy of the SWPPP is located on-site in the SEWWTP crew's office and is available to all staff.

Seven pollution-generating activities conducted at the SEWWTP were identified:

- Washing and cleaning of equipment
- Loading and unloading of liquid or solid material
- Minor repair and maintenance
- Adding chemicals at dedicated stations
- Painting, finishing and coating of equipment
- Storage of liquids in permanent aboveground tanks
- Storage of vehicles and equipment

### 2.1.12 Compost Facility

The Biosolids Compost Facility is located at 27882 Hwy U Sedalia, Missouri. The site covers approximately 77.6 acres and includes one 120 square foot Office, 1600 square foot open Ag building, 240 square foot and a 320 square foot truck box sheds and a 96 square foot shed.

The primary uses of the Compost Facility include storage and treatment of Wastewater Treatment Plant Biosolids, recycling area, wastewater storage pond and yard waste drop off. All activities areas drain stormwater to the holding pond and are then treated at the SEWWTP. Compost staff onsite include the assistant and the Compost Facility Supervisor. A copy of the SWPPP is located on-site in the office and is available to all staff.

Six pollution-generating activities conducted at Compost were identified:

- Washing and cleaning of equipment
- Loading and unloading of solid material
- Fueling of equipment
- Minor repair and maintenance
- Concrete pad maintenance and storage of compost material
- Storage of vehicles and equipment

### 2.2 Vicinity Map and Site Drainage Plans

A vicinity map (Figure A-1 and A-2) and individual site drainage plans for the Airport (Figure A-3), Animal Shelter (Figure A-4), Facilities Maintenance (Figure A-5), Cemetery (Figure A-6), Parks & Recreation (Figure A-7 to A-15), Public Works Complex (Figure A-16), Vehicle Maintenance (Figure A-17), Water Division/Water Plant (Figure A-18), CWWTP (Figure A-19), NWWTP (Figure A-20), SEWWTP (Figure A-21) and Compost (Figure A-22) are provided in Appendix A. The individual site drainage plans are posted at each facility as part of the spill plans (see Appendix E). Each site drainage plan identifies the facility stormwater drainage system.

#### **2.3** Receiving Waters and Wetlands

In general, stormwater runoff from City facilities includes runoff from buildings and parking lot (paved and gravel) areas. The stormwater runoff discussed in this SWPPP is conveyed to the City's MS4. Table 1 lists the point of discharge for the City facilities requiring SWPPPs. Individual site drainage plans (Figures A-3 thru A-22) are identified in Appendix A.

### Table 1 Addresses and points of discharge for the City of Sedalia Facilities

Facility Name	Address	Point of Discharge
Airport	1900 E. Booneville Rd.	Shaver Creek
Animal Shelter	2421 S. New York Ave.	Flat Creek
Facilities Maintenance	3001 W. Main St. #100	Brushy Creek
Cemetery	701 N. Engineer, 108 and 110 E. Tower Rd.	Pearl River
Parks & Recreation	Centennial Park and Pool-1400 E. 16th St., Clover Dell-5257 32nd St. Rd., Housel-109 E. Howard St., Hubbard-701 N. Missouri Ave., Katy-2200 S. Grand Ave., Liberty Park and Pool-1200 W. 3rd. St., Vermont-1200 S. Vermont Ave.	Centennial Park and Pool-Flat Creek, Clover Dell- Muddy Creek, Housel- Muddy Creek, Hubbard-Pearl River, Katy- Flat Creek, Liberty Park and Pool-Muddy Creek, Vermont-Muddy Creek
Public Works Complex	901 E. 3rd St.	Flat Creek
Vehicle Maintenance	200 S. Kentucky Ave.	Pearl River
Water Plant / Water Division	28200 Water Works Rd.	Flat Creek
Central Wastewater Treatment Plant	3000 W. Main St.	Brushy Creek
North Wastewater Treatment Plant	23985 Georgetown Rd.	Pearl River
Southeast Wastewater Treatment Plant	26999 Goodwill Chapel Rd.	Breakfast Branch
Compost Facility	27882 Hwy U	Pumped to SEWWTP

## 3.0 Areas Associated With Permit-Covered Activity

### 3.1 Activities in the Area

The 12 City facilities that conduct permit-covered activities are listed below in Table 2 and are shown in Figures A-3 thru A-22 in Appendix A. All pollutant-generating activities are conducted on impervious surfaces (i.e., pavement) or inside buildings, depending on the facility. The typical 'wet' season when these activities may impact stormwater can be defined as October through April.

### **3.2 Pollutants**

City facility pollutants include, but are not limited to, diesel, gasoline, hydraulic fluids, oil, solvents, deicing fluid, other soluble and non-soluble chemicals used for the day-to-day maintenance and operation of City facilities (e.g., mowing equipment, excavators, dump trucks, backhoes, etc.). Material storage pollutants include, but are not limited to sand, bark, mulch, gravel, de-icing salts, gasoline, diesel, wood (treated and non-treated), loose metal equipment, and waste materials from day-to-day operations. Table 2 lists the potential pollutants associated with the City facilities. A Spill Prevention Plan has been developed for the City facilities (see Appendix E) and is posted at each site.

Table 2	Pollution-generating act	ivities, notential	pollutants and re	elevant BMPs
	I Unution generating act	ivitics, potential	ponutants and r	cicvant Drift 5

Facility Name	Address	Pollution-Generating Activity	Potential Pollutants	Relevant Source Control BMP*
Airport	1900 E. Booneville Rd.	Fueling aircraft and refueling vehicles	Jet Fuel and AvGas	BMP 2, 5, 8
		Storage of aircraft and vehicles	Jet Fuel, AvGas, oils and greases	BMP 10
		Storage in above ground tanks	Jet Fuel and AvGas	BMP 10, 11, 12
		Parking lot / Taxiway / Runway maintenance	Oils and greases	BMP 9
		Landscaping vegetation maintenance	Pesticides and Fertilizers	BMP 4
		Minor aircraft repair and maintenance	Jet Fuel, AvGas, oils and greases	BMP 6
		Washing, Pressure washing and cleaning of equipment and aircraft	Soaps and detergents, oils and greases, suspended solids and metals	BMP 13
		Loading and unloading of liquid or solid materials	Paint, solvents and metals	BMP 5
		Painting, finishing and coating of equipment and/or parts	Paint, solvents and metals	BMP 11
Animal Shelter	2420 S. New York Ave.	Landscaping vegetation maintenance	Pesticides and Fertilizers	BMP 4
		Loading and unloading of liquid or solid materials	Cleaners	BMP 5
		Painting, finishing and coating of equipment and/or parts	Paint, solvents and metals	BMP 11
		Washing, Pressure washing and cleaning of equipment	Soaps, detergents and suspended solids	BMP 13
Facilities Maintenance	3000 W, Main St. #100	Painting, finishing and coating of equipment and/or parts	Paint, solvents and metals	BMP 11
		Storage of paints and coatings	Paints and coatings	BMP 11
		Storage of florescent lights	Mercury	BMP 11
		Loading and unloading of liquid or solid materials	Paint, solvents and metals	BMP 5
		Minor repair and maintenance	Paints, oils and greases	BMP 6
Cemetery	701 N. Engineer, 108 and 110 E. Tower Rd.	Cleaning and storage of vehicles and equipment	Oils and greases	BMP 10
		Loading and unloading of liquid or solid materials	Paint, solvents and metals	BMP 5
		Fueling of hand held equipment	Gas and mixed gas	BMP 2, 5, 8
		Painting, finishing and coating of equipment	Paint, solvents and coatings	BMP 11
		Storage of liquids	Gas and mixed gas	BMP 10, 11, 12
		Landscaping vegetation maintenance	Pesticides and Fertilizers	BMP 4
Parks &				
Recreation Centennial	1400 F. 16th St	Landscaping vegetation maintenance	Pesticides and Fertilizers	BMP 4
centermat	1.00 L. 1000 00.			I = · · · ·

		Painting, finishing and coating of equipment	Paint, solvents and coatings	BMP 11
		Storage of liquids	Paints and coatings	BMP 11
		Shelter and parking lot maintenance	Oils and greases	BMP 10
		Washing, Pressure washing and cleaning of equipment	Soaps and detergents, oils and greases, suspended solids and metals	BMP 13
		Minor repair and maintenance	Paints, oils and greases	BMP 6
		Fueling of hand held equipment	Gas and mixed gas	BMP 2, 5, 8
		Loading and unloading of liquid or solid materials	Fuels, oils and greases	BMP 5
Centennial Pool	1400 E. 16th St.	Landscaping vegetation maintenance	Pesticides and Fertilizers	BMP 4
		Painting, finishing and coating of equipment	Paint, solvents and coatings	BMP 11
		Storage of liquids	Acids and bleaches	BMP 11
		Washing, Pressure washing and cleaning of equipment	Soaps and detergents and suspended solids	BMP 13
		Minor repair and maintenance	Paints and coatings	BMP 6
		Loading and unloading of liquid or solid materials	Acids and bleaches	BMP 5
Clover Dell	5257 32nd St.	Landscaping vegetation maintenance	Pesticides and Fertilizers	BMP 4
		Painting, finishing and coating of equipment	Paint, solvents and coatings	BMP 11
		Storage of liquids	Paints and coatings	BMP 11
		Shelter and parking lot maintenance	Oils and greases	BMP 10
		Washing, Pressure washing and cleaning of equipment	Soaps and detergents, oils and greases, suspended solids and metals	BMP 13
		Minor repair and maintenance	Paints, oils and greases	BMP 6
		Fueling of hand held equipment	Gas and mixed gas	BMP 2, 5, 8
		Loading and unloading of liquid or solid materials	Fuels, oils and greases	BMP 5
Housel	109 E. Howard St.	Landscaping vegetation maintenance	Pesticides and Fertilizers	BMP 4
		Painting, finishing and coating of equipment	Paint, solvents and coatings	BMP 11
Hubbard	701 N. Missouri Ave.	Landscaping vegetation maintenance	Pesticides and Fertilizers	BMP 4
		Painting, finishing and coating of equipment	Paint, solvents and coatings	BMP 11
Katy	2200 S. Grand Ave.	Landscaping vegetation maintenance	Pesticides and Fertilizers	BMP 4
		Painting, finishing and coating of equipment	Paint, solvents and coatings	BMP 11
Liberty	1200 W. 3rd St.	Landscaping vegetation maintenance	Pesticides and Fertilizers	BMP 4
		Painting, finishing and coating of equipment	Paint, solvents and coatings	BMP 11
		Storage of liquids	Paints and coatings	BMP 11

		Shelter and parking lot maintenance	Oils and greases	BMP 10
		Washing, Pressure washing and cleaning of equipment	Soaps and detergents, oils and greases, suspended solids and metals	BMP 13
		Minor repair and maintenance	Paints, oils and greases	BMP 6
		Fueling of hand held equipment	Gas and mixed gas	BMP 2, 5, 8
		Loading and unloading of liquid or solid materials	Fuels, oils and greases	BMP 5
Liberty Pool	1200 W. 3rd St.	Landscaping vegetation maintenance	Pesticides and Fertilizers	BMP 4
		Painting, finishing and coating of equipment	Paint, solvents and coatings	BMP 11
		Storage of liquids	Acids and bleaches	BMP 11
		Washing, Pressure washing and cleaning of equipment	Soaps and detergents and suspended solids	BMP 13
		Minor repair and maintenance	Paints and coatings	BMP 6
		Loading and unloading of liquid or solid materials	Acids and bleaches	BMP 5
Vermont	1200 S. Vermont Ave.	Landscaping vegetation maintenance	Pesticides and Fertilizers	BMP 4
		Painting, finishing and coating of equipment	Paint, solvents and coatings	BMP 11
Public Works Complex	901 E. 3rd St.	Fueling at dedicated stations	Gasoline and diesel fuel	BMP 2, 5, 8
		Storage of equipment and vehicles	Gasoline, diesel fuel, lubricating oils and solvents	BMP 10
		Storage in underground ground and above ground tanks	Gasoline, diesel fuel and de- icing fluid	BMP 10, 11, 12
		Parking lot and road maintenance	Oils and greases	BMP 7, 10, 13
		Landscaping vegetation maintenance	Pesticides and Fertilizers	BMP 4
		Painting, finishing and coating of equipment	Paint, solvents and coatings	BMP 11
		Pressure washing of vehicles and equipment	Soaps and detergents, oils and greases, suspended solids and metals	BMP 13
		Loading and unloading of liquid or solid materials	Fuels, hydraulic fluids, oils, bulk salt, granular de-icing material, liquid de-icing fluid	BMP 5
Vehicle Maintenance	200 S. Kentucky Ave.	Storage of equipment and vehicles	Gasoline, diesel fuel, lubricating oils and solvents	BMP 10
		Painting, finishing and coating of equipment	Paint, solvents and coatings	BMP 11
		Loading and unloading of liquid or solid materials	Fuels, hydraulic fluids, oils, bulk salt, granular de-icing material, liquid de-icing fluid	BMP 5
		Storage of vehicle and equipment fluids	Hydraulic fluids, oils, windshield washer fluid and grease	BMP 11
		Washing and cleaning of equipment	Soaps and detergents, oils and greases, suspended solids and metals	BMP 13

		Repair and maintenance of vehicles and equipment	Paints, oils and greases	BMP 6
Water Dept. and Water Plant	28200 Water Works Rd.	Storage of liquids in above ground tanks	Bleach, acids and copper sulfate	BMP 12
		Loading and unloading of liquid or solid materials	Bleach, acids and copper sulfate	BMP 5
		Storage of equipment and vehicles	Gasoline, diesel fuel, lubricating oils and solvents	BMP 10
		Landscaping vegetation maintenance	Pesticides and Fertilizers	BMP 4
		Pressure washing of vehicles and equipment	Soaps and detergents, oils and greases, suspended solids and metals	BMP 13
		Adding chemicals at dedicated stations	Chemicals	BMP 5, 7, 10, 11
		Minor repair and maintenance	Acids, bleach, paints, oils and greases	BMP 5, 7, 10, 11
		Painting, finishing and coating of equipment	Paint, solvents and coatings	BMP 11
CWWTP	3000 W. Main St.	Storage of equipment and vehicles	Gasoline, diesel fuel, lubricating oils and solvents	BMP 10
		Painting, finishing and coating of equipment	Paint, solvents and coatings	BMP 11
		Loading and unloading of liquid or solid materials	Fuels, hydraulic fluids, oils, bulk salt, granular de-icing material, liquid de-icing fluid	BMP 5
		Storage of liquids in permanent above ground tanks	Wastewater	BMP 12
		Minor repair and maintenance	Oils and greases	BMP 5, 7, 10, 11
		Washing and cleaning of equipment	Soaps, detergents, oils, greases and suspended solids	BMP 13
		Adding chemicals at dedicated stations	Chemicals	BMP 5, 7, 10, 11
NWWTP	23985 Georgetown Rd.	Storage of equipment and vehicles	Gasoline, diesel fuel, lubricating oils and solvents	BMP 10
		Painting, finishing and coating of equipment	Paint, solvents and coatings	BMP 11
		Loading and unloading of liquid or solid materials	Fuels, hydraulic fluids, oils, bulk salt, granular de-icing material, liquid de-icing fluid	BMP 5
		Storage of liquids in permanent above ground tanks	Wastewater	BMP 12
		Minor repair and maintenance	Oils and greases	BMP 5, 7, 10, 11
		Washing and cleaning of equipment	Soaps, detergents, oils, greases and suspended solids	BMP 13
		Adding chemicals at dedicated stations	Chemicals	BMP 5, 7, 10, 10
SEWWTP	26999 Goodwill Chapel Rd.	Storage of equipment and vehicles	Gasoline, diesel fuel, lubricating oils and solvents	BMP 10
		Painting, finishing and coating of equipment	Paint, solvents and coatings	BMP 11

		Loading and unloading of liquid or	Fuels, hydraulic fluids, oils, bulk	BMP 5
		solid materials	salt, granular de-icing material,	
			liquid de-icing fluid	
		Storage of liquids in permanent above ground tanks	Wastewater	BMP 12
		Minor repair and maintenance	Oils and greases	BMP 5, 7, 10, 11
		Washing and cleaning of equipment	Soaps, detergents, oils, greases and suspended solids	BMP 13
		Adding chemicals at dedicated stations	Chemicals	BMP 5, 7, 10, 10
Compost Facility	27882 Hwy U	Storage of equipment and vehicles	Gasoline, diesel fuel, lubricating oils and solvents	BMP 10
		Minor repair and maintenance	Oils and greases	BMP 5, 7, 10, 11
		Fueling of equipment	Fuel	BMP 2, 5, 8
		Washing and cleaning of equipment	Soaps, detergents, oils, greases and suspended solids	BMP 13
		Loading and unloading of liquid or solid materials	Wastewater sludge and compost	BMP 5
		Storage of solids on concrete pad	Wastewater sludge and compost	BMP 5, 7

\* See Appendix F for BMP descriptions

### 4.0 Historical Spills and Leaks

There have been no reported or documented spills or leaks at the Airport, Animal Shelter, Facilities Maintenance, Cemetery, Parks & Recreation, Public Works Complex, Vehicle Maintenance, CWWTP, NWWTP, SEWWTP and the Compost Facility within the last three years. Any future spills or leaks at these locations will be addressed using the Spill Prevention Plan prepared for the sites (see Appendix E). Any spills or leaks of oils and toxic or hazardous pollutants in areas exposed to precipitation or that drain to a stormwater conveyance will be kept at each facility using the Spill Reporting Form provided in Appendix B. A significant spill or leak is defined as either greater than five gallons or in excess of the chemical's reportable quantities of chemicals used at each facility can be determined by entering the chemical name or chemical abstract service (CAS) number into the reportable quantity calculator on the United States Department of Energy website (http://homer.ornl.gov/rq/).

The City retains spill history records for a minimum of five years. A copy of the spill records from the last three years must be produced if requested by MDNR. The City will continue to maintain spill records for each facility and update these records in the event of a spill.

### 5.0 Monitoring Plan

The City implements a Stormwater Management Plan in accordance with its NPDES Permit. The Public Works Director is the lead for implementation of this monitoring plan. Requirements within this SWPPP describe monitoring and reporting requirements for City facilities.

### 6.0 Illicit Non-stormwater Discharges

Some City facilities could potentially have internal building drains or sump overflows that are incorrectly plumbed to the City's MS4. Such storm drain connections could allow a variety of pollutants to flow directly to receiving waters instead of to the sanitary sewer system. Frequently, such connections are not intentional, but are harmful to the environment and must be eliminated.

The 12 City Facilities have been evaluated with respect to possible illicit non- stormwater discharges. No illicit non-stormwater discharge connections, or risk of connections, were identified as part of the evaluation of these facilities.

WPC implements spill prevention programs and if the spill enters the City's MS4, WPC should be notified. WPC manages the Illicit Discharge Detection and Elimination (IDDE) program for the City, which includes a water quality hotline, business inspections and illicit connection investigations. A major component of the IDDE program is the 24-hour citizen Illicit Discharge Hotline 660-827-2363 and 660-827-7800 (after hours, Emergency Only) for reporting water quality complaints. In addition to citizen reports, the Water Quality Hotline can also be used to capture complaints from other departments and agencies.

Allowable Discharges: The following types of discharges shall not be considered illicit discharges for the purposes of this chapter unless the City determines that the type of discharge, whether singly or in combination with others, is causing or is likely to cause pollution of surface water or groundwater:

- Diverted stream flows
- Rising groundwater
- Uncontaminated groundwater infiltration
- Uncontaminated pumped groundwater
- Foundation drains
- Air conditioning condensation
- Irrigation water from agricultural sources
- Stormwater
- Springs
- Water from crawl space pumps
- Footing drains
- Flows from riparian habitats and wetlands
- Discharges from emergency fire-fighting activities

Employees and the public unsure whether a discharge to the City's MS4 is permissible are encouraged to contact Water Pollution Control at (660)827-7830.

### 7.0 Schedule for Implementing Additional or Enhanced BMPs

If additional or enhanced BMPs are either ordered by MDNR or are necessary due to facility change or a self- inspection, a schedule for their implementation will be incorporated into this SWPPP within 30 days of the self-determination or MDNR order.

## 8.0 BMPs for Compliance with the NPDES Permit

The NPDES Permit requires the implementation of BMPs to comply with MDNR water quality standards and federal requirements. These standards and requirements have been adopted by MDNR as rules. The BMPs presented in this document meet the standards and requirements for MDNR. These BMPs are presumed to have satisfied the demonstration requirement per the NPDES Permit.

### 9.0 Operational Source Control BMPs

Operational Source Control BMPs are defined by MDNR as "non-structural practices that prevent or reduce pollutants from entering stormwater" including "formation of a pollution prevention team, good housekeeping practices, preventative maintenance procedures, spill prevention and cleanup, employee training, inspection of pollutant sources and record keeping." A brief summary of the BMPs are

presented in the following section.

### 9.1 Required Citywide BMPs

All facilities within the City implement the following six operational source control BMPs:

- BMP 1- Public Education and Outreach
- BMP 2- Public Participation
- BMP 3- Illicit Discharge Detection and Elimination
- BMP 4- Construction Site Stormwater Runoff Control
- BMP 5- Post-Construction Stormwater Management in New Development and Redevelopment
- BMP 6- Pollution Prevention/Good Housekeeping for Municipal Operations

### 9.1.1 BMP 1- Public Education and Outreach

Public Education and Outreach on contamination impacts of stormwater will rely on two focus areas: 1) the dissemination of public information to specific groups related to BMP's for the effective management waste materials; 2) an education program designed to reach four focus groups: students, the development community, construction site workers and municipal employees. Education shall be provided to Sedalia residents through the distribution of a bilingual flyer. The bilingual flyer is distributed semi-annually.

Education is presented in after school programs within the Sedalia school system or other childcare settings and Environmental Sciences classes at the high school with a focus on pollutants of concern, trash, watersheds and stormwater policy. An ongoing effort is made to meet with Boy Scouts, Girl Scouts and other youth groups to provide both a stormwater educational experience and try to get volunteers from these groups to stencil storm drains and help with watershed trash cleanups.

Educational materials are provided for members of the development community who are responsible for new and in-fill construction and construction site workers with an emphasis placed on best management practices for erosion and soil control; and other waste management practices on construction sites. The education program for municipal workers is administered semi-annually; once in the spring and once in the fall to ensure all employees have an opportunity to attend.

### 9.1.2 BMP 2- Public Participation

The focus of the events will be in the three watersheds: Breakfast Branch, Pearl River and Brushy Creek. Event participation is encouraged through promotion in the bilingual flyer and on the City's website. History has shown that meetings with Boy/Girl Scout leaders have helped increase participation in storm drain stenciling activities. The City arranges meetings with the Boys and Girls club to offer stenciling activities. The most recent iteration of the stencil effort has resulted in a more focused approach on watershed awareness. Therefore, when stencil projects are developed the project will include storm inlets located in a specific watershed. An education program is being developed that speaks to living in a watershed, what that means, how urbanization changes watersheds and how the stormwater inlets serve as part of the connecting network for the urbanized watershed.

### 9.1.3 BMP 3- Illicit Discharge Detection and Elimination

The plumbing systems of City facilities have been examined to identify any illicit connections. No illicit connections have been determined as part of evaluations completed for this SWPPP. A GIS map of the City's MS4 system was developed in 2011-2012. Information placed on the map helps the stormwater program administrators better manage the MS4 permit requirements to include: stormwater outfalls, watersheds, stormwater pollution priority areas, occurrences of Illicit Discharge Detection, stenciling

activities, adopt a storm drain activities and other information deemed necessary. The map is completed and is consistently updated as new information becomes available.

## 9.1.4 BMP 4- Construction Site Stormwater Runoff Control

The City passed a stormwater ordinance regulating construction site activities. The ordinance (#9976) was passed on July 2, 2012. This ordinance references construction site drainage controls and outlines enforcement methods. The City made fundamental improvements in the MS4 Permit compliance effort and increased staff dedicated to monitoring construction sites and improved training for these inspectors. The City adopted a formal construction site BMP manual and the MDNR's manual <u>Water</u> <u>Quality Field Guide</u>.

### 9.1.5 BMP 5- Post-Construction Stormwater Management in New Development and Redevelopment

The City has spent years implementing and perfecting the practices and procedures required by the MS4 permit and City Ordinance. Emphasis has been placed on enforcing performance criteria and long term Operation and Maintenance (O&M) requirements. The MS4 permit requires a mandate for pre-construction runoff conditions (the water quality component) in all new 1+ acre land-disturbance projects (even smaller parcels if part of a common plan). The post-construction program includes improvement in the redevelopment projects of one acre or more. MDNR did approve the City's O&M Manual complying with the post-construction runoff control program requirements.

### 9.1.6 BMP 6- Pollution Prevention/Good Housekeeping for Municipal Operations

The City's storm drainage system consists of 48 miles of stormwater ditches, 39 miles of stormwater piping, 245 miles of curb and gutter drainage, 119 storm culverts and 2,176 storm drain features.

On a monthly basis, the City sweeps 201 miles of curb and gutter streets while removing 468 cubic yards of debris. Last year there were 838 storm features cleaned. The City Pretreatment and Stormwater Coordinator currently inspects nineteen (19) stormwater outfalls and ten (10) open conveyance / ambient sites on a monthly basis. City facilities, restaurants, automotive shops and car washes are also on an annual inspection schedule to assist in eliminating illicit discharges.

### 9.2 Formation of a Pollution Prevention Team

This section describes the organization of a pollution prevention team responsible for developing the SWPPP and its implementation, maintenance and modification. The activities and responsibilities of the pollution prevention team address all aspects of this SWPPP.

The pollution prevention team consists of the SWPPP Coordinator, the WPC Superintendent, the Public Works Director and the facility supervisor for each facility and other identified individuals assisting the supervisor in its implementation. A list of each team members, contact information and a brief description of their primary area of responsibility regarding stormwater pollution prevention is provided in Table 3.

Tuble 5	Table 5 Tonution prevention team for the enty ratifices				
Position	Name	Phone Number	Primary Responsibilities		
SWPPP	Vacant, Pretreatment	Work: 660-827-2363	Ensure that each facility is in compliance with the		
Coordinator	and Stormwater		SWPPP (including developing, implementing,		
	Coordinator		maintaining and revising the SWPPP) and assisting each		
			facility with regulatory issues pertaining to stormwater		
			and pollution prevention		
Trainer	Vacant, Pretreatment	Work: 660-827-2363	All applicable staff are trained in relevant BMPs, as		
	and Stormwater		outlined in this SWPPP		
	Coordinator				
NPDES	Bob Summers,	Work: 660-827-7830	Manage NPDES permit requirements and ensure		
Management	WPC Superintendent	Cell: 660-619-0659	stormwater pollution prevention training is conducted		
Applicable	Brenda Ardrey,	Work: 660-827-3000	Responsible for ensuring the SWPPP program is correct		
Supervisors	Public Works Director	Cell: 573-353-3543	and working effectively		

### Table 3Pollution prevention team for the City Facilities

Note: Update this table if personnel changes occur.

### 9.3 Reporting and Recordkeeping

Records of all inspections, observations and compliance records are maintained for a minimum of five years. The records are located in the Stormwater and Pretreatment Coordinator's files.

#### 9.4 Inspections

Staff identified in the pollution prevention team (Table 3) must regularly inspect all areas on City-owned sites where equipment maintenance, storage or material storage are exposed to stormwater and assess how well stormwater BMPs are operating. Complete routine inspections must occur annually; a minimum of one additional inspection, preferable during the wet season (October through April) after trees have lost their leaves, is required to ensure that trash, debris, sediment and/or vegetation is not blocking more than 10 percent of the inlet capacity. It is recommended that additional inspections be performed as appropriate after major events (e.g., >1 inch of precipitation in 24 hours or environmental incident that causes contaminant release). Results of the inspections are to be recorded on the Inspection Report form provided in Appendix D.

If at any time a feature is not effective, it must be repaired or maintained before the next anticipated storm event. If maintenance prior to the next storm event is not possible, maintenance must be completed as soon as possible and documented on the form for the extended repair schedule. In the interim, back-up measures must be implemented to ensure that stormwater quality is not diminished.

### **10.0 Source-Specific Structural Source Control BMPs**

Tables 4 to 15 provide source-specific structural source control BMPs for the City Facilities based on activities that could potentially impact stormwater quality identified. These are actions required in addition to the operational BMPs listed in Section 9.0.

# Table 4Pollution-generating activities, existing BMPs and corrective actions for<br/>the Airport

Pollution Generating	<b>Relevant Source</b>	Existing BMP's	Corrective
Activity	Control BMP*		Actions
Fueling aircraft and refueling vehicles	BMP 2, 5, 8	Maintenance activities are conducted on a paved surface	None
Storage of aircraft and vehicles	BMP 10	All equipment are kept on concrete and most equipment is kept under cover	None
Storage in above ground tanks	BMP 10, 11, 12	The storage tanks are located within a concrete valved containment area	None
Parking lot / Taxiway / Runway maintenance	BMP 9	Surfaces are frequently swept as needed to remove accumulated debris and other material and most equipment is kept under cover	None
Landscaping vegetation maintenance	BMP 4	Pesticides and fertilizers are stored under cover and on a paved surface	None
Minor aircraft repair and maintenance	BMP 6	Maintenance and repair activities are conducted on a paved surface	None
Washing, Pressure washing and cleaning of equipment and aircraft	BMP 13	Maintenance activities are conducted on a paved surface	None
Loading and unloading of liquid or solid materials	BMP 5	Maintenance activities are conducted on a paved surface	None
Painting, finishing and coating of equipment and/or parts	BMP 11	Painting/coating of equipment is completed under the covered portion of the site on a paved surface	None

\*See Appendix F for BMP Descriptions

### Table 5 Pollution-generating activities, existing BMPs and corrective actions for the Animal Shelter

Pollution Generating Activity	Relevant Source Control BMP*	Existing BMP's	Corrective Actions
Landscaping vegetation	BMP 4	Pesticides and fertilizers are stored under cover	None
maintenance		and on a paved surface	
Cleaning of outside kennels	BMP 7	Washing operations are conducted in a wash area	None
		that discharges to vegetated surfaces	
Loading and unloading of	BMP 5	Surfaces are frequently swept as needed to	None
liquid or solid materials		remove accumulated debris and other material	
		and most equipment is kept under cover	
Washing, Pressure washing	BMP 13	Maintenance activities are conducted on a paved	None
and cleaning of equipment		surface	

# Table 6Pollution-generating activities, existing BMPs and corrective actions for<br/>Facilities Maintenance

Pollution Generating Activity	Relevant Source Control BMP*	Existing BMP's	Corrective Actions
Painting, finishing and coating of equipment and/or parts	BMP 11	Painting/coating of equipment is completed under the covered portion of the site on a paved surface	None
Storage of paints and coatings	BMP 11	Containers are stored in a designated area and impervious to contain leaks and spills	None
Storage of florescent lights	BMP 11	Containers are stored in a designated area and impervious to contain leaks and spills	None
Loading and unloading of liquid or solid materials	BMP 5	Surfaces are frequently swept (3 – 5 times per week) to remove accumulated debris and other material	None
Minor repair and maintenance	BMP 6	Maintenance activities are conducted on a paved surface	None

\*See Appendix F for BMP Descriptions

### Table 7 Pollution-generating activities, existing BMPs and corrective actions for the Cemetery

Pollution Generating Activity	Relevant Source Control BMP*	Existing BMP's	Corrective Actions
Storage of vehicles and equipment	BMP 10	Maintenance activities are conducted on a paved surface	None
Landscaping vegetation maintenance	BMP 4	Pesticides and fertilizers are stored under cover and on a paved surface	None
Loading and unloading of liquid or solid materials	BMP 5	Surfaces are frequently swept (3 – 5 times per week) to remove accumulated debris and other material	None
Fueling of hand held equipment	BMP 2, 5, 8	The gasoline and diesel fueling station is on a paved surface	None
Storage of liquids	BMP 10, 11, 12	Containers are stored in a designated area and impervious to contain leaks and spills	None
Painting, finishing and coating of equipment	BMP 11	Painting/coating of equipment is completed under the covered portion of the site on a paved surface	None

# Table 8Pollution-generating activities, existing BMPs and corrective actions for the<br/>Parks & Recreation

Pollution Generating	Relevant Source		Corrective
Activity - Centennial	Control BMP*	Existing BMP's	Actions
Landscaping vegetation		Pesticides and fertilizers are stored under cover	None
maintenance	Divir 4	and on a paved surface	None
Painting, finishing and coating	BMP 11	Painting/coating of equipment is completed	None
of equipment and/or parts		under the covered portion of the site on a paved	
		surface	
Storage of liquids	BMP 11	Containers are stored in a designated area and	None
		impervious to contain leaks and spills	
Shelter and parking lot	BMP 10	Surfaces are frequently swept (3 – 5 times per	None
maintenance		week) to remove accumulated debris and other	
Washing, Pressure washing	BMP 13	Maintenance activities are conducted on a paved	None
and cleaning of equipment	2 20	surface	
Minor repair and maintenance	BMP 6	Maintenance activities are conducted on a paved	None
		surface	
Fueling of hand held	BMP 2, 5, 8	The gasoline and diesel fueling station is on a	None
equipment		paved surface	
Loading and unloading of	BMP 5	Surfaces are frequently swept (3 – 5 times per	None
liquid or solid materials		week) to remove accumulated debris and other	
Dellution Concreting		material	
Pollution Generating	Relevant Source		Corrective
Activity - Centennial	Control BMP*	Existing BMP's	Actions
Pool			/10115
Landscaping vegetation	BMP 4	Pesticides and fertilizers are stored under cover	None
maintenance		and on a paved surface	
Painting, finishing and coating	BMP 11	Painting/coating of equipment is completed	None
of equipment and/or parts		surface	
Storage of liquids	BMP 11	Containers are stored in a designated area and	None
		impervious to contain leaks and spills	
Washing, Pressure washing	BMP 13	Maintenance activities are conducted on a paved	None
and cleaning of equipment		surface	
Minor repair and maintenance	BMP 6	Maintenance activities are conducted on a paved	None
		surface	
Loading and unloading of	BIMP 5	Surfaces are frequently swept (3 – 5 times per	None
		material	
Pollution Generating	Relevant Source		Corrective
Activity Clover Dell	Control BMD*	Existing BMP's	Actions
Activity - Clovel Dell		Posticidos and fortilizors are stored under sover	Nono
maintenance	DIVIP 4	and on a payed surface	None
Painting, finishing and coating	BMP 11	Painting/coating of equipment is completed	None
of equipment and/or parts		under the covered portion of the site on a paved	
		surface	
Storage of liquids	BMP 11	Containers are stored in a designated area and	None
		impervious to contain leaks and spills	
Shelter and parking lot	BMP 10	Surfaces are frequently swept (3 – 5 times per	None
maintenance		week) to remove accumulated debris and other	
Washing, Pressure washing	BMP 13	Maintenance activities are conducted on a paved	None
			None

and cleaning of equipment		surface	
Minor repair and maintenance	BMP 6	Maintenance activities are conducted on a paved surface	None
Fueling of hand held equipment	BMP 2, 5, 8	The gasoline and diesel fueling station is on a paved surface	None
Loading and unloading of liquid or solid materials	BMP 5	Surfaces are frequently swept (3 – 5 times per week) to remove accumulated debris and other material	None
Pollution Generating	Relevant Source	Existing BMP's	Corrective
Activity - Housel	Control BMP*		Actions
Landscaping vegetation maintenance	BMP 4	Pesticides and fertilizers are stored under cover and on a paved surface	None
Painting, finishing and coating of equipment and/or parts	BMP 11	Painting/coating of equipment is completed under the covered portion of the site on a paved surface	None
Pollution Generating	Relevant Source		Corrective
Activity - Hubbard	Control BMP*	Existing BMP's	Actions
Landscaping vegetation maintenance	BMP 4	Pesticides and fertilizers are stored under cover and on a paved surface	None
Painting, finishing and coating of equipment and/or parts	BMP 11	Painting/coating of equipment is completed under the covered portion of the site on a paved surface	None
Pollution Generating	<b>Relevant Source</b>		Corrective
Activity - Katy	Control BMP*	Existing BiviP's	Actions
Landscaping vegetation maintenance	BMP 4	Pesticides and fertilizers are stored under cover and on a paved surface	None
Painting, finishing and coating	BMP 11	Painting/coating of equipment is completed	None
of equipment and/or parts		under the covered portion of the site on a paved surface	
Pollution Generating	Relevant Source		Corrective
Activity - Liberty	Control BMP*	Existing BiviP's	Actions
Landscaping vegetation maintenance	BMP 4	Pesticides and fertilizers are stored under cover and on a paved surface	None
Painting, finishing and coating of equipment and/or parts	BMP 11	Painting/coating of equipment is completed under the covered portion of the site on a paved surface	None
Storage of liquids	BMP 11	Containers are stored in a designated area and impervious to contain leaks and spills	None
Shelter and parking lot maintenance	BMP 10	Surfaces are frequently swept (3 – 5 times per week) to remove accumulated debris and other material	None
Washing, Pressure washing and cleaning of equipment	BMP 13	Maintenance activities are conducted on a paved surface	None
Minor repair and maintenance	BMP 6	Maintenance activities are conducted on a paved surface	None
Fueling of hand held equipment	BMP 2, 5, 8	The gasoline and diesel fueling station is on a paved surface	None
Loading and unloading of liquid or solid materials	BMP 5	Surfaces are frequently swept (3 – 5 times per week) to remove accumulated debris and other material	None
Pollution Generating	<b>Relevant Source</b>		Corrective
Activity - Liberty Pool	Control BMP*	EXISTING DIVID S	Actions

Landscaping vegetation maintenance	BMP 4	Pesticides and fertilizers are stored under cover and on a paved surface	None
Painting, finishing and coating of equipment and/or parts	BMP 11	Painting/coating of equipment is completed under the covered portion of the site on a paved surface	None
Storage of liquids	BMP 11	Containers are stored in a designated area and impervious to contain leaks and spills	None
Washing, Pressure washing and cleaning of equipment	BMP 13	Maintenance activities are conducted on a paved surface	None
Minor repair and maintenance	BMP 6	Maintenance activities are conducted on a paved surface	None
Loading and unloading of liquid or solid materials	BMP 5	Surfaces are frequently swept (3 – 5 times per week) to remove accumulated debris and other material	None
Pollution Generating Activity - Vermont	Relevant Source Control BMP*	Existing BMP's	Corrective Actions
Landscaping vegetation maintenance	BMP 4	Pesticides and fertilizers are stored under cover and on a paved surface	None
Painting, finishing and coating of equipment and/or parts	BMP 11	Painting/coating of equipment is completed under the covered portion of the site on a paved surface	None

\*See Appendix F for BMP Descriptions

# Table 9Pollution-generating activities, existing BMPs and corrective actions for the<br/>Public Works Complex

Pollution Generating Activity	Relevant Source Control BMP*	Existing BMP's	Corrective Actions
Storage in above and below ground tanks	BMP 10, 11, 12	The storage tanks are located within a concrete valved containment area and underground is double walled	None
Loading and unloading of liquid or solid materials	BMP 5	Surfaces are frequently swept (3 – 5 times per week) to remove accumulated debris and other material	None
Landscaping vegetation maintenance	BMP 4	Pesticides and fertilizers are stored under cover and on a paved surface	None
Storage of vehicles and equipment	BMP 10	Maintenance activities are conducted on a paved surface	None
Painting, finishing and coating of equipment	BMP 11	Painting/coating of equipment is completed under the covered portion of the site on a paved surface	None
Fueling of equipment at dedicated stations	BMP 2, 5, 8	The gasoline and diesel fueling station is on a paved surface	None
Pressure washing vehicles and equipment	BMP13	Washing operations are conducted in a wash area that discharges to vegetated surfaces	None
Parking lot and road maintenance	BMP 7, 10, 13	Surfaces are frequently swept (3 – 5 times per week) to remove accumulated debris and other material	None

# Table 10 Pollution-generating activities, existing BMPs and corrective actions for Vehicle Maintenance

Pollution Generating Activity	Relevant Source Control BMP*	Existing BMP's	Corrective Actions
Storage of vehicles and equipment	BMP 10	All equipment are kept on concrete and most equipment is kept under cover	None
Vehicle repair and maintenance	BMP 6	Maintenance and repair activities are conducted on a paved surface	None
Painting, finishing and coating of equipment	BMP 11	Painting/coating of equipment is completed under the covered portion of the site on a paved surface	None
Loading and unloading of liquid or solid materials	BMP 5	Surfaces are frequently swept (3 – 5 times per week) to remove accumulated debris and other material	None
Storage of vehicle and equipment fluids	BMP 11	Containers are stored in a designated area and impervious to contain leaks and spills	None
Washing and cleaning of equipment	BMP 13	Washing operations are conducted in a wash area that discharges to a sewer drain with a trap	None

\*See Appendix F for BMP Descriptions

## Table 11 Pollution-generating activities, existing BMPs, and corrective actions for the Water Treatment Plant/Water Division

Pollution Generating Activity	Relevant Source Control BMP*	Existing BMP's	Corrective Actions
Storage in above ground tanks	BMP 12	The storage tanks are located within a concrete enclosure	None
Landscaping vegetation maintenance	BMP 4	Pesticides and fertilizers are stored under cover and on a paved surface	None
Loading and unloading of liquid or solid materials	BMP 5	Surfaces are frequently swept (3 – 5 times per week) to remove accumulated debris and other material	None
Storage of vehicle and equipment	BMP 10	Containers are stored in a designated area and impervious to contain leaks and spills	None
Pressure washing vehicles and equipment	BMP13	Washing operations are conducted in a wash area that discharges to vegetated surfaces	None
Adding chemicals at dedicated stations	BMP 5, 7, 10, 11	The chemical storage tanks are located within secondary containment	None
Minor repair and maintenance	BMP 6	Maintenance activities are conducted on a paved surface	None
Painting, finishing and coating of equipment	BMP 11	Painting/coating of equipment is completed under the covered portion of the site on a paved surface	None

# Table 12 Pollution-generating activities, existing BMPs, and corrective actions for the CWWTP

Pollution Generating Activity	Relevant Source Control BMP*	Existing BMP's	Corrective Actions
Storage in above / below ground tanks	BMP 12	The storage tanks are concrete tanks	None
Loading and unloading of liquid or solid materials	BMP 5	Surfaces are frequently swept (3 – 5 times per week) to remove accumulated debris and other material	None
Storage of vehicle and equipment	BMP 10	Containers are stored in a designated area and impervious to contain leaks and spills	None
Painting, finishing and coating of equipment	BMP 11	Painting/coating of equipment is completed under the covered portion of the site on a paved surface	None
Storage of paints and coatings	BMP 11	Containers are stored in a designated area and impervious to contain leaks and spills	None
Minor repair and maintenance	BMP 6	Maintenance activities are conducted on a paved surface	None
Pressure washing vehicles and equipment	BMP13	Washing operations are conducted in a wash area that discharges to vegetated surfaces	None
Adding chemicals at dedicated stations	BMP 5, 7, 10, 11	The chemical storage tanks are located within secondary containment	None

\*See Appendix F for BMP Descriptions

# Table 13 Pollution-generating activities, existing BMPs, and corrective actions for the NWWTP

Pollution Generating Activity	Relevant Source Control BMP*	Existing BMP's	Corrective Actions
Storage in above / below ground tanks	BMP 12	The storage tanks are concrete tanks	None
Loading and unloading of liquid or solid materials	BMP 5	Surfaces are frequently swept (3 – 5 times per week) to remove accumulated debris and other material	None
Storage of vehicle and equipment	BMP 10	Containers are stored in a designated area and impervious to contain leaks and spills	None
Painting, finishing and coating of equipment	BMP 11	Painting/coating of equipment is completed under the covered portion of the site on a paved surface	None
Storage of paints and coatings	BMP 11	Containers are stored in a designated area and impervious to contain leaks and spills	None
Minor repair and maintenance	BMP 6	Maintenance activities are conducted on a paved surface	None
Pressure washing vehicles and equipment	BMP13	Washing operations are conducted in a wash area that discharges to vegetated surfaces	None
Adding chemicals at dedicated stations	BMP 5, 7, 10, 11	The chemical storage tanks are located within secondary containment	None

# Table 14 Pollution-generating activities, existing BMPs, and corrective actions for the SEWWTP

Pollution Generating Activity	Relevant Source Control BMP*	Existing BMP's	Corrective Actions
Storage in above / below ground tanks	BMP 12	The storage tanks are concrete tanks	None
Loading and unloading of liquid or solid materials	BMP 5	Surfaces are frequently swept (3 – 5 times per week) to remove accumulated debris and other material	None
Storage of vehicle and equipment	BMP 10	Containers are stored in a designated area and impervious to contain leaks and spills	None
Painting, finishing and coating of equipment	BMP 11	Painting/coating of equipment is completed under the covered portion of the site on a paved surface	None
Storage of paints and coatings	BMP 11	Containers are stored in a designated area and impervious to contain leaks and spills	None
Minor repair and maintenance	BMP 6	Maintenance activities are conducted on a paved surface	None
Pressure washing vehicles and equipment	BMP13	Washing operations are conducted in a wash area that discharges to vegetated surfaces	None
Adding chemicals at dedicated stations	BMP 5, 7, 10, 11	The chemical storage tanks are located within secondary containment	None

\*See Appendix F for BMP Descriptions

### Table 15 Pollution-generating activities, existing BMPs, and corrective actions for the Compost Facility

Pollution Generating Activity	Relevant Source Control BMP*	Existing BMP's	Corrective Actions
Storage of solids on a concrete pad	BMP 5, 7	The storage pad is located where all runoff goes to storage pond	None
Loading and unloading of liquid or solid materials	BMP 5	Surfaces are frequently cleaned to remove accumulated debris and other material	None
Storage of vehicle and equipment	BMP 10	Containers are stored in a designated area and impervious to contain leaks and spills	None
Washing and cleaning of equipment	BMP 13	Washing operations are conducted in a wash area that discharges to a sewer drain with a trap	None
Minor repair and maintenance	BMP 6	Maintenance activities are conducted on a paved surface	None
Fueling of equipment	BMP 2, 5, 8	The gasoline and diesel fueling is done on a paved surface	None

\*See Appendix F for BMP Descriptions

## **11.0 Treatment BMPs**

Currently, the City is required to meet all state and federal surface water quality requirements. The City will implement the requirements and BMPs identified by MDNR.

Due to the variation in site-specific characteristics for each new development and redevelopment project, the applications and limitations, design criteria and maintenance requirements for each of these, treatment BMPs are not provided in this SWPPP. Please refer to the CWWTP (MO-0023019), NWWTP (MO-0023027) and SEWWTP (MO-0101567) permits for additional information regarding treatment requirements.

# **12.0 Flow Control BMPs**

Flow control BMPs required for new development and redevelopment are included in City Ordinances and will implement requirements and BMPs specified. Some applicable flow control BMPs include:

- Bio-retention
- Pervious pavement
- Detention cisterns
- Dispersion (e.g., downspout or sheet flow)
- Infiltration (e.g., infiltration basins, infiltration trenches, drywells)
- Detention (e.g., detention pond, detention pipe, detention vault)

Due to the variation in site-specific characteristics for each new development and redevelopment project, design criteria and maintenance requirements for each of these, flow controls BMPs are not provided in this SWPPP. Please refer to the Endangered Species Act (ESA) Program Guidelines, MDNR regulations and City Ordinances for additional information regarding flow control BMPs.

## **13.0 Erosion and Sediment Control BMPs**

New development or redevelopment causes a potential for significant soil erosion. The City implements the requirements identified in the Endangered Species Act (ESA) Program Guidelines and the City Ordinances which includes elements of water quality and downstream resource protection:

- 1. Mark Clearing Limits and Sensitive Areas
- 2. Retain Top Layer
- 3. Establish Construction Access
- 4. Protect Downstream Properties and Receiving Waters
- 5. Prevent Erosion and Sediment Transport from the Site
- 6. Prevent Erosion and Sediment Transport from the Site by Vehicles
- 7. Stabilize Soils
- 8. Protect Slopes
- 9. Protect Storm Drains
- 10. Stabilize Channels and Outlets
- 11. Control Pollutants
- 12. Control Dewatering
- 13. Maintain BMPs
- 14. Inspect BMPs
- 15. Minimize Open Trenches
- 16. Phase the Project

Due to the variation in site-specific characteristics for each new development and redevelopment project, design criteria and maintenance requirements for each of these, erosion and sediment control BMPs are not provided in this SWPPP. Please refer to the Endangered Species Act (ESA) Program Guidelines, MDNR requirements and City Ordinances for additional information regarding erosion and sediment control BMPs (Appendix F).

### **14.0 Operation and Maintenance**

An O&M requirements table, which includes required inspection frequencies, has been developed for stormwater drainage structures. The O&M requirements table for these structures can be found in Appendix C.

# 15.0 Handling and Disposal of Solid and Liquid

Wastes from the Stormwater Conveyance Systems are handled according to the requirements in the Endangered Species Act (ESA) Program Guidelines, City Ordinances and the BMPs (Appendix F).

## **16.0 Concluding Statement**

The Stormwater and Pretreatment Coordinator, WPC Superintendent and Public Works Director are responsible for ensuring employees who are engaged in activities covered by the NPDES Permit at areas near stormwater drains and other such conveyances are informed about the existence and contents of this plan. All such employees will be informed that compliance with the contents of this plan is required by City, State and Federal laws and regulations and that non-compliance can lead to serious civil and criminal penalties against the City.

## **17.0 References**

2018, City of Sedalia, Stormwater Management Plan (SWMP)

2019, City of Sedalia, CODE OF ORDINANCES, Supplement 19, Chapter 60 <u>https://library.municode.com/mo/sedalia/codes/code\_of\_ordinances?nodeId=CD\_ORD\_CH60UT</u>

2011, Missouri Department of Resources, "Protecting Water Quality" <u>https://dnr.mo.gov/env/wpp/wpcp-guide.htm</u>

2005, Environmental Protection Agency, Stormwater Phase II Final Rule <u>https://www.epa.gov/npdes/stormwater-phase-ii-final-rule-fact-sheet-series</u>

1993, Environment Protection Agency, "Guidance Manual for Developing Best Management Practices (BMP)"

https://www3.epa.gov/npdes/pubs/owm0274.pdf

2016, Environmental Protection Agency, "Community Solution for Stromwater Management" <u>https://www.epa.gov/sites/production/files/2016-</u> 10/documents/draftlongtermstormwaterguide 508.pdf

2002, Federal Clean Water Act

https://www.epa.gov/sites/production/files/2017-08/documents/federal-water-pollution-control-act-508full.pdf

# **APPENDIX A**

Vicinity Map and Site Drainage Plans

Stormwater Pollution Prevention Plan for: Airport, Animal Shelter, Facilities Maintenance, Cemetery, Parks & Recreation (Centennial, Centennial Pool, Clover Dell, Housel, Hubbard, Katy, Liberty, Liberty Pool and Vermont), Public Works Complex, Vehicle Maintenance, Water Division, Water Plant, Central Wastewater Treatment Plant, North Wastewater Treatment Plant, Southeast Wastewater Treatment Plant and Compost Facility




Figure A-3 Airport – Water Drainage



#### Figure A-4 Animal Shelter – Water Drainage



#### Figure A-5 Facilities Maintenance – Water Drainage



Figure A-6 Cemetery – Water Drainage



Figure A-7 Parks & Recreation – Centennial – Water Drainage



Figure A-8 Parks & Recreation – Centennial Park Pool – Water Drainage



Figure A-9 Parks & Recreation – Clover Dell – Water Drainage



Figure A-10 Parks & Recreation – Housel – Water Drainage



Figure A-11 Parks & Recreation – Hubbard – Water Drainage



Figure A-12 Parks & Recreation – Katy – Water Drainage



Figure A-13 Parks & Recreation – Liberty – Water Drainage



Figure A-14 Parks & Recreation – Liberty Park Pool – Water Drainage



Figure A-15 Parks & Recreation – Vermont – Water Drainage



Figure A-16 Public Works Complex – Water Drainage



Figure A-17 Vehicle Maintenance – Water Drainage



Figure A-18 Water Treatment Plant / Water Division – Water Drainage



Figure A-19 Central Wastewater Treatment Plant – Water Drainage



Figure A-20 North Wastewater Treatment Plant – Water Drainage



Figure A-21 Southeast Wastewater Treatment Plant – Water Drainage



Figure A-22 Compost Facility – Water Drainage



#### **APPENDIX B**

City Spill History and Spill Reporting Forms:

Airport, Animal Shelter, Facilities Maintenance, Cemetery, Parks & Recreation, Public Works Complex, Vehicle Maintenance, Water Treatment Plant/Water Division, Central Wastewater Treatment Plant, North Wastewater Treatment Plant, Southeast Wastewater Treatment Plant and Compost Facility

Figure B-1 Airport

Airport Spill Hist	tory			Completed by:			
					Title:	Pretreatment and St Coordinator	ormwater
					Date:	XXXXX XX, 2021	
Day (month/day/year)	Location	Type of Material	Quantity	Source / Cause if known	Media Affected (soil / water)	Response Procedure	Notes
None at this time							

#### Figure B-2 Animal Shelter

Animal Shelter S	pill History			Completed by:			
					Pretreatment and Stormwat   Title: Coordinator		ormwater
					Date:	XXXXX XX, 2021	
Day (month/day/year)	Location	Type of Material	Quantity	Source / Cause if known	Media Affected (soil / water)	Response Procedure	Notes
None at this time							

#### Figure B-3 Facilities Maintenance

Facilities Mainte	enance Spill H	listory	Completed by:				
					Title:	Pretreatment and St Coordinator	ormwater
					Date:	XXXXX XX, 2021	
Day (month/day/year)	Location	Type of Material	Quantity	Source / Cause if known	Media Affected (soil / water)	Response Procedure	Notes
None at this time							

#### Figure B-4 Cemetery

Cemetery Spill H	listory			Completed by:			
					Title:	Pretreatment and St Coordinator	tormwater
					Date:	XXXXX XX, 2021	
Day (month/day/year)	Location	Type of Material	Quantity	Source / Cause if known	Media Affected (soil / water)	Response Procedure	Notes
None at this time							

#### Figure B-5 Parks & Recreation (Centennial, Centennial Pool, Clover Dell, Housel, Hubbard, Katy, Liberty, Liberty Pool and Vermont)

Parks & Recreat	ion Spill Histo	ory			Completed by:		
					Title:	Pretreatment and St Coordinator	ormwater
					Date:	XXXXX XX, 2021	
Day (month/day/year)	Location	Type of Material	Quantity	Source / Cause if known	Media Affected (soil / water)	Response Procedure	Notes
None at this time							

Figure B-6 Public Works Complex

Public Works Co	mplex Spill H	listory	Completed by:				
					Title:	Pretreatment and St Coordinator	ormwater
					Date:	XXXXX XX, 2020	
Day (month/day/year)	Location	Type of Material	Quantity	Source / Cause if known	Media Affected (soil / water)	Response Procedure	Notes
None at this time							

#### Figure B-7 Vehicle Maintenance

Vehicle Mainten	ance Spill Hi	story		Completed by:	Courtney Blaszczyk		
					Title:	Pretreatment and Si Coordinator	tormwater
					Date:	XXXXX XX, 2020	
Day (month/day/year)	Location	Type of Material	Quantity	Source / Cause if known	Media Affected (soil / water)	Response Procedure	Notes
None at this time							

#### Figure B-8 Water Treatment Plant / Water Division

Water Treatmer	nt Plant / Wa	ter Division Sp		Completed by:	Courtney Blaszczyk		
					Title:	Pretreatment and Si Coordinator	tormwater
					Date:	XXXXX XX, 2020	
Day (month/day/year)	Location	Type of Material	Quantity	Source / Cause if known	Media Affected (soil / water)	Response Procedure	Notes
None at this time							

#### Figure B-9 Central Wastewater Treatment Plant

CWWTP Spill His	story				Completed by:	Courtney Blaszczyk	
					Title:	Pretreatment and St Coordinator	tormwater
					Date:	XXXXX XX, 2020	
Day (month/day/year)	Location	Type of Material	Quantity	Source / Cause if known	Media Affected (soil / water)	Response Procedure	Notes
None at this time							

#### Figure B-10 North Wastewater Treatment Plant

NWWTP Spill Hi	story				Completed by:	Courtney	
					completed by.	Pretreatment and St	l cormwater
					Title:	Coordinator	
					Date:	XXXXX XX, 2020	
Day		Type of		Source /	Media	Response	
(month/day/year)	Location	Material	Quantity	Cause if	Affected (soil / water)	Procedure	Notes
				N.IOWI	, water,		
None at this time							

#### Figure B-11 Southeast Wastewater Treatment Plant

SEWWTP Spill H	istory				Completed by:	Courtney Blaszczyk	
					Title:	Pretreatment and St Coordinator	tormwater
					Date:	XXXXX XX, 2020	
Day (month/day/year)	Location	Type of Material	Quantity	Source / Cause if known	Media Affected (soil / water)	Response Procedure	Notes
None at this time							

Figure B-12 WPC – Compost

Compost Facility	/ Spill History			Completed by:	Courtney Blaszczyk		
					Title:	Pretreatment and Stormwater Coordinator	
					Date:	XXXXX XX, 2020	
Day (month/day/year)	Location	Type of Material	Quantity	Source / Cause if known	Media Affected (soil / water)	Response Procedure	Notes
None at this time							

#### **APPENDIX C**

City Stormwater O&M Requirements Table

Airport, Animal Shelter, Facilities Maintenance, Cemetery, Parks & Recreation, Public Works Complex, Vehicle Maintenance, Water Treatment Plant / Water Division, Central Wastewater Treatment Plant, North Wastewater Treatment Plant, Southeast Wastewater Treatment Plant and Compost Facility

Figure C-1 C	General Description, required actions and recommendations for stormwater drainage systems present at City Facilities								
							IET		
ADDRESS	DATE	TIME	CATCH BASIN	TOP	INSIDE	SWEEPER	RODDER	1	EMPLOTE E 2
Broadway (W) 1221									
Broadway (E)									
1009									
Broadway (E) 1101									
Broadway (E) 1417									
Broadway (E) 1418									
Broadway (E) 1503									
Broadway (E) 1616									
Broadway (E) 1807									
Broadway (E) 2011									
Broadway (E) 2107									
Broadway (E) 2111									
Broadway (E) 2121									
Broadway (E) 2215									
Broadway (E) 2217									
Broadway (E) 919									
Broadway (E) 923									
Broadway (W) 520									
Broadway (W) 1016									
Broadway (W) 1115									
Broadway (W) 1118									
Broadway (W)									
1212									
-------------------------	------	------	-------------	---------	---------	---------	--------	----------	---------
			LOCATION	CLEANED	CLEANED		JET	EMPLOYEE	EMPLOYE
ADDRESS	DATE	TIME	CATCH BASIN	TOP	INSIDE	SWEEPER	RODDER	1	E 2
Broadway (W)									
1214									
Broadway (W)									
1301									
Broadway (W)									
1400 Broadway (M()									
1401									
Prophysy (M)									
1504									
Broadway (W)									
1622									
Broadway (W)									
1711									
Broadway (W)									
622									
Broadway (W)									
720									
Broadway (W)									
809									
Broadway (W)									
903									
Broadway (W)									
913									
Broadway									
Arlington									
Broadway									
Babcock									
Broadway									
Barrett									
Brown									
Brown Draedurau Carr									
Broadway Carr									
Broadway									
Broadway									
Crockett									
Broadway									
Emmett									
Broadway									
Garfield									
Broadway									
Grand									

			LOCATION	CLEANED	CLEANED		JET	EMPLOYEE	EMPLOYE
ADDRESS	DATE	TIME	CATCH BASIN	ТОР	INSIDE	SWEEPER	RODDER	1	E 2
Broadway									
Hancock									
Broadway									
Harrison									
Broadway									
Ingram									
Broadway									
Lafayette									
Broadway									
Madison									
Broadway									
Massachusetts									
Broadway									
Mildred									
Broadway									
Missouri									
Broadway									
Moniteau									
Broadway									
Monroe									
Broadway									
Montgomery									
Broadway									
Osage									
Broadway Park									
Broadway									
Porter									
Broadway									
Prospect									
Broadway									
Quincy									
Broadway									
Sneed									
Broadway									
Summit									
Broadway									
Thompson									
Broadway									
Underpass									
Broadway									
Vermont									
Broadway									
Wagner									

			LOCATION	CLEANED	CLEANED		JET	EMPLOYEE	EMPLOYE
ADDRESS	DATE	TIME	CATCH BASIN	ТОР	INSIDE	SWEEPER	RODDER	1	E 2
Broadway									
Warren									
2nd 714									
2nd Harrison									
2nd Kentucky									
2nd Lamine									
2nd Missouri									
2nd Moniteau									
2nd Ohio									
2nd Osage									
3rd (W) 1813									
3rd (W) 1815									
3rd Gentry									
3rd Harrison									
3rd Limit									
3rd Missouri (Everytime)									
3rd Osage									
3rd State Fair Blvd									
4th & Ohio									
4th Gentry									
4th Harrison									
4th Limit									

ADDRESS	DATE	TIME	LOCATION CATCH BASIN	CLEANED TOP	CLEANED INSIDE	SWEEPER	JET RODDER	EMPLOYEE 1	EMPLOYE E 2
4th Missouri (Everytime)									
4th Park									
4th State Fair Blvd									
4th Warren									
5th Warren									
5th & Ohio									
5th (W) 1815									
5th (W) 2317									
5th (W) 2318									
5th (W) 2319									
(Catchbasin is in yard) (Everytime)									
5th Beacon									
5th Kentucky									
5th Limit									
5th Missouri (Everytime)									
5th Osage									
5th State Fair Blvd									
5th Vermont									
6th Barrett									

ADDRESS	DATE	TIME	LOCATION CATCH BASIN	CLEANED TOP	CLEANED INSIDE	SWEEPER	JET RODDER	EMPLOYEE 1	EMPLOYE E 2
6th Kentucky									
6th Limit									
6th Moniteau									
6th Ohio									
6th Osage									
6th Vermont									
7th Kentucky									
7th Limit									
7th Ohio									
7th Vermont									
Benton Missouri									
Benton West End									
Clay Osage									
Cooper 744									
Cooper Grand									
Cooper Missouri									
Cooper Ohio									
Cooper Osage									
Cooper Park									
Gentry Main									

ADDRESS	DATE	TIME	LOCATION CATCH BASIN	CLEANED TOP	CLEANED INSIDE	SWEEPER	JET RODDER	EMPLOYEE 1	EMPLOYE E 2
Grand (N) 306									
Grand (N) 307									
Grand (N) Railroad									
Grand Cooper									
Grand Henry									
Grand Johnson									
Grand Morgan									
Grand Pettis									
Granny Lane									
Ham Osage									
Harrison (S) 233 In curb line									
Harrison (S) 236 In curb line									
Harrison Main									
Harrison Wilkerson									
Henry (W) 812									
Henry Ohio									
Henry Prospect									
Henry Quincy									
Hubbard Park									
Jetterson Missouri (Clean Every Time)									

ADDRESS	DATE	TIME	LOCATION CATCH BASIN	CLEANED TOP	CLEANED INSIDE	SWEEPER	JET RODDER	EMPLOYEE 1	EMPLOYE E 2
Jefferson									
Moniteau									
Johnson Ohio									
Johnson Prospect									
Johnson Quincy									
Kentucky by Rail Road Tracks									
Kentucky Main									
Liberty Park Blvd 1228									
Liberty Park Blvd. (Across from 1224)									
Main (W) 715									
Main Missouri									
Main Mitchell									
Main Moniteau									
Main Park									
Main Quincy									
Main State Fair									
Main Stewart									
Main Thompson									
Main Vermont									
Main West Ave									
Main Winchester									

ADDRESS	DATE	TIME	LOCATION CATCH BASIN	CLEANED TOP	CLEANED INSIDE	SWEEPER	JET RODDER	EMPLOYEE 1	EMPLOYE E 2
Martin Luther									
King Drive									
МсКее									
Missouri (N) 500									
Missouri (N) 510									
Missouri Morgan (Next to Hubbard Park)									
Moniteau Pettis									
Morgan Ohio									
Morgan Park									
Morgan Prospect									
Oak Grove Lane									
Ohio (N) 1108									
Ohio (N) 1500									
Ohio (N) Pettis									
Pacific 2nd driveway of the Oats Dept.									
Park (S) 200									
Park Wilkerson									
Pettis Grand to Missouri									
Spring 1225 (W)									
Spring 1227 (W)									
Spring in front of Tambo Apts									

ADDRESS	DATE	TIME	LOCATION CATCH BASIN	CLEANED TOP	CLEANED INSIDE	SWEEPER	JET RODDER	EMPLOYEE 1	EMPLOYE E 2
Spring Summer									
State Fair Blvd (N) 205									
State Fair Blvd (N) 410									
State Fair Blvd (N) 413									
State Fair Blvd (S) 302									
State Fair Blvd (S) 408									
State Fair Blvd (S) 425									
State Fair Blvd (S) 504									
State Fair Blvd (S) 507									
State Fair Blvd (S) 511									
State Fair Blvd Eagle Crest Apt (Ditch Grate Only) Everytime									
Thompson 301									
Wisconsin									
Woodlawn (N) 2300									
Woodlawn (N) 2301									
Woodlawn (N) 2304									
Woodlawn (S) 2413									
Woodlawn (S) 2500									
Woodlawn (S) 2619									

ADDRESS	DATE	TIME	LOCATION CATCH BASIN	CLEANED TOP	CLEANED INSIDE	SWEEPER	JET RODDER	EMPLOYEE 1	EMPLOYE E 2
Woodlawn (S) 2626									
Woodlawn (S) 2706									
Woodlawn (S) 2709									
10th (W) 1100									
10th (W) 1615									
10th Park									
10th Stewart									
11th Harrison									
11th Park									
11th Quincy									
11th Royal									
11th Stewart									
11th Sue Lane									
12th Kentucky									
12th Moniteau									
12th Ohio									
12th Osage									
13th (W) 1610									
13th Grand									
13th Moniteau									
14th Grand									
14th Kentucky									

ADDRESS	DATE	TIME	LOCATION CATCH BASIN	CLEANED TOP	CLEANED INSIDE	SWEEPER	JET RODDER	EMPLOYEE 1	EMPLOYEE 2
14th Limit									
14th Missouri									
14th Moniteau									
14th New England									
14th Olive									
14th State Fair									
1501 W 32nd					0				
15th Grand									
15th Magnolia									
15th Moniteau									
15th Ohio									
16th Grand (Every Time)									
16th Quincy									
16th Sneed									
18th Limit									
Kentucky 2002 S									
20th (W/) 1612									
20th Kentucky									
20th Missouri									
20th Warren									
23rd Missouri									
24th Grand									

ADDRESS	DATE	TIME	LOCATION CATCH BASIN	CLEANED TOP	CLEANED INSIDE	SWEEPER	JET RODDER	EMPLOYEE 1	EMPLOYEE 2
24th Kentucky									
24th Moniteau									
32nd 2502 W.									
28th Kentucky									
28th Ohio									
28th Quincy									
Kentucky 2901 S									
Kentucky 3105 S									
32nd (W) 2614									
32nd Erika									
32nd Grand									
32nd Highway Drive									
32nd Ohio									
32nd Stewart									
32nd Wing									
35th Stewart									
9th Warren									
Anderson Clarendon									
Anderson Plaza									
Anderson Wing									
Beacon 1815									
Clarendon 2807									

ADDRESS	DATE	TIME	LOCATION CATCH BASIN	CLEANED TOP	CLEANED INSIDE	SWEEPER	JET RODDER	EMPLOYEE 1	EMPLOYEE
Clinton James Rd									
Country Club									
Country Club Limit									
Dennis Herold									
Dennis Sue Lane									
Douglas Jerome					2				
Greenwood									
Fairview New England									
Golf Plaza									
Grand (S) 1207									
Grand (S) 2607									
Grand (S) 2723									
Grand Magnolia									
Gregory Stewart									
1201									
Heck Ave									
Highland 2607									
Southwest Blvd.									
Highland Wing									
Poplar									
Limit Plaza									
New England 1208 (W)									

ADDRESS	DATE	TIME	LOCATION CATCH BASIN	CLEANED TOP	CLEANED INSIDE	SWEEPER	JET RODDER	EMPLOYEE 1	EMPLOYEE 2
New England 1212 (W)									
Ohio (S) 2512									
Park Broadway 30 ft south of									
Park (S) 1200									
Park (S) 1202									
Plaza 2431 (W)									
Plaza Wing (W)									
Quincy (S) 1207									
Skyline Wing									
Broadway 30 ft									
Intersection									
Southwest Blvd 2528									
Southwest Blvd 2533 (W)									
Southwest Blvd 2700 (W)									
Southwest Blvd 2701 (W)									
Southwest Blvd 2703 (W)									
Southwest Blvd Wing									
State Fair Blvd (S) 1201									
State Fair Blvd (S) 1421									
Stephenson Wing									
Stewart (S) 1200									

ADDRESS	DATE	TIME	LOCATION CATCH BASIN	CLEANED TOP	CLEANED INSIDE	SWEEPER	JET RODDER	EMPLOYEE	EMPLOYEE 2
Stewart (S) 3409									
Sue Lane 1104									
Sue Lane 922									
Wing 2500									
Wing 2517									
Wing 2606					)				
Wing 2607									
Wing 2701									
Wing 2705									
Wing 2801									
2nd Lamine									
3rd Lamine									
3rd Marvin									
3rd Thompson Ave									
4th Emmet									
4th Lamine									
4th Ohio									
5th Center									
5th Engineer									
5th Lamine									
5th Marvin									
5th Massachussetts									

ADDRESS	DATE	TIME	LOCATION CATCH BASIN	CLEANED TOP	CLEANED INSIDE	SWEEPE R	JET RODDER	EMPLOYEE 1	EMPLOYE E 2
5th St. Ohio to Lamine (3 on N, 1 S.)									
5th Thompson									
6th Babcock									
6th Brown									
6th Center									
6th Engineer									
6th Lamine									
6th Marvin									
7th Center									
7th Engineer									
7th Lamine									
7th Marvin									
Boonville 101									
Boonville 125									
Boonville 240									
Boonville Engineer									
Boonville Harding									
Boonville Hill									
Boonville Hurley									
Boonville New York									
Boonville Summit									
Boonville Veterans Dr									

ADDRESS	DATE	TIME	LOCATION	CLEANED	SWEEPE R	JET RODDFR	EMPLOYEE	EMPLOYE
Buckner Ct.						NODDER	-	
Chestnut Depp								
Chestnut New York								
Cooper Lamine								
Depp Saline								
Depp Walnut								
Engineer (Crown Hill Gate 5)								
Engineer (N) 520								
Engineer Pettis								
Engineer Saline								
Engineer Tower								
Engineer Walnut								
Ham Hogan								
Harding (Sunrise Mobile Park)								
Harding at Broadway								
Heard Saline								
Howard E 401								
Howard E 421								
Hurley Saline								
Jackson E 200								
Jackson E 255								
Lafayette (North of Broadway west side street)								

ADDRESS	DATE	TIME	LOCATION CATCH BASIN	CLEANED TOP	CLEANED INSIDE	SWEEPE R	JET RODDER	EMPLOYEE 1	EMPLOYE E 2
Lamine 208 S									
Massachusetts 4th 5th									
Ohio (N) Pettis									
Ohio 205 S (Parking lot)									
Ohio 211 S (2 - Behind building in parking lot)									
Pettis Washington									
Saline E of Mill 450 ft									
Saline Summit									
Thompson 3rd 4th									
10th Engineer									
10th Lamine									
10th Marshall									
10th Massachuetts									
11th Center									
11th Engineer									
11th Lamine									
11th Marvin									
11th Montgomery									
11th New York									
12th Brown									
12th Arlington									
12th Ingram									
12th Lafayette									
12th Lamine									

	DATE	ТІЛАГ		CLEANED		SWEEPE	JET	EMPLOYEE	EMPLOYE
ADDRESS	DATE	TIVIE	CATCH BASIN	TOP	INSIDE	ĸ	RODDER	1	EZ
12th Madison									
12th Marshall									
12th									
Montgomery									
12th Murray									
12th New York									
12th Summit									
13th (E) 1510									
13th Brown									
13th Engineer									
13th Ingram									
13th Lamine									
13th									
IVIdSSachusetts						-			
13th New York									
14th Arlington									
14th Babcock									
14th Brown									
14th Engineer									
14th Ingram									
14th Lamine									
14th Montgomery									
14th New York									
14th Summit									
15th Babcock									
15th Engineer									
15th Ingram									

ADDRESS	DATE	TIME	LOCATION CATCH BASIN	CLEANED TOP	CLEANED INSIDE	SWEEPE R	JET RODDER	EMPLOYEE	EMPLOYE E 2
15th New York									
15th Wagner									
16th Arlington									
16th Garfield									
16th Ingram									
16th Lafayette									
16th Lamine									
16th Marshall									
16th Mildred									
16th Murray									
16th New York									
16th Wagner									
17th Hancock									
17th Layafette									
17th Marvin									
18th Brown									
18th Hancock									
18th Marvin									
19th Marvin									
Montgomery									
19th Washington									
20th Marvin									
20th Montgomery									
20th New York									
21st Ingram									

	DATE	TINAC		CLEANED	CLEANED	SWEEPE	JET	EMPLOYEE	EMPLOYE
ADDRESS	DATE	TIME	CATCH BASIN	TOP	INSIDE	к	RODDER	1	EZ
22nd (E) 1309									
22nd New York									
22nd Wagner									
24th (E) 1208						-			
24th (E) 1300									
24th Bristol									
Lane				(					
24th Engineer									
24th Ingram									
24th Marvin									
24th									
Massachusetts									
Washington									
9th Center									
9th Engineer									
9th Garfield									
9th Hancock									
9th Marshall									
9th Monroe									
9th Porter									
Arlington 1201									
Hancock									
Broadway to 9th									
Ingram (S) 1700									
Lafayette 1800									
Marshall (S)									
1500 Montgomery									
Circle									

ADDRESS	DATE	ТІМЕ	LOCATION CATCH BASIN	CLEANED TOP	CLEANED INSIDE	SWEEPE R	JET RODDER	EMPLOYEE 1	EMPLOYE E 2
Thompson Ave Broadway 30 ft south (West side )									
Walker Circle E									

### **APPENDIX D**

City Facilities Monthly, Quarterly and Annual Inspection Forms Airport, Animal Shelter, Facilities Maintenance, Cemetery, Parks & Recreation, Public Works Complex, Vehicle Maintenance, Water Division, Water Treatment Plant / Water Division, Central Wastewater Treatment Plant, North Wastewater Treatment Plant, Southeast

Wastewater Treatment Plant and Compost

Facility

Figure D-1 Monthly	y Stormwater Outfall I	nspections	
	F	ORM IDDE-A	
Date:		Rainfall Last 30 days:	
Inspector:			
Location:			
Conditions:			
Debris	Odor	Oily Film	Foam
Turbidity	Scum	Yard Waste	Other
Comments:			

Temperature:	Dissolved Oxygen:	рН:
Is there evidence of an illicit	<u>: discharge</u> ? Y	Ν
If yes then complete the nex Reason for investiga	t questions: tion:	
List POCs:		

Figure D-2 Monthly Facility Inspections

	LOCATION: INSPECTOR INITIALS:					DATE:			
А	Facility Operation and Maintenance	Yes	No	N/A	D	Material Storage	Yes	No	N/A
1	Are trash and litter removed from catch basins and other portions of the storm water drainage system on a regular basis?				1	Is a system in place to identify materials that could leak or spill potential pollutants that could enter the stormwater system?			
2	Are areas subject to erosion stabilized with grass, mulch, or other appropriate sediment control measures?				2	Are materials stored in original containers with original labels?			
3	Is the parking lot regularly swept or vacuumed to clean up sediment and trash?				3	Are there material containers regularly inspected for leaks and spills?			
4	Are there timely inspections and maintenance of storm water management devices (e.g. cleaning catch basins, inlets and ditches)?				4	Are materials kept dry?			
5	Are sediment traps installed in storm drains or sewer systems operating and being maintained properly?				5	Is there a spill kit available			
в	Solid Waste Management	Yes	No	N/A	E	Fuel Storage	Yes	No	N/A
1	Are loose garbage and waste materials located on the grounds picked up and disposed regularly?				1	Are fuel tanks filled carefully without allowing over-splash?			

2	Are garbage lids closed to prevent rainwater from entering refuse?				2	Are fuel tanks managed properly?			
3	Are pet waste stations available and maintained?				3	Are fueling areas protected from precipitation and run-on?			
с	Vehicle, Equipment Maintenance and Washing	Yes	No	N/A	4	Is washing down the fueling area with water avoided?			
1	Are there regularly scheduled inspections of equipment?				5	Is spill protection provided at fueling sites?			
2	Is all equipment free of leaks and drips?				6	Is there a spill response plan in place, including phone numbers, in case of a spill?			
3	Are nontoxic or low toxicity cleaning compounds used?				F	Outfalls	Yes	No	N/A
4	Are maintenance activities performed indoors where practical?				1	Are outfalls free of debris trash, and any visible signs of pollution?			
5	Is wash water contained or otherwise kept out of the storm drain system?				2	Are outfall signs visible and in good repair?			
6	Are waste materials properly segregated, labeled and discarded?				G	Training	Remarks		ks
7	Is there a spill response plan in place, including phone numbers to call in case of a spill?				1	When was the last Stormwater training date for the Department Staff?			
					2	What was the last Stormwater training topic given to Staff?			

### Figure D-3 Quarterly and Annual Inspections

Division	Locations						
<b>General</b> (Annual)	City Hall	Central Fire Station	Cemetery Office	Main Fire Station	Police Station	Water Office	WPC Lab
WPC (Quarterly)	Central WWTP	Compost Facility	North WWTP	SE WWTP	WPC Shop		
Street & Alley (Quarterly)	Lower Barn	Salt Barn	Sanitation and Wash Bay	Upper Barn and Sign Shop			
Parks & Recreation & Rec. (Monthly)	Centennial Park	Clover Dell Park	Hubbard Park	Housel Park	Katy Park	Liberty Park	Vermont Park
(Quarterly)	Centennial Park Shop	Centennial Park Pool	Clover Dell Park Shop	Liberty Park Pool	Liberty Park Shop		
<b>Other</b> (Quarterly)	Airport Hangars	Airport Terminal	Animal Shelter	Facilities Maintenance	Cemetery Shop	Vehicle Maintenance	Water Plant

### SWPPP, MOMP, SWMP, IDDE and Spill Prevention Inspections

### **Division/Location**

Location:			

Date:

Weather:

### SWPPP:

Does this facility have a current Storm Water Pollution Prevention Plan (SWPPP)? Yes No

### **Description of Activities:**

#of Staff who work at the Facility:

# of Vehicles on site:

Chemical Storage:

Waste Storage:

### **Best Management Practices**

### **General Housekeeping Maintenance and Operations**

#### FACILITIES-General

	Yes	No	N/A
Are grease traps and oil/water separators in kitchens and food service areas maintained?			
Are the storm water drainage gutters and drains cleaned reducing conditions suitable for mosquito breeding?			
Is the use of herbicides minimized through an IPM Program for weed control?			
Are environmentally preferred products purchased whenever practical?			
Is the facility and surrounding area clear of litter?			
Are trash container lids kept closed to keep rain out?			
Is the collection frequency of trash containers appropriate to avoid overflows?			
Are material stockpiles, which cannot feasibly be covered, surrounded by a berm or otherwise contained so that storm water runoff can be captured?			
Are liquid containers stored under roof; or if outdoors, containers sealed water-tight?			
Are safety data sheets (SDS) for chemicals onsite for information on reportable spill quantities, proper handling, and health and safety issues?			
Do employees know where the SDSs are located?			
Are municipal facilities materials management and inventory control to include the proper identification of hazardous and non-hazardous substances and proper labeling of all containers in place?			
Are regular inspections and inventory of material storage and use areas performed to ensure MCM3 Best Management Practices (BMP) is being used?			
Are vehicles and equipment inspected frequently for leaks?			
Are flammable liquids kept in a vented fire-rated cabinet?			
Are all supply material and waste containers clearly marked and properly identify the contents?			
Do tops of containers have absorbent mats and free of standing liquid and are closed?			
Are all floors clean of oil and grease?			
Are "No smoking" signs posted in the shop, and near hazardous waste and flammable material storage areas?			
Are emergency phone numbers clearly posted in the shop and near material storage areas?			

### SPILL PREVENTION-General

	Yes	No	N/A
Is a spill response plan in place?			
Are spill kits available?			
Is there a list of emergency contact numbers for spill reporting and spill clean-up?			
Are spills immediately cleaned up using dry methods (absorbents), minimizing the use of water whenever possible?			
Are all tanks and containers regularly inspected to ensure physical integrity?			
Do all above ground storage tanks have secondary containment?			

### Vehicle/Equipment Repair and Maintenance Operations

#### **OPERATIONS-Vehicle**

	Yes	No	N/A
Is there a preventive maintenance program to minimize fluid leaks and equipment failures?			
Are all routine vehicle maintenance and repairs at municipal facilities are performed indoors, when possible?			

Are environmentally safe detergents used instead of caustic cleaning solutions?		
Are waste oils, filters, antifreeze and other wastes are collected in designated, labeled containers and recycled to the maximum extent practicable?		
Are wheel weights kept in a container marked "scrap lead"?		
Are records of waste pick-ups logged and maintained in a file?		
Are used oil filters gravity drained for 24 hrs? Using the anti-drain back valve or filter dome punctured to facilitate the draining process. Crushing the oil filter and recycling is preferred.		
Are batteries, waste oil, etc. that has spill/leak potential stored indoors and are in secondary containment, when possible?		
Are neutralizer and absorbent materials kept by both new and used batteries?		

#### SPILL PREVENTION-Vehicle

	Yes	No	N/A	
Are there procedures for loading, unloading and transfer operations to prevent overfilling and				
spills?				

#### Vehicle/Equipment Washing

#### ON SITE WASHING-Washing

	Yes	No	N/A
Is the wash bay facility trap pumped out quarterly, or as needed?			
Is the wash bay cleaned to keep stormwater out of the sanitary sewer?			

#### Cleaning and Maintenance of Roadways, Highways, Bridges and Parking Facilities

#### MAINTENANCE-Roadways

	Yes	No	N/A
If certain road maintenance activities are prone to produce pollutants that can be carried off with			
storm water runoff, schedule these maintenance activities during times of dry weather if possible.			
On asphalt overlays, are storm water drainage capacity of curbs and inlets maintained by milling			
down into the street at the curb, or using open graded thin bonded overlay?			
Are all municipal land disturbance ordinances and programs implemented under the City of			
Sedalia SWMP?			
For fueling areas, are signs posted that state "no topping off"?			
Maintain equipment to ensure the proper operation of automatic shutoff devices on pumps and,			
overfill protection and spill buckets on tanks.			

#### DE-ICING-Roadways

	Yes	No	N/A
Are chemical applicators used calibrated for salt and brine applications?			
Do municipal facilities minimize the use of salt without compromising public safety?			
Do salt feed trucks stop the salt feed at stop signs, where equipped?			

#### **CLEANING-Roadways**

	Yes	No	N/A
Are parking lots hosed down in a manner that discharges wash water to the storm drains?			

### Cleaning and Maintenance of Drainage Channels, Storm Sewers and Inlet Structures

#### GENERAL-Drainage

	Yes	No	N/A
Is preventative maintenance performed on the storm drainage system to remove flow obstructions			
to reduce flooding and erosion problems and improve water quality?			

Consider downstream conditions prior to spot channel stabilization efforts. Revegetate stabilized		
areas with native plants whenever possible, and as soon as possible.		

#### CATCH BASINS-Drainage

	Yes	No	N/A
Prioritize catch basins for routine maintenance on a specified frequency based on need. Increase			
maintenance of inlets that are fully blocked or 75% full of trash or debris when maintained.			

#### STORM SEWERS-Drainage

	Yes	No	N/A
Prioritize storm sewers for routine maintenance on a specified frequency based on flat grades, low			
flow or review of work orders. Identify areas for additional maintenance based on work orders.			
Utilize care in cleaning storm sewers by flushing, to properly collect waste using debris/sediment			
traps.			
Minimize or avoid the use of chemical root/vegetation killers, and use the least toxic alternatives			
when necessary.			

#### Facility Repair, Remodeling and Construction

### LAND DISTURBANCE-Facility

	Yes	No	N/A
Is erosion and sediment control employed as stated in MCM4 and MCM5 BMPs, such as: soil			
stabilization with mulch or seeding, settling basins, sediment traps, vegetated buffer strips, and silt			
fencing for perimeter controls?			

#### CONSTRUCTION/REMODELING-Facility

	Yes	No	N/A
In accordance with city purchasing policies, is every effort made to purchase materials that are			
manufactured with recycled materials?			
Are materials stored properly as far away from storm inlets and streams as practical and cover			
stored materials to avoid storm water impacts?			
Are wastes recycled or properly disposed of?			
Are work sites kept clean and pick up trash daily?			

#### Maintenance of Parks & Recreation, Pools, Green Spaces, Trails and Landscaping

#### PARK DESIGN AND SITING-Parks & Recreation

	Yes	No	N/A
Are site development and placing facilities in the flood plain avoided?			
Design park sites to preserve existing natural draining areas, minimizing their loss and maintaining			
existing trees and a riparian corridor next to creeks to the degree possible.			
Design landscaping that uses native vegetation to reduce the need for irrigation, fertilizer and			
pesticide. Select plants appropriate for site conditions for sun, moisture, and soil type.			
Utilize low impact development to minimize impervious surfaces.			
In designing storm water drainage facilities, use MCM5 BMPs to improve the water quality of site			
drainage and slow the release of water to streams.			

#### PARK/LANDSCAPE MAINTENANCE-Parks & Recreation

	Yes	No	N/A
Are litter and debris removed regularly?			
Is yard waste properly disposed of?			
Minimize mowing of open space sites, depending on site objectives.			
Mow grass higher and leave grass clippings on the lawn to retain moisture and provide nutrients.			
Remove exotic invasive vegetation and replace with native plantings as resources are available.			
Apply fertilizer only in cool weather, preferably fall. Avoid application before a rain, and do not			
apply fertilizer at rates higher than indicated in on label instructions.			

When disturbing land, such as clearing vegetation and destroying the root zone, employ MCM4		
and MCM5 BMPs for erosion and sediment control.		

#### INTEGRATED PEST MANAGEMENT-Parks & Recreation

	Yes	No	N/A
Pesticide application should be timed carefully and combined with other pest management			
practices.			
Use mechanical controls to keep pests in check, such as species specific, pheromone based traps.			
Eliminate conditions favorable to pests and place barriers to control pests and weeds.			
Use natural, biological controls, when feasible, including natural enemies of pests, such as:			
predators, parasites, pathogens, pheromones, and juvenile hormones.			
Reduce the risk of mosquito breeding grounds by reducing stagnant water caused by cans,			
containers and tires present in litter and junk piles.			
Minimize the use of herbicides through IPM techniques for weed control.			

#### PESTICIDE/HERBICIDE USE-Parks & Recreation

	Yes	No	N/A
When pesticide or herbicide use is required, select pesticides carefully, avoiding highly water			
soluble and very environmentally stable products to minimize potential for leaching from soils into			
waterways.			
Consider the vulnerability of the area in which pesticides are applied, avoiding areas with streams,			
ponds, sinkholes or wells.			
Read pesticide labels carefully for information and restrictions about the rate, timing and placement			
of the pesticide in that container. Calibrate equipment to apply at the proper rate. Apply when the			
threat of rain is low to avoid wasting material and washing pesticide into the waterways.			
Store pesticides in their original containers in a cool, well-ventilated building with a concrete floor.			
Handle pesticides carefully to avoid spills.			
Is pesticide waste disposed of properly following label instructions?			

#### **COMMUNITY-Parks & Recreation**

	Yes	No	N/A
Provide pet waste scoop dispensers and signage in Parks & Recreation and other public areas			
frequented by pet walkers to promote the proper disposal of pet waste.			
Are sufficient numbers of appropriately-sized waste receptacles at municipal facilities and in public			
areas with regularly scheduled servicing, collection and disposal provided?			

#### **POOLS-Parks & Recreation**

	Yes	No	N/A
Pool drainage and filter backwash water from chlorinated swimming pools, fountains and lined			
ponds must be discharged into the sanitary sewer system. Is all chlorinated water from water line			
or tank disinfection directed to the sanitary sewer?			
Any discharge to surface water of pool or backwash water from pools and ponds must be			
dechlorinated prior to discharging into storm sewer system under the conditions of an NPDES			
permit obtained by the facility. Are these rules followed?			
Is using copper or silver-containing algaecides in pools, fountains and ponds avoided?			

### **Recommendations**

- 1.
- 2.
- 3.
- 4.

### **APPENDIX E**

**Spill Prevention Plan** 

Airport, Animal Shelter, Facilities Maintenance, Cemetery, Parks & Recreation, Public Works Complex, Vehicle Maintenance, Water Treatment Plant/Water Division, Central Wastewater Treatment, North Wastewater Treatment Plant, Southeast Wastewater Treatment Plant and Compost Facility

# **Spill Prevention Plan**

Airport, Animal Shelter, Facilities Maintenance, Cemetery, Parks & Recreation, Public Works Complex, Vehicle Maintenance, Water Treatment Plant / Water Division, Central Wastewater Treatment, North Wastewater Treatment Plant, Southeast Wastewater Treatment Plant and Compost Facility

> City of Sedalia 200 S. Osage Ave. Sedalia, Mo 65301

> > **XXXXXXX 2021**

### TABLE OF CONTENTS

	104
Approval	104
m e n t s	105
Responsible Personnel	105
Spill Reporting	106
Project And Site Information	106
Potential Spill Sources	109
Pre-Existing Contamination	121
Spill Prevention And Response Training	121
Spill Prevention	121
Spill Response	123
Project Site Maps	124
Spill Report Form(S)	124
	A p p r o v a l m e n t s Responsible Personnel Spill Reporting Project And Site Information Potential Spill Sources Pre-Existing Contamination Spill Prevention And Response Training Spill Prevention Spill Response Project Site Maps Spill Report Form(S)

### TABLES AND FIGURES

Table 1:	Spill Plan Contacts	105
Table 2:	Nearby Waterways and Sensitive Areas	108
Table 3:	Hazardous Materials Brought or Generated On-Site	109
Table 4:	Spill Response Kit Contents and Locations	122

### INTRODUCTION

This Spill Prevention Plan (Spill Plan) is intended to supplement the Stormwater Pollution Prevention Plan (SWPPP) for City of Sedalia (City). The twelve Public Works facilities that discharge to the City's MS4; are the Airport, Animal Shelter, Facilities Maintenance, Cemetery, Parks & Recreation, Public Works Complex, Vehicle Maintenance, Water Plant/Water Division, Central Wastewater Treatment Plant (CWWTP), North Wastewater Treatment Plant (NWWTP), Southeast Wastewater Treatment Plant (SEWWTP) and the Compost Facility. These 12 sites are included in this Spill Plan since activities at these sites can be categorized as heavy equipment maintenance or storage yards and/or operational facilities. These facilities are described in the SWPPP and will be discussed in detail in the subsequent sections of this Spill Plan.

The Airport, Animal Shelter, Facilities Maintenance, Cemetery, Parks & Recreation, Public Works Complex, Vehicle Maintenance, Water Treatment Plant/Water Division, CWWTP, NWWTP, SEWWTP and the Compost Facility described in this Spill Plan are under the primary responsibility of the City. The City has developed this Spill Plan to protect human health and the environment from spills and releases of "hazardous materials", including dangerous waste, problem waste, petroleum products and hazardous substances in accordance with the SWPPP for the City facilities and NPDES requirements.

The City requires that the strongest emphasis be placed on hazardous material spill prevention. All known and reasonable best management practices and safety procedures must be used at all times on all City sites and projects when dealing with hazardous materials. An updated copy of this Spill Plan must be maintained at the sites at all times. The plan must be updated when sites change in design or operation cause the content of the Spill Plan to be inconsistent or conflicting with actual site conditions and practices.

All City employees and subcontractors must be trained in spill prevention and containment. Employees will know where the Spill Plan and spill response kits are located and will have immediate access to them.

### MANAGEMENT APPROVAL

This Spill Plan is supported by management with the authority to commit the necessary resources including manpower, equipment and materials to expeditiously control and remove any harmful quantity of oil or hazardous substances released to the water or land of the State of Missouri.

XXXXX XX, 2021

Brenda Ardrey, Public Works Director City of Sedalia

### SPILL PLAN ELEMENTS

### 1. Responsible Personnel

The City Stormwater and Pretreatment Coordinator is the primary person in charge of updating the Spill Plan in conjunction with the site specific facility superintendent. The Superintendent is the primary person in charge of coordinating spill prevention and response at each site. Responsible personnel and contact information are presented in Table 1 below.

Responsibility	Name and Title	Phone Number	
Airport			
Primary Spill Plan Contact	Derrick Dodson Airport Director	Office: 660-851-7650 Cell: 573-619-7977	
Secondary Spill Plan Contact	Brandon Cooke Airport Attendant	Office: 660-826-4128	
Animal Shelter			
Primary Spill Plan Contact	Randi Battson Animal Control Manager	Office: 660-826-5816 Cell: 660-620-0169	
Secondary Spill Plan Contact	Troy Schneider Animal Control Officer	Office: 660-520-1077	
Facilities Maintenance			
Primary Spill Plan Contact	Doug Roberts Facilities Maintenance Superintendent	Office: 660-826-9174 Cell: 660-221-8822	
Secondary Spill Plan Contact	Daniel Frazier Crew Supervisor	Office: 660-826-9174 Cell: 660-619-6020	
Cemetery	· · · · · · · · · · · · · · · · · · ·		
Primary Spill Plan Contact	Roger Waters Cemetery Director	Office: 660-826-1562 Cell: 660-620-1936	
Secondary Spill Plan Contact	Mike Holman Crew Supervisor	Office: 660-826-1562 Cell: 660-619-3649	
Parks & Recreation	·		
Primary Spill Plan Contact	Matt Harris Project Manager	Office: 660-826-4932 Cell: 660-723-2602	
Secondary Spill Plan Contact	Jeff Coleman Park Superintendent	Office: 660-826-4932 Cell: 660-441-5565	
Public Works Complex			
Primary Spill Plan Contact	Justin Bray Operations Manager	Office: 660-827-7820 Cell: 660-620-5527	
Secondary Spill Plan Contact	Dave Gerken WPC Supervisor	Office: 660-827-7830 Cell: 660-221-8824	
Vehicle Maintenance			
Primary Spill Plan Contact	Scott Spurr Lead Mechanic	Office:660-827-3000x1170 Cell: 660-619-2361	
Secondary Spill Plan Contact	Justin Bray Operations Manager	Office:660-827-7820 Cell: 660-620-5527	

Table 1: Spill Plan Contacts

Water Treatment Plant / Water Division Shop			
Primary Spill Plan Contact	Dave Murray Water Division Supervisor	Office: 660-826-1236 Cell: 660-460-0118	
Secondary Spill Plan Contact	William Bracken Water Plant Chief Operator	Office: 660-826-1236 Cell: 660-596-5719	
Central Wastewater Treatment Plant			
Primary Spill Plan Contact	Allen Stoeckel Plant Supervisor	Office: 660-826-4545 Cell: 928-279-3919	
Secondary Spill Plan Contact	Bob Summers WPC Superintendent	Office: 660-827-7830 Cell: 660-619-0659	
North Wastewater Treatment Plant			
Primary Spill Plan Contact	Allen Stoeckel Plant Supervisor	Office: 660-826-4545 Cell: 928-279-3919	
Secondary Spill Plan Contact	Bob Summers WPC Superintendent	Office: 660-827-7830 Cell: 660-619-0659	
Southeast Wastewater Treatment Plant			
Primary Spill Plan Contact	Allen Stoeckel Plant Supervisor	Office: 660-826-4545 Cell: 928-279-3919	
Secondary Spill Plan Contact	Bob Summers WPC Superintendent	Office: 660-827-7830 Cell: 660-619-0659	
Compost Facility			
Primary Spill Plan Contact	Dennis Arnold Compost Supervisor	Cell: 660-221-4341	
Secondary Spill Plan Contact	Dave Gerken WPC Supervisor	Office: 660-827-7830 Cell: 660-221-8824	

### 2. Spill Reporting

All spills or encounters of hazardous materials are reported to the Site Superintendent/Operations Manager, the Pretreatment and Stormwater Coordinator and the Public Works Director which are the primary staff in charge of spill prevention and response for the City. Once the spill has been reported internally, external agency notifications must be made by the designated person. A significant spill or leak is defined as either greater than five gallons or in excess of the chemical's reportable quantity that enters a storm drain or receiving water or contaminates soil and/or surface water.

### 3. Project and Site Information

Project and Site information for the 12 City of Sedalia Facilities is presented below and in Table 2:

- A. The Airport is located at 1900 E. Boonville Road in Sedalia, Missouri. The 545 acre parcel includes the Airport Terminal, 16 maintenance hangers and 2 fueling stations. The primary use is landing/takeoff of planes, refueling and maintenance. See Appendix A-1 and A-2 for a vicinity map and Appendix A-3 for site plan and features.
- B. The Animal Shelter is located at 2420 S. New York Avenue in Sedalia, Missouri. The 4 acre parcel includes the animal shelter building and an outside area to exercise dogs. The primary use is to find forever homes for animals. See SWPPP Appendix A-1 and A-2 for a vicinity map and SWPPP Appendix A-4 for site plan and features.
- C. The Facilities Maintenance Shop is located at 3000 W. Main Street #100 in Sedalia, Missouri. The 0.5 acre parcel includes the Facilities Maintenance Shop and a garage for storage. The primary uses of the shop include storage and maintenance of City facilities. See SWPPP Appendix A-1 and A-2 for a vicinity map and SWPPP Appendix A-5 for site plan and features.
- D. The Cemetery burial area is located at 701 N. Engineer Sedalia, Missouri and includes 69.2 acres. The grounds keeping facilities are located at 108 E. Tower Road and 110 E. Tower Road Sedalia, Missouri and include 0.76 acres. The primary uses are final resting place for individuals and grounds keeping. See SWPPP Appendix A-1 and A-2 for a vicinity map and SWPPP Appendix A-6 for site plan and features.
- E. The City of Sedalia Parks & Recreation are located throughout the city. Centennial Park is located at 1400 E. 16<sup>th</sup> Street and includes 38.7 acres and Centennial Park Pool is 11,900 square foot surface water area. Clover Dell Park is at 5257 32<sup>nd</sup> Street and 178.7 acres. Housel Park is at 109 E. Howard Street and 2.03 acres. Hubbard Park is at 701 N. Missouri Avenue and 24.9 acres. KATY Park is at 2200 S. Grand Avenue and 16 acres. Liberty Park is at 1200 W. 3<sup>rd</sup> Street and 41.1 acres and Liberty Park Pool is 12,000 square foot surface area. Vermont Park is at 1200 S. Vermont Avenue and 5.2 acres. The primary uses for the Parks & Recreation are recreation. See SWPPP Appendix A-1 and A-2 for a vicinity map and SWPPP Appendix A-7 to A-13 for site each Parks & Recreation plans and features.
- F. The Public Works Building Complex is located at 901 E. 3<sup>rd</sup> Street in Sedalia, Missouri. The 1.19 acre parcel includes the Streets Building, Sanitation Building, lower barn, salt barn, Water Pollution Control building, parking for utility trailers and towed equipment and a fueling station. The fueling station is used for fueling city vehicles. The primary uses are maintenance of roads, city grounds keeping, sanitation pickup and sewer maintenance and repair. See SWPPP Appendix A-1 and A-2 for a vicinity map and SWPPP Appendix A-14 for site plan and features.
- G. Vehicle Maintenance Shop, 200 S. Kentucky Avenue Sedalia, Missouri and includes 0.65 acres. The primary uses of the Maintenance Shop include storage and maintenance of City of Sedalia vehicles. See SWPPP Appendix A-1 and A-2 for a vicinity map and SWPPP Appendix A-15 for site plan and features.
- H. Water Treatment Plant/Water Division is located at 28200 Water Works Road Sedalia, Missouri and includes 66.4 acres. The primary uses include treating the drinking water for the City and maintaining the water lines to carry the water. See SWPPP Appendix A-1 and A-2 for a vicinity map and SWPPP Appendix A-16 for site plan and features.
- I. CWWTP at 3000 W. Main Street Sedalia, Missouri and includes 27 acres. The primary use is to treat the wastewater form the West side of the City. See SWPPP Appendix A-1 and A-2 for a vicinity map and SWPPP Appendix A-17 for site plan and features.
- J. NWWTP at 23985 Georgetown Road Sedalia, Missouri and includes 5 acres. The primary use is to treat the wastewater from the north side of the City. See SWPPP Appendix A-1 and A-2 for a vicinity map and SWPPP Appendix A-18 for site plan and features.
- K. SEWWTP at 26999 Goodwill Chapel Road Sedalia, Missouri and includes 14 acres. The primary use is

to treat the wastewater from the southeast side of the City. See SWPPP Appendix A-1 and A-2 for a vicinity map and SWPPP Appendix A-19 for site plan and features.

L. Compost at 27882 Hwy U Sedalia, Missouri and includes 77.6 acres. The primary use is to create Class A Compost from wood chips and the sludge from the wastewater treatment plants. See SWPPP Appendix A-1 and A-2 for a vicinity map and SWPPP Appendix A-20 for site plan and features.

Waterway or Sensitive Area	Distance From Site	Direction of Flow from the Site	Runoff Drainage Pathway			
Airport						
Shaver Creek	1,867 feet	Down gradient to the east	Overland flow, roadside ditches, and catch- basin/pipe conveyance			
Shaver Creek	1,667 feet	Down gradient to the east	Overland flow, roadside ditches, and catch- basin/pipe conveyance			
Animal Shelter						
Flat Creek	587 feet	Down gradient to the east	Overland flow, catch-basin/pipe conveyance			
Facilities Maintenance						
Brushy Creek	811 feet	Down gradient to the north	Overland flow, catch-basin/pipe conveyance, channel			
Cemetery	-					
Pearl River	1,134 feet	Down gradient to the west	Overland flow, catch-basin/pipe conveyance, channel			
Parks & Recreation						
Centennial Park/Pool – Flat Creek	1,745 feet	Down gradient to the south west	Overland flow, catch-basin/pipe conveyance, channel			
Clover Dell Park – Muddy Creek	1,868 feet	Down gradient to the south west	Overland flow, catch-basin/pipe conveyance, channel			
Housel Park – Muddy Creek	1,077 feet	Down gradient to the north west	Overland flow, catch-basin/pipe conveyance, channel			
Hubbard Park – Pearl River	405 feet	Down gradient to the north	Overland flow, catch-basin/pipe conveyance, channel			
KATY Park – Flat Creek	3,319 feet	Down gradient to the south east	Overland flow, catch-basin/pipe conveyance, channel			
Liberty Park/Pool – Muddy Creek	2,527 feet	Down gradient to the north west	Overland flow, catch-basin/pipe conveyance, channel			
Vermont Park – Muddy Creek	220 feet	Down gradient to the west	Overland flow, catch-basin/pipe conveyance, channel			
Public Works Complex	I					
Flat Creek	4,870 feet	Down gradient to the south east	Overland flow, catch-basin/pipe conveyance, channel			
Vehicle Maintenance	1	-				
Pearl River	5,681 feet	Down gradient to the north west	Overland flow, catch-basin/pipe conveyance, channel			
Water Treatment Plant / Water	er Division Sho	р				
Flat Creek	1,060 feet	Down gradient to the south east	Overland flow, catch-basin/pipe conveyance, channel			
CWWTP						

Table 2:Nearby Waterways and Sensitive Areas

Brushy Creek	21 feet	Down gradient to the north	Pipe conveyance, channel
NWWTP			
Pearl River	42 feet	Down gradient to the north	Pipe conveyance, channel
SEWWTP			
Breakfast Branch	68 feet	Down gradient to the east	Pipe conveyance, channel
Compost			
Pumped to SEWWTP		Pump Station	Overland to catch-basin, pipe conveyance from catch-basin

#### 4. Potential Spill Sources

A description of each potentially hazardous material brought or generated on-site (including materials used for equipment operation, refueling, maintenance or cleaning) is found in Table 3.

#### Table 3: Hazardous Materials Brought or Generated On-Site

Material	Intended Use	Max Amount On-Site	Storage/Staging Location	Secondary Containment Method
Airport				
Jet Fuel	Fuel Aircraft	10,800 gallons	10,800 gallon above ground tank	Concrete containment
AvGas	Fuel Aircraft	10,800 gallons	10,800 gallon above ground tank	Concrete containment
AvGas	Fuel Aircraft	1,000 gallons	1,000 gallon above ground tank	Concrete containment
Jet Fuel	Fuel Aircraft	2,200 gallons	Jet Refueling Truck	Secondary Containment Method
AvGas	Fuel Aircraft	700 gallons	AvGas Refueling Truck	Secondary Containment Method
Unleaded Gas	Fuel vehicles	500 gallons	Vehicle Refueling Truck	Secondary Containment Method
Diesel Fuel	Fuel vehicles	500 gallons	Vehicle Refueling Truck	Secondary Containment Method
Aviation Oil	For resale	125 gallons	Storage Shed at East end of T Hangers	Secondary Containment Method
Aviation Oil	For resale	12.5 gallons	Behind Front Counter	Secondary Containment Method
Waste Oil	Recycle	55 gallon drum	Fuel Barn	Secondary Containment Method
Motor Oil	Vehicles	6 gallons	Fuel Barn	Secondary Containment Method
Hydraulic Oil	Mowing Equipment	5 gallons	Fuel Barn	Secondary Containment Method
Transmission Fluid	Mowing Equipment	0.25 gallons	Fuel Barn	Secondary Containment Method
Anti-Freeze	Mowing Equipment	1 gallon	Fuel Barn	Secondary Containment Method
RM 43 Vegetation Control	Vegetation Control	2.5 gallons	Fuel Barn	Secondary Containment Method
Animal Shelter				
Pet Friendly Ice Melt	Ice Control	30 pounds	Storage Room	Brooms
Liquid Fire	Drain Cleaner	1.5 gallons	Storage Room	Floor Dry
Facilities Maintenance				
Latex Paint	Covering	50 gallons	Paint Storage Room	Floor Dry

Oil based Paint	Covering	25 gallons	Paint Storage Room	Floor Dry
Paint Thinner	Remove overspray of paint	2 gallons	Paint Storage Room	Floor Dry
Spray Paint	Covering	2.3 gallons	Paint Storage Room	Floor Dry
Wood Stain	Wood Enhancement	1.25 gallons	Paint Storage Room	Floor Dry
Polyurethane	Wood Enhancement Sealer	0.75 gallons	Paint Storage Room	Floor Dry
Asphalt Roof Coating	Roof Sealant	10 gallons	Paint Storage Room	Floor Dry
Silicone Caulk	Gap Sealant	2.3 gallons	Paint Storage Room	Floor Dry
Construction Adhesive	Gap Sealant	1.9 gallons	Paint Storage Room	Floor Dry
Marc 55 Heavy Duty Drain Cleaner	Drain Opener	3 gallons	Rear Storage Room	Floor Dry
Marc 277 Uronic Salt Remover	Drain Descale	3 gallons	Rear Storage Room	Floor Dry
Spray Lubricant	Lubricate	1.2 gallons	Rear Storage Room	Floor Dry
Gasoline	Tools/Generator	10 gallons	Exterior Fuel Storage Cabinet	Floor Dry
Diesel Fuel	Tools/Generator	5 gallons	Exterior Fuel Storage Cabinet	Floor Dry
2 Cycle Motor Oil	Tools/Generator	0.5 gallons	Exterior Fuel Storage Cabinet	Floor Dry
Fuel Stabilizer	Tools/Generator	0.5 gallons	Exterior Fuel Storage Cabinet	Floor Dry
Cemetery				
Carb and Choke Cleaner	Vehicle Maintenance	0.09 gallons	Shop Area	Oil Dry
Chain Lube	Tools	0.09 gallons	Shop Area	Oil Dry
Heet De Icer	Moisture Control	0.09 gallons	Shop Area	Oil Dry
PVC Cement	Pipe Joint	0.03 gallons	Shop Area	Oil Dry
PVC Cleaner	Pipe Joint	0.03 gallons	Shop Area	Oil Dry
PVC Primer	Pipe Joint	0.03 gallons	Shop Area	Oil Dry
WD-40	Lubricate	0.09 gallons	Shop Area	Oil Dry
Lubricant and Penetrant	Lubricate	24 ounces	Shop Area	Oil Dry
Gasoline	Fuel Equipment	50 gallons	Shop Area	Oil Dry
41% Glyphosate Weed Killer	Vegetation Control	4 gallons	Shop Area	Oil Dry
LE 6401 Oil	Mowing Equipment	1 gallon	Shop Area	Oil Dry
LE 6402 Oil	Mowing Equipment	4 gallons	Shop Area	Oil Dry
LE 6406 Oil	Mowing Equipment	0.3 gallons	Shop Area	Oil Dry
Ready Mix Concrete	Concrete	2000 pounds	Shop Area	Oil Dry
Parks & Recreation				
Centennial Park Shop				
Field Striping Paint	Field Christian	E collore	SW Corpor of Shop	Floor Dry
	Field Striping	5 gallons	SW COMELOI SHOP	TIOUT DIY
2 Cycle Motor Oil	Mowing Equipment	0.8 gallons	Flammable Locker	Floor Dry

Gasoline	Mowing Equipment	40 gallons	Flammable Locker	Floor Dry
Diesel Fuel	Mowing Equipment	25 gallons	Flammable Locker	Floor Dry
Brake Fluid	Vehicle Maintenance	2 gallons	Flammable Locker	Floor Dry
Penetrating Oil	Tools	0.6 gallons	Flammable Locker	Floor Dry
Floor Shine	Shine Floor	10 gallons	SW Corner of Shop	Floor Dry
Silicone Caulk	Gap Sealant	1 gallon	SW Corner of Shop	Floor Dry
Anti-Freeze	Mowing Equipment	55 gallon drum	SW Corner of Shop	Floor Dry
Used Oil	Recycle	55 gallon drum	SW Corner of Shop	Floor Dry
Motor Oil	Mowing Equipment	55 gallon drum	SW Corner of Shop	Floor Dry
Rock Salt	Ice Control	30 pounds	SW Corner of Shop	Floor Dry
Centennial Park Pool				
Algaecide	Pool Stabilization	2.25 gallons	Chemical Room	Secondary Containment Method
Poly Sheen	Pool Stabilization	0.7 gallons	Chemical Room	Secondary Containment Method
Cyanuric Acid	Pool Stabilization	360 gallons	Chemical Room	Secondary Containment Method
Azone (Bleach)	Pool Stabilization	600 gallons	Chemical Room	Secondary Containment Method
Hydrochloric Acid	Pool Stabilization	300 gallons	Chemical Room	Secondary Containment Method
Chem Out	Pool Stabilization	2 pounds	Chemical Room	Secondary Containment Method
Clover Dell Park Shop				
Field Striping Paint	Field Striping	5 gallons	SW Corner of Shop	Oil Dry
2 Cycle Motor Oil	Mowing Equipment	0.8 gallons	Flammable Locker	Oil Dry
Mixed Gas	Mowing Equipment	15 gallons	Flammable Locker	Oil Dry
Gasoline	Mowing Equipment	40 gallons	Flammable Locker	Oil Dry
Diesel Fuel	Mowing Equipment	25 gallons	Flammable Locker	Oil Dry
Brake Fluid	Vehicle Maintenance	2 gallons	Flammable Locker	Oil Dry
Penetrating Oil	Tools	0.6 gallons	Flammable Locker	Oil Dry
Floor Shine	Shine Floor	10 gallons	SW Corner of Shop	Oil Dry
Silicone Caulk	Gap Sealant	1 gallon	SW Corner of Shop	Oil Dry
Anti-Freeze	Mowing Equipment	55 gallon drum	SW Corner of Shop	Oil Dry
Used Oil	Recycle	55 gallon drum	SW Corner of Shop	Oil Dry
Motor Oil	Mowing Equipment	55 gallon drum	SW Corner of Shop	Oil Dry
Rock Salt	Ice Control	30 pounds	SW Corner of Shop	Oil Dry
Liberty Park Shop				
Field Striping Paint	Field Striping	5 gallons	SW Corner of Shop	Oil Dry
2 Cycle Motor Oil	Mowing Equipment	0.8 gallons	Flammable Locker	Oil Dry
Mixed Gas	Mowing Equipment	15 gallons	Flammable Locker	Oil Dry
Gasoline	Mowing Equipment	40 gallons	Flammable Locker	Oil Dry
Diesel Fuel	Mowing Equipment	25 gallons	Flammable Locker	Oil Dry
Brake Fluid	Vehicle Maintenance	2 gallons	Flammable Locker	Oil Dry
Penetrating Oil	Tools	0.6 gallons	Flammable Locker	Oil Dry

Floor Shine	Shine Floor	10 gallons	SW Corner of Shop	Oil Dry
Silicone Caulk	Gap Sealant	1 gallon	SW Corner of Shop	Oil Dry
Anti-Freeze	Mowing Equipment	55 gallon drum	SW Corner of Shop	Oil Dry
Used Oil	Recycle	55 gallon drum	SW Corner of Shop	Oil Dry
Motor Oil	Mowing Equipment	55 gallon drum	SW Corner of Shop	Oil Dry
Rock Salt	Ice Control	30 pounds	SW Corner of Shop	Oil Dry
Various Paint	Covering	50 gallons	South Side of Building	Oil Dry
Various Spray Paint	Covering	4.7 gallons	South Side of Building	Oil Dry
Liberty Park Pool				
Algaecide	Pool Stabilization	2.25 gallons	Chemical Room	Secondary Containment Method
Poly Sheen	Pool Stabilization	0.7 gallons	Chemical Room	Secondary Containment Method
Cyanuric Acid	Pool Stabilization	360 gallons	Chemical Room	Secondary Containment Method
Azone (Bleach)	Pool Stabilization	600 gallons	Chemical Room	Secondary Containment Method
Hydrochloric Acid	Pool Stabilization	300 gallons	Chemical Room	Secondary Containment Method
Chem Out	Pool Stabilization	2 pounds	Chemical Room	Secondary Containment Method
Public Works Complex				
Sea Foam	Motor Treatment	0.25 gallons	Streets Storage Room	Oil Dry
Real Seal Block	Maintenance	0.13 gallons	Streets Storage Room	Oil Dry
Lubricating Coolant	Tool Maintenance	0.6 gallons	Streets Storage Room	Oil Dry
Anti-seize Lubricant	Maintenance	0.5 gallons	Streets Storage Room	Oil Dry
Black Rubber Coating	Maintenance	0.6 gallons	Streets Storage Room	Oil Dry
Gotta Grip Anti Slip-Black	Maintenance	0.5 gallons	Streets Storage Room	Oil Dry
Gotta Grip Anti Slip-Clear	Maintenance	0.4 gallons	Streets Storage Room	Oil Dry
Contury Battory Savor	Vehicle		Stroots Storago Boom	
	Vehicle	0.0 gallons	Streets Storage Room	
Battery Cleaner & Protector	Maintenance	0.3 gallons	Streets Storage Room	Oil Dry
Mantek T-Shield	Tool Maintenance	0.5 gallons	Streets Storage Room	Oil Dry
Seal Anti-Corrosion	Maintenance	0.4 gallons	Streets Storage Room	Oil Dry
Fog Stop	Bug Repellant	0.1 gallons	Streets Storage Room	Oil Dry
Black Magic Dry Moly	Maintenance	0.5 gallons	Streets Storage Room	Oil Dry
Penetrating Catalyst	Maintenance	0.2 gallons	Streets Storage Room	Oil Dry
Starting Fluid	Maintenance	0.2 gallons	Streets Storage Room	Oil Dry
Chain and Cable Lube	Maintenance	0.3 gallons	Streets Storage Room	Oil Dry
Engine Degreaser	Maintenance	0.2 gallons	Streets Storage Room	Oil Dry
Hi-Temp Grease	Maintenance	2.2 gallons	Streets Storage Room	Oil Dry
Sealant	Maintenance	0.2 gallons	Streets Storage Room	Oil Dry
Adhesive	Maintenance	1.6 gallons	Streets Storage Room	Oil Dry
Extent Rust Treatment	Maintenance	1 gallon	Streets Storage Room	Oil Dry
Brake Cleaner	Maintenance	0.13 gallons	Streets Storage Room	Oil Dry
Windshield De-Icer	Vehicle Maintenance	0.18 gallons	Streets Storage Room	Oil Dry
	mannenance	0.10 6010113	Streets Storage Noon	0

Enamel Blend	Maintenance	0.8 gallons	Streets Storage Room	Oil Dry
Marker Paint - Green	Operation	0.3 gallons	Streets Storage Room	Oil Dry
Paint	Covering	0.2 gallons	Streets Storage Room	Oil Dry
Fuel Stabilizer	Maintenance	0.2 gallons	Streets Storage Room	Oil Dry
Anti-Freeze Extender	Maintenance	2.5 gallons	Streets Storage Room	Oil Dry
Windshield Fluid	Maintenance	55 gallon drum	Streets Storage Room	Oil Dry
Transmission Fluid	Maintenance	55 gallon drum	Streets Storage Room	Oil Dry
Hydraulic Oil	Maintenance	55 gallon drum	Streets Storage Room	Oil Dry
15W40 Engine Oil	Maintenance	55 gallon drum	Streets Storage Room	Oil Dry
Anti-Freeze - Pink	Maintenance	55 gallon drum	Streets Storage Room	Oil Dry
Anti-Freeze - Green	Maintenance	55 gallon drum	Streets Storage Room	Oil Dry
ULV Flushing Solution	Maintenance	1.5 gallons	Lower Streets Garage	Oil Dry
Altosid Briquettes	Maintenance	250 Briquettes	Lower Streets Garage	Oil Dry
Lubra-Seal	Maintenance	55 gallon drum	Lower Streets Garage	Oil Dry
Concrete Etch & Cleaner	Maintenance	6 gallons	Lower Streets Garage	Oil Dry
Concrete Remover	Maintenance	6 gallons	Lower Streets Garage	Oil Dry
Cure and Seal 1315	Maintenance	5 gallons	Lower Streets Garage	Oil Dry
Enamel Reducer	Maintenance	1 gallon	Lower Streets Garage	Oil Dry
Form Coating	Maintenance	5 gallons	Lower Streets Garage	Oil Dry
Ice Melt	Ice Control	350 pounds	Lower Streets Garage	Oil Dry
Rock Salt	Ice Control	100 pounds	Lower Streets Garage	Oil Dry
Concrete Mix	Maintenance	80 pounds	Lower Streets Garage	Oil Dry
Fly Ash	Maintenance	80 pounds	Lower Streets Garage	Oil Dry
Sand Mix	Maintenance	80 pounds	Lower Streets Garage	Oil Dry
Black Spray Enamel	Covering	0.5 gallons	Paint Shop	Oil Dry
Green Spray Enamel	Covering	0.3 gallons	Paint Shop	Oil Dry
White Spray Enamel	Covering	0.2 gallons	Paint Shop	Oil Dry
Aluminum Paint	Covering	2 gallons	Paint Shop	Oil Dry
Blue Spray Paint	Covering	1.9 gallons	Paint Shop	Oil Dry
Yellow Latex Paint	Covering	55 gallons	Paint Shop	Oil Dry
White Latex Paint	Covering	45 gallons	Paint Shop	Oil Dry
Graffiti Remover	Remover	1.4 gallons	Paint Shop	Oil Dry
Mineral Spirits	Remover	5 gallons	Paint Shop	Oil Dry
Salt Pellets	Cleaner	440 pounds	Sanitation Storage Area	Oil Dry
Soap	Cleaner	25 gallons	Sanitation Storage Area	Oil Dry
Red Grease	Maintenance	0.4 gallons	WPC Storage Area	Oil Dry
Battery Cleaner & Protector	Vehicle Maintenance	0.6 gallons	WPC Storage Area	Oil Dry
Cutting Oil	Maintenance	0.3 gallons	WPC Storage Area	Oil Dry
Carb and Choke Cleaner	Maintenance	0.3 gallons	WPC Storage Area	Oil Dry
Chain Lube	Maintenance	0.09 gallons	WPC Storage Area	Oil Dry

Spartin TNT	Drain Opener	3.5 gallons	WPC Storage Area	Oil Dry
Drain Power Sulfuric Acid	Drain Opener	2 gallons	WPC Storage Area	Oil Dry
M95 Mild Acid Cleaner	Drain Opener	2.75 gallons	WPC Storage Area	Oil Dry
Heet De Icer	Moisture Control	0.09 gallons	WPC Storage Area	Oil Dry
PVC Cement	Pipe Joint	0.09 gallons	WPC Storage Area	Oil Dry
PVC Cleaner	Pipe Joint	0.03 gallons	WPC Storage Area	Oil Dry
PVC Primer	Pipe Joint	0.03 gallons	WPC Storage Area	Oil Dry
Loctite Rust Treatment	Operation	0.09 gallons	WPC Storage Area	Oil Dry
Permatex Undercoating	Operation	0.09 gallons	WPC Storage Area	Oil Dry
Prime Xeasy	Operation	0.2 gallons	WPC Storage Area	Oil Dry
Havoc Rat Bait	Operation	50 trays	WPC Storage Area	Oil Dry
WD-40	Maintenance	0.3 gallons	WPC Storage Area	Oil Dry
Lubricant and Penetrant	Maintenance	0.2 gallons	WPC Storage Area	Oil Dry
Belt Dressing	Maintenance	1.2 gallons	WPC Storage Area	Oil Dry
LE 6401 Oil	Maintenance	4 gallons	WPC Storage Area	Oil Dry
LE 6402 Oil	Maintenance	3 gallons	WPC Storage Area	Oil Dry
LE 6406 Oil	Maintenance	0.6 gallons	WPC Storage Area	Oil Dry
LE 703 Oil	Maintenance	1 gallon	WPC Storage Area	Oil Dry
Polymer	Operation	55 gallon drum	WPC Storage Area	Oil Dry
Quickcrete Cement	Operation	2 gallons	WPC Storage Area	Oil Dry
Patch Cement	Operation	400 pounds	WPC Storage Area	Oil Dry
Tracer Dye	Operation	5 gallons	WPC Storage Area	Oil Dry
Solvent	Operation	0.25 gallons	WPC Storage Area	Oil Dry
Vehicle Maintenance				· · · · · ·
	Vehicle			
Hydraulic Oil	Maintenance	5 gallons	Back Table by Bulk Oils	Oil Dry
	Vehicle			015
Transmission and Drive Train Oil	Maintenance	16 gallons	Back Table by Bulk Oils	Oil Dry
Synthetic Transmission Fluid	Maintenance	0.25 gallons	Back Table by Bulk Oils	Oil Dry
	Vehicle		,	
Gear and Lube oil	Maintenance	3.75 gallons	Back Table by Bulk Oils	Oil Dry
Power Steering Fluid	Maintenance	2.4 gallons	Back Table by Bulk Oils	Oil Dry
	Vehicle			
Air Brake Freeze and Rust Guard	Maintenance	3 gallons	Back Table by Bulk Oils	Oil Dry
Battery Fluid Acid	Vehicle Maintenance	2.5 gallons	Back Table by Bulk Oils	Oil Dry
	Vehicle	2.5 guilons		
15W40 Diesel engine Oil	Maintenance	1 gallon	Back Table by Bulk Oils	Oil Dry
Engine Oil 15W40	Vehicle Maintenance	55 gallon drum	Bulk Oil Area	Oil Dry
	Vehicle	55 Balloli di dilli	Suit On Area	
Engine Oil 5W20	Maintenance	55 gallon drum	Bulk Oil Area	Oil Dry
Auto Transmission Eluid	Vehicle	55 gallon drum	Bulk Oil Area	Oil Dry
	wantenance		Buik Oli Alea	Undry

	Vehicle			
Gear Oil 80-90	Maintenance	55 gallon drum	Bulk Oil Area	Oil Dry
	Vehicle			
Universal Anti-Freeze Orange	Maintenance	55 gallon drum	Bulk Oil Area	Oil Dry
	Vehicle	U		· · · ·
Anti-Freeze Green	Maintenance	55 gallon drum	Bulk Oil Area	Oil Dry
	Vehicle	Ŭ		
Tractor Hydraulic Fluid	Maintenance	55 gallon drum	Bulk Oil Area	Oil Dry
	Vehicle	Ŭ		
Windshield Washer Fluid	Maintenance	55 gallon drum	Bulk Oil Area	Oil Dry
	Vehicle			
Rubber Cleaner	Maintenance	0.5 gallons	Tire Repair Table	Oil Dry
	Vehicle			
Vulcanizing Fluid	Maintenance	0.5 gallons	Tire Repair Table	Oil Dry
	Vehicle			
Bead Sealer	Maintenance	0.25 gallons	Tire Repair Table	Oil Dry
	Vehicle			
Engine Degreaser	Maintenance	1.1 gallons	Cabinet Outside Office	Oil Dry
	Vehicle			
Brake Cleaner	Maintenance	1.2 gallons	Cabinet Outside Office	Oil Dry
	Vehicle			
Starting Fluid	Maintenance	1.1 gallons	Cabinet Outside Office	Oil Dry
	Vehicle			
Super Penetrant Net	Maintenance	0.9 gallons	Cabinet Outside Office	Oil Dry
· ·	Vehicle			
Chain Lube	Maintenance	0.9 gallons	Cabinet Outside Office	Oil Dry
	Vehicle			
Penetrating Catalyst	Maintenance	0.4 gallons	Cabinet Outside Office	Oil Dry
	Vehicle			
Fuel Injector Cleaner	Maintenance	1.8 gallons	Cabinet Outside Office	Oil Dry
	Vehicle			
High Temp Gun Grease	Maintenance	0.7 gallons	Cabinet Outside Office	Oil Dry
	Vehicle			
Brake Fluid	Maintenance	2.75 gallons	Cabinet Outside Office	Oil Dry
	Vehicle			
Power Steering Fluid	Maintenance	1.5 gallons	Cabinet Outside Office	Oil Dry
	Vehicle			
Air Brake Antifreeze	Maintenance	1.25 gallons	Cabinet Outside Office	Oil Dry
	Vehicle			
Gas Line Antifreeze	Maintenance	0.7 gallons	Cabinet Outside Office	Oil Dry
	Vehicle			
RTV Sealant	Maintenance	0.97 gallons	Cabinet Outside Office	Oil Dry
	Vehicle			
RTV Gasket Maker-Blue	Maintenance	0.6 gallons	Cabinet Outside Office	Oil Dry
	Vehicle			
Tire Sealant	Maintenance	0.4 gallons	Cabinet Outside Office	Oil Dry
	Vehicle			
418 Quick Cure	Maintenance	0.7 gallons	Cabinet Outside Office	Oil Dry
	Vehicle			
Fuel Stabilizer	Maintenance	0.25 gallons	Cabinet Outside Office	Oil Dry
	Vehicle			
Poly 7 High Temp	Maintenance	0.4 gallons	Inside Office	Oil Dry
	Vehicle			
RTV Gasket Maker-Black	Maintenance	0.06 gallons	Inside Office	Oil Dry
	Vehicle			
Polishing Compound	Maintenance	0.25 gallons	1st Door Paint Cabinet	Floor Dry

	Vehicle			
Plastic Roof Cement	Maintenance	1 gallon	1st Door Paint Cabinet	Floor Dry
	Vehicle			,
Wood Finish	Maintenance	0.25 gallons	1st Door Paint Cabinet	Floor Dry
	Vehicle	Ŭ		
H.E.T. 1501 thinner	Maintenance	1 gallon	1st Door Paint Cabinet	Floor Dry
	Vehicle	Ŭ		
Acrylic Enamel Reducer	Maintenance	2 gallons	1st Door Paint Cabinet	Floor Dry
	Vehicle	Ŭ		
Prep-sol Solvent	Maintenance	3 gallons	1st Door Paint Cabinet	Floor Dry
•	Vehicle	Ŭ		
Mid Temp Reducer	Maintenance	1 gallon	1st Door Paint Cabinet	Floor Dry
·	Vehicle			
Automotive Hi Glow	Maintenance	3 gallons	1st Door Paint Cabinet	Floor Dry
	Vehicle			
Platinum Gray	Maintenance	1 gallon	1st Door Paint Cabinet	Floor Dry
	Vehicle			
Hi gloss Medium Reducer	Maintenance	1 gallon	1st Door Paint Cabinet	Floor Dry
	Vehicle			
Paint Thinner	Maintenance	1 gallon	1st Door Paint Cabinet	Floor Dry
	Vehicle			
Lacquer	Maintenance	1 gallon	1st Door Paint Cabinet	Floor Dry
	Vehicle			
Mid Temp	Maintenance	1 gallon	1st Door Paint Cabinet	Floor Dry
	Vehicle			
4 Exterior Coating	Maintenance	2 gallons	2nd Door Paint Cabinet	Floor Dry
	Vehicle			
Acrylic Point	Maintenance	3 gallons	2nd Door Paint Cabinet	Floor Dry
	Vehicle			
W958 Pure White	Maintenance	3 gallons	2nd Door Paint Cabinet	Floor Dry
	Vehicle			
D9400 Black	Maintenance	4 gallons	2nd Door Paint Cabinet	Floor Dry
	Vehicle			
Yellow	Maintenance	2 gallons	2nd Door Paint Cabinet	Floor Dry
	Vehicle			
Rust Kill	Maintenance	3 gallons	2nd Door Paint Cabinet	Floor Dry
	Vehicle			
Industrial Enamel	Maintenance	3 gallons	2nd Door Paint Cabinet	Floor Dry
	Vehicle			
Free of Lead 3-1492	Maintenance	3 gallons	2nd Door Paint Cabinet	Floor Dry
	Vehicle			
Automotive W499	Maintenance	9 gallons	2nd Door Paint Cabinet	Floor Dry
	Vehicle			
Rust Kill - Black	Maintenance	2 gallons	2nd Door Paint Cabinet	Floor Dry
	Vehicle			
Chemical Coating	Maintenance	5 gallons	2nd Door Paint Cabinet	Floor Dry
	Vehicle			
Catolyat Hardener	Maintenance	0.1 gallons	3rd Door Paint Cabinet	Floor Dry
	Vehicle			
Urethane Hardener	Maintenance	0.06 gallons	3rd Door Paint Cabinet	Floor Dry
	Vehicle			
2k Activator	Maintenance	1.5 gallons	3rd Door Paint Cabinet	Floor Dry
	Vehicle			
Clear Kote	Maintenance	0.25 gallons	3rd Door Paint Cabinet	Floor Dry
	Vehicle			
Reducer	Maintenance	0.1 gallons	3rd Door Paint Cabinet	Floor Dry

	Vehicle			
Base Marker	Maintenance	0.25 gallons	3rd Door Paint Cabinet	Floor Dry
	Vehicle			
Centori	Maintenance	2 gallons	3rd Door Paint Cabinet	Floor Dry
Five Star	Maintenance	0.25 gallons	3rd Door Paint Cabinet	Floor Dry
	Vehicle	0.20 gallolis		
No 1 Blue	Maintenance	0.1 gallons	3rd Door Paint Cabinet	Floor Dry
	Vehicle			
Lacquer	Maintenance	0.1 gallons	3rd Door Paint Cabinet	Floor Dry
Activity Enamel	Vehicle	0.7 gallons	3rd Door Paint Cabinet	Eleor Dry
	Vehicle		Sid Door Faint Cabinet	
Super Enamel	Maintenance	0.7 gallons	3rd Door Paint Cabinet	Floor Dry
	Vehicle			
Spray Paint	Maintenance	0.2 gallons	3rd Door Paint Cabinet	Floor Dry
Sand able Brimer	Vehicle		2rd Door Paint Cabinat	Floor Dry
	Vehicle	0.09 galions		
Engine Enamel	Maintenance	0.2 gallons	3rd Door Paint Cabinet	Floor Dry
	Vehicle			
Stripe Marker	Maintenance	0.4 gallons	3rd Door Paint Cabinet	Floor Dry
Tractor Spay Enamel	Vehicle	0.2 gallons	ard Door Paint Cabinat	Floor Dry
	Vehicle			
Gold No-455	Maintenance	0.3 gallons	3rd Door Paint Cabinet	Floor Dry
	Vehicle			
Fiberglass Resin	Maintenance	1 gallon	3rd Door Paint Cabinet	Floor Dry
Lindersecting No720	Vehicle	7 25 nounds	and Deer Daint Cabinat	Fleer Dr.
Undercoating N0729	Vehicle	7.25 pourius		
Everglass	Maintenance	12 pounds	3rd Door Paint Cabinet	Floor Dry
	Vehicle			
Z Grip	Maintenance	8 gallons	3rd Door Paint Cabinet	Floor Dry
Bust Convertor	Vehicle	2 gallons	ard Door Daint Cabinat	Floor Dry
Mater Tractor and Plant (14/4		5 galions	Sid Door Paint Cabinet	FIGUE DIV
water Treatment Plant / water	er Division Shop			1
Sodium Hypochlorite 12.5%	Water Treatment	2,250 gallons	Chemical Room	Secondary Containment Method
Ammonium Hydroxide 19%	Water Treatment	500 gallons	Chemical Room	Secondary Containment Method
Copper Sulfate	Water Treatment	1,500 pounds	Chemical Room	Secondary Containment Method
Hydroflusilicic Acid	Water Treatment	110 gallons	Chemical Room	Secondary Containment Method
Sodium permanganate 20%	Water Treatment	110 gallons	Chemical Room	Secondary Containment Method
Boiler Treatment	Water Treatment	3 gallons	Chemical Room	Secondary Containment Method
McFall #130	Water Treatment	3 gallons	Chemical Room	Secondary Containment Method
Alconox Detergent	Water Treatment	1.1 pounds	Chemical Room	Secondary Containment Method
Hardness Reagent	Water Treatment	0.7 pounds	Lab	Chemical Clean up Kits
Hexa Ver Titrant	Water Treatment	0.1 gallons	Lab	Chemical Clean up Kits
Total cl2 Indicator Cl17	Water Treatment	1.4 pounds	Lab	Chemical Clean up Kits
Total Cl2 Buffer Cl17	Water Treatment	1.4 pounds	Lab	Chemical Clean up Kits
DPD For Cl17	Water Treatment	0.6 pounds	Lab	Chemical Clean up Kits

DPD Free Reagent	Water Treatment	12 dispensers	Lab	Chemical Clean up Kits
DPD Total Reagent	Water Treatment	12 dispensers	Lab	Chemical Clean up Kits
FerroVer Fe Reagent	Water Treatment	0.2 pounds	Lab	Chemical Clean up Kits
Sulfuric acid 19.2N	Water Treatment	0.5 gallons	Lab	Chemical Clean up Kits
Sulfuric acid 1.00N	Water Treatment	0.4 gallons	Lab	Chemical Clean up Kits
Hydrochloric acid 0.10N	Water Treatment	0.007 gallons	Lab	Chemical Clean up Kits
Hydrochloric acid Solution 1:1	Water Treatment	25 gallons	Lab	Chemical Clean up Kits
SPADNS2 Ampules	Water Treatment	25 ampules	Lab	Chemical Clean up Kits
CA610 Std 1 0.5mg/l as F	Water Treatment	0.2 gallons	Lab	Chemical Clean up Kits
CA610 Std 2 5.0mg/l as F	Water Treatment	0.2 gallons	Lab	Chemical Clean up Kits
CA610 Reagent 1 TISAB Solution	Water Treatment	0.2 gallons	Lab	Chemical Clean up Kits
Fluoride Standard Solution				
1.00mg/L as F Fluoride Electrode Filling	Water Treatment	0.1 gallons	Lab	Chemical Clean up Kits
Solution	Water Treatment	0.007 gallons	Lab	Chemical Clean up Kits
Buffer Powder Pillows pH4.01	Water Treatment	125 packages	Lab	Chemical Clean up Kits
Buffer Powder Pillows pH7.00	Water Treatment	125 packages	Lab	Chemical Clean up Kits
Buffer Powder Pillows pH10.01	Water Treatment	125 packages	Lab	Chemical Clean up Kits
pH Storage Solution	Water Treatment	0.7 gallons	Lab	Chemical Clean up Kits
Renovo-N Cleaning Solution	Water Treatment	0.7 gallons	Lab	Chemical Clean up Kits
IUPAC pH Std. 7.413	Water Treatment	0.7 gallons	Lab	Chemical Clean up Kits
Ammonia Cyanurate	Water Treatment	25 packages	Lab	Chemical Clean up Kits
Ammonia Salicylate	Water Treatment	25 packages	Lab	Chemical Clean up Kits
Monochlor FTM Reagent	Water Treatment	50 packages	Lab	Chemical Clean up Kits
Free Ammonia Chlorinating				
Solution	Water Treatment	0.0005 gallons	Lab	Chemical Clean up Kits
Formazin Standards (Stablcal)	Water Treatment	0.8 gallons	Lab	Chemical Clean up Kits
Phenol Red	Water Treatment	0.01 gallons	Lab	Chemical Clean up Kits
Silicone Oil	Water Treatment	0.002 gallons	Lab	Chemical Clean up Kits
Colilert	Water Treatment	600 tests	Lab	Chemical Clean up Kits
Quanti-Cult	Water Treatment	1 Kit	Lab	Chemical Clean up Kits
CWWTP				
Belt Dressing	Operation	0.5 gallons	Office Closet	Floor Dry
Mineral Oil	Operation	0.75 gallons	Office Closet	Floor Dry
Penetrant Oil	Operation	0.4 gallons	Office Closet	Floor Dry
Degreaser	Operation	0.4 gallons	Office Closet	Floor Dry
RTV Silicone	Operation	0.4 gallons	Office Closet	Floor Dry
Penetrating Oil	Operation	3.3 gallons	Workroom Cupboard Middle	Floor Dry
Enamel Spray	Operation	1.6 gallons	Workroom Cupboard Middle	Floor Dry
Carb and Choke Cleaner	Operation	0.4 gallons	Workroom Cupboard Middle	Floor Dry

			Workroom Cupboard	
Ether	Operation	0.08 gallons	Middle	Floor Dry
Anti-Corrosion	Operation	0.2 gallons	Workroom Cupboard Middle	Floor Dry
	operation	0.2 guilons	Workroom Cupboard	
Ice Melt	Ice Control	0.09 gallons	Middle	Floor Dry
Cutting Oil	Operation	0.2 gallons	Workroom Cupboard Middle	Floor Dry
15W50 Oil	Operation	1.25 gallons	Workroom Cupboard Right	Floor Dry
Transmission Fluid	Operation	1 gallon	Workroom Cupboard Right	Floor Dry
2 Cycle Motor Oil	Operation	0.1 gallons	Workroom Cupboard Right	Floor Dry
Industrial Lubricant	Operation	1.3 gallons	Workroom Cupboard Right	Floor Dry
Compressor	Operation	0.25 gallons	Workroom Cupboard Right	Floor Dry
Rust Treatment	Operation	1 gallon	Workroom Cupboard Right	Floor Dry
703 Oil	Operation	5 gallons	Workroom Bench Area	Floor Dry
9460 Oil	Operation	5 gallons	Workroom Bench Area	Floor Dry
6520 Oil	Operation	5 gallons	Workroom Bench Area	Floor Dry
6403 Oil	Operation	5 gallons	Workroom Bench Area	Floor Dry
Napsol Cleaner	Operation	3 gallons	Workroom Bench Area	Floor Dry
Sewer Solvent	Operation	5 gallons	Workroom Bench Area	Floor Dry
Hydro Chlorite	Operation	5 gallons	Workroom Bench Area	Floor Dry
Weed Killer	Weed Control	1 gallon	Workroom Bench Area	Floor Dry
Chlorine Tablets	Operation	45 pounds	Press Room	Secondary Containment Method
Paint	Operation	11 gallons	Press Room	Secondary Containment Method
10W40 Oil	Operation	0.25 gallons	Press Room	Secondary Containment Method
30W Oil	Operation	1 gallon	Press Room	Secondary Containment Method
Power Steering Fluid	Operation	0.25 gallons	Press Room	Secondary Containment Method
Hydraulic Fluid	Operation	0.25 gallons	Press Room	Secondary Containment Method
Polymer	Operation	165 gallons	Press Room	Secondary Containment Method
Diesel Fuel	Operation	2 gallons	Press Room	Secondary Containment Method
Used Oil	Recycle	5 gallons	Press Room	Secondary Containment Method
NWWTP				
703 Oil	Operation	10 gallons	Oil Tray by Bay Door	Floor Dry
6404 Oil	Operation	20 gallons	Oil Tray by Bay Door	Floor Dry
6405 Oil	Operation	5 gallons	Oil Tray by Bay Door	Floor Dry
Belt Dressing	Operation	0.09 gallons	Shop Supply Cabinet	Floor Dry
Super 77	Operation	0.2 gallons	Shop Supply Cabinet	Floor Dry
Ice Go	Ice Control	0.2 gallons	Shop Supply Cabinet	Floor Dry
7-77 Plus	Operation	0.1 gallons	Shop Supply Cabinet	Floor Dry
Battery Cleaner	Operation	0.1 gallons	Shop Supply Cabinet	Floor Dry
Chain and Cable Lube	Operation	0.2 gallons	Shop Supply Cabinet	Floor Dry
Quick-Eas	Operation	0.1 gallons	Shop Supply Cabinet	Floor Dry

Red Grease	Operation	0.1 gallons	Shop Supply Cabinet	Floor Dry
Drummond Core	Operation	0.1 gallons	Shop Supply Cabinet	Floor Dry
Pipe Paste Sealant	Operation	0.03 gallons	Shop Supply Cabinet	Floor Dry
Herman Survivors	Operation	0.09 gallons	Shop Supply Cabinet	Floor Dry
Electra-x	Operation	0.09 gallons	Shop Supply Cabinet	Floor Dry
Parts Cleaner	Operation	0.03 gallons	Shop Supply Cabinet	Floor Dry
Lubricant and Penetrant	Operation	0.2 gallons	Shop Supply Cabinet	Floor Dry
SD 20 Degreaser	Operation	0.1 gallons	Shop Supply Cabinet	Floor Dry
Carb Cleaner	Operation	0.7 gallons	Shop Supply Cabinet	Floor Dry
WD-40	Operation	0.06 gallons	Shop Supply Cabinet	Floor Dry
Champion	Operation	0.5 gallons	Shop Supply Cabinet	Floor Dry
Polymer	Operation	110 gallons	Press Room	Secondary Containment Method
SEWWTP				
Paint	Operation	12.5 gallons	Flammable Locker	Floor Dry
Rust Inhibitive Paint	Operation	0.25 gallons	Flammable Locker	Floor Dry
Rust Converter	Operation	1 gallon	Flammable Locker	Floor Dry
Sewer Joint Compound	Operation	1 gallon	Flammable Locker	Floor Dry
Spray Paint	Operation	0.1 gallons	Flammable Locker	Floor Dry
Green Marker Paint	Operation	0.1 gallons	Flammable Locker	Floor Dry
Paint Thinner	Operation	0.25 gallons	Flammable Locker	Floor Dry
Battery Cleaner	Operation	0.3 gallons	Flammable Locker	Floor Dry
Cutting Oil	Operation	0.2 gallons	Flammable Locker	Floor Dry
Belt Dressing	Operation	0.2 gallons	Flammable Locker	Floor Dry
Lubricant	Operation	0.4 gallons	Flammable Locker	Floor Dry
Gear Lube	Operation	0.2 gallons	Flammable Locker	Floor Dry
Chain and Cable Lube	Operation	0.2 gallons	Flammable Locker	Floor Dry
Degreaser	Operation	0.4 gallons	Flammable Locker	Floor Dry
Starting Fluid	Operation	0.1 gallons	Flammable Locker	Floor Dry
PVC Cement	Operation	0.03 gallons	Flammable Locker	Floor Dry
PVC Primer	Operation	0.1 gallons	Flammable Locker	Floor Dry
Propane Tank	Operation	0.3 gallons	Flammable Locker	Floor Dry
Red Grease	Operation	0.4 gallons	Flammable Locker	Floor Dry
De-icer	Ice Control	0.09 gallons	Flammable Locker	Floor Dry
LE 703 Oil	Operation	0.5 gallons	Press Room	Floor Dry
LE 6406 Oil	Operation	6 gallons	Press Room	Floor Dry
Mobile 629	Operation	7 gallons	Press Room	Floor Dry
LE 6401 Oil	Operation	1 gallon	Press Room	Floor Dry
LE 6406 Oil	Operation	2 gallons	Press Room	Floor Dry
LE 1275 Grease	Operation	0.75 gallons	Press Room	Floor Dry
Used Oil	Recycle	5 gallons	Press Room	Floor Dry

LE 64 Oil	Operation	5 gallons	Press Room	Floor Dry
30W Oil	Operation	0.25 gallons	Press Room	Floor Dry
ADCO 400 Degreaser	Operation	5 gallons	Press Room	Floor Dry
Rotella Oil	Operation	0.5 gallons	Garage	Floor Dry
Hydraulic Fluid	Operation	0.5 gallons	Garage	Floor Dry
JD 80-90	Operation	0.25 gallons	Garage	Floor Dry
30W Oil	Operation	0.75 gallons	Garage	Floor Dry
Dextron III	Operation	0.75 gallons	Garage	Floor Dry
Antifreeze	Operation	0.25 gallons	Garage	Floor Dry
Praematol	Operation	1 gallon	Garage	Floor Dry
Amine	Operation	1 gallon	Garage	Floor Dry
Crossbow	Weed Control	1 gallon	Garage	Floor Dry
Gasoline	Operation	5 gallons	Garage	Floor Dry
Mixed Gas	Operation	2.5 gallons	Garage	Floor Dry
Diesel Fuel	Operation	55 gallon drum	Garage	Floor Dry
Used Oil	Operation	10 gallons	Garage	Floor Dry
Polymer	Operation	165 gallons	Chemical Room	Secondary Containment Method
Compost				
All Purpose Grease	Operation	0.5 gallons	Shed Area	Secondary Containment Method
Diesel Treatment	Operation	1 gallon	Shed Area	Secondary Containment Method
10W40 Oil	Operation	1 gallon	Shed Area	Secondary Containment Method
Hydraulic Oil	Operation	10 gallons	Shed Area	Secondary Containment Method
Diesel Fuel	Operation	50 gallons	Fuel Truck	Secondary Containment Method

#### 5. Pre-Existing Contamination

No pre-existing contamination or spills are known or documented at the 12 City Facilities.

#### 6. Spill Prevention and Response Training

All City staff is trained in spill prevention and containment, Illicit Discharge Detection and Elimination, spill kit use and this spill plan. The annual training includes a summary of spills or IDDE during the last 12 months, lessons learned, questions and answers. The Pretreatment and Stormwater Coordinator tracks and documents all training.

#### 7. Spill Prevention

The following sections summarize spill prevention activities at the City for the Airport, Animal Shelter, Facilities Maintenance, Cemetery, Parks & Recreation, Public Works Complex, Vehicle Maintenance, Water Treatment Plant/Water Division, CWWTP, NWWTP, SEWWTP and Compost Facility.

A. Spill response kit contents and location(s) are summarized in Table 4.

Table 4: Spill Response Kit Contents and Locations			
Type of Spill Kit	Contents	Location(s)	
Airport			
Vehicle kits		Fuel Trucks (4)	
Fuel Station Spill Kit (2)	spill pads, absorbent, bags	Under covered area adjacent to fuel storage tanks	
Large spill kit (1)	spill pads, absorbent, bags	Fuel barn	
Animal Shelter			
Large spill kit (1)	Floor Dry	Back area in shelter	
Facilities Maintenance			
Large spill kit (1)	spill pads, absorbent, bags	Shop area	
Cemetery			
Large spill kit (2)	spill pads, absorbent, bags	One in each shop building	
Parks & Recreation			
Centennial Park Shop			
Large spill kit (1)	spill pads, absorbent, bags	Shop area	
Clover Dell Park Shop			
Large spill kit (1)	spill pads, absorbent, bags	Shop area	
Liberty Park Shop			
Large spill kit (1)	spill pads, absorbent, bags	Shop area	
Public Works Complex			
Fuel Station Spill Kit (1)	spill pads, absorbent, bags	next to fueling station	
Large spill kit (2)	spill pads, absorbent, bags	Streets shop area	
Large spill kit (2)	spill pads, absorbent, bags	WPC shop area	
Large spill kit (1)	spill pads, absorbent, bags	Sanitation shop area	
Vehicle Maintenance			
Large spill kit (4)	spill pads, absorbent, bags	placed around shop area	
Water Treatment Plant / W	ater Division Shop		
С₩₩ТР			
Large spill kit (1)	spill pads, absorbent, bags	Press Room	
NWWTP			
Large spill kit (1)	spill pads, absorbent, bags	Press Room	
SEWWTP			
Large spill kit (1)	spill pads, absorbent, bags	Press Room	
Compost Facility	·····		
Large spill kit (1)	spill pads, absorbent, bags	In corner next to sludge storage area	

B. Security measures for potential spill sources include locked storage containers, fenced and locked

gates around the site perimeters, where practical.

- C. Secondary containment practices for hazardous materials are summarized in Table 3.
- D. Methods used to prevent stormwater from contacting hazardous materials include:
  - a. Airport: Keeping all materials under cover and away from stormwater except for non-pollution generating materials. Maintaining tank and dispenser equipment, keeping containment pad clean and keeping a spill kit nearby.
  - b. Animal Shelter: Keeping all materials under cover and away from stormwater.
  - c. Facilities Maintenance: Keeping all materials under cover and away from stormwater.
  - d. Cemetery: Keeping all materials under cover and away from stormwater.
  - e. Parks & Recreation: Keeping all materials under cover and away from stormwater except for non-pollution generating materials.
  - f. Public Works Building Complex: Keeping all materials under cover and away from stormwater except for non-pollution generating materials. Maintaining fuel tanks and dispenser equipment and keeping spill kit nearby.
  - g. Vehicle Maintenance: Keeping all materials under cover and away from stormwater.
  - h. Water Treatment Plant/Water Division: Keeping all materials under cover and away from stormwater.
  - i. CWWTP: Keeping all materials under cover and away from stormwater except for non-pollution generating materials.
  - j. NWWTP: Keeping all materials under cover and away from stormwater except for non-pollution generating materials.
  - k. SEWWTP: Keeping all materials under cover and away from stormwater except for non-pollution generating materials.
  - I. Compost Facility: Keeping all material away from contaminating the stormwater. Maintaining dispensing equipment and keeping spill kit nearby.
- E. Site inspection is completed and documented weekly as part of the weekly facilities check completed by the site crews. The weekly facilities check includes visual inspection of the 12 site areas and documentation of spills (if present) and spill cleanup completed (if required).
- F. Equipment and structure maintenance practices include inspection of vehicles and equipment for leaks at the beginning of each shift.

#### 8. Spill Response

Typical spill response scenario procedures are listed below. The typical scenarios include a description of the actions that will be taken and the specific on-site, spill response equipment that will be used to assess the spill, secure the area, contain and eliminate the spill source and clean up and dispose of spilled and contaminated material.

- A. A spill of each type of hazardous material at each location identified in Section 4 Potential Spill Sources. <u>Note</u>: It is acceptable to combine materials covered by the same response procedures, as long as each material is clearly identified.
  - a. Liquid spills including diesel fuel, gasoline, hydraulic fluid, waste oil, paint and finishes, deicier, other vehicle/maintenance fluids:
    - i. Contain spill and spill source.
    - ii. Report to site supervisor immediately. They will make appropriate contacts as summarized in Table 1 if spill is reportable as required in Section 2 of this spill plan.
    - iii. Evaluate downstream storm drains (pipes, ditches, streams) by visual inspections, sheen and testing by utilizing the storm system maps (GIS). Contain any spilled liquid. Remove all

contaminated water/sediment using absorbent pads or Vac-Truck as instructed by Public Works Director. Jet clean conveyance and collect all effluent and dispose of at an approved disposal facility.

- iv. Evaluate spill surfaces by visual inspections, sheen and testing. Remove or clean contaminated material as instructed by the Public Works Director. Jet clean (if required) and collect all contaminated material and effluent and dispose of at an approved disposal facility.
- v. Document spill on Spill Reporting forms (See SWPPP Appendix B) and on the spill tracking spreadsheet.
- b. Solid spills including granular de-icier, fertilizers, pesticides, street sweepings:
  - i. Contain spill and spill source.
  - ii. Report to site supervisor immediately. They will make appropriate contacts as summarized in Table 1 if spill is reportable as required in Section 2 of this spill plan.
  - iii. Evaluate downstream storm drains (pipes, ditches, streams) by visual inspections, sheen and testing by utilizing the storm system maps (GIS). Contain any spilled liquid. Remove all contaminated water/sediment using absorbent pads or Vac-Truck as instructed by Public Works Director. Jet clean conveyance and collect all effluent and dispose of at an approved disposal facility.
  - iv. Sweep up spilled material. If spill occurred on wet surfaces or during precipitation evaluate spill surfaces by visual inspections, sheen, testing and remove or clean contaminated material. Jet clean (if required) and collect all contaminated material and effluent and dispose of at an approved disposal facility.
  - v. Document spill on Spill Reporting forms (See SWPPP Appendix B) and on the spill tracking spreadsheet.
- B. Stormwater that has come into contact with hazardous materials follow the procedures in #8.
- C. A release or spill of any KNOWN pre-existing contamination and contaminant source described in Section 5.
- D. A release or spill of any UNKNOWN pre-existing contamination and contaminant sources (such as buried pipes or tanks) that may be unexpectedly encountered during project work. When soil contamination is encountered, follow the procedures in 8 A (above). In addition, excavated soil will require stockpiling and sampling to characterize the soil and determine disposal requirements. Soils will be screened prior to stockpiling and contaminated soil will be stockpiled separately from soils showing no indications of contamination. The stockpiles will be in the vicinity of the excavation and will be set up to allow for ease of sampling and load-out once characterization is complete. Stockpiles will be placed on an impervious surface and covered with plastic sheeting when not being worked. Water will be diverted from the stockpile area.

#### 9. Project Site Maps

See SWPPPP Appendix A for a Vicinity Map (Appendix A-1 and A-2) and site maps for all the City Facilities (Appendix A-3 to A-20). The site plans include:

- A. Site access roads
- B. Drainage pathways from the site

#### 10. Spill Report Form(s)

Spill report forms are contained within SWPPP Appendix B and shall be updated with spill history and response information.

### **APPENDIX F**

Site-Specific Operational Controls

Best Management Practices (BMPs)

# Site-Specific Operational and Structural Source Control Best Management Practices (BMPs)

### 1. BMPs for Dust Control

### **Description of Pollutant Sources**

Industrial material handling activities can generate dust. This can generate air emissions that can contaminate stormwater. Dusts can be generated at cement and concrete products mixing and wherever powdered materials are handled. Particulate materials that are of concern to air pollution control agencies include sawdust, gravel, crushed rock and cement. The objective of this BMP is to reduce the stormwater pollutants caused by dust generation and control.

### Pollutant Control Approach

Prevent dust generation and emissions where practicable, regularly clean-up dust that can contaminate stormwater, and convey dust contaminated stormwater to proper treatment.

### Applicable BMPs

- Clean powder material handling equipment and vehicles that can be sources of stormwater pollutants to remove accumulated dust and residue, as needed.
- Regularly sweep dust accumulation areas that can contaminate stormwater. Sweeping should be conducted to minimize dust generation and to ensure optimal dustremoval.
- Train employees to carefully handle powders to minimize the generation of dust where stormwater is likely to be contaminated.
- Use water spray to flush dust accumulations to sanitary sewers where allowed. Application of some products may not be appropriate in close proximity to receiving waters or conveyances close. For more information, check with the MDNR regional office or the local jurisdiction.

### 2. BMPs for Fueling At Dedicated Stations

### **Description of Pollutant Sources**

Typically, stormwater contamination at fueling stations is caused by leaks / spills of fuels, lube oils, radiator coolants, and vehicle wash water.

### **Operational BMPs**

 Prepare an emergency spill response and cleanup plan and have designated trained person(s) on call at all times to promptly implement that plan and immediately cleanup all spills. Keep a spill cleanup kit, such as dry adsorbent materials, on site to allow prompt cleanup of a spill.

- Train employees on the proper use of fuel dispensers. Post signs in accordance with the Uniform Fire Code (UFC). Post "No Topping Off" signs (topping off gas tanks causes spillage and vents gas fumes to the air). Make sure that the automatic shutoff on the fuel nozzle is functioning properly.
- The person conducting the fuel transfer must be present at the fueling pump during fuel transfer, particularly at unattended or self-serve stations.

#### 3. BMPs for Non-stormwater Illicit Connections to Storm Drains

#### **Description of Pollutant Sources**

Illicit connections are defined as sanitary or industrial process wastewater discharges to a storm drain or to surface water, rather than to a sanitary sewer. Examples of non-stormwater discharges include any water used directly in the manufacturing process (process water), non-contact cooling water, vehicle wash water and sanitary wastewater.

#### **Pollutant Control Approach**

Identify and eliminate unpermitted discharges within 30 days, or obtain an NPDES permit, where necessary.

#### **Operational BMPs**

- Identify and eliminate unpermitted non-stormwater discharges to storm drains, ground water or surface water; and convey unpermitted discharges to a sanitary sewer if allowed by the appropriate wastewater treatment plant operator. Contact your department head if you discover a discharge of non-stormwater discharging to surface water. *The discharge must be eliminated within 30 days.* Unless the discharge is eliminated or application is made for permit coverage, you are subject to enforcement action by MDNR.
- Conduct a survey of sanitary and industrial wastewater, cooling water and any other contaminant discharge connections to storm drains and to surface water as follows:
  - Conduct a field survey of buildings, particularly older buildings and other industrial areas to locate storm drains from buildings and paved surfaces. Note where these join the public storm drain(s).
  - During non-stormwater conditions inspect each storm drain for non-stormwater discharges.
     Record the locations of all non-stormwater discharges. Include all permitted discharges.
  - Show on the map the known location of storm drains, sanitary sewers and permitted and unpermitted discharges. Check records such as piping schematics to identify known side sewer connections and show these on the map. Use smoke, dye or chemical analysis tests to detect connections between two conveyance systems (e.g., process water and stormwater). Conduct TV inspections of the storm drain and record the footage on videotape. Compare the observed locations of connection with the information on the map and revise the map accordingly. Note suspect connections that are inconsistent with the field survey.

#### **Common Dry Weather Methods for Locating Non-stormwater Discharges**

- If you have an accurate and current map, simply examine the pathways of the different water circuits cited above. Determine where interior floor drains discharge. The drain(s) may be connected to the stormwater drainage system. If so, they *must* be disconnected and redirected to the sanitary sewer.
- Observe all discharge points during dry weather for odors, discolorations, abnormal flow or conditions. As a rule, the discharge point should be dry during a period of extended dry weather since a stormwater collection system should only collect stormwater.

- Smoke testing of wastewater and stormwater collection and conveyance is used to detect connections between the two systems. During dry weather, the stormwater collection system is filled with smoke and then traced to sources. The appearance of smoke at the base of a toilet, sink, floor drain, wastewater conveyance, etc., indicates that there may be a connection with the stormwater system. If so, they must be disconnected and redirected to the sanitary sewer.
- A dye test can be performed by simply releasing a dye into floor drains, sinks, basins or other potential contaminant sources that may discharge to a surface water or storm sewer system. Examine discharge points in the stormwater collection system or surface water for discoloration.

#### 4. BMPs for Pesticide Management

#### **Description of Pollutant Sources**

Runoff from pesticide application areas can cause contaminants of stormwater. Pesticide applications at access roads and yard areas include sap stain and insect control on lumber and logs, rooftop moss removal and killing nuisance rodents. Leaching and dripping from treated parts, container leaks, product misuse and outside storage.

#### Pollutant Control Approach

Implement the Integrated Pest Management Plan (IPM) and use pesticides only as a last resort. If pesticides or herbicides are used they must be carefully applied in accordance with label instructions on U.S. Environmental Protection Agency (EPA) registered materials.

#### **Operational BMPs for the Use of Pesticides**

- Implement the IPM and use pesticides only as a last resort. The IPM program consists of the following steps:
  - Step 1 Correctly identify problem pests and understand their life cycle.
  - Step 2 Establish tolerance thresholds for pests
  - Step 3 Monitor to detect and prevent pest problems
  - Step 4 Modify the maintenance program to promote healthy plants and discourage pests
  - Step 5 Use cultural, physical, mechanical or biological controls first if pests exceed the tolerance thresholds
  - Step 6 Evaluate and record the effectiveness of the control and modify maintenance practices to support lawn or landscape recovery and prevent recurrence.
- Follow the pesticide-use plan and include at a minimum: a list of selected pesticides and their specific uses; brands, formulations, application methods and quantities to be used; equipment use and maintenance procedures; safety, storage and disposal methods; and monitoring, record keeping, and public notice procedures. Include the following BMPs:
  - Choose the least toxic pesticide available that is capable of reducing the infestation to acceptable levels. The pesticide should readily degrade in the environment and/or have properties that strongly bind it to the soil. Any pest control used should be conducted at the life stage when the pest is most vulnerable. Any method used should be site-specific and not used wholesale over a wide area.
  - Apply the pesticide according to label directions. Under no conditions shall pesticides be applied in quantities that exceed the manufacturer's instructions.
  - Mix the pesticides and clean the application equipment in an area where accidental spills will not enter surface or ground waters and will not contaminate the soil.
  - Store pesticides in enclosed areas or in covered impervious containment. Ensure that pesticide contaminated stormwater or spills/leaks of pesticides are not discharged to storm drains. Do

not hose down the paved areas to a storm drain or conveyance ditch. Store and maintain appropriate spill cleanup materials in a location known to all near the storage area.

- Clean up any spilled pesticides and ensure that the pesticide contaminated waste materials are kept in designated covered and contained areas.
- Include immediate shutoff of the pesticide application equipment in the event of an emergency.
- Do not spray pesticide within 100 feet of open waters including wetlands, ponds, streams, sloughs and any drainage ditch or channel that leads to open water except when approved by MDNR or the City. All sensitive areas including wells, creeks and wetlands must be flagged prior to spraying.
- Complete public posting of the area to be sprayed prior to the application.
- Spray applications should be conducted only during weather conditions as specified in the label direction and applicable local and state regulations. Do not apply during rain or immediately before expected rain.
- Consider alternatives to the use of pesticides such as covering or harvesting weeds, substituting
  vegetative growth and manually controlling weeds and removing moss.
- Rinse water from equipment cleaning and/or triple rinsing of pesticide containers should be used as product or recycled into product.
- Once a pesticide is applied, its effectiveness should be evaluated for possible improvement. Records should be kept showing the applicability and inapplicability of the pesticides considered. An annual evaluation procedure should be developed including a review of the effectiveness of pesticide applications, impact on buffers and sensitive areas (including potable wells), public concerns and recent toxicological information on pesticides used proposed for use.
- If individual or public potable wells are located in the proximity of commercial pesticide applications, contact the regional MDNR hydrogeologist to determine if additional pesticide application control measures are necessary.

#### 5. BMPs for Loading and Unloading Areas for Liquid or Solid Material

#### **Description of Pollutant Sources**

Loading and unloading of liquid and solid materials are typically conducted at shipping and receiving, outside storage, fueling areas, etc. Materials transferred can include products, raw materials, intermediate products, waste materials, fuels and scrap metals. Leaks and spills of fuels, oils, powders, organics, heavy metals, salts, acids, alkalis, etc., during transfer are potential causes of stormwater contamination. Spills from hydraulic line breaks are common problems.

#### **Pollutant Control Approach**

Contain the loading/unloading area where necessary to prevent run-on of stormwater and run-off of contaminated stormwater.

#### **Operational BMPs**

#### At All Loading/Unloading Areas

- A significant amount of debris can accumulate at outside loading/unloading areas. Sweep these surfaces frequently to remove material that could otherwise be washed off by stormwater.
- Place drip pans, or other appropriate temporary containment device, at locations where leaks or spills may occur such as hose connections, hose reels, and filler nozzles. Drip pans shall always be used

when making and breaking connections. Check loading/unloading equipment such as valves, pumps, flanges, and connections regularly for leaks and repair as needed.

- Continue implementing the emergency spill cleanup plan for the facility (See BMP Spills of Oil and Hazardous Substances) which includes the following BMPs:
  - Ensure the cleanup of liquid/solid spills in the loading/unloading area immediately, if a significant spill occurs and upon completion of the loading/unloading activity or at the end of the working day.
  - Retain and maintain an appropriate oil spill cleanup kit on-site for rapid cleanup of material spills.
  - Ensure that an employee trained in spill containment and cleanup is present during loading/unloading.

#### Structural Source Control BMPs

#### At All Loading/Unloading Areas

- Consistent with Uniform Fire Code requirements and to the extent practicable, conduct unloading or loading of solids and liquids in a manufacturing building, under a roof, lean-to or other appropriate cover.
- Berm, dike and/or slope the loading/unloading area to prevent run-on of stormwater and to prevent the run-off or loss of any spilled material from the area.
- Stormwater passes directly off the paved surface into surface water. Place curbs along the edge or slope edge such that the stormwater can flow to an internal storm drain system that leads to an approved stormdrain.
- Pave and slope loading/unloading areas to prevent the pooling of water. The use of catch basins and drain lines within the interior of the paved area must be minimized as they will frequently be covered by material, or they should be placed in designated "alleyways" that are not covered by material, containers or equipment.
- For the transfer of pollutant liquids in areas that cannot contain a catastrophic spill, consider installing an automatic shutoff system in case of unanticipated off-loading interruption (e.g., coupling break, hose rupture, overfill, etc.).

#### 6. BMPs for Maintenance and Repair of Vehicles and Equipment

#### **Description of Pollutant Sources**

Pollutant sources include parts, vehicle cleaning, spills or leaks of fuel and other liquids, replacement of liquids, outdoor storage of batteries, liquids, parts and vehicle parking.

#### **Pollutant Control Approach**

Control leaks and spills of fluids using good housekeeping, cover and containment BMPs.

#### **Operational BMPs**

- Inspect for leaks all incoming vehicles, parts and equipment stored temporarily outside.
- Use drip pans or containers under parts or vehicles that drip or that is likely to drip liquids, such as during dismantling of liquid containing parts or removal or transfer of liquids.
- Remove batteries and liquids from vehicles and equipment in designated areas designed to prevent stormwater contamination. Store cracked batteries in a covered non-leaking secondary containment system.
- Empty oil and fuel filters before disposal. Provide for proper disposal of waste oil and fuel.

- Do not pour/convey wash water, liquid waste or other pollutant into storm drains or to surface water. Do not hose down work areas to storm drains. Use dry methods for cleaning leaked fluids.
- Do not connect maintenance and repair shop floor drains to storm drains or to surface water.
- Consider storing damaged vehicles inside a building or other covered containment until all liquids are removed. Remove liquids from vehicles retired for scrap.
- Consider cleaning parts with aqueous detergent based solutions or non-chlorinated solvents such as kerosene or high flash mineral spirits and/or use wire brushing or sand blasting whenever practicable. Avoid using toxic liquid cleaners such as methylene chloride, 1,1,1-trichloroethane, trichloroethylene or similar chlorinated solvents. Choose cleaning agents that can be recycled.
- Inspect all BMPs regularly, particularly after a significant storm. Identify and correct deficiencies to
  ensure that the BMPs are functioning as intended.

#### **Structural Source Control BMPs**

- Conduct all maintenance and repair of vehicles and equipment in a building or other covered impervious containment area that is sloped to prevent run-on of uncontaminated stormwater and run-off of contaminated stormwater.
- Park large mobile equipment in a designated contained area.

#### 7. BMPs for Outside Work Site Activities

#### **Description of Pollutant Sources**

Manufacturing pollutant sources include outside process areas and significant pollutant materials remain and are exposed to stormwater.

#### **Pollution Control Approach**

Cover and contain outside work sites and prevent stormwater run-off and contamination, where feasible.

#### **Operational BMP**

Sweep paved areas regularly, as needed, to prevent contamination of stormwater.

#### Structural Source Control BMPs

- Alter the activity by eliminating or minimizing the contamination of stormwater.
- Cover the activity and connect floor drains to a sanitary sewer. Berm or slope the floor as needed to
  prevent drainage of pollutants to outside areas.
- Isolate and segregate pollutants as feasible. Convey the segregated pollutants to a sanitary sewer.

#### 8. BMPs for Mobile Fueling of Vehicles and Heavy Equipment

#### **Description of Pollutant Sources**

Mobile fueling is the practice of filling fuel tanks of vehicles by fuel transfer trucks that are driven to the yards or sites where the vehicles to be fueled are located. Diesel fuel is considered as a Class II Combustible Liquid, jet fuel is also considered a combustible whereas gasoline is considered as a Flammable Liquid.

#### Pollutant Control Approach

Proper training of the fueling operator and the use of spill/drip control and reliable fuel transfer equipment with backup shutoff valves are typically needed.

Note that some local fire departments may have restrictions on mobile fueling practices.

#### **Operational BMPs**

- Ensure that all mobile fueling operations are approved by the local fire department and comply with local and State fire codes.
- In fueling locations that are in close proximity to sensitive aquifers, designated wetlands, wetland buffers or other waters of the state, approval by local jurisdictions is necessary to ensure compliance with additional local requirements.
- Ensure the presence and the constant observation/monitoring of the driver/operator at the fuel transfer location at all times during fuel transfer and ensure that the following procedures are implemented at the fuel transfer locations:
  - Locating the point of fueling at least 25 feet from the nearest storm drain or inside an impervious containment with a holding capacity equal to or greater than 110 percent of the fueling tank volume, or covering the storm drain to ensure no inflow of spilled or leaked fuel.
  - Potential spill/leak conveyance surfaces must be impervious and in good repair.
  - Placing a drip pan or an absorbent pad under each fueling location prior to and during all dispensing operations. The pan (must be liquid tight) and the absorbent pad must have a capacity of 5 gallons. Spills retained in the drip pan or the pad need not be reported.
  - The handling and operation of fuel transfer hoses and nozzle, drip pan(s), and absorbent pads as needed to prevent spills/leaks of fuel from reaching the ground, storm drains and receiving waters.
  - Removing the fill nozzle and cessation of filling when the automatic shut-off valve engages. Do
    not allow automatic shut-off fueling nozzles to be locked in the open position.
  - No "topping off" the fuel receiving equipment.
- Provide the driver/operator of the fueling vehicle with:
  - Adequate flashlights or other mobile lighting to view fill openings with poor accessibility.
  - Two-way communication with his/her home base.
- Train the driver/operator annually in spill prevention and cleanup measures and emergency procedures. Make all employees aware of the significant liability associated with fuel spills.
- The fueling operating procedures should be properly signed and dated by the responsible manager, distributed to the operators, retained in the organization files and made available in the event an authorized government agency requests a review.
- Ensure that the local fire department (911) and the appropriate regional office of MDNR are immediately notified in the event of any spill entering the surface or ground waters. Establish a "call down list" to ensure the rapid and proper notification of management and government officials should any significant amount of product be lost off-site. Keep the list in a protected readily accessible location in the mobile fueling truck. The "call down list" should also pre-identify spill response contractors available in the area to ensure the rapid removal of significant product spillage into the environment.
- Maintain in all fueling vehicles a minimum of the following spill cleanup materials that are readily available for use:
  - Non-water absorbents capable of absorbing 15 gallons of diesel fuel.
  - A storm drain plug or cover kit.
  - A non-metallic shovel.
  - Two five-gallon buckets with lids.
- Maintain and replace equipment on fueling vehicles, particularly hoses and nozzles, at established intervals to prevent failures

#### **Structural Source Control BMP**

Automatic fuel transfer shut-off nozzles and adequate lighting at the filling point.

#### 9. BMPs for Soil Erosion and Sediment Control at Work Sites

#### **Description of Pollutant Sources**

Work site activities on soil areas; exposed and disturbed soils; steep grading; etc. can be sources of sediments that can contaminate stormwater run-off.

#### **Pollutant Control Approach**

Limit the exposure or erodible soil, stabilize or cover erodible soil where necessary to prevent erosion.

#### **Cover BMP Options**

- Vegetative cover such as grass, trees and shrubs on erodible soil areas, or
- Covering with mats such as clear plastic, jute, synthetic fiber, and/or
- Preservation of natural vegetation including grass, trees, shrubs and vines

#### **Structural Practice Options**

Consider biofilter, sedimentation basin, silt fence, gravel filter berm and proper grading.

#### 10. BMPs for Spills of Oil and Hazardous Substances

#### **Description of Pollutant Sources**

Operators of facilities engaged in storing, processing, transferring, distributing, consuming oil and/or oil products are required by federal law to have a spill prevention and control plan which could reasonably discharge oil in harmful quantities into the waters of the State. Owners of facilities that produce dangerous wastes are also required by state law to have a spill control plan.

#### **Pollutant Control Approach**

Maintain, update and implement a spill prevention/cleanup plan.

#### **Operational BMPs**

All City facilities are required to implement their emergency spill cleanup plan which includes the following:

- Prepare an emergency spill control plan, which includes:
  - A description of the facility and address
  - The nature of the activity at the facility
  - The general types of chemicals used or stored at the facility
  - A site plan showing the location of storage areas for chemicals, the locations of storm drains, the areas draining to them and the location and description of any devices to stop spills from leaving the site such as positive control valves
  - Cleanup procedures
  - Notification procedures to be used in the event of a spill, such as notifying key personnel and agencies such as MDNR, local fire department and the appropriate wastewater treatment plant operator, if needed
  - The name of the designated person with overall spill cleanup and notification responsibility
- Train key personnel in the implementation of the Emergency Spill Control Plan. Prepare a summary
  of the plan and post it at appropriate points in the building, identifying the spill cleanup
  coordinators, location of cleanup kits and phone numbers of regulatory agencies to be contacted in

the event of a spill

• Update the spill control plan regularly

#### 11. BMPs for Storage of Dangerous Wastes in Containers

#### **Description of Pollutant Sources**

Steel and plastic drums with capacities of 55 gallons or less are typically used at facilities for container storage of liquids and powders. The BMPs specified below apply to container(s) used for temporary storage of accumulated used oil or dangerous chemicals (liquid or solid) and using of full barrels. Leaks and spills of pollutant materials during handling and storage are the primary sources of pollutants. Oil and grease, pH, BOD, COD are potential pollutant constituents.

#### **Pollutant Control Approach**

If possible, store containers under a roof or in a building. For roll-containers (for example dumpsters) that are picked up directly by the collection truck.

#### **Operational BMPs**

- Place tight-fitting lids on all containers.
- Place drip pans beneath all mounted container taps and at all potential drip and spill locations during filling and unloading of containers.
- Inspect container storage areas regularly for corrosion and/or structural failure. Check containers daily for leaks/spills. Replace containers and replace and tighten bungs in drums as needed.
- Drums stored in an area where authorized persons only may gain access.
- If the chemical is dangerous, the City must comply with any additional MDNR requirements.
- Storage of flammable liquids must comply with the Uniform Fire Code.
- Cover dumpsters or keep them under cover such as a lean-to. To prevent the entry of stormwater replace or repair leaking garbage dumpsters.

#### **Structural Source Control BMPs**

- Keep containers with dangerous chemicals or other potential pollutant liquids inside a building unless this is impracticable due to site constraints or Uniform Fire Code requirements.
- Store containers in a designated area, which is covered, bermed or diked, paved and impervious in
  order to contain leaks and spills. The secondary containment shall be sloped to drain into a dead-end
  sump for the collection of leaks and small spills.
- For liquid wastes, surround the containers with a dike. The dike must be of sufficient height to provide a volume or 110 percent of the volume contained in the largest container, whichever is greater, or, if a single container, 110 percent of the volume of that container.
- Place containers mounted for direct removal of a liquid chemical for use by employees inside a containment area as described above. Use a drip pan during liquid transfer.

#### 12. BMPs for Storage of Liquids in Permanent Above-Ground Tanks

#### **Pollutant Control Approach**

Install secondary containment or a double-walled tank. Slope the containment area to a drain with a sump. Stormwater collected in the containment area may need to be discharged to treatment such as an oil/water separator or equivalent. Add safeguards against accidental release including protective guards around tanks to protect against vehicle or forklift damage and tagging valves to reduce human error.

#### **Operational BMPs**

- Inspect the tank containment an areas regularly to identify problem components such as fittings, pipe connections, valves, leaks/spills, cracks and/or corrosion.
- Place adequately sized drip pans beneath all mounted taps and drip/spill locations during filling/unloading of tanks. Valved drain tubing may be needed in mounted drip pans.
- Sweep and clean the tank storage area regularly, if paved.
- Replace or repair tanks that are leaking, corroded or otherwise deteriorating.
- All installations shall comply with all City, State and Federal regulations.

#### Structural Source Control BMPs

- Locate permanent tanks in secondary containment surrounded by dikes or approved double-walled tanks. The dike must be of sufficient height to provide a containment volume of either10 percent of the total enclosed tank volume or 110 percent of the volume contained in the largest tank, whichever is greater or, if a single tank, 110 percent of the volume of that tank.
- Slope the secondary containment to drain to a dead-end sump (optional), or equivalent, for the collection of small spills.
- Include a tank overfill protection system to minimize the risk of spillage during loading.

#### 13. BMPs for Washing and Cleaning Vehicles and Equipment

#### **Description of Pollutant Sources**

Washwater from cleaning activities can contain oil and grease, suspended solids, heavy metals, soluble organics, soaps and detergents that can contaminate stormwater.

#### Pollutant Control Approach

The preferred approach to separate the uncontaminated stormwater from the pollutant sources is to cover and/or contain the cleaning activity or conduct the activity inside a building. Wash water must be conveyed to the sanitary sewer.

#### Structural Source Control BMPs

- Conduct vehicle/equipment washing in a building or under a roof, with washwater draining to a sanitary sewer.
- Conduct outside washing operation in a designated wash area as follows:
  - Conduct washing on a paved spill containment pad to prevent the run-on of stormwater from adjacent areas. Slope the spill containment area so that washwater is collected in a containment pad drain system with perimeter drains, trench drains, or catchment drains. Size the containment pad to extend out a minimum of four feet on all sides of the vehicles and/or equipment being washed.
  - Convey the washwater to a sump (like a grit separator) and then to a sanitary sewer.
  - For discharge to a sanitary sewer, the containment sump must have a positive control outlet valve for spill control with live containment volume and oil/water separation. Size the minimum live storage volume to contain the maximum expected daily washwater flow plus the sludge storage volume below the outlet pipe.
  - The out valve will be shut during the washing cycle to collect the washwater in the sump. The
    valve should remain shut for at least two hours following the washing operation to allow the oil
    and solids to separate before discharge to a sanitary sewer.
  - Post signs to inform operating personnel of operation and purpose of the valve.
  - Clean the concrete pad thoroughly until there is no foam or visible sheen in the washwater prior to closing the inlet valve and allowing uncontaminated stormwater to bypass.

# Appendix F

# 1. Illicit Discharge and Detection Elimination Plan



# Illicit Discharge and Detection Elimination Plan Sedalia, Missouri

(Revision xxxxxx, 2021)







#### **Background**

The City of Sedalia (City) has developed an Illicit Discharge Detection and Elimination (IDDE) program to address the requirements of the National Pollutant Discharge Elimination System (NPDES) Phase II rule. The rule requires regulated operators of municipal separate storm sewer systems (MS4s) to obtain a permit to discharge stormwater runoff from their MS4, and establishes conditions they must meet to reduce the impacts of stormwater discharges.

The MS4 Permit requires that each permittee or regulated community address six (6) Minimum Control Measures. The measures include the following:

- 1. Public Education and Outreach
- 2. Public Involvement and Participation
- 3. Illicit Discharge Detection and Elimination
- 4. Construction Site Stormwater Runoff Control

5. Post-Construction Stormwater Management in New Development or Redevelopment (Post Construction Stormwater Management)

6. Pollution Prevention / Good Housekeeping for Permitee Owned Operations

Under Minimum Control Measure #3, the City is required to implement an IDDE program to provide legal authority to prohibit and eliminate illicit discharges within the MS4's area, find the source of any illicit discharges, eliminate those illicit discharges, and ensure ongoing screening and tracking to prevent and/or eliminate future illicit discharges. In this regard, the City relies heavily on its Water Pollution Control staff along with coordination with other Public Works staff to observe and scrutinize the City's MS4 outfalls for illicit discharges, illegal dumping and illicit connections, during their routine duties. The main methodology used involves Dry Weather Screening, which helps to ensure the integrity of the stormwater drainage system by detecting non-stormwater discharges during dry weather conditions.

#### **Purpose**

The purpose of this Plan is to outline a program to systematically detect and eliminate non-stormwater illicit discharges within the City's Municipal Separate Storm Sewer System (MS4) to improve water quality and meet the Federal Phase II Stormwater requirements. It provides City staff with direction as to the frequency and procedures for performing field screenings, collecting samples, equipment needed, discusses possible sources of potential pollutants, and outlines guidelines for investigating an illicit discharge.

The permit and City Code provide for the following non-stormwater discharges unless they are identified as significant sources of pollutants:

Landscape irrigation and lawn watering	Discharges or flows from emergency
	fire-fighting activities
Rising groundwater	Individual residential care washing, and
Uncontaminated pumped groundwater	Dechlorinated residential swimming
	pool discharges
Discharges from potable water sources	Uncontaminated groundwater

Foundation or footing drains	infiltration (infiltration is defined as
Air conditioning condensate	water other than wastewater that
Springs	enters a sewer system, including sewer
Uncontaminated water from crawl space	service connections and foundation
pumps	drains, from the ground through such
Flows from riparian habitat and wetlands	means as defective pipes, pipe joints,
Street wash water	connections, or manholes. Infiltration
	does not include, and is distinguished
	from, inflow.

### <u>Authority</u>

The City of Sedalia has adopted Ordinance 9967 related to Stormwater Treatment which can be found in **Appendix A**. This City code provides the City with the legal authority to:

- Prohibit illicit discharges
- Investigate suspected illicit discharges
- Eliminate illicit discharges, including discharges from properties not owned by or controlled by the MS4 that discharge into the MS4 system
- Enforce procedures and take actions

The City annually reviews our Stormwater Regulations and related land use regulations and policies for consistency with the MS4 Permit.

The City Ordinance and Code closely follow and implement the conditions under which the state granted the City's Missouri State Operating Permit. Related portions of the permit follow.

### Missouri State Operating Permit #MOR040001 Illicit Discharge Detection and Elimination – Section 4.2.4.2.3

- 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 CFR122.34(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;
  - a. 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;

- b. To the extent allowable under state or local law an effective prohibition, through ordinance or other regulatory mechanism, 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;
- c. A plan and implementation schedule to detect and address non-stormwater discharges, including discharges from illegal dumping and spills, to the permittee's system.
- d. 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.
- e. 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;
- f. Procedures for tracing the source of an illicit discharge, including the specific techniques the permittee will use to detect the location of the source;
- g. Procedures for eliminating the illicit discharge;
- h. 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;
- i. 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 measures, monitoring and TDML implementation (if applicable);
- j. 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.

### Missouri State Operating Permit #MOR040001 Illicit Discharge Detection and Elimination – Section 1.2.2.2

- 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:
  - a. Landscape irrigation and lawn watering,
  - b. Rising ground water,
  - c. 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 it is distinguished from, inflow),
  - d. Uncontaminated pumped groundwater,
  - e. Discharges from potable water sources,
  - f. Foundation or footing drains,
  - g. Air conditioning condensate,
  - h. Springs,
  - i. Uncontaminated water from crawl space pumps,
  - j. Flows from riparian habitat and wetlands,
  - k. Street wash water,
  - I. Discharges or flows from emergency firefighting activities,
  - m.Individual residential car washing, and
  - n. Dechlorinated residential swimming pool discharges.

#### **Illicit Discharge Detection and Elimination Plan**

- 1. Illicit Discharge Detection and Elimination (IDDE) plan is meant to detect and address non-stormwater discharges, including discharges from illegal dumping and spills, to the permittee's system.
  - a. As part of the GIS mapping effort a period of time was spent last Small MS4 permit cycle identifying all the stormwater outfalls in the City of Sedalia. The definition of an outfall is; any concentrated flow of stormwater that is exiting the Sedalia City limits. Criteria used for identifying outfalls were: flow that is concentrated in a ditch, pipe, or other structure specifically designed to carry stormwater. After identification, all stormwater outfalls were inventoried on GIS and are updated as needed. Physical analysis is performed on outfalls, open

conveyances and ambient sites when they are inspected monthly. Physical signs that may indicate and illicit discharge are: debris, odor, oily film, foam, turbidity, scum and/or excessive amount of yard waste. (See Appendix 1)

- i. Major outfalls and open conveyances/ambient sites (FORM IDDE-A):
  - 1. Outfalls: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18 and 19
  - Open conveyances and Ambient Sites: Centennial Park Ditch, Hwy 50 Ditch, Parkhurst Rd. Bridge, Starbucks Ditch, Tractor Supply Ditch, West 5<sup>th</sup> St. Ditch, W. 12<sup>th</sup> St. Ditch, W. 16<sup>th</sup> St. Ditch, W. Clay St. Ditch, and Washington St. Ditch
- b. The Sedalia City Council passed a stormwater ordinance (#9976) in July 2012 that addressed key issues regarding stream bank protection, construction, post-construction and illicit discharge detection and elimination. A significant number of BMP's were addressed by this ordinance. This ordinance has made a significant impact in stream protection in and around the City of Sedalia. (See Appendix 2)
- c. The City provides a stromwater hotline for residents to call to report illegal dumping and spills. The stormwater hotline is: 660-827-3000 ext. 1173 or 660-827-7830 to make stormwater complaints. The phone number for the hotline appears on the City's website and on most printed material that comes from the City on stormwater related issues. The City also provides information through the City's webpage, flyers, inspections and recycle/yard waste drop off site. This information includes the current edition of the City's Stormwater Management Plan, the "After the Storm" brochure, the "Restaurant" brochure, the "Automotive" brochure, the stormwater hotline and information on volunteer activities. <u>http://www.ci.sedalia.mo.us/content/11298/11388/11509.aspx</u>
- d. Stormwater outfalls are unable to be tested unless there is a significant rainfall since most do not have continuous flow. Chemical analysis is performed on major outfalls once per quarter as long as there is flow. The possibility of illicit discharges is suspected and investigated if the test values fall outside the ranges listed below:
  - i. pH 6.0 to 9.0 SU
  - ii. Temperature less than 30 degrees Celsius
  - iii. Dissolved oxygen greater than 5.0 mg/l
  - iv. Ammonia as nitrogen less than 2.5 mg/l

#### v. Chlorides - monitoring

On-site sewage disposal systems are not allowed within City limits per City Code of Ordinances Section 60-127(b) which states in part: "It shall be unlawful to discharge to any natural outlet within the city, or in any area under the jurisdiction of the city, any wastewater or other polluted waters".

- e. All reported dumping or spills are investigated immediately. Ambient sites are located and made a priority by number of complaints, visual inspections and abnormal test results. Ambient sites are inspected monthly and updated as needed. (See Appendix 1 for map)
  - i. Ambient Sites: Parkhurst Rd. Bridge, Starbucks Ditch and W. Clay St.
- f. City personnel document an illicit discharge and begin an investigation by starting an investigation form (FORM IDDE-I), documenting the pollutants of concern, taking pictures and start backtracking the pollutant as far back as possible to locate the primary source. (See Appendix 3)
  - i. Identify number of complaints
  - ii. Abnormal testing results
  - iii. Visual inspections
  - iv. Abnormal flow to wastewater plant
- g. Facility, restaurant, automotive shops and car washes are on an inspection schedule to assist in eliminating illicit discharges. City of Sedalia Code of Ordinances 22-106 states, in part, "Any person or entity violating any provision of this chapter is guilty of a public offense and shall be subject to penalties as provided in the Municipal Code." (See Appendix 4)
  - i. Municipal Facilities (FORM IDDE-B)
    - a. Public Works (26 Facilities)
    - b. Airport (18 Facilities)
    - c. Parks (12 Facilities)
    - d. Cemetery (2 Facilities)
    - e. Fire (2 Facilities)
    - f. Administration (1 Facility)
    - g. Animal Shelter (1 Facility)
    - h. Building Maintenance (1 Facility)
    - i. Police (1 Facility)
  - ii. Restaurants (FORM IDDE-C)
  - iii. Automotive Shops (FORM IDDE-D)
  - iv. Car Washes (FORM IDDE-E)
- h. Enforcement procedures are outlined in the stormwater ordinance (#9976) from July 2012 (See Appendix 2). Enforcement procedures include but not limited to:
  - i. identify the source,
  - ii. verbal communication with proprietor informing of the discharge and to cease the discharge,
  - iii. send Notice of Violation letter,
  - iv. Shut down and fines when applicable
- i. The City's website has the recycle information and how to report Illicit Discharges. (See Section c. of this document.) The City inspects all municipal facilities, automotive shops, car washes and restaurants. (See section g. of this document.)
- j. The Sedalia City Council passed a stormwater ordinance (#9976) in July 2012 that addressed key stormwater issues regarding streams and illicit discharge detection and elimination.
  - i. Nuisance identified and declared
  - ii. Written notification outlining action required with a deadline given for source removal
  - iii. Turn investigation over to code enforcement for further action

## **Statement of Responsibilities**

The Public Works Director is responsible for the overall oversight and implementation of the IDDE Program pursuant to the provisions of Stormwater Treatment Ordinance. The Public Works Department, working in close conjunction with other City Departments and Administration staff, are designated as the lead agency responsible for implementing the IDDE program in accordance with the general oversight of the City Council and City Administrator.

In summary, City Department responsibility for aspects of the program include:

- <u>Public Works Department-- Water Pollution Control Division</u>- implementing the stormwater components of the program to include such items as dry and wet weather screenings, catch basin cleaning, street sweeping, inspection of facilities, and infrastructure maintenance; and assisting in the public relations and education components Additionally, first response to notification of spills or discharges that do not pose an immediate health or safety concern and implementing the wastewater components (if any). Reports questionable flows to Industrial Pretreatment and Stormwater Coordinator for action.
- <u>Public Works Department-- Streets Division--</u> responsible for cleaning of catch basins, ditches, storm drain grates, etc. monitors and reports questionable flows to Industrial Pretreatment and Stormwater Coordinator for action.

- Building Inspectors and Code Enforcement overseeing enforcing plumbing codes
- Public Works Project Managers and Inspectors mapping services and implementing construction site stormwater runoff control measures and post construction stormwater management components to include written procedures for site plan reviews, erosion and sediment control, development of site inspections and enforcement procedures, and street design and parking lot guidelines.
- **Public Works Pretreatment and Stormwater Coordinator** public relations and education, monitors and inspections and maintenance/annual review of IDDE plan.
- <u>**City Counsel**</u> taking court-related enforcement actions as requested
- <u>Public Works Committee of the City Council and Public Works Board</u>– centrally coordinating all responsibilities and supporting actions of officials

## <u>Others:</u>

• Pettis County Health Center – septic system construction and inspection/monitoring

## Sanitary Sewer Overflows (SSOs)

The City completed a \$30M project in 2017 to address inflow and infiltration (I&I) as well as sanitary sewer overflows. The number of sanitary sewer overflows since completion of this project has been reduced. See Table below detailing SSOs.

DATE	LOCATION	REASON
		SSO MH CE2-30 root ball caught rags and grease and
	Behind north of 2508	restricted flow causing SSO during peak use. All areas
1/26/2017	N Woodlawn	were limed.
3/16/2017	CE4-26 to CE4-25	SSO Grease and rag build up
	Head works grit	
4/29/2017	chamber	SSO Heavy rain saturated ground
4/29/2017	Main street lift station	SSO Heavy rain saturated ground
	Head works, 3	
	manholes within	
	confines of north	
4/29/2017	plant	SSO Heavy rain saturated ground
	Peak flow blended	
	bypass through UV	Rain over 6 days, malfunction at EQ basin stormwater
4/29/2017	disinfection	return valve failed in open position
4/30/2017	EQ Basin	SSO Heavy rain saturated ground
4/30/2017	EQ Basin Outfall	SSO Heavy rain saturated ground
	New construction NY	
	Lift station	
	stormwater return	
	valve malfunction,	
4/30/2017	manhole overflow	SSO stormwater EQ basin drain valve malfunction

	EQ (Lagoon) basin	
5/3/2017	outfall	SSO Saturated ground due to rain events
	Behind 2209 S Limit	
	within wet weather	SSO Grease and rag blockage with sanitary sewer
5/15/2017	ditch	pipe- overflowed manhole but didn't blow lid
8/23/2017	SE WWTP	SSO 2.42 inches of rain
		SSO Sewer line had a fiber optic bore causing a
10/22/2017	CW1-19	blockage
	Peak Flow Clarifier	
2/21/2018	Discharge	Bypass- rain
	SEB20-21 Between	
	east 24th/east 25th	
	Massachussets	SSO Roots and rags and grease were present in the
3/12/2018	Washington Avenue	water during and after emergency cleaning
		SSO Blockage and overflow from the manhole was
_ / _ /	South of 1803 S	caused by wash towels and rubber gloves from
3/19/2018	Washington SEB1-6	nursing home upstream.
	West of 409 N Heard	
0/07/00/0	St @ intersection of	SSO Force main from heard lift station broke causing
3/27/2018	Saline and Heard	sanitary sewer to leak into storm ditch.
	West of 409 N Heard	
2/27/2010	St @ intersection of	SSO Force main from heard lift station broke causing
3/2//2018	Saline and Heard	sanitary sewer to leak into storm ditch.
5/21/2019	Central WWTP	Heavy rainfall in the area overflowed the EQ basin.
5/21/2019	North Plant	Bypass due to heavy rainfall.
		Heavy rain, heavy lightning , maintenance out started
6/5/2019	3000 W Main St.	generator during power outage.
		Manhole overflow- vac truck and crew were sent out
		to vac sewer in the ditch and line the affected
12/31/2019	N Depp N3-49	ground. Line has been put on monthly root list.
		Storm water gate on 28th St malfunctioned along
		with a flow meter causing excess amount of water to
1/21/2020	SE WWTP	go to the earthen basin.
		Tree roots inside sanitary sewer pipe. Cleared
		blockage by removing roots and CCTV to make sure
		line was clear of any obstructions. Cleaned up area
4/13/2020	Central WWTP	with lime.
		Malfunction in electrical controls on pump 1 VFD
8/12/2020	Main St Lift Station	caused all pumps to fail.
		VFD wasn't running properly causing pump 1 to not
		run when the station was needing all four pumps
8/31/2020	Main St Lift Station	running due to heavy rain.

## Water Quality

Section 305(b) of the Federal Clean Water Act (CWA) requires each State to monitor, assess and report on the quality of its waters relative to designated uses. Section 303(d) of the CWA requires each State to list waters not meeting water quality standards and prioritize those waters for Total Maximum Daily Load (TMDL) development or other management. Reporting for these waters is submitted to US EPA every two years (routinely, even numbered years).

The following table identifies the impaired waterbodies within the City of Sedalia based on the most recent State Water Quality Report.

Total Maximum Daily Load (TMDL)

TMDL in and nearby the City are listed below in Table 2.

Table 2 TM	IDL's
------------	-------

Year	WBID	Water Body	Pollutant	Source
2001	0856, 3490	Little Muddy Creek and Tributary to Little Muddy Creek	Temperature,	Tyson Foods
2002	0855, 0859	Muddy Creek and Brushy Creek	Biochemical	Central WWTP
			Oxygen Demand	
			(BOD), Ammonia	
			(NH₃), Ammonia	
			Nitrogen (NH <sub>3</sub> -N),	
			Non-filterable	
			Residues (NFR),	
			Volatile	
			Suspended Solids	
			(VSS), Organic	
			Sediment	
Year	WBID	Water Body	Pollutant	Source
2006	0865	Flat Creek, Pettis and Benton Counties	Sediment, Non-	Agricultural
			volatile	Non-point
(			Suspended Solids	Source
			(NVSS), Inorganic	
			Sediment	

## Appendix 1

- 1. 2018 Stormwater Outfall Map
- 2. 2018 Stormwater Location Description
- 3. 2018 Open Conveyance/Ambient Site Map
- 4. 2018 Open Conveyance/Ambient Site Description
- 5. Outfall/Open Conveyance/Ambient Site Inspection Form (IDDE-A)

## 2018 Stormwater Outfalls



Stormwater Outfall Locations			
Outfall	Address		
1	28th St. and New York - S. side		
2	28th St. between Washington and Lafayette - S. side		
3	West of Kentucky on 32nd St S. side		
4	W. 32nd St. East of S. Limit St S. side		
5	Airport - E. side of N/S Runway		
6	Marshall and Booneville - NW Missouri Pressed Metal		
7	Sedalia Rd. W. of TCI Tire Center - N. side		
8	W. Main St. at bridge close to CWWTP Entrance - N. side		
9	South of High School on E. Sacajawea bottom of 1st hill - S. side		
10	32nd St. West City Limits - Just Past Lift Station - S. side		
11	South of High School on E. Sacajawea past high school - S. side		
12	Behind Movie Theater on Main St N. side		
13	Behind Bus Barn Lot on S. Park N. back corner		
14	Tree line past A-OK Storage to the South on the West side of the road		
15	Sneed Rd. W. side right before turn onto Booneville Rd.		
16	Next to intersection of Heard Ln. and Gressen Rd N. side		
17	Between Engineer Ave. and Cedar Dr. on Reine Ave N. side		
18	Southwest corner of State Fair College property		
19 (Old CSO)	Martin Luther King Jr. Rd. N. side behind building		

## 2018 Stormwater Open Conveyances



Open Conveyances/Ambient Sites		
Outfall	Address	
West Clay	N. Osage between W. Hogan St and W. Clay St.	
Parkhurst Rd. Bridge	Close to the intersection of Parhurst Rd and Market St.	
W. 5th	W. 5th St. ditch at State Fair Bridge	
Starbucks	NE side of Starbucks	
Hwy 50	Hwy 50 Ditch located S. side of Thompson Hills parking lot	
Tractor Supply	Tractor Supply going N. towards Menards	
W. 16th	Ditch at W. 16th St. at Pittsburg Corning	
W. 12th	W. 12th St. ditch at S. Park St.	
Washington	Washington ditch at 24th St. Bridge	
Centennial Park	Centennial Park Ditch at 24th St. Bridge	

## FORM IDDE-A

Date: Rainfall Last 7 days:			
Inspector:			
Location:			
Conditions:			
Debris	Odor	Oily Film	Foam
Turbidity	Scum	Yard Waste	Other
Comments:			
Water Quality:			
Temperature:	Dissolved Oxygen:	F	H:
Ammonia as Nitrogen:	E. coli:		
Is there evidence of an il	licit discharge? Y	N	
is there endence of an in	<u>nor aborrange</u> .		
If yes then complete the	next questions:		
Reason for invest	igation:		
List POCs:			

# Appendix 2

1. 2012 Stormwater Treatment (Water Quality) Ordinance

BILL NO. <u>2012 - 48</u> ORDINANCE NO. **9976** 

### AN ORDINANCE AMENDING CHAPTER 22 OF THE CODE OF ORDINANCES OF THE CITY OF SEDALIA, MISSOURI, AND ENACTING NEW ARTICLE IV OF SAID CHAPTER 22 OF THE CODE OF ORDINANCES OF THE CITY OF SEDALIA, MISSOURI, RELATING TO STORMWATER TREATMENT.

**BE IT ORDAINED** by the Council of the City of Sedalia, Missouri as follows:

Section 1. New Article IV of Chapter 22 of the Code of Ordinances of the City of Sedalia, Missouri, is added which reads as follows:

#### "ARTICLE IV. STORMWATER TREATMENT

#### Section 22-100: General

The purpose of this ordinance is to provide for the health, safety, and general welfare of the Citizens of the City through the regulation of stormwater and non-stormwater discharges into the City of Sedalia's Municipal Separate Storm Sewer System. The Governing Body has determined that there are two sets of regulatory controls that will accomplish this purpose.

- Minimize to the maximum extent practicable the discharge of pollutants from developed land into the surface waters of the City by establishing reasonable requirements for the treatment of stormwater runoff from construction sites, new development, and redevelopment activities.
- Eliminate to the maximum extent practicable non-storm water discharges (illicit discharges) into the Municipal Separate Storm Sewer System.

The Governing Body finds that land development and the associated increases in impervious cover can increase the quantity and nature of pollutants carried by storm water runoff, increase stormwater runoff rates and volumes, aggravate stream channel erosion and sediment transport, alter the hydrologic response of watersheds, and degrade the ecological function of downstream rivers, creeks, streams, lakes and other water bodies.

The Governing Body finds that stormwater treatment facilities and requirements can minimize those impacts by: reducing pollutant levels carried in stormwater runoff; removing or reducing the concentrations of those pollutants that are carried; reducing stream bank erosion, and by restoring stormwater runoff rates and volumes to levels closer to the predevelopment hydrologic regimes. Further, the Governing Body finds that there are established methods for controlling the introduction of pollutants into the Municipal Separate Storm Sewer System (MS4) in order to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit process. These methods are: to regulate the contribution of pollutants to the municipal separate storm sewer system (MS4) by stormwater discharges by any user; to prohibit Illicit Connections and Discharges to the MS4; and to establish legal authority to carry out all inspection, surveillance, and monitoring procedures necessary to ensure compliance with this ordinance.

#### Section 22-101: Definitions

- 1. "Applicant" means a property owner or agent of a property owner who had filed an application for a permit that is subject to the requirements of this Ordinance.
- "Best Management Practice" shall mean a stormwater management facility or practice that provides the necessary level of water quality protection and runoff reduction for a given site.
- 3. "Channel" means a natural or artificial watercourse with defined bed and banks that conducts continuously or periodically flowing water
- 4. "City" means the City of Sedalia, Missouri
- "Code" means the most current edition of the City of Sedalia Missouri, Code of Ordinances.
- "Dedication" means the deliberate appropriation of property by its owner for general public use.
- "Developer" means a person who engages in development of real estate, whether or not that person is the landowner.
- "Development" means any man-made changes to improved or unimproved real estate, including, but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations.
- 9. "Director" means the Director of the Community Development Department or the Director's authorized representative.
- "Director of Public Works" means the Director of Public Works Department or the Director's authorized representative.
- 11. "Impervious Cover" means those surfaces that cannot effectively infiltrate rainfall, including building rooftops, pavement, sidewalks, and driveways.
- 12. "Infiltration" means the process of percolating stormwater in the subsoil.
- "Infill Development" means development on a vacant or substantially vacant tract of land surrounded by existing development.
- 14. "Land Disturbance" means any activity that changes the physical conditions of landform, vegetation and hydrology, creates bare soil, or otherwise may cause erosion or sedimentation. Such activities include, but are not limited to, clearing, removal of

vegetation, stripping, grading, grubbing, excavating, filling, logging and storing of materials.

- 15. "Landowner" means the legal or beneficial owner or owners of a lot or tract. The holder of a contract to purchase or other person having an enforceable proprietary interest in a lot or tract shall be deemed a landowner.
- 16. "Maintenance Agreement" means a legally recorded document that act as a property deed restriction, and which provides for long-term maintenance of stormwater management practices.
- 17. "Off-Site Facility" means a stormwater treatment facility located outside the subject property boundary described in the permit application for land development activity, including facilities that may accept runoff from multiple projects.
- 18. "Ordinary High Water Mark" means the point along a channel section where vegetation ceases to grow and be present due to frequent inundation and erosion caused by regular channel flows.
- 19. "Pollutant" means any substance or material which contaminates or adversely alters the physical, chemical or biological properties of water, including changes in temperature, taste, odor, turbidity, or color.
- 20. "Redevelopment" means development on a tract of land with existing structures where all or most of the existing structures would be razed and a new structure or structures built.
- "Stop Work Order" means an order issued which requires that all construction activity on a site stopped.
- 22. "Stormwater" means stormwater runoff, snow melt runoff, and surface runoff and drainage from precipitation.
- 23. "Stormwater Pollution Prevention Plan" (SWPP Plan) shall mean a plan developed in accordance with EPA and Missouri Division of Natural Resources regulations for the prevention of downstream surface water pollution caused by construction activities.
- 24. "Stormwater Treatment Facilities" or "Facilities" means all structures, plantings natural features, or other physical elements that are designed, constructed and maintained in accordance with this Ordinance and which are provided to prevent or reduce stormwater pollution or to control stormwater runoff volume and discharges.
- 25. "Stormwater Treatment Standards" or "Standards" means the detailed design criteria, Specifications, standard details, and maintenance requirements adopted in writing by the Director.
- 26. "Stream Corridor" shall mean the area reserved for stream preservation under this Ordinance, and shall include the stream and adjacent vegetated area either side of the stream banks a prescribed distance per this Ordinance.
- 27. "Watercourse" means a permanent or intermittent stream or other body of water, either natural or man-made, which gathers or carries surface water.

#### Section 22-103: Stream Buffers

1. Natural stream protection on developments platted after September 1, 2012:Natural streams shall be buffered by a riparian zone which shall include the stream and all lands adjacent to the stream on both sides for the minimum distance from the ordinary high water mark (OHM) as specified in Table 1 below:

Table 1		
Tributary Area	Riparian Zone	
-	Width (each side of	
	OHM)	
25 to 160 acres	40	
160 to 1,000 acres	70	
Over 1,000 acres	100	

The riparian

buffer zone shall be

delineated on preliminary plats, preliminary plans, final plans, and final plats based on the criteria stated above. The boundary of the riparian buffer zone shall be delineated by a separate tract of land of conservation easement and dedicated by plat or separate instrument with a legal boundary description.

- 2. The requirements in this section do not apply to Engineered Channels, which are identified as previously modified from the original stream alignment and fully armored below the ordinary high water mark with concrete, rip-rap, or similar man-made materials.
- 3. Riparian buffer zones shall remain undisturbed to the maximum extent practicable. This zone prohibits any land disturbance, clearing, grubbing or any other construction activities except as necessary for utility construction and road access. Such construction shall minimize disturbance of the stream and riparian buffer zone. Naturally occurring vegetation within the riparian buffer zone shall not be removed, diminished, inhibited, mowed, or substantially altered from its natural state or growth.
- 4. Certain other disturbances will be allowed in the riparian buffer zone provided that best management practices are employed to minimize disturbance. Examples of allowable uses include: Recreational trails, Stream restoration and bank stabilization projects, Recreational field and Parklands, Approved roadway crossings, and Lakes (with appropriate state and federal approvals).
- Adjustments in widths of the riparian buffer zone may be made when approved by the City Administrator or his designee when local conditions justify deviation from the standard widths.
- 6. Whenever the designated riparian buffer zone must be disturbed, mitigation measures shall be taken to re-establish vegetative stream stabilization to the maximum extent practicable.
- 7. The City may approve deviations from the requirements of this Section if the Developer is able to show through an engineering and economic evaluation report that:

- The integrity of the stream and water quality in the natural stream can be maintained;
- All property, buildings and structures planned as part of the development will be protected from stream migration long-term;
- c. The requirements as stated herein would create an undue economic burden to the development and thereby eliminate the feasibility of the project;
- Proposed stream changes are approved by the US Army Corps of Engineers and Missouri Department of Natural Resources.

#### Section 22-104: Post Construction

- 1. Applicability
  - a. No land shall be developed without full compliance with this Chapter unless development occurs as allowed by the following exceptions:
    - i. Land disturbances of less than one acre that are not part of the common plan for development that will cumulatively disturb more than one acre
    - Expansions and modifications to previously constructed developments, otherwise subject to this Chapter where the proposed increase in impervious surface is less than 5,000 square feet.
    - iii. Land disturbances for utility construction
    - iv. Agricultural land uses
    - v. Single lot residential developments that are not part of a larger common plan for development
    - vi. Repairs to any stormwater management facility or practice deemed necessary by the Director of Public Works.
  - b. City Administered Street Construction:
    - Street and thoroughfare construction projects administered and constructed directly by the City shall comply with this Ordinance except that compliance is not required for street and thoroughfare construction:

       that would be exempt under the standard exceptions in Part 1 of this Section and
       that will maintain, enhance, or reconstruct existing roadways, including the intersection improvements, turn lane additions, safety improvements, or new entrances, but which will not add additional through lanes.
    - Unless subject to another agreement, stormwater treatment facilities installed as part of City administered projects are owned and maintained by the City.
    - iii. The City does not assert jurisdiction under this Ordinance over any construction work on State of Missouri Right-of-Way.
  - c. Previously Approved Development Plans:

- Projects having a preliminary development plan or plat approved prior to adoption of this Ordinance are exempt from the provisions of this Chapter, except as follows:
  - Development plans approved prior to the effective date of this Ordinance may make "substantial or significant changes" as determined by the Director of Public Works until December 31, 2012, without invoking this Ordinance. Substantial or significant changes to development plans after January 1, 2012 must comply with this Ordinance in the same manner as a new development.

#### 2. Performance Criteria

- a. Stormwater Treatment Standards (Standards): The City shall adopt and maintain Stormwater Treatment Standards to implement and interpret the provisions of this Ordinance. The latest edition of Mid-America Regional Council and American Public Works Association Manual of Best Management Practices for Stormwater Quality (MARC BMP Manual) and all appendices shall be the basis of these Standards. Included in the Standards shall be additional technical guidance or exceptions to the MARC BMP Manual which have been adopted by the City. The additional guidance or exceptions may include, but not be limited to, modified best management practices, design criteria, construction specifications, or standard details. Copies of all adopted standards shall be on file and available in the Community Development Department.
- b. Modifications to Standards: The Standards may be adopted and amended by the Director of Public Works following a public input process. The public input process shall include the following minimum steps: 1) posting proposed documents in draft form a minimum of 30 days prior to the City holding a public informational meeting; and 2) extending a written comment period for a minimum of 30 days after the public informational meeting. A new public input process is not required for revisions to the proposed draft documents if the Standards are adopted within 180 days of the public informational meeting
- c. Minimum Control Requirements: All stormwater treatment facilities shall be designed to provide a combination of pollutant removal and water volume control that satisfies the level of service and value rating calculations set forth in the Stormwater Treatment Standards and other requirements established by City approved watershed management plans or studies.
- d. Non-Structural Stormwater Practices: Non-structural stormwater treatment practices are encouraged to minimize the reliance on structural practices. Applicants wishing to obtain credit for using non-structural practices must ensure that these practices are documented and will remain unaltered by subsequent property owners by locating the facility in a conservation easement, separate tract

dedicated for stormwater treatment facilities or similar instrument as approved by the City Administrator or his designee.

- e. Modifications to Allow Alternate Compliances: In addition, the Director of Public Works may waive or modify any of the Stormwater Treatment Standards to encourage the implementation of alternative or innovative practices that implement the intent of the modified standards and provide equivalent public benefits without significant adverse impacts on surrounding developments. Such modifications may be granted for issues including, but not limited to:
  - Approval of alternative materials, devices, techniques, details or specifications for individual treatment facilities that would be expected to provide similar or better performance.
  - ii. Evaluations of credits, ratings, or level of service calculations to account for unique or special technical considerations
  - iii. Corrections, clarifications or modifications to requirements which the Director has found to give inadequate or undesirable performance
- f. Appeals of decisions made by the Public Works Director related to the Standards shall be made to the Governing Body.
- 3. Site Location and Placement

The location of stormwater treatment facilities shall be consistent with their functions while also conforming to the uses and constraints of the site. The facilities' location shall be approved by the City, and ownership and maintenance responsibility established. At a minimum, all stormwater treatment facilities will be shown on final construction plans and in the maintenance plan.

- a. Centralized and Common Stormwater Treatment Facilities: Most centralized and common facilities for stormwater management will be shown on preliminary plats, preliminary plans, final plans and final plats. The perimeter of the facility shall be documented by a legal boundary description as required by the Director, which could include, but not limited to, a separate tract, a conservation easement, or a dedication on the final plat.
- b. Distributed Stormwater Treatment Facilities: The City may determine that some distributed stormwater treatment facilities cannot be described practically by separate legal boundaries on plans or plats; in such circumstances, provisions will be made for maintenance of the facilities, documentation of their presence, and easements and rights of access, as set forth in Section 4, Part 8.
- c. Residential Single-Family and Two-Family Areas: Generally stormwater treatment facilities for residential single-family and two-family developments shall be centralized and located on a common tract, to be owned and maintained by a homeowner/home's association.

- d. The City may allow a limited number of distributed facilities on individual residential tracts, provided the applicant demonstrates that substantial provisions are in place to ensure long-term operation, maintenance and inspection of such facilities without undue burden to the City for tracking or monitoring compliance.
- e. Private Facilities in the Public Street Right-of-Way: Privately owned and operated stormwater treatment facilities shall be located outside of the public street right-of-way.
- f. Coordination with Utility Easements: Stormwater treatment facilities shall not be co-located within utility easements unless approved by the Director of Public Works.
- g. Detention Ponds: When detention facilities for peak flood control are required, such basins may be co-located with stormwater treatment facilities, provided that the facilities are designed to meet the requirements of both uses.
- h. Off-site Facilities: The City may consider proposals to manage stormwater runoff in off-site facilities that treat runoff from the proposed development and comply with the stormwater Treatment Standards. The off-site facility shall be in place prior to or concurrently with the proposed development. Long-term operations and maintenance responsibilities for the facilities must be established by legal agreements, approved by the City and recorded with County Records and Tax Administration.
- i. Stream buffers as required in Section 3 are considered a beneficial Stormwater Treatment Facility, therefore credit will be granted by the Stormwater Treatment Standards. In limited circumstances, which are specifically included in the Stormwater Treatment Standards, the outer one-third (1/3) of the designated stream buffer may incorporate additional features which enhance the buffer's stormwater treatment function. Such facilities must be consistent with the longterm integrity of the stream buffer as a natural, riparian zone.

#### 4. Deviations

- a. The Planning and Zoning Commission or Governing Body may, in the process of approving preliminary plats, final plats, preliminary development plans or final development plans, approve deviations from the specific terms of this Ordinance which would not be contrary to the public interest and where, owing to special conditions, a literal enforcement of the provisions of this Ordinance would result in unnecessary hardship for the applicant, and provided that the spirit of this Ordinance shall be observed, the public safety and welfare secured and substantial justice done for the application.
- b. An application for the deviation may only be granted upon a finding that all of the following conditions have been met:

- That the granting of the deviation will not adversely affect the rights of adjacent landowners
- ii. That the strict application of the provisions of this Ordinance would constitute unnecessary hardship upon the landowner represented in the application.
- iii. That the deviation desired will not adversely affect the public health, safety, morals, order, convenience, prosperity or general welfare.
- That granting the deviation will comply with the general spirit and intent of this Ordinance.
- v. That it has been determined the granting of a deviation will not result in extraordinary public expense, create nuisances, cause fraud on or victimization of the public or conflict with existing local, federal, or state laws.
- vi. Upon consideration of the factors listed above and the purposes of this Ordinance, the City may attach such conditions to the granting of deviations as it deems necessary to further the purpose of this Chapter.
- c. In considering deviation applications, the City has the discretion of using any or all of the following project evaluations when, in the judgment of the Planning and Zoning Commission or Governing Body, these evaluations are relevant and appropriate. No individual or combination of evaluations are necessarily required for an application to be approved and the Planning Commission or Governing Body may weigh these evaluations in light of all relevant considerations in determining whether or not to approve an application.
  - i. That alternative standard for stormwater management, water quality protection and ecological preservation has been established, and/or that mitigation measures are undertaken.
  - ii. That existing physical or natural characteristics of the site make strict application of the Ordinance infeasible.
  - iii. That concerns for flooding, stream bank erosion, stream instability, and maintenance of culverts, bridges and other structures are addressed.
  - iv. That the deviation is the minimum necessary to afford relief
- d. For City administered street construction, a request for deviation will be initiated and recommended by the Director of Public Works and must be approved by the Governing Body. The City may consider, as part of a deviation request, the constraints posed by lack of available right-of-way, interaction with previously planned or approved stormwater drainage systems, and the nature of surrounding land uses.
- 5. Stormwater Management Plan Requirements

- a. Preliminary Stormwater Management Plan Requirements: No application for development shall be accepted unless it includes a preliminary stormwater management plan detailing in concept how runoff and associated water quality impacts resulting from the development will be controlled or managed. This plan must be prepared by a registered professional engineer in the State of Missouri and must show whether stormwater will be managed on-site or off-site, and show the general location and type of practices.
- b. The preliminary stormwater management plan must include: conceptual stormwater management plans, sufficient information to evaluate the existing environmental characteristics of the project site, impacts of the proposed development, preliminary sizing for stormwater treatment facilities, and locations of any proposed access easements or conservation easements, and a description of the maintenance responsibility for proposed stormwater treatment facilities. Final Stormwater Management Plan Requirements: Unless waived by the City Administrator or his designee, the applicant shall obtain City approval for the final stormwater management plan prior to obtaining a permit. The final stormwater management plan, in addition to the information from the preliminary stormwater management plan, shall include all of the information required in the Standards and any other submittal requirements.
- Landscaping and Stabilization Requirements: The landscape plan for permitting purposes shall include all of the following:
  - i. Vegetative stabilization and management techniques to be used at a site after construction is completed
  - ii. An explanation of how the site will be stabilized after construction.
  - iii. Identify the responsible party for the maintenance of vegetation at the site.
  - iv. Identify the practices that will be employed to ensure adequate vegetative cover is preserved.
  - The design is prepared by a registered landscape architect in the State of Missouri
  - vi. The design is approved prior to receiving a permit to construct the stormwater treatment facility.
- 6. Permit Procedures, Requirements, and Performance Surety
  - a. Permit Required: No person shall receive any permits for building, grading, or other land development without meeting the requirements of this Ordinance. Generally, permits for stormwater treatment facility construction will be completed under the authorization of a building, site development, or land disturbance permit.

- b. Construction Plan Requirements: Minimum construction plan submittal requirements shall be set by written policy or checklist.
- c. Performance Surety Required: The submittal of a performance Surety in the form of an irrevocable letter of credit or cash deposit shall be required. If a letter of credit is provided, it shall be on the form as prescribed by the City Attorney. The amount of the performance surety shall be 1.1 times the total construction cost of the stormwater treatment facility as estimated by the project designer

Performance Surety Waiver for Single Lot Developments: If stormwater treatment facilities only serve a single building lot and a building is being constructed, a performance surety may be waived by the Director provided all stormwater treatment facilities are constructed and certified prior to issuance of a Certificate of Occupancy, When seasonal or environmental conditions cause a delay in constructing the stormwater treatment facilities, the Director may approve issuing a Certificate of Occupancy provided a performance surety is posted in accordance with Section 5 Part 6 c.

- d. Release of Performance Surety: The performance surety will be released only when all of the following conditions have been met:
  - i. At least 100% of the land area served by the stormwater treatment facilities has permanent stabilization in place.
  - All of the stormwater treatment facilities covered by the surety have been constructed and certified in accordance with this Chapter.
  - iii. If the stormwater treatment facility is constructed prior to final stabilization of at least 100% of the land area served by the facility, and the most recent certification of the facility is more than 90 days old; an updated certification shall be required to verify that the facility is fully functional.
- e. Maintenance Surety: Prior to issuance of a permit for construction of a stormwater treatment facility, the contractor shall submit cash, a letter or credit, or a maintenance bond. The contractor shall be responsible for all regular maintenance and repairs to of the stormwater treatment facility while the maintenance surety is in effect including, but not limited to repairs necessary due to damage caused by intentional or unintentional acts of others. The maintenance surety shall be in the amount of 50% of the construction cost of the facility and be utilized for any maintenance or rehabilitation costs associated with the stormwater treatment facility deemed necessary by the City, including, but not limited to; removal of siltation, mowing, replacement of vegetation, piping repairs, replacement of under drains, other repairs to the facility, and any administrative or

engineering costs associated with such maintenance and repairs. Maintenance sureties shall conform to the following:

- i. If the maintenance surety is in the form of a maintenance bond, it shall remain in effect for a period of three (3) years following initial certification of the stormwater treatment facility.
- ii. If the maintenance surety is in the form of a Letter of Credit, the contractor or developer shall deposit with the City Director of Finance, Budget and Administration an irrevocable letter of credit from an acceptable financial institution payable to the City collectable no later than three years from the date of initial certification of the stormwater treatment facility.
- iii. If the maintenance surety is in the form of cash, or letter of credit, all remaining money and any interest accrued thereon shall be returned to the contractor no later than four (4) years after the date of initial certification of the stormwater treatment facility.
- f. Timing of Stormwater Treatment Facility Construction: Stormwater treatment facilities shall be constructed as early as feasible during the development process. However, since some commonly used stormwater treatment facilities are sensitive to construction generated silt when upstream areas are under construction, the following provisions are allowable for timing of such facility construction:
  - i. For a stormwater treatment facility serving a single building lot, the facility shall be constructed concurrently with the development of the site and building, subject to exceptions set forward in Section 4, Part 6 d. of this Chapter.
  - ii. When stormwater treatment facilities serve multiple development lots within a Common plan of development, a stormwater treatment facility can be final graded and permanent vegetation installed only after 90% of the land area served by the facility has achieved permanent stabilization unless the Director approves a shortened schedule.
  - iii. For stormwater treatment facilities serving multiple development lots within a common plan of development, no Certificate of Occupancy shall be issued for any building or site unless a permit has been issued authorizing construction of required facility to serve the building or site.
- g. Failure to Construct a Required Stormwater Treatment Facility: When construction of a stormwater treatment facility is delayed beyond the limits as provided in this Section, the City may utilize any or all of the following enforcement mechanisms:
  - i. Draw upon performance surety funds as necessary to construct the stormwater treatment facility.

- ii. Withhold issuance of building permits for properties proposed to be served by such stormwater treatment facility.
- iii. Withhold issuance of Certificates of Occupancy or Certificates of Compliance for permitted work that is proposed to be served by such stormwater treatment facility.
- iv. Issue stop work orders for permitted work for any property that is proposed to be served by such stormwater treatment facility.
- 7. Construction Inspections
  - a. Inspections: Regular inspections of the stormwater management system construction shall be the responsibility of the project designer or other owner's representative and inspection results forwarded to the City. For certain types and locations of Stormwater Treatment Facilities, the City Administrator or his designee may at his discretion require additional or parallel inspections by City Staff.
  - b. As-Built Plans: All applicants are required to submit actual "as-built" plans for any constructed stormwater treatment practices. The plan must show the final design specifications for all stormwater treatment facilities and must be certified by the project designer. A final inspection by the City is required before the release of any performance securities can occur. The Director will determine required elements of the as-built plans.
  - c. Post Construction Certification: Prior to refunding of performance securities, the project designer, or other party approved by the Director, must certify that the stormwater treatment facility is fully functional and has been installed in accordance with the approved plans. For developments not requiring a performance surety, the certification shall be made prior to issuance of a Certification of Occupancy or Certificate of Compliance.
- 8. Maintenance and Repair of Facilities
  - a. Required Maintenance Agreement: Prior to issuance of any permit that includes construction of a stormwater treatment facility, the applicant or owner of the site shall provide a Maintenance Agreement for approval. At a minimum, the Maintenance Agreement shall:
    - i. Identify the responsible party for maintaining all stormwater treatment facilities.
    - ii. Include an attachment showing the locations of all stormwater treatment facilities.
    - iii. Provide access easements reserved for the responsible party to access and maintain all stormwater treatment facilities, as well as right of access to the City as provided in other sections of this Chapter.

- iv. Establish minimum frequency and levels of maintenance to be done.
- v. Identify and itemize anticipated annual maintenance expenditures that will be required during each of the first five (5) years of operation after termination of the contractor maintenance period, so that the responsible party may better plan for future maintenance costs. Establish the frequency of inspections to meet or exceed the requirements of this Chapter.
- vi. Identify resources available to provide maintenance.
- vii. Identify prohibited practices and homes or business association enforcement process for restoration.
- viii. Identify the City's rights in the event that the responsible party fails or is unable to perform any of the obligations of the Maintenance Agreement.
- Clarify how modifications or additions can be made to the Maintenance Agreement.
- x. Be filed as a covenant to the recorded deeds of all lots to enforce the imposition of any special tax assessment that may be necessary to maintain stormwater treatment facilities if the responsible party fails or is unable to perform any of the obligations in the Maintenance Agreement.
- b. Formation of Homes or Business Association: If any of the Best Management Practices used to meet the Post Construction requirements for stormwater treatment on a developed site will require maintenance activities beyond what can be normally expected from any home owner/occupant, the owner or developer shall form a homes or business association prior to the sale of any lots, and the homes or business association covenants shall include, or reference, the provision of the approved Maintenance Agreement. The homes association or business association covenants shall include provisions collecting maintenance costs for stormwater treatment facilities.
- c. Notice on Plat or Title: The final plat and homes or business association deed restrictions shall contain language to provide notice of facility presence and maintenance obligations. Said deed restriction shall be recorded with the County Records and Tax Administration concurrent or prior to recording of the final plat or approval of final plans. The notice shall run with the land and failure to provide this notice to any purchaser prior to transferring any interest in the property shall be in violation of this Chapter. The notice shall be in an approved form and substantially as set forth below:
  - i. Notice: This site includes Stormwater Treatment Facilities, as defined and regulated in the most current edition of the City of Sedalia Missouri, Code of Ordinances. Restrictions on the use or alteration of the said facilities may apply. This property is also subject to the obligations and requirements of the Stormwater Treatment Facility Maintenance Agreement approved by the City"

- ii. When the proposal involves a final plat, this noticed shall appear on the face of the plat, as recorded. When the proposals do not involve a final plat, the notice shall be in the form of a notice of presence recorded with the County Records and Tax Administration, and the notice shall include the legal description of the property, the current owner, the application date and other reference to the project, and the notarized signature of the property owner or owners.
- d. Maintenance Inspections and Certifications by Property Owner: The property owners of all stormwater treatment facilities, except for distributed facilities serving individual residential lots, must submit an inspection report to the City, at the minimum of one (1) year following initial certification, and subsequently every two (2) years thereafter, or as required by the City Administrator or his designee. The inspection report shall be completed and sealed by a registered professional engineer in the State of Missouri. Such inspection shall document each item including, but not limited to, the needs for removal of silt, litter and other debris, grass cutting, removal of undesirable vegetation, and replacement of landscape vegetation. Any maintenance needs found must be addressed in a timely manner, and the inspection and maintenance requirement may be increased as deemed necessary to ensure proper functioning of the stormwater treatment facility.
- e. City Inspection of Stormwater Treatment Facilities: The City may establish an inspection program, including but not limited to: routine inspections, random inspections, inspections based upon complaints or other notice of possible violations, inspection of drainage basins or areas identified as higher than typical sources of sediment or other contaminants or pollutants, inspections of businesses or industries of a type associated with higher than usual discharges of contaminants or pollutants or with discharges of a type which are more likely than the typical discharge to cause violations of state or federal water or sediment quality standards or the NPDES stormwater permit, and joint Inspections may include, but are not limited to, reviewing maintenance and repair records, sampling discharges, surface water, groundwater, and material or water in drainage control facilities, and evaluating the condition or drainage control facilities and other stormwater treatment practices.
- f. Right of Entry Inspection: When any stormwater treatment facility is installed on private property, or when any new connection is made between private property and a public storm sewer system, the property owner shall grant to the City the right to enter the property at reasonable times and in a reasonable manner for the purpose of inspection. This includes the right to enter a property when it has a reasonable basis to believe that a violation of this Ordinance is occurring or has

occurred, and to enter when necessary for abatement of a public nuisance or correction of a violation of this Ordinance.

- g. Records of Installation and Maintenance Activities: Parties responsible for the operation and maintenance of a stormwater management facility shall make records of the installation and of all maintenance and repairs, and shall retain the records for at least five years. These records shall be made available during inspection of the facility and at other reasonable times upon request.
- h. Failure to Maintain Practices: If a responsible party fails or refuses to meet the requirements of the maintenance covenant, the City, after reasonable notice, may correct a violation of the Standards or maintenance needs by performing all necessary work to place the facility in proper working condition. In the event that the stormwater management facility becomes a danger to public safety or public health, the City shall notify the party responsible for maintenance of the stormwater management facility in writing. Upon receipt of that notice, the responsible person shall have90 days to effect maintenance and repair of the facility in an approved manner. In the event of an emergency, when the City Administrator or his designee determines that the facility poses an immediate danger to life or property, no notification period shall be required prior to beginning mitigation work. After proper notice, the Director will enforce the maintenance provisions of this Chapter with any or all of the following enforcement measures:
  - Notice of Violation: The City Administrator or his designee is authorized to serve a Notice of Violation or order on any person or entity responsible for maintaining the facility. Such notice shall order abatement of the violation by the responsible person or entity.
  - ii. Lien on Property: The City Administrator or his designee may assess the owner(s) of the facility for the cost of repair work and penalties; and the cost of the work shall be a lien on the property, or prorated against the beneficial users of the property, and may be placed on the tax bill and collected as ordinary taxes by the county.

#### Section 22-105 - Construction

1. Purpose

During the construction process, soil is highly vulnerable to erosion by wind and water. Eroded soil endangers water resources by reducing water quality and causing the siltation of aquatic habitat for fish and other desirable species. Eroded soil also necessitates repair of sewers and ditches. Clearing and grading during construction cause the loss of native vegetation necessary for terrestrial and aquatic habitat. In addition, constructions sites usually increase the potential for discharges of bulk chemicals and or oil based fluids, trash and debris, portable sanitary toilets, soils attached to vehicles leaving the site, and concrete wash out materials, among other pollutants of concern.

As a result, the purpose of this ordinance is to safeguard persons, protect property, and prevent damage to the environment in and around the City of Sedalia, Missouri. This ordinance will also promote the public welfare by guiding, regulating, and controlling the design, construction, use, and maintenance of any development or other activity that disturbs or breaks the topsoil of results in the movement of earth on land in the City of Sedalia.

- 2. Definitions
  - a. Clearing Any activity that removes the vegetative surface cover
  - b. Drainage Way Any channel that conveys surface runoff through the site
  - c. Erosion Control A measure that prevents erosion
  - d. Erosion and Sediment A set of plans prepared by or under the direction of a licensed engineer
  - e. Control Plan Indicating the specific measures and sequencing to be used to control sediment and erosion on a development site during and after construction
  - f. Grading Excavating or fill of material, including the resulting conditions thereof
  - g. Perimeter Control A barrier that prevents sediment from leaving a site by filtering sediment-laden runoff or diverting it to a sediment trap or basin
  - h. Phasing Clearing a parcel of land in distinct phases, with the stabilization of each phase completed before the clearing of the next
  - i. Sediment Control Measures the prevent eroded sediment from leaving the site
  - j. Site A parcel of land or a contiguous combination thereof, where grading work is performed as a single unified operation
  - k. Site Development A permit issued by the municipality for the construction or alteration of ground
  - 1. Permit Improvements and structures for the control of erosion, runoff, and grading
  - m. Stabilization The use of practices that prevent exposed soil from eroding
  - n. Start of Construction The first land-disturbing activity associated with a development, including land preparation such as clearing, grading, and filling; installation of streets and walkways; excavation for basements, footings, piers, or foundations; erection of temporary forms; and installation of accessory buildings such as garages
  - Watercourse Any body of water, including, but not limited to lakes, ponds, rivers, streams, and bodies of water delineated by the City of Sedalia
  - p. Waterway a channel that directs surface runoff to a watercourse of to the public storm drain
- 3. Permits

Any land-disturbing activity that would require the uncovering of over one (1) acre of ground requires an application for a site development permit and the approval of an erosion and sediment control plan by the City of Sedalia.

The site development permit also requires that the owner or developer submit any other applicable permits such as the Corps of Engineers 404 permit, the State of Missouri's 401 permit, the State of Missouri's Land Disturbance permit, and permits for burning and/or blasting if these activities are required for the construction project.

No site development permit is required for the following activities:

- Any emergency activity that is immediately necessary for the protection of life, property, or natural resources
- Existing nursery and agriculture operations conducted as a permitted main or accessory use

Each application shall bear the names and addresses of the owner or developer of the site and of any consulting firm retained by the applicant together with the name of the applicant's principle contact at such firm and shall be accompanied by a filing fee as set in the City Ordinance.

Each applicant shall include a statement that any land clearing, construction, or development involving the movement of earth shall be in accordance with the Erosion and Sediment Control Plan and that a certified contractor shall be on site on all days when construction of grading activity takes place.

The applicant will be required to file with the City of Sedalia a faithful performance bond, letter of credit, or other improvement security in an amount deemed sufficient by the City of Sedalia to cover all costs associated with the repair and/or replacement of the erosion and sediment control devices required by the Storm Water Pollution Prevention Plan as approved for the site.

4. Review and Approval

The City of Sedalia will review each application for a site development permit to determine its conformance with the provisions of this regulation. Within 30 days after receiving an application, the City of Sedalia shall, in writing:

- 1. Approve the permit application;
- Approve the permit application subject to such reasonable conditions as may be necessary to secure substantially the objectives of this regulation; and issue the permit subject to these conditions; or
- Disapprove the permit application, indicating the reason(s) and the procedure for submitting a revised application and/or submission.

Failure of the City of Sedalia to act on an original or revised application within 30 days if receipt shall authorize the applicant to proceed in accordance with the plans as filed unless such time is extended by agreement between the applicant and the City of Sedalia. Pending preparation and approval of a revised plan, development activities shall be allowed to proceed in accordance with conditions established by the City of Sedalia.

5. Erosion and Sediment Control Plan

The Erosion and Sediment Control Plan shall meet all the requirements set forth in the most recent version of the Missouri Department of Natural Resources Land Disturbance Permit.

Modifications to the Erosion and Sediment Control Plan shall be documented whenever the modification is made; and the documentation shall be located at the land disturbance site at all times and available for inspection.

- 6. Design Requirements
  - a. Grading, erosion control practices, sediment control practices, and waterway crossings shall meet the design criteria set forth in the most recent version of the KC AWPA 5100, and shall be adequate to prevent transport of sediment from the site to the satisfaction of the City of Sedalia. Cut and fill slopes shall be no greater than 2:1, except as approved by the City of Sedalia to meet other community or environmental objectives.
  - b. Clearing and grading of natural resources, such as forests and wetlands, shall not be permitted, except when given a variance specifically for these activities by the City of Sedalia. Clearing techniques that retain natural vegetation and drainage patterns, as described in KC APWA 5100, shall be used. Clearing, except that necessary to establish sediment control devices, shall not begin until all sediment control devices have been installed and have been stabilized. Phasing shall be required on all sites disturbing greater than 30 acres, with the size of each phase to be established at plan review and as approved by the City of Sedalia.
  - c. Erosion control requirements shall include the following:
    - i. Soil stabilization shall be completed within fourteen (14) days of clearing or inactivity in construction.
    - ii. If seeding or another vegetative erosion control method is used, it shall become established within two weeks or the City of Sedalia may require the site to be re-seeded or a non-vegetative option may be employed.
    - Special techniques that meet the design criteria outlined KC APWA 5100 on steep slopes or in drainage ways shall be used to ensure stabilization.
    - iv. Soil stockpiles must be stabilized or covered at the end of each work day.

- v. The entire site must be stabilized, using a heavy mulch layer or another method that does not require germination to control erosion, at the close of the construction season.
- vi. Techniques that divert upland runoff past disturbed slopes may be employed.
- d. Sediment controls requirements shall include:
  - i. Settling basins, sediment traps, or tanks and perimeter controls.
  - ii. Settling basins that are designed in a manner that allows adaptation to provide long term stormwater management, if required by the City of Sedalia.
  - iii. Protection for adjacent properties by use of a vegetative buffer strip in combination with perimeter controls.
- e. Waterway and watercourse protection requirements shall include:
  - A temporary stream crossing installed and approved by (404 Permit –Army Corps of Engineers and/or 401 Water Certification Permit – Missouri Department of Natural Resources) if a wet watercourse will be crossed regularly during construction.
  - ii. Stabilization of the watercourse before, during, and after any in-channel work.
  - iii. All on-site stormwater conveyance channels designed according to criteria outlined in KC – APWA 5600 and/or 5100.
  - Stabilization adequate to prevent erosion located at the outlets of all pipes and paved channels.
- f. Construction site access requirements shall be include:
  - i. A temporary access road provided at all sites.
  - ii. Other measures required by KC APWA 5100 in order to ensure that sediment is not tracked onto public streets by construction vehicles or washed into storm drains.
- 7. Inspection

The City of Sedalia or designated agent shall make inspections as hereinafter required and either shall approve that portion of the work completed or shall notify the permittee wherein the work fails to comply with the Erosion and Sediment Control Plan as approved. Plans for grading, stripping, excavating, and filling work bearing the stamp of approval of the City of Sedalia shall be maintained at the site during the process of the work. To obtain inspections, the permittee shall notify the City of Sedalia at least two working days before the following:

- a. Start of construction.
- b. Installation of sediment and erosion controls.
- c. Completion of site clearing.
- d. Completion of rough grading.
- e. Completion of final grading.

- f. Close of the construction season.
- g. Completion of final landscaping.

The permittee or his/her agent shall make regular inspections of all control measures in accordance with the inspection schedule outlined on the approved Erosion and Sediment Control Plan(s). The purpose of such inspections will be to determine the overall effectiveness of the control plan and the need for additional control measures. All inspections shall be documented in written form and submitted to the City of Sedalia at the time interval specified in the approved permit.

The City of Sedalia or its designated agent shall enter the property of the applicant as deemed necessary to make regular inspections to ensure compliance with the approved Erosion and Sediment Control Plan.

8. Enforcement

Stop-Work Order/Revocation of Permit: In the event that any person holding a site development permit pursuant to this ordinance violates the terms of the permit or implements site development in such a manner as to materially adversely affect the health, welfare, or safety of persons residing in or working in the neighborhood or development site so as to be materially detrimental to the public welfare or injurious to property of improvements in the neighborhood, the City of Sedalia my suspend or revoke the site development permit.

Violation and Penalties; no person shall construct, enlarge, alter, repair, or maintain any grading, excavation, or fill, or cause the same to be done, contrary to or in violation of any terms of this ordinance. Any person violating any of the provisions of this ordinance shall be deemed guilty of a misdemeanor and each day during which any violation of any of the provisions of this ordinance is committed, continued, or permitted, shall constitute a separate offense. In addition to any other penalty authorized by this section, any person, partnership, or corporation convicted of violating any of the provisions of this ordinance is committed of violating any of the provisions of this ordinance is convicted of violating any of the provisions of this ordinance is convicted of violating any of the provisions of this ordinance is convicted of violating any of the provisions of this ordinance is ordinance is convicted of violating any of the provisions of this ordinance is convicted of violating any of the provisions of this ordinance is convicted of violating any of the provisions of this ordinance is convicted of violating any of the provisions of this ordinance is convicted of violating any of the provisions of this ordinance is a separate offense.

9. Separability

The provisions and sections of this ordinance shall be deemed to be separable, and the invalidity of any portion of this ordinance shall not affect the validity of the remainder.

#### Section 22-106: Discharge Detection and Elimination

- 1. Applicability:
  - a. This section shall apply to all water entering the storm drain system generated on any developed and undeveloped lands unless explicitly exempted.

- 2. Ultimate Responsibility:
  - a. The standard set forth in this section and promulgated pursuant to this section are minimum standards. Compliance with this section does not insure that there will be no contamination, pollution or unauthorized discharge of pollutants into the waters of the United States. This section shall not create liability on the part of the City or any agent or employee of the City for any damages that result from any discharges, reliance on this section or any administrative decision made under this section.
- 3. Prohibitions
  - a. Illegal Discharges: It shall be unlawful for any person to discharge or cause to be discharged into the municipal separate storm sewer system or into any water course any material other than stormwater. The following discharges are exempt from the discharge prohibitions established by this article:
    - i. Waterline flushing or other potable sources
    - ii. Landscape irrigation or lawn watering
    - iii. Diverted stream flows
    - iv. Rising groundwater
    - v. Groundwater infiltration
    - vi. Uncontaminated pumped groundwater
    - vii. Foundation or footing drains excluding active groundwater de-watering systems
    - viii. Crawlspace pumps, air conditioning, condensation
    - ix. Springs
    - x. Non-commercial washing of vehicles
    - xi. Natural riparian habitat or wetland flows
    - xii. Swimming pools if dechlorinated to less than 1 ppm chlorine
    - xiii. Fire fighting activities
    - xiv. Other water not containing pollutants
    - xv. Discharges specified by the City as necessary to protect public health and safety
    - xvi. Dye testing if notification is given to the City before the test, and
    - xvii. Any non-storm water discharge permitted under an NPDES permit, waiver or waste discharge order issued to the discharger and administered under the authority of the Environmental Protection Agency, provided that the discharger is in full compliance with all requirements of the permit, waiver or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the municipal separate storm sewer system.

- 4. Illicit connections
  - a. It shall be unlawful for any person to construct, use, maintain or have an illicit connection.
  - b. This section expressly applies to illicit connections made in the past even if the connection was permissible under law or practices applicable or prevailing at the time of connection.
- 5. Waste disposal prohibitions
  - a. It shall be unlawful for any person to place, deposit, or dump or cause or allow the placing, depositing or dumping any refuse, rubbish, yard waste, paper litter or other discarded or abandoned objects, articles and accumulations containing pollutants into the municipal separate storm sewer system or into any waterway.
- 6. Connection of sanitary sewer prohibited
  - a. It shall be unlawful for any person to connect a line conveying sewage to the municipal separate storm system or to allow such connection to continue.
  - b. It shall be unlawful for any person subject to an industrial activity or construction NPDES storm water discharge permit to fail to comply with all provisions of such permit.
- 7. Continuing violation
  - a. Each day that a violation of this article continues shall be deemed a separate offense.

#### 8. Notification of Spills

a. Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information or any known or suspected release of materials which are resulting or may result in illicit discharges or pollutants discharging into storm water, the storm drain system, or water of the U.S. said person shall take all necessary steps to insure the discovery, containment, and cleanup of such release. In the event of such release of hazardous materials said person shall immediately notify emergency response agencies of the occurrence via emergency dispatch services. In the event of a release of non-hazardous materials, said person shall notify the City in person or by phone or Facsimile no later than next business day. Notification in person or by phone shall be confirmed by written notice addressed and mailed to the City within five business days of the phone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an onsite written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for three years.

- 9. Regulations and Monitoring
  - a. The Governing Body may, by ordinance, adopt standards identifying best management practices (BMP) for any activity, operation or facility which may cause or contribute to pollution or stormwater, the storm drain system, waters of the State, or waters of the U.S. These standards should be on file at City Hall. It shall be unlawful for any person undertaking any activity or owning or operating any facility subject to such standards to fail to comply with the standards.
  - b. The owner or operator of a commercial or industrial establishment shall provide reasonable protection from accidental discharge of prohibited materials or other wastes into the municipal separate storm sewer system or water courses through the use of structural or non-structural BMPs. Any person responsible for property which is or may be the source of an illicit discharge may be required to implement additional structural or non-structural BMP's to prevent further discharge. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of stormwater associated with industrial activity to the extent practicable shall be deemed in compliance with provisions of this section. These BMPs shall be part of the storm water pollution prevention plan as necessary for compliance with the requirements of the NPDES permit.

#### 10. Nuisance declared

- a. Any discharge in violation of this article is a nuisance.
- b. Any illicit connection is a nuisance.

#### Section 22-107: Enforcement and Penalties

Violations: Any person or entity violating any provision of this Chapter is guilty of a public offense and shall be subject to penalties as provided in the Municipal Code.

The City shall be permitted to cite the owner, or any/all persons identified on the permit as being legally responsible to the City for any violations of this Chapter pertaining to that permit.

Restoration of Lands: Any violator may be required to restore land to its undisturbed condition. In the event that restoration is not undertaken within a reasonable time after notice, the Director of Public Works may take necessary corrective action, of which the cost to the City shall become a lien upon the property until paid.

#### Section 22-108: Miscellaneous

Compatibility with Other Permit and Ordinance Requirements: This Ordinance is not intended to interfere with, abrogate, or annul any other ordinance, rule of regulation, stature, or other provision of law. The requirements of this Ordinance should be considered minimum requirements, and where any provision of this Ordinance imposes restrictions different from those imposed by any other ordinance, rule or regulation or other provision of law, whichever provisions are more restrictive or impose higher protective standards for human health or the environment shall be considered to take precedence.

Severability: If the provisions of any article, section, subsection, paragraph, subdivision or clause of this Ordinance shall be judged invalid by a court of competent jurisdiction, such order of judgment shall not affect or invalidate the remainder of any article, section subsection, paragraph, subdivision or clause of this Ordinance.

Authority: The Director of Public Works shall be responsible for the administration and enforcement of this Ordinance. The City shall have the authority to adopt regulations, policies and procedures as necessary for the enforcement of this Ordinance."

is hereby enacted.

Section 2. This ordinance shall be in full force and effect from and after its passage and approval.

Read two times by title, copies of the proposed ordinance having been made available for public inspection prior to the time the bill is under consideration by the Council and passed by the Council of the City of Sedalia, Missouri this 2<sup>nd</sup> day of July, 2012.

<u>Mary Elaine</u> Horn Presiding Officer of the Council Approved by the Mayor of said City this 2<sup>nd</sup> day of July 2012.

Mary Chaine Unn Mary Elaine Horn, Mayor

ATTEST:

Arlene Selver MRCC Arlene Silvey, MRCC City Clerk
# Appendix 3

1. Investigation Form IDDE-I

## FORM IDDE-I

	IDDE Investigation Form	Priority:	Н	Μ	L		
Date:	Time:		Inspector	:		-	
Location:							
What is the cause	of the complaint?						
Is there an illicit d What is the POC(s	lischarge?				_		
Trash, Yard Was Hazardous Waste	te, Foam, Scum, Low DO, Hi ,	gh NH₃-N, Oil	y Sheen, C	dor, T	urbidity,	Raw S	ewage,
What is the sourc	e of the discharge (pollutant)?						
						_	
Describe the sequ	uence of the investigation includ	ding who was c	ontacted d	uring th	ie procee	dings.	

	W	/ater Quality Testing	g (if applicable)		
Test	Date Collected	Result	Test	Date Collected	Result
Temperature			NH <sub>3</sub> -N		
рН			E coli		
Dissolved Oxygen					

Is Re-inspection required? YI	ES NO	C
-------------------------------	-------	---

Recommendations for Remedial Action:

# Contact List (check who was contacted)

Agency	Phone #	
Public Works Director	660-827-3000 ext. 1166	
Public Works Shop	660-827-7820	
DNR KCRO	816-622-7000	
DNR Emergency	573-634-2436	
DNR Spill Hotline	800-361-4827	
Sedalia Fire Department	660-826-8044	
Pettis County Health	660-827-1130	
Sedalia Police Department	660-826-8100	
Stormwater Hotline	660-827-7830 660-827-3000ext1173	

# Appendix 4

- 1. Form IDDE-B
- 2. Form IDDE-C
- 3. Form IDDE-D
- 4. Form IDDE-E
- 5. Current Automotive Shop List
- 6. Current Car Wash List
- 7. Current Restaurant List

# FORM IDDE-B

Facility	Name:Date:	Tir	me:	
		Yes	No	N/A
Α.	Facility Operation and Maintenance			
1.	Are trash and litter removed from catch basins and other portions of the			
	stormwater drainage system on a regular basis?			
2.	Are areas subject to erosion stabilized with grass, mulch, or other			
	appropriate sediment control measures?			
3.	Is the parking lot regularly swept or vacuumed to clean up sediment and			
	trash?			
4.	Are there timely inspections and maintenance of stormwater management		ĺ	
	devices (e.g. cleaning catch basins, inlets and ditches)?			
5.	Are sediment traps installed in storm drains or sewer systems operating			
	and being maintained properly?			
В.	Solid Waste Management			
1.	Are loose garbage and waste materials picked up and disposed			
	regularly?		<u> </u>	
2.	Are garbage lids closed to prevent rainwater from entering refuse?			
			<u> </u>	
3.	Are pet waste stations available and maintained?			
С.	Vehicle and Equipment Maintenance and Washing			
1.	Are there regularly scheduled inspections of equipment?			
2.	Is all equipment free of leaks and drips?			
3	Are pontoxic or low toxicity cleaning compounds used?			
0.				
4.	Are maintenance activities performed indoors where practical?			
5.	Is wash water contained or otherwise kept out of the storm drain system?			
6.	Are waste materials properly segregated, labeled and discarded?			
7.	Is there a spill response plan in place, including phone numbers to call in			
	case of a spill?			
			<u> </u>	
D.	Material Storage		<u> </u>	
1.	Is a system in place to identify materials that could leak or spill potential			
	pollutants that could enter the stormwater system?			
2.	Are materials stored in original containers with original labels?			
3.	Are there material containers regularly inspected for leaks and spills?			
			ļ	
4.	Are materials kept dry?			
			1	

5. Is there a spill kit available?		

		Yes	No	N/A
E.	Fuel Storage			
1.	Are fuel tanks filled carefully without allowing over-splash?			
2.	Are fuel tanks managed properly?			
3.	Are fueling areas protected from precipitation and run-on?			
4.	Is washing down the fueling area with water avoided?			
5.	Is spill protection provided at fueling sites?			
6.	Is there a spill response plan in place, including phone numbers to call in case of a spill?			
F.	Outfalls			
1.	Are outfalls free of debris, trash, and any visible signs of pollution?			
2.	Are outfall signs visible and in good repair?			
G.	Training			
1.	When was the last Stormwater training date for the Department Staff?			
2.	What was the last Stormwater training topic given to staff?			

## Comments:

Γ

1	
2	
3	

LOCATION:	VES		
PARKING FACILITIES Are the storm drains observed on site?	VES		
Are the storm drains observed on site?	VES		
	165	[]	NO[]
Is there trash present in the parking / grounds?	YES	[]	NO[]
Is there excessive staining present from motor vehicles? IF YES, To what level was it observed	YES HIGH [ ]	[] MED. []	NO[] LOW[]
Is there evidence of outdoor washing activities? IF YES, To what level was it observed DUMPSTER AREA	YES HIGH [ ]	[ ] MED. [ ]	NO[] LOW[]
Are the storm drains observed on area?	YES	[]	NO[]
Are the dumpster lids closed?	YES	[]	NО[]
Is the trash contained in the dumpster(s)?	YES	[]	NO[]
Are there signs of liquid drainage from the dumpster(s)?	YES	[]	NO[]
Is there outdoor liquid or grease storage? IF YES, are the storage containers covered?	YES YES	[]	NO [ ] NO [ ]
Is there evidence of spills or leaks? IF YES, to what level was it observed?	YES HIGH [ ]	[ ] MED. [ ]	NO [ ] LOW [ ]
Does the Kitchen handle grease appropriately?	YES	[]	NO[]
Grease Interceptor or Grease trap? Frequency of cleaning? Is the frequency of cleaning appropriate?	YES	[]	NO [ ]
BMP MATERIALS DISTRIBUTED	YES	[]	NO [ ]
COMMENTS:			

# FORM IDDE-C

REINSPECTION REQUIRED? YES [] NO []

-

ATTACH PHOTOS IF NECESSARY.

DATE:	LOCATION:			
INSPECTOR:	NEAREST STORM DRAIN(s):			
Does facility manage/dis	pose of hazardous waste?			
How does facility respon	d to spills?			
Is used oil labeled?		Y[]	N[]	N/A [ ]
Is used oil storage leak fi	ree?	Y[]	N[]	N/A[]
How does facility dispose	e of used oil?			
ls used antifreeze onsite	and labeled?	Y[]	N[]	N/A[]
Does the facility generat	e any antifreeze that is hazardous waste?	Y[]	N[]	N/A [ ]
Does the facility protect	used batteries from storm water contact?	Y[]	N[]	N/A[]
Are used batteries dispo	sed of properly?	Y[]	N[]	N/A[]
How does facility dispos	e of used tires?			
Does the facility apply po	esticides according to label directions?	Y[]	N[]	N/A[]
Does the facility inspect	for leaks on a regular basis?	Y[]	N[]	N/A[]
Are materials stored out	side prevented from contact with storm water?	Y[]	N[]	N/A[]
Can the facility identify t	he destination of its wastewater?	Υ[]	N[]	N/A[]
Can spilled material read	h waters in the City?	Y[]	N[]	N/A[]
How does the facility dis	pose of spent solvents?			
How does the facility ma	anage used paints and paint waste?			
How does the facility ma	anage the sludge generated from an oil/water sepa	rator?	-	

REINSPECTION REQUIRED? YES [] NO []

ATTACH PHOTOS IF NECESSARY.

DATE:	LOCATION:			
INSPECTOR: NEAI	REST STORM DRAIN(s):			
Does facility manage/dispose of hazard	ous waste?			
How does facility respond to spills?				
Does the facility protect cleaners from s	torm water contact?	Y[]	N[]	N/A[]
Does the facility apply chemicals accord	ing to label directions?	Y[]	N[]	N/A []
Does the facility inspect for leaks on a r	egular basis?	Y[]	N[]	N/A [ ]
Are materials stored outside prevented	from contact with storm water?	Y[]	N[]	N/A []
Can the facility identify the destination	of its wastewater?	Y [ ]	N[]	N/A [ ]
Can spilled material reach waters in the	City?	Y[]	N[]	N/A []
How does the facility dispose of spent s	olvents?			
How does the facility manage the sludg	e generated from the drains?			
How often does the facility manage the	sludge generated from the drains?			
BMP MATERIALS DISTRIBUTED		YES [ ]		NO[]
COMMENTS:				

FORM IDDE-E

REINSPECTION REQUIRED? YES [] NO [] ATTACH PHOTOS IF NECESSARY.

,

# **Automotive Shops**

AA Muffler Shop	109 S. Lamine
Arnolds Auto Body	107 S. Prospect Ave.
Auto Tech Services	520 W. Main St.
Automaster-Kmart	1205 Douglas Lane
Avalon Auto Sales	908 Ruth Ann Dr.
B&B Transmission	1001 W. Main St.
Baker Jerry Auto Sales	600 Industrial Dr.
Bergmans Small Engine Repair	614 E. Booneville
Bill Greer Motors	321 W. Main St.
Bob's Auto Shack	315 E. Main St.
Bryant Motors	2901 S. Limit
Car Corral	2120 E. Broadway Blvd.
Carlos Auto Repair	601 W. Pettis
Carr Farm Diesel & Auto Repair	719 W. Main St.
Cartillac Bikes	639 E. 5th St.
Comfort Auto Sales	108 W. 16th St.
D C Battery	210 E. 3rd St.
Firestone Complete Auto Care	3128 W. Broadway Blvd.
First Choice Auto Company	2934 Clinton Rd.
Foley Equipment Co.	1040 Sedalia Rd.
Force Automotive, LLC.	1901 W. Main St.
Glen's VW Repair	1213 S. Marshall
Greg's Auto Sales	632 E. Broadway Blvd.
Holman Auto	1112 E. 3rd St.
Holman Auto	1102 E. 3rd St.
Independent Cycle and Small Engine	1113 S. Marshall Ave.
Jiffy Lube	2801 W. Broadway Blvd.
Jim's Express Tire and Auto	200 Winchester Dr.
Katy Motors	4343 S. Limit Ave.
Klein's Saw Shop & Sm Mtr	1602 S. Harrison St.
Kust M Thunder	218 W. Main St.
Martinez Body Shop	101 S. Washington
McCarthey Toyota Of Sedalia	3110 W. Broadway Blvd.
McKinney Auto Service	2701 E. Broadway Blvd.
Mid-America Truck Service	601 N. Park St.
Mid-Mo Auto Sales	3403 S. Limit Ave.
M P S Auto Sales	712 W. Main St.
Ollison Used Car Sales	2809 E. 12th St.
Otten Small Engine	2617 E. Broadway Blvd.
Paint-Ko	610 S. Hancock Ave.

520 W. Main St.
4207 S. Limit Ave.
501 N. Park St.
2600 W. Broadway Blvd.
2505 W. Broadway Blvd.
1615 E. Broadway Blvd.
3913 S. Limit Ave.
2101 S. Limit Ave.
420 S. Osage
3110 E. 12th St.
1704 W. 32nd. St.
620 W. Main St.
110 W. 17th St.
1511 S. Limit Ave.
1705 S. Osage Ave.
3101 S. Clinton Rd.
3310 W. Broadway Blvd.
202 Industrial Dr.
1201 E. Broadway
702 SW. 8th St.
4004 S. Limit
3117 S. Limit Ave.
3102 Erika Rd.
3600 S. Limit Ave.
702 W. Main St.

# Car Washes

10th & Thompson Car Wash	3110 W. 10th St.
Broadway Car Wash	2604 E. Broadway Blvd.
Hurricane Bay Car Wash	850 Winchester Dr.
Plaza Car Wash	300 E. 16th St.
Rub-A-Dub, LLC.	810 E. Broadway Blvd.
Rush Hour 9 Car Wash	1320 S. Limit Ave.
South 65 Car Wash, LLc.	3100 Clinton Rd.
Super Wash, LLC.	2119 W. Broadway Blvd.
Valley View	600 S. Limit Ave.

### Restaurants

Applebee's Neighborhood Grill	3320 W. Broadway Blvd.
Arby's	2701 W. Broadway Blvd.
Asia Hibachi Inc.	1975 W. Broadway Blvd.
Asian Buffet	3406 W. Broadway Blvd.
Bandana's Bar-B-Q	2909 W. Broadway Blvd.
Bar-B-Q Pit Stop	1022 Thompson Blvd.
Best Western	3120 S. Limit Ave.
Brick Front Grill, LLC.	3007 W. Broadway Blvd.
Burger King	1101 S. Limit Ave.
Casey's General Store	716 W. 16th St.
Casey's General Store	1601 E. Broadway Blvd.
Casey's General Store	3101 Clinton Rd.
Casey's General Store	3050 S. Limit Ave.
Coach's Sports Bar	303 S. Lamine St.
Coltons Steak House	4101 W. Broadway Blvd.
Country Kitchen	2001 S. Limit Ave.
Dairy Queen Grill & Chill	1811 S. Limit Ave.
Denny's #7505	2401 W. Broadway Blvd.
Domino's	3200 S. Limit Ave.
East Street Bar	1201 E. 3rd St.
El Espolon	2400 S. Limit Ave.
El Mercadito	812 W. 16th St.
El Tapatio Restaurant	1705 W. Broadway Blvd.
El Tapatio Restaurant	3000 S. Limit Ave.
End Zone Sports Bar & Grill	3129 W. Broadway Blvd.
Fitters 5th Street Pub, Inc.	500 S. Ohio Ave Suite 100
Fortune Palace	3005 S. Limit Ave.
Freddy's Frozen Custard and Steakburgers	3171 W. Broadway Blvd.
Golden Corral	2004 W. Broadway Blvd.
Goody's	901 S. Limit Ave.
Hardee's #1500326	715 E. Broadway Blvd.
Hardee's #1500379	1400 S. Limit Ave.
lvory Grille, LLC.	317 S. Ohio Ave.
Jimmy John's	2923 W. Broadway Blvd.
Kehde's Bar-B-Q	1915 S. Limit Ave.
KFC	1513 S. Limit Ave.
Korner Lounge	1604 S. Ohio Ave.
La Esperanza	1102 E. 3rd St.
LeMaire's Cajun Catfish	3500 W. Broadway Blvd.

Little Big Horn	1629 W. Main St
Little Ceasers Pizza	2933 W. Broadway Blyd
Long John Silver's	
	1612 S. Limit Ave.
Ma Danald's	2101 W. Broodway Plud
Ma Danaldla	
	1611 S. Limit Ave.
	2402 W. Broadway Bivd.
Morelos Taqueria Bakery	125 E. 16th St.
Mr. Goodcents	3400 W. Broadway Blvd. Suite B
Panera Bread, Inc.	3175 W. Broadway Blvd.
Papa Jake Donut Shop #2	1200 W. 16th St.
Papa John's #3615	2915 W. Broadway Blvd.
Papa Murphy's	3040 W. Broadway Blvd. Suite 350
Perkins	1100 S. Limit Ave.
Pizza Hut	1425 S. Limit Ave.
Smallcakes	3040 W. Broadway Blvd. Suite 390
Sonic	300 W. Broadway Blvd.
Sonic	2800 S. Limit Ave.
Starbucks	3040 W. Broadway Blvd. Suite 100
State Fair Community College	3201 W. 16th St.
Steak 'n Shake	4203 Wisconsin Ave.
Subway	100 W. Broadway Blvd.
Subway	3040 W. Broadway Blvd.
Subway	2750 S. Limit Ave.
Subway	3808 S. Limit Ave.
Taco Bell	820 S. Limit Ave.
Tacos El Charro	2121 W. Broadway Blvd.
Wal-Mart Deli	3201 W. Broadway Blvd.
Wendy's	1301 S. Limit Ave.
Woods Deli	701 E. Broadway Blvd.
Woods Supermarket Deli (Bings)	1400 S. Limit Ave. Suite 3
Yummy's Donut	209 E. Broadway Blvd.

# Appendix G

# **1. Spill Prevention and Response Plan**





# City of Sedalia 200 S. Osage Sedalia, MO 65301 (660)827-3000 www.cityofsedalia.com

# **CITY OF SEDALIA**

# SPILL PREVENTION AND RESPONSE PLAN

Airport, Animal Shelter, Facilities Maintenance, Cemetery, Parks & Recreation, Public Works Complex, Vehicle Maintenance, Water Treatment Plant/Water Division, Central Wastewater Treatment Plant and Laboratory, North Wastewater Treatment Plant, Southeast Wastewater Treatment Plant and Compost Facility

Updated February, 2021

#### TABLE OF CONTENTS

I	ntroduction		104
I	Management	Approval	104
\$	SpillPlanEle	m e n t s	105
	1.	Responsible Personnel	105
	2.	Spill Reporting	106
	3.	Project And Site Information	106
	4.	Potential Spill Sources	109
	5.	Pre-Existing Contamination	121
	6.	Spill Prevention And Response Training	121
	7.	Spill Prevention	121
	8.	Spill Response	123
	9.	Project Site Maps	124
	10.	Spill Report Form(S)	124

# TABLES AND FIGURES

Spill Plan Contacts	
Nearby Waterways and Sensitive Areas	
Hazardous Materials Brought or Generated On-Site	109
Spill Response Kit Contents and Locations	
	Spill Plan Contacts Nearby Waterways and Sensitive Areas Hazardous Materials Brought or Generated On-Site Spill Response Kit Contents and Locations

#### **INTRODUCTION**

This Spill Prevention Plan (Spill Plan) is intended to supplement the Stormwater Pollution Prevention Plan (SWPPP) for the City of Sedalia (City). The twelve (12) Public Works facilities that discharge to the City's MS4; are the Airport, Animal Shelter, Facilities Maintenance, Cemetery, Parks & Recreation, Public Works Complex, Vehicle Maintenance, Water Plant/Water Division, Central Wastewater Treatment Plant (CWWTP), North Wastewater Treatment Plant (NWWTP), Southeast Wastewater Treatment Plant (SEWWTP) and the Compost Facility. These sites are included in this Spill Plan since activities at these sites can be categorized as heavy equipment maintenance or storage yards and/or operational facilities. These facilities are described in the SWPPP and will be discussed in detail in the subsequent sections of this Spill Plan.

The Airport, Animal Shelter, Facilities Maintenance, Cemetery, Parks, Public Works Complex, Vehicle Maintenance, Water Treatment Plant/Water Division, CWWTP, NWWTP, SEWWTP and the Compost Facility described in this Spill Plan are under the primary responsibility of the City. The City has developed this Spill Plan to protect human health and the environment from spills and releases of "hazardous materials", including dangerous waste, problem waste, petroleum products and hazardous substances in accordance with the SWPPP for the City's facilities and NPDES requirements.

The City requires that the strongest emphasis be placed on hazardous material spill prevention. All known and reasonable best management practices and safety procedures must be used at all times on all City sites and projects when dealing with hazardous materials. An updated copy of this Spill Plan must be maintained at the sites at all times. The plan must be updated when sites change in design or operation cause the content of the Spill Plan to be inconsistent or conflicting with actual site conditions and practices.

All City employees and contractors must be trained in spill prevention and containment. Employees will know where the Spill Plan and spill response kits are located and will have immediate access to them.

#### MANAGEMENT APPROVAL

This Spill Plan is supported by management with the authority to commit the necessary resources including manpower, equipment and materials to expeditiously controlling and removing any harmful quantity of oil or hazardous substances released to the water or land of the State of Missouri.

#### SPILL PLAN ELEMENTS

#### 1. Responsible Personnel

The City Stormwater and Pretreatment Coordinator is the primary person in charge of updating the Spill Plan in conjunction with the site specific facility superintendent. The Superintendent is the primary person in charge of coordinating spill prevention and response at each site. Responsible personnel and contact information are presented in Table 1 below.

Responsibility	Name and Title	Phone Number			
Airport					
Primary Spill Plan Contact	Office: 660-851-7650 Cell: 573-619-7977				
Secondary Spill Plan Contact	Brandon Cooke Airport Attendant	Office: 660-826-4128			
Animal Shelter					
Primary Spill Plan Contact	Randi Battson Animal Control Manager	Office: 660-826-5816 Cell: 660-620-0169			
Secondary Spill Plan Contact	Troy Schneider Animal Control Officer	Office: 660-620-1077			
Building Maintenance					
Primary Spill Plan Contact	Doug Roberts Building Maintenance Superintendent	Office: 660-826-9174 Cell: 660-221-8822			
Secondary Spill Plan Contact	Daniel Frazier Crew Supervisor	Office: 660-826-9174 Cell: 660-619-6020			
Cemetery					
Primary Spill Plan Contact	Roger Waters Cemetery Director	Office: 660-826-1562 Cell: 660-620-1936			
Secondary Spill Plan Contact	Mike Holman Crew Supervisor	Office: 660-826-1562 Cell: 660-619-3649			
Parks					
Primary Spill Plan Contact	Matt Harris Project Manager	Office: 660-826-4932 Cell: 660-723-2602			
Secondary Spill Plan Contact	Jeff Coleman Park Superintendent	Office: 660-826-4932 Cell: 660-441-5565			
Public Works Complex					
Primary Spill Plan Contact	Justin Bray Operations Manager	Office: 660-827-7820 Cell: 660-620-5527			
Secondary Spill Plan Contact	Dave Gerken WPC Supervisor	Office: 660-827-7830 Cell: 660-221-8824			
Vehicle Maintenance					
Primary Spill Plan Contact	Scott Spurr Lead Mechanic	Office:660-827-3000x1170 Cell: 660-619-2361			
Secondary Spill Plan Contact	Justin Bray Operations Manager	Office:660-827-7820 Cell: 660-620-5527			
Water Treatment Plant / Water Department Shop					
Primary Spill Plan Contact	Dave Murray Water Department Supervisor	Office: 660-826-1236 Cell: 660-460-0118			

Table 1:Spill Plan Contacts

Secondary Spill Dian Contact	William Bracken	Office: 660-826-1236		
Secondary Spill Plan Contact	Water Plant Chief Operator	Cell: 660-596-5719		
Central Wastewater Treatment	Plant			
Brimany Spill Plan Contact	Allen Stoeckel	Office: 660-826-4545		
Finally Spin Fian Contact	Plant Supervisor	Cell: 928-279-3919		
Socondary Spill Plan Contact	Bob Summers	Office: 660-827-7830		
Secondary Spin Flan Contact	WPC Superintendent	Cell: 660-619-0659		
North Wastewater Treatment P	lant			
Brimany Spill Plan Contact	Allen Stoeckel	Office: 660-826-4545		
	Plant Supervisor	Cell: 928-279-3919		
Socondary Spill Plan Contact	Bob Summers	Office: 660-827-7830		
Secondary Spin Flan Contact	WPC Superintendent	Cell: 660-619-0659		
Southeast Wastewater Treatme	nt Plant			
Primary Spill Plan Contact	Allen Stoeckel	Office: 660-826-4545		
Frinary Spin Fian Contact	Plant Supervisor	Cell: 928-279-3919		
Secondary Spill Plan Contact	Bob Summers	Office: 660-827-7830		
Secondary Spin Flan Contact	WPC Superintendent	Cell: 660-619-0659		
Compost Facility				
Primary Spill Plan Contact	Dennis Arnold	Cell: 660-221-4341		
	Compost Operator	CCII. 000 221 4041		
Secondary Spill Plan Contact	Dave Gerken	Office: 660-827-7830		
	WPC Supervisor	Cell: 660-221-8824		

# 2. Spill Reporting

All spills or encounters with hazardous materials are to be reported to the Site Superintendent, the Pretreatment and Stormwater Coordinator and the Public Works Director which are the primary staff in charge of spill prevention and response for the City. Once the spill has been reported internally, external agency notifications must be made by the designated person, if applicable. A significant spill or leak is defined as either greater than five gallons or in excess of the chemical's reportable quantity that enters a storm drain or receiving water or contaminates soil and/or surface water.

# 3. Project and Site Information

Project and Site information for the 12 City of Sedalia Facilities is presented below and in Table 2:

- A. The Airport is located at 1900 E. Boonville Road in Sedalia, Missouri. The 545 acre parcel includes the Airport Terminal, 16 maintenance hangers and 2 fueling stations. The primary use is landing/takeoff of planes, refueling and maintenance. See Appendix A-1 and A-2 for a vicinity map and Appendix A-3 for site plan and features.
- B. The Animal Shelter is located at 2420 S. New York Avenue in Sedalia, Missouri. The 4 acre parcel includes the animal shelter building and an outside area to exercise dogs. The primary use is to find forever homes for animals. See SWPPP Appendix A-1 and A-2 for a vicinity map and SWPPP Appendix A-4 for site plan and features.
- C. The Facilities Maintenance Shop is located at 3000 W. Main Street #100 in Sedalia, Missouri. The 0.5 acre parcel includes the Facilities Maintenance Shop and a garage for storage. The primary uses of

the shop include storage and maintenance of City facility repair and maintenance supplies. See SWPPP Appendix A-1 and A-2 for a vicinity map and SWPPP Appendix A-5 for site plan and features.

- D. The Cemetery burial area is located at 701 N. Engineer, Sedalia, Missouri and includes 69.2 acres. The grounds keeping facilities are located at 108 E. Tower Road and 110 E. Tower Road, Sedalia, Missouri and includes 0.76 acres. The primary uses are internment of persons and perpetual care of grounds. See SWPPP Appendix A-1 and A-2 for a vicinity map and SWPPP Appendix A-6 for site plan and features.
- E. The City of Sedalia Parks & Recreations Department has facilities located throughout the city. Centennial Park is located at 1400 E. 16<sup>th</sup> Street and includes 38.7 acres and Centennial Park Pool has an 11,900 square foot surface water area. Clover Dell Park is at 5257 32<sup>nd</sup> Street and is 178.7 acres. Housel Park is at 109 E. Howard Street and is 2.03 acres. Hubbard Park is at 701 N. Missouri Avenue and is 24.9 acres. KATY Park is at 2200 S. Grand Avenue and is 16 acres. Liberty Park is at 1200 W. 3<sup>rd</sup> Street and is 41.1 acres with Liberty Park Pool having a 12,000 square foot water surface area. Vermont Park is at 1200 S. Vermont Avenue and is 5.2 acres. The primary uses for the parks are recreational. See SWPPP Appendix A-1 and A-2 for a vicinity map and SWPPP Appendix A-7 to A-13 for site each parks plans and features.
- F. The Public Works Complex is located at 901 E. 3<sup>rd</sup> Street in Sedalia, Missouri. The 1.19 acre parcel includes the Streets Building, Sanitation Building, lower barn, salt barn, Water Pollution Control building, parking for equipment and utility trailers as well as a fueling station. The fueling station is used for fueling city vehicles. The primary uses of equipment are for maintenance of roads, city grounds keeping, sanitation pickup and sewer maintenance and repair. See SWPPP Appendix A-1 and A-2 for a vicinity map and SWPPP Appendix A-14 for site plan and features.
- G. Vehicle Maintenance Shop, 200 S. Kentucky Avenue Sedalia, Missouri and includes 0.65 acres. The primary use of the Maintenance Shop includes maintenance and repair of City of Sedalia vehicles and equipment. See SWPPP Appendix A-1 and A-2 for a vicinity map and SWPPP Appendix A-15 for site plan and features.
- H. Water Treatment Plant/Water Division is located at 28200 Water Works Road Sedalia, Missouri and includes 66.4 acres. The primary uses include treating public drinking water for the City and maintaining the water lines carrying the water. Water facilities include the Main Street Water Town, 16<sup>th</sup> Street Hydropillar and Waterloo Storage Tank. See SWPPP Appendix A-1 and A-2 for a vicinity map and SWPPP Appendix A-16 for site plan and features.
- I. CWWTP at 3000 W. Main Street Sedalia, Missouri and includes 27 acres. The primary use is to treat the wastewater from the central portion of the City. See SWPPP Appendix A-1 and A-2 for a vicinity map and SWPPP Appendix A-17 for site plan and features.
- J. NWWTP at 23985 Georgetown Road Sedalia, Missouri and includes 5 acres. The primary use is to treat wastewater from the north and north-east portion of the City. See SWPPP Appendix A-1 and A-2 for a vicinity map and SWPPP Appendix A-18 for site plan and features.
- K. SEWWTP at 26999 Goodwill Chapel Road Sedalia, Missouri and includes 14 acres. The primary use is to treat residential wastewater from the southwest and southern portion of the City. See SWPPP Appendix A-1 and A-2 for a vicinity map and SWPPP Appendix A-19 for site plan and features.
- L. Compost Facility at 27882 Hwy U Sedalia, Missouri and includes 77.6 acres. The primary use is to

create Class A Compost from wood chips and the sludge from the wastewater treatment plants. See SWPPP Appendix A-1 and A-2 for a vicinity map and SWPPP Appendix A-20 for site plan and features.

Waterway or Sensitive Area	Distance From Site	Direction of Flow from the Site	Runoff Drainage Pathway	
Airport		·		
Shaver Creek	1,867 feet	Down gradient to the east	Overland flow, roadside ditches, and catch- basin/pipe conveyance	
Shaver Creek	1,667 feet	Down gradient to the east	Overland flow, roadside ditches, and catch- basin/pipe conveyance	
Animal Shelter				
Flat Creek	587 feet	Down gradient to the east	Overland flow, catch-basin/pipe conveyance	
Building Maintenance				
Brushy Creek	811 feet	Down gradient to the north	Overland flow, catch-basin/pipe conveyance, channel	
Cemetery				
Pearl River	1,134 feet	Down gradient to the west	Overland flow, catch-basin/pipe conveyance, channel	
Parks				
Centennial Park/Pool – Flat Creek	1,745 feet	Down gradient to the south west	Overland flow, catch-basin/pipe conveyance, channel	
Clover Dell Park – Muddy Creek	1,868 feet	Down gradient to the south west	Overland flow, catch-basin/pipe conveyance, channel	
Housel Park – Muddy Creek	1,077 feet	Down gradient to the north west	Overland flow, catch-basin/pipe conveyance, channel	
Hubbard Park – Pearl River	405 feet	Down gradient to the north	Overland flow, catch-basin/pipe conveyance, channel	
KATY Park – Flat Creek	3,319 feet	Down gradient to the south east	Overland flow, catch-basin/pipe conveyance, channel	
Liberty Park/Pool – Muddy Creek	2,527 feet	Down gradient to the north west	Overland flow, catch-basin/pipe conveyance, channel	
Vermont Park – Muddy Creek	220 feet	Down gradient to the west	Overland flow, catch-basin/pipe conveyance, channel	
Public Works Complex				
Flat Creek	4,870 feet	Down gradient to the south east	Overland flow, catch-basin/pipe conveyance, channel	
Vehicle Maintenance		1		
Pearl River	5,681 feet	Down gradient to the north west	Overland flow, catch-basin/pipe conveyance, channel	
Water Treatment Plant / Water Department Shop				
Flat Creek	1,060 feet	Down gradient to the south east	Overland flow, catch-basin/pipe conveyance, channel	
CWWTP				
Brushy Creek	21 feet	Down gradient to the north	Pipe conveyance, channel	
NWWTP				

Table 2:Nearby Waterways and Sensitive Areas

Pearl River	42 feet	Down gradient to the north	Pipe conveyance, channel	
SEWWTP				
Breakfast Branch	68 feet	Down gradient to the east	Pipe conveyance, channel	
Compost				
Pumped to SEWWTP		Pump Station	Overland flow, catch-basin	

# 4. Potential Spill Sources

A description of each potentially hazardous material brought or generated on-site (including materials used for equipment operation, refueling, maintenance or cleaning) is found in Table 3.

Material	Intended Use	Max Amount On-Site	Storage/Staging Location	Secondary Containment Method	
Airport					
Jet Fuel	Fuel Aircraft	10,800 gallons	10,800 gallon above ground tank	Concrete containment	
AvGas	Fuel Aircraft	10,800 gallons	10,800 gallon above ground tank	Concrete containment	
AvGas	Fuel Aircraft	1,000 gallons	1,000 gallon above ground tank	Concrete containment	
Jet Fuel	Fuel Aircraft	2,200 gallons	Jet Refueling Truck	Secondary Containment Method	
AvGas	Fuel Aircraft	700 gallons	AvGas Refueling Truck	Secondary Containment Method	
Unleaded Gas	Fuel vehicles	500 gallons	Vehicle Refueling Truck	Secondary Containment Method	
Diesel Fuel	Fuel vehicles	500 gallons	Vehicle Refueling Truck	Secondary Containment Method	
Aviation Oil	For resale	125 gallons	Storage Shed at East end of T Hangers	Secondary Containment Method	
Aviation Oil	For resale	12.5 gallons	Behind Front Counter	Secondary Containment Method	
Waste Oil	Recycle	55 gallon drum	Fuel Barn	Secondary Containment Method	
Motor Oil	Vehicles	6 gallons	Fuel Barn	Secondary Containment Method	
Hydraulic Oil	Mowing Equipment	5 gallons	Fuel Barn	Secondary Containment Method	
Transmission Fluid	Mowing Equipment	0.25 gallons	Fuel Barn	Secondary Containment Method	
Anti-Freeze	Mowing Equipment	1 gallon	Fuel Barn	Secondary Containment Method	
RM 43 Vegetation Control	Vegetation Control	2.5 gallons	Fuel Barn	Secondary Containment Method	
Animal Shelter					
Pet Friendly Ice Melt	Ice Control	30 pounds	Storage Room	Brooms	
Liquid Fire	Drain Cleaner	1.5 gallons	Storage Room	Floor Dry	
Facilities Maintenance					
Latex Paint	Covering	50 gallons	Paint Storage Room	Floor Dry	
Oil based Paint	Covering	25 gallons	Paint Storage Room	Floor Dry	
Paint Thinner	Remove overspray of paint	2 gallons	Paint Storage Room	Floor Dry	
Spray Paint	Covering	2.3 gallons	Paint Storage Room	Floor Dry	

# Table 3: Hazardous Materials Brought or Generated On-Site

Wood Stain	Wood	1.25 gallons	Paint Storage Room	Floor Dry
	Wood			
Polyurethane	Enhancement Sealer	0.75 gallons	Paint Storage Room	Floor Dry
Asphalt Roof Coating	Roof Sealant	10 gallons	Paint Storage Room	Floor Dry
Silicone Caulk	Gap Sealant	2.3 gallons	Paint Storage Room	Floor Dry
Construction Adhesive	Gap Sealant	1.9 gallons	Paint Storage Room	Floor Dry
Marc 55 Heavy Duty Drain Cleaner	Drain Opener	3 gallons	Rear Storage Room	Floor Dry
Marc 277 Uronic Salt Remover	Drain Descale	3 gallons	Rear Storage Room	Floor Dry
Spray Lubricant	Lubricate	1.2 gallons	Rear Storage Room	Floor Dry
Gasoline	Tools/Generator	10 gallons	Exterior Fuel Storage Cabinet	Floor Dry
Diesel Fuel	Tools/Generator	5 gallons	Exterior Fuel Storage Cabinet	Floor Dry
2 Cycle Motor Oil	Tools/Generator	0.5 gallons	Exterior Fuel Storage Cabinet	Floor Dry
Fuel Stabilizer	Tools/Generator	0.5 gallons	Exterior Fuel Storage Cabinet	Floor Dry
Cemetery				
Carb and Choke Cleaner	Vehicle Maintenance	0.09 gallons	Shop Area	Oil Dry
Chain Lube	Tools	0.09 gallons	Shop Area	Oil Dry
Heet De Icer	Moisture Control	0.09 gallons	Shop Area	Oil Dry
PVC Cement	Pipe Joint	0.03 gallons	Shop Area	Oil Dry
PVC Cleaner	Pipe Joint	0.03 gallons	Shop Area	Oil Dry
PVC Primer	Pipe Joint	0.03 gallons	Shop Area	Oil Dry
WD-40	Lubricate	0.09 gallons	Shop Area	Oil Dry
Lubricant and Penetrant	Lubricate	24 ounces	Shop Area	Oil Dry
Gasoline	Fuel Equipment	50 gallons	Shop Area	Oil Dry
41% Glyphosate Weed Killer	Vegetation Control	4 gallons	Shop Area	Oil Dry
LE 6401 Oil	Mowing Equipment	1 gallon	Shop Area	Oil Dry
LE 6402 Oil	Mowing Equipment	4 gallons	Shop Area	Oil Dry
LE 6406 Oil	Mowing Equipment	0.3 gallons	Shop Area	Oil Dry
Ready Mix Concrete	Concrete	2000 pounds	Shop Area	Oil Dry
Parks				
Centennial Park Shop				
Field Striping Paint	Field Striping	5 gallons	SW Corner of Shop	Floor Dry
2 Cycle Motor Oil	Mowing Equipment	0.8 gallons	Flammable Locker	Floor Dry
Mixed Gas	Mowing Equipment	15 gallons	Flammable Locker	Floor Dry
Gasoline	Mowing Equipment	40 gallons	Flammable Locker	Floor Dry
Diesel Fuel	Mowing Equipment	25 gallons	Flammable Locker	Floor Dry
Brake Fluid	Vehicle Maintenance	2 gallons	Flammable Locker	Floor Dry
Penetrating Oil	Tools	0.6 gallons	Flammable Locker	Floor Dry

Floor Shine	Shine Floor	10 gallons	SW Corner of Shop	Floor Dry
Silicone Caulk	Gap Sealant	1 gallon	SW Corner of Shop	Floor Dry
Anti-Freeze	Mowing Equipment	55 gallon drum	SW Corner of Shop	Floor Dry
Used Oil	Recycle	55 gallon drum	SW Corner of Shop	Floor Dry
Motor Oil	Mowing Equipment	55 gallon drum	SW Corner of Shop	Floor Dry
Rock Salt	Ice Control	30 pounds	SW Corner of Shop	Floor Dry
Centennial Park Pool				
Algaecide	Pool Stabilization	2.25 gallons	Chemical Room	Secondary Containment Method
Poly Sheen	Pool Stabilization	0.7 gallons	Chemical Room	Secondary Containment Method
Cyanuric Acid	Pool Stabilization	360 gallons	Chemical Room	Secondary Containment Method
Azone (Bleach)	Pool Stabilization	600 gallons	Chemical Room	Secondary Containment Method
Hydrochloric Acid	Pool Stabilization	300 gallons	Chemical Room	Secondary Containment Method
Chem Out	Pool Stabilization	2 pounds	Chemical Room	Secondary Containment Method
Clover Dell Park Shop				
Field Striping Paint	Field Striping	5 gallons	SW Corner of Shop	Oil Dry
2 Cycle Motor Oil	Mowing Equipment	0.8 gallons	Flammable Locker	Oil Dry
Mixed Gas	Mowing Equipment	15 gallons	Flammable Locker	Oil Dry
Gasoline	Mowing Equipment	40 gallons	Flammable Locker	Oil Dry
Diesel Fuel	Mowing Equipment	25 gallons	Flammable Locker	Oil Dry
Brake Fluid	Vehicle Maintenance	2 gallons	Flammable Locker	Oil Dry
Penetrating Oil	Tools	0.6 gallons	Flammable Locker	Oil Dry
Floor Shine	Shine Floor	10 gallons	SW Corner of Shop	Oil Dry
Silicone Caulk	Gap Sealant	1 gallon	SW Corner of Shop	Oil Dry
Anti-Freeze	Mowing Equipment	55 gallon drum	SW Corner of Shop	Oil Dry
Used Oil	Recycle	55 gallon drum	SW Corner of Shop	Oil Dry
Motor Oil	Mowing Equipment	55 gallon drum	SW Corner of Shop	Oil Dry
Rock Salt	Ice Control	30 pounds	SW Corner of Shop	Oil Dry
Liberty Park Shop				
Field Striping Paint	Field Striping	5 gallons	SW Corner of Shop	Oil Dry
2 Cycle Motor Oil	Mowing Equipment	0.8 gallons	Flammable Locker	Oil Dry
Mixed Gas	Mowing Equipment	15 gallons	Flammable Locker	Oil Dry
Gasoline	Mowing Equipment	40 gallons	Flammable Locker	Oil Dry
Diesel Fuel	Mowing Equipment	25 gallons	Flammable Locker	Oil Dry
Duralus Fluid	Vehicle	2	Flammable Lashar	O'I Day
Brake Fluid	Maintenance	2 gallons	Flammable Locker	Oil Dry
		U.6 gallons	Flammable Locker	
Floor Shine	Shine Floor	10 gallons	SW Corner of Shop	Oil Dry
	Gap Sealall		SW Corner of Shop	
Anti-Freeze	Mowing Equipment	55 gallon drum	SW Corner of Shop	
Used Oil	Recycle	55 gallon drum	SW Corner of Shop	Oil Dry
Motor Oil	Mowing Equipment	55 gallon drum	SW Corner of Shop	Oil Dry

Rock Salt	Ice Control	30 pounds	SW Corner of Shop	Oil Dry
Various Paint	Covering	50 gallons	South Side of Building	Oil Dry
Various Spray Paint	Covering	4.7 gallons	South Side of Building	Oil Dry
Liberty Park Pool				
Algaecide	Pool Stabilization	2.25 gallons	Chemical Room	Secondary Containment Method
Poly Sheen	Pool Stabilization	0.7 gallons	Chemical Room	Secondary Containment Method
Cyanuric Acid	Pool Stabilization	360 gallons	Chemical Room	Secondary Containment Method
Azone (Bleach)	Pool Stabilization	600 gallons	Chemical Room	Secondary Containment Method
Hydrochloric Acid	Pool Stabilization	300 gallons	Chemical Room	Secondary Containment Method
Chem Out	Pool Stabilization	2 pounds	Chemical Room	Secondary Containment Method
Public Works Complex				
Sea Foam	Motor Treatment	0.25 gallons	Streets Storage Room	Oil Dry
Real Seal Block	Maintenance	0.13 gallons	Streets Storage Room	Oil Dry
Lubricating Coolant	Tool Maintenance	0.6 gallons	Streets Storage Room	Oil Dry
Anti-seize Lubricant	Maintenance	0.5 gallons	Streets Storage Room	Oil Dry
Black Rubber Coating	Maintenance	0.6 gallons	Streets Storage Room	Oil Dry
Gotta Grip Anti Slip-Black	Maintenance	0.5 gallons	Streets Storage Room	Oil Dry
Gotta Grip Anti Slip-Clear	Maintenance	0.4 gallons	Streets Storage Room	Oil Dry
Contumy Battony Savor	Vehicle		Stroots Storago Boom	
	Vehicle	0.0 gallons	Streets Storage Noon	
Battery Cleaner & Protector	Maintenance	0.3 gallons	Streets Storage Room	Oil Dry
Mantek T-Shield	Tool Maintenance	0.5 gallons	Streets Storage Room	Oil Dry
Seal Anti-Corrosion	Maintenance	0.4 gallons	Streets Storage Room	Oil Dry
Fog Stop	Bug Repellant	0.1 gallons	Streets Storage Room	Oil Dry
Black Magic Dry Moly	Maintenance	0.5 gallons	Streets Storage Room	Oil Dry
Penetrating Catalyst	Maintenance	0.2 gallons	Streets Storage Room	Oil Dry
Starting Fluid	Maintenance	0.2 gallons	Streets Storage Room	Oil Dry
Chain and Cable Lube	Maintenance	0.3 gallons	Streets Storage Room	Oil Dry
Engine Degreaser	Maintenance	0.2 gallons	Streets Storage Room	Oil Dry
Hi-Temp Grease	Maintenance	2.2 gallons	Streets Storage Room	Oil Dry
Sealant	Maintenance	0.2 gallons	Streets Storage Room	Oil Dry
Adhesive	Maintenance	1.6 gallons	Streets Storage Room	Oil Dry
Extent Rust Treatment	Maintenance	1 gallon	Streets Storage Room	Oil Dry
Brake Cleaner	Maintenance	0.13 gallons	Streets Storage Room	Oil Dry
Windshield De-Icer	Vehicle Maintenance	0.18 gallons	Streets Storage Room	Oil Drv
Enamel Blend	Maintenance	0.8 gallons	Streets Storage Room	Oil Dry
Marker Paint - Green	Operation	0.3 gallons	Streets Storage Room	Oil Dry
Paint	Covering	0.2 gallons	Streets Storage Room	Oil Dry
Fuel Stabilizer	Maintenance	0.2 gallons	Streets Storage Room	Oil Dry
Anti-Freeze Extender	Maintenance	2.5 gallons	Streets Storage Room	Oil Dry
Windshield Fluid	Maintenance	55 gallon drum	Streets Storage Room	Oil Dry

Transmission Fluid	Maintenance	55 gallon drum	Streets Storage Room	Oil Dry
Hydraulic Oil	Maintenance	55 gallon drum	Streets Storage Room	Oil Dry
15W40 Engine Oil	Maintenance	55 gallon drum	Streets Storage Room	Oil Dry
Anti-Freeze - Pink	Maintenance	55 gallon drum	Streets Storage Room	Oil Dry
Anti-Freeze - Green	Maintenance	55 gallon drum	Streets Storage Room	Oil Dry
ULV Flushing Solution	Maintenance	1.5 gallons	Lower Streets Garage	Oil Dry
Altosid Briquettes	Maintenance	250 Briquettes	Lower Streets Garage	Oil Dry
Lubra-Seal	Maintenance	55 gallon drum	Lower Streets Garage	Oil Dry
Concrete Etch & Cleaner	Maintenance	6 gallons	Lower Streets Garage	Oil Dry
Concrete Remover	Maintenance	6 gallons	Lower Streets Garage	Oil Dry
Cure and Seal 1315	Maintenance	5 gallons	Lower Streets Garage	Oil Dry
Enamel Reducer	Maintenance	1 gallon	Lower Streets Garage	Oil Dry
Form Coating	Maintenance	5 gallons	Lower Streets Garage	Oil Dry
Ice Melt	Ice Control	350 pounds	Lower Streets Garage	Oil Dry
Rock Salt	Ice Control	100 pounds	Lower Streets Garage	Oil Dry
Concrete Mix	Maintenance	80 pounds	Lower Streets Garage	Oil Dry
Fly Ash	Maintenance	80 pounds	Lower Streets Garage	Oil Dry
Sand Mix	Maintenance	80 pounds	Lower Streets Garage	Oil Dry
Black Spray Enamel	Covering	0.5 gallons	Paint Shop	Oil Dry
Green Spray Enamel	Covering	0.3 gallons	Paint Shop	Oil Dry
White Spray Enamel	Covering	0.2 gallons	Paint Shop	Oil Dry
Aluminum Paint	Covering	2 gallons	Paint Shop	Oil Dry
Blue Spray Paint	Covering	1.9 gallons	Paint Shop	Oil Dry
Yellow Latex Paint	Covering	55 gallons	Paint Shop	Oil Dry
White Latex Paint	Covering	45 gallons	Paint Shop	Oil Dry
Graffiti Remover	Remover	1.4 gallons	Paint Shop	Oil Dry
Mineral Spirits	Remover	5 gallons	Paint Shop	Oil Dry
Salt Pellets	Cleaner	440 pounds	Sanitation Storage Area	Oil Dry
Soap	Cleaner	25 gallons	Sanitation Storage Area	Oil Dry
Red Grease	Maintenance	0.4 gallons	WPC Storage Area	Oil Dry
Battery Cleaner & Protector	Vehicle Maintenance	0.6 gallons	WPC Storage Area	Oil Dry
Cutting Oil	Maintenance	0.3 gallons	WPC Storage Area	Oil Dry
Carb and Choke Cleaner	Maintenance	0.3 gallons	WPC Storage Area	Oil Dry
Chain Lube	Maintenance	0.09 gallons	WPC Storage Area	Oil Dry
Spartin TNT	Drain Opener	3.5 gallons	WPC Storage Area	Oil Dry
Drain Power Sulfuric Acid	Drain Opener	2 gallons	WPC Storage Area	Oil Dry
M95 Mild Acid Cleaner	Drain Opener	2.75 gallons	WPC Storage Area	Oil Dry
Heet De Icer	Moisture Control	0.09 gallons	WPC Storage Area	Oil Dry
PVC Cement	Pipe Joint	0.09 gallons	WPC Storage Area	Oil Dry
PVC Cleaner	Pipe Joint	0.03 gallons	WPC Storage Area	Oil Dry
PVC Primer	Pipe Joint	0.03 gallons	WPC Storage Area	Oil Dry

Loctite Rust Treatment	Operation	0.09 gallons	WPC Storage Area	Oil Dry
Permatex Undercoating	Operation	0.09 gallons	WPC Storage Area	Oil Dry
Prime Xeasy	Operation	0.2 gallons	WPC Storage Area	Oil Dry
Havoc Rat Bait	Operation	50 trays	WPC Storage Area	Oil Dry
WD-40	Maintenance	0.3 gallons	WPC Storage Area	Oil Dry
Lubricant and Penetrant	Maintenance		WPC Storage Area	
	Maintenance	1.2 gallons	WPC Storage Area	
	Maintenance		WPC Storage Area	
	Maintenance	4 gallons	WPC Storage Area	Oil Dry
LE 6402 Oil	Maintenance	3 gallons	WPC Storage Area	Oil Dry
LE 6406 Oil	Maintenance	0.6 gallons	WPC Storage Area	Oil Dry
LE 703 Oil	Maintenance	1 gallon	WPC Storage Area	Oil Dry
Polymer	Operation	55 gallon drum	WPC Storage Area	Oil Dry
Quickcrete Cement	Operation	2 gallons	WPC Storage Area	Oil Dry
Patch Cement	Operation	400 pounds	WPC Storage Area	Oil Dry
Tracer Dye	Operation	5 gallons	WPC Storage Area	Oil Dry
Solvent	Operation	0.25 gallons	WPC Storage Area	Oil Dry
Vehicle Maintenance				
	Vehicle			
Hydraulic Oil	Maintenance	5 gallons	Back Table by Bulk Oils	Oil Dry
	Vehicle			0.11.5
Transmission and Drive Train Oil	Maintenance	16 gallons	Back Table by Bulk Oils	
Synthetic Transmission Fluid	Maintenance	0.25 gallons	Back Table by Bulk Oils	Oil Dry
	Vehicle			
Gear and Lube oil	Maintenance	3.75 gallons	Back Table by Bulk Oils	Oil Dry
Power Steering Fluid	Venicie Maintenance	2.4 gallons	Back Table by Bulk Oils	Oil Dry
	Vehicle			
Air Brake Freeze and Rust Guard	Maintenance	3 gallons	Back Table by Bulk Oils	Oil Dry
	Vehicle			
Battery Fluid Acid	Maintenance	2.5 gallons	Back Table by Bulk Oils	Oil Dry
15W40 Diesel engine Oil	Maintenance	1 gallon	Back Table by Bulk Oils	Oil Dry
	Vehicle		,	
Engine Oil 15W40	Maintenance	55 gallon drum	Bulk Oil Area	Oil Dry
Engine Oil 5W20	Vehicle	55 gallon drum	Bulk Oil Area	Oil Dry
	Vehicle	55 gallori al alli	Buik On Area	
Auto Transmission Fluid	Maintenance	55 gallon drum	Bulk Oil Area	Oil Dry
	Vehicle			0.115
Gear Oli 80-90	Vehicle	55 gallon drum	Buik Oli Area	
Universal Anti-Freeze Orange	Maintenance	55 gallon drum	Bulk Oil Area	Oil Dry
	Vehicle			
Anti-Freeze Green	Maintenance	55 gallon drum	Bulk Oil Area	Oil Dry
Tractor Hydraulic Fluid	Maintenance	55 gallon drum	Bulk Oil Area	Oil Drv
	Vehicle			
Windshield Washer Fluid	Maintenance	55 gallon drum	Bulk Oil Area	Oil Dry
Rubber Cleaner	Vehicle	0.5 gallons	Tire Repair Table	Oil Dry

	Maintenance			
	Vehicle			
Vulcanizing Fluid	Maintenance	0.5 gallons	Tire Repair Table	Oil Dry
	Vehicle		•	
Bead Sealer	Maintenance	0.25 gallons	Tire Repair Table	Oil Dry
	Vehicle			
Engine Degreaser	Maintenance	1.1 gallons	Cabinet Outside Office	Oil Dry
	Vehicle			
Brake Cleaner	Maintenance	1.2 gallons	Cabinet Outside Office	Oil Dry
	Vehicle			
Starting Fluid	Maintenance	1.1 gallons	Cabinet Outside Office	Oil Dry
Super Depatrant Not	Venicie	0.0 gallons	Cabinat Quitaida Offica	Oil Day
Super Perletrant Net	Vehicle		Cabillet Outside Office	Oli Diy
Chain Lube	Maintenance	0.9 gallons	Cabinet Outside Office	Oil Dry
	Vehicle	0.5 gallolis		
Penetrating Catalyst	Maintenance	0.4 gallons	Cabinet Outside Office	Oil Dry
	Vehicle			
Fuel Injector Cleaner	Maintenance	1.8 gallons	Cabinet Outside Office	Oil Dry
	Vehicle			
High Temp Gun Grease	Maintenance	0.7 gallons	Cabinet Outside Office	Oil Dry
	Vehicle			
Brake Fluid	Maintenance	2.75 gallons	Cabinet Outside Office	Oil Dry
	Vehicle			
Power Steering Fluid	Maintenance	1.5 gallons	Cabinet Outside Office	Oil Dry
Air Brako Antifranzo	Venicle	1 2E callons	Cabinat Quitaida Offica	Oil Day
All Brake Antineeze	Vehicle	1.25 galions		Oli Diy
Gas Line Antifreeze	Maintenance	0.7 gallons	Cabinet Outside Office	Oil Dry
	Vehicle	0.7 gallolis		
RTV Sealant	Maintenance	0.97 gallons	Cabinet Outside Office	Oil Dry
	Vehicle	Ŭ		
RTV Gasket Maker-Blue	Maintenance	0.6 gallons	Cabinet Outside Office	Oil Dry
	Vehicle			
Tire Sealant	Maintenance	0.4 gallons	Cabinet Outside Office	Oil Dry
	Vehicle			
418 Quick Cure	Maintenance	0.7 gallons	Cabinet Outside Office	Oil Dry
Fuel Stebilizer	Vehicle	0.25 cellere	Cabinat Quitaida Offica	
Fuel Stabilizer	Valintenance	0.25 gallons		Oli Dry
Poly 7 High Temp	Maintenance	0.4 gallons	Inside Office	Oil Dry
	Vehicle	0.4 gallolis		
RTV Gasket Maker-Black	Maintenance	0.06 gallons	Inside Office	Oil Dry
	Vehicle			
Polishing Compound	Maintenance	0.25 gallons	1st Door Paint Cabinet	Floor Dry
	Vehicle			
Plastic Roof Cement	Maintenance	1 gallon	1st Door Paint Cabinet	Floor Dry
	Vehicle			
Wood Finish	Maintenance	0.25 gallons	1st Door Paint Cabinet	Floor Dry
	Vehicle			
H.E.I. 1501 thinner	Maintenance	1 gallon	1st Door Paint Cabinet	Floor Dry
Acordia Enomal Daducar	Venicle	2 gallans	1st Door Daint Cabinat	Floor Dry
	Vehicle	z ganons		
Pren-sol Solvent	Maintenance	3 gallons	1st Door Paint Cabinet	Floor Dry
	Vehicle	5 6010113		
Mid Temp Reducer	Maintenance	1 gallon	1st Door Paint Cabinet	Floor Dry

	Vehicle			
Automotive Hi Glow	Maintenance	3 gallons	1st Door Paint Cabinet	Floor Dry
	Vehicle	0		,
Platinum Gray	Maintenance	1 gallon	1st Door Paint Cabinet	Floor Dry
,	Vehicle	<u> </u>		,
Hi gloss Medium Reducer	Maintenance	1 gallon	1st Door Paint Cabinet	Floor Dry
	Vehicle			,
Paint Thinner	Maintenance	1 gallon	1st Door Paint Cabinet	Floor Dry
	Vehicle	0		,
Lacquer	Maintenance	1 gallon	1st Door Paint Cabinet	Floor Dry
	Vehicle			,
Mid Temp	Maintenance	1 gallon	1st Door Paint Cabinet	Floor Dry
	Vehicle			
4 Exterior Coating	Maintenance	2 gallons	2nd Door Paint Cabinet	Floor Dry
	Vehicle			
Acrylic Point	Maintenance	3 gallons	2nd Door Paint Cabinet	Floor Dry
	Vehicle			
W958 Pure White	Maintenance	3 gallons	2nd Door Paint Cabinet	Floor Dry
	Vehicle			
D9400 Black	Maintenance	4 gallons	2nd Door Paint Cabinet	Floor Dry
	Vehicle			
Yellow	Maintenance	2 gallons	2nd Door Paint Cabinet	Floor Dry
	Vehicle			
Rust Kill	Maintenance	3 gallons	2nd Door Paint Cabinet	Floor Dry
	Vehicle			
Industrial Enamel	Maintenance	3 gallons	2nd Door Paint Cabinet	Floor Dry
	Vehicle			
Free of Lead 3-1492	Maintenance	3 gallons	2nd Door Paint Cabinet	Floor Dry
	Vehicle			
Automotive W499	Maintenance	9 gallons	2nd Door Paint Cabinet	Floor Dry
	Vehicle			
Rust Kill - Black	Maintenance	2 gallons	2nd Door Paint Cabinet	Floor Dry
	Vehicle			
Chemical Coating	Maintenance	5 gallons	2nd Door Paint Cabinet	Floor Dry
	Vehicle			
Catolyat Hardener	Maintenance	0.1 gallons	3rd Door Paint Cabinet	Floor Dry
	Vehicle			
Urethane Hardener	Maintenance	0.06 gallons	3rd Door Paint Cabinet	Floor Dry
	Vehicle			
2k Activator	Maintenance	1.5 gallons	3rd Door Paint Cabinet	Floor Dry
Class Kata	Venicle		and Deen Deint Cabinet	Flags Dr.
Clear Kote	Maintenance	0.25 gallons	3rd Door Paint Cabinet	FIGOR Dry
Deducer	Venicie	0.1 collons	2rd Door Doint Cohinat	
Reducer	Vahiele	0.1 galions		FIGOLDTY
Pace Marker	Maintonanco	0.2E gallons	ard Door Baint Cabinat	Floor Dry
Base Marker	Vohiclo	0.25 galiolis		
Centori	Maintenanco	2 gallons	3rd Door Paint Cabinat	Floor Dry
	Vehicle			
Five Star	Maintenance	0.25 gallons	3rd Door Paint Cabinet	Floor Dry
	Vehicle	0.20 guil0113		
No 1 Blue	Maintenance	0.1 gallons	3rd Door Paint Cabinet	Floor Dry
	Vehicle	512 2010113		
Lacquer	Maintenance	0.1 gallons	3rd Door Paint Cabinet	Floor Dry
	Vehicle			
Acrylic Enamel	Maintenance	0.7 gallons	3rd Door Paint Cabinet	Floor Dry
, Current Enement	Vehiele		and Deer Point Coldinat	, Flacer Day
Super Enamel	venicie	U.7 galions	3rd Door Paint Cabinet	Floor Dry

	Maintenance			
	Vehicle			
Spray Paint	Maintenance	0.2 gallons	3rd Door Paint Cabinet	Floor Dry
	Vehicle			
Sand able Primer	Maintenance	0.09 gallons	3rd Door Paint Cabinet	Floor Dry
Engine Enamel	Maintenance	0.2 gallons	3rd Door Paint Cabinet	Floor Dry
	Vehicle	0.2 ganons		
Stripe Marker	Maintenance	0.4 gallons	3rd Door Paint Cabinet	Floor Dry
	Vehicle			
Tractor Spay Enamel	Maintenance	0.3 gallons	3rd Door Paint Cabinet	Floor Dry
Gold No-455	Maintenance	0.3 gallons	3rd Door Paint Cabinet	Floor Dry
	Vehicle			
Fiberglass Resin	Maintenance	1 gallon	3rd Door Paint Cabinet	Floor Dry
	Vehicle	7.25	Jud Dava Baist Oskinst	Flags Day
Undercoating No729	Vehicle	7.25 pounds	3rd Door Paint Cabinet	Floor Dry
Everglass	Maintenance	12 pounds	3rd Door Paint Cabinet	Floor Dry
	Vehicle			
Z Grip	Maintenance	8 gallons	3rd Door Paint Cabinet	Floor Dry
Pust Convertor	Vehicle	2 gallons	2rd Door Paint Cabinot	Floor Dry
Water Treatment Plant / Water	nivision Shon	5 galions	Sid Door Faint Cabinet	Those Dry
Sodium Hypochlorito 12 5%	Water Treatment	2 250 gallons	Chamical Room	Secondary Containment Method
				Secondary Containment Method
Ammonium Hydroxide 19%	water Treatment	500 gallons	Chemical Room	Secondary Containment Method
Copper Sulfate	Water Treatment	1,500 pounds	Chemical Room	Secondary Containment Method
Hydroflusilicic Acid	Water Treatment	110 gallons	Chemical Room	Secondary Containment Method
Sodium permanganate 20%	Water Treatment	110 gallons	Chemical Room	Secondary Containment Method
Boiler Treatment	Water Treatment	3 gallons	Chemical Room	Secondary Containment Method
McFall #130	Water Treatment	3 gallons	Chemical Room	Secondary Containment Method
Alconox Detergent	Water Treatment	1.1 pounds	Chemical Room	Secondary Containment Method
Hardness Reagent	Water Treatment	0.7 pounds	Lab	Chemical Clean up Kits
Hexa Ver Titrant	Water Treatment	0.1 gallons	Lab	Chemical Clean up Kits
Total cl2 Indicator Cl17	Water Treatment	1.4 pounds	Lab	Chemical Clean up Kits
Total Cl2 Buffer Cl17	Water Treatment	1.4 pounds	Lab	Chemical Clean up Kits
DPD For Cl17	Water Treatment	0.6 pounds	Lab	Chemical Clean up Kits
DPD Free Reagent	Water Treatment	12 dispensers	Lab	Chemical Clean up Kits
DPD Total Reagent	Water Treatment	12 dispensers	Lab	Chemical Clean up Kits
FerroVer Fe Reagent	Water Treatment	0.2 pounds	Lab	Chemical Clean up Kits
Sulfuric acid 19.2N	Water Treatment	0.5 gallons	Lab	Chemical Clean up Kits
Sulfuric acid 1.00N	Water Treatment	0.4 gallons	Lab	Chemical Clean up Kits
Hydrochloric acid 0.10N	Water Treatment	0.007 gallons	Lab	Chemical Clean up Kits
Hydrochloric acid Solution 1:1	Water Treatment	25 gallons	Lab	Chemical Clean up Kits
SPADNS2 Ampules	Water Treatment	25 ampules	Lab	Chemical Clean up Kits
CA610 Std 1 0.5mg/l as F	Water Treatment	0.2 gallons	Lab	Chemical Clean up Kits
CA610 Std 2 5.0mg/l as F	Water Treatment	0.2 gallons	Lab	Chemical Clean up Kits

Fluoride Standard Solution 1.00mg/L as FWater Treatment0.1 gallonsLabChemical Clean up KitsFluoride Electrode Filling SolutionWater Treatment0.007 gallonsLabChemical Clean up KitsBuffer Powder Pillows pH4.01Water Treatment125 packagesLabChemical Clean up KitsBuffer Powder Pillows pH7.00Water Treatment125 packagesLabChemical Clean up KitsBuffer Powder Pillows pH10.01Water Treatment125 packagesLabChemical Clean up KitsBuffer Powder Pillows pH10.01Water Treatment125 packagesLabChemical Clean up KitsPH Storage SolutionWater Treatment0.7 gallonsLabChemical Clean up KitsIUPAC pH Std. 7.413Water Treatment0.7 gallonsLabChemical Clean up KitsAmmonia CyanurateWater Treatment25 packagesLabChemical Clean up KitsAmmonia SalicylateWater Treatment25 packagesLabChemical Clean up KitsFree Ammonia Chorinating SolutionWater Treatment0.0005 gallonsLabChemical Clean up KitsFormazin Standards (Stablcal)Water Treatment0.8 gallonsLabChemical Clean up KitsFlorido Clore OllWater Treatment0.002 gallonsLabChemical Clean up KitsCollertWater Treatment0.002 gallonsLabChemical Clean up KitsCollertWater Treatment0.002 gallonsLabChemical Clean up KitsCollertWater Treatment0.002 gallonsLab <td< th=""><th>CA610 Reagent 1 TISAB Solution</th><th>Water Treatment</th><th>0.2 gallons</th><th>Lab</th><th>Chemical Clean up Kits</th></td<>	CA610 Reagent 1 TISAB Solution	Water Treatment	0.2 gallons	Lab	Chemical Clean up Kits
1.00mg/L as FWater Treatment0.1 gallonsLabChemical Clean up KitsFluoride Electrode Filling SolutionWater Treatment0.007 gallonsLabChemical Clean up KitsBuffer Powder Pillows pH4.01Water Treatment125 packagesLabChemical Clean up KitsBuffer Powder Pillows pH10.01Water Treatment125 packagesLabChemical Clean up KitsBuffer Powder Pillows pH10.01Water Treatment0.7 gallonsLabChemical Clean up KitspH Storage SolutionWater Treatment0.7 gallonsLabChemical Clean up KitsIUPAC pH Std. 7.413Water Treatment0.7 gallonsLabChemical Clean up KitsAmmonia CyanurateWater Treatment25 packagesLabChemical Clean up KitsAmmonia SalicylateWater Treatment25 packagesLabChemical Clean up KitsFree Ammonia Chlorinating SolutionWater Treatment0.0005 gallonsLabChemical Clean up KitsFormazin Standards (Stablcal)Water Treatment0.8 gallonsLabChemical Clean up KitsPhenol RedWater Treatment0.002 gallonsLabChemical Clean up KitsSilicone OilWater Treatment0.02 gallonsLabChemical Clean up KitsCollertWater Treatment0.002 gallonsLabChemical Clean up KitsCollertWater Treatment0.002 gallonsLabChemical Clean up KitsCollertWater Treatment0.002 gallonsLabChemical Clean up KitsCollert<	Fluoride Standard Solution				
Nonde Liective Filing SolutionWater Treatment0.007 gallonsLabChemical Clean up KitsBuffer Powder Pillows pH4.01Water Treatment125 packagesLabChemical Clean up KitsBuffer Powder Pillows pH7.00Water Treatment125 packagesLabChemical Clean up KitsBuffer Powder Pillows pH10.01Water Treatment125 packagesLabChemical Clean up KitsPH Storage SolutionWater Treatment0.7 gallonsLabChemical Clean up KitsIUPAC pH Std. 7.413Water Treatment0.7 gallonsLabChemical Clean up KitsAmmonia CyanurateWater Treatment0.7 gallonsLabChemical Clean up KitsAmmonia SalicylateWater Treatment50 packagesLabChemical Clean up KitsFree Ammonia Chlorinating SolutionWater Treatment0.0005 gallonsLabChemical Clean up KitsFormazin Standards (Stablcal)Water Treatment0.8 gallonsLabChemical Clean up KitsPhenol RedWater Treatment0.002 gallonsLabChemical Clean up KitsSilicone OilWater Treatment0.002 gallonsLabChemical Clean up KitsCollertWater Treatment0.002 gallonsLabChemical Clean up Kits	1.00mg/L as F	Water Treatment	0.1 gallons	Lab	Chemical Clean up Kits
Buffer Powder Pillows pH4.01Water Treatment125 packagesLabChemical Clean up KitsBuffer Powder Pillows pH7.00Water Treatment125 packagesLabChemical Clean up KitsBuffer Powder Pillows pH10.01Water Treatment125 packagesLabChemical Clean up KitspH Storage SolutionWater Treatment0.7 gallonsLabChemical Clean up KitsRenovo-N Cleaning SolutionWater Treatment0.7 gallonsLabChemical Clean up KitsIUPAC pH Std. 7.413Water Treatment0.7 gallonsLabChemical Clean up KitsAmmonia CyanurateWater Treatment25 packagesLabChemical Clean up KitsAmmonia SalicylateWater Treatment25 packagesLabChemical Clean up KitsMonochlor FTM ReagentWater Treatment50 packagesLabChemical Clean up KitsFree Ammonia Chlorinating SolutionWater Treatment0.0005 gallonsLabChemical Clean up KitsPhenol RedWater Treatment0.01 gallonsLabChemical Clean up KitsSilicone OilWater Treatment0.002 gallonsLabChemical Clean up KitsCollertWater Treatment0.02 gallonsLabChemical Clean up Kits	Solution	Water Treatment	0.007 gallons	Lab	Chemical Clean up Kits
Buffer Powder Pillows pH7.00Water Treatment125 packagesLabChemical Clean up KitsBuffer Powder Pillows pH10.01Water Treatment125 packagesLabChemical Clean up KitspH Storage SolutionWater Treatment0.7 gallonsLabChemical Clean up KitsRenovo-N Cleaning SolutionWater Treatment0.7 gallonsLabChemical Clean up KitsIUPAC pH Std. 7.413Water Treatment0.7 gallonsLabChemical Clean up KitsAmmonia CyanurateWater Treatment25 packagesLabChemical Clean up KitsAmmonia SalicylateWater Treatment25 packagesLabChemical Clean up KitsMonochlor FTM ReagentWater Treatment50 packagesLabChemical Clean up KitsFree Ammonia Chlorinating SolutionWater Treatment0.8 gallonsLabChemical Clean up KitsFormazin Standards (Stablcal)Water Treatment0.002 gallonsLabChemical Clean up KitsSilicone OilWater Treatment0.002 gallonsLabChemical Clean up KitsSilicone OilWater Treatment0.002 gallonsLabChemical Clean up KitsSilicone OilWater Treatment0.002 gallonsLabChemical Clean up Kits	Buffer Powder Pillows pH4.01	Water Treatment	125 packages	Lab	Chemical Clean up Kits
Buffer Powder Pillows pH10.01Water Treatment125 packagesLabChemical Clean up KitspH Storage SolutionWater Treatment0.7 gallonsLabChemical Clean up KitsRenovo-N Cleaning SolutionWater Treatment0.7 gallonsLabChemical Clean up KitsIUPAC pH Std. 7.413Water Treatment0.7 gallonsLabChemical Clean up KitsAmmonia CyanurateWater Treatment25 packagesLabChemical Clean up KitsAmmonia SalicylateWater Treatment25 packagesLabChemical Clean up KitsMonochlor FTM ReagentWater Treatment50 packagesLabChemical Clean up KitsFree Ammonia Chlorinating SolutionWater Treatment0.8 gallonsLabChemical Clean up KitsFormazin Standards (Stablcal)Water Treatment0.01 gallonsLabChemical Clean up KitsSilicone OilWater Treatment0.002 gallonsLabChemical Clean up KitsColilertWater Treatment0.002 gallonsLabChemical Clean up Kits	Buffer Powder Pillows pH7.00	Water Treatment	125 packages	Lab	Chemical Clean up Kits
pH Storage SolutionWater Treatment0.7 gallonsLabChemical Clean up KitsRenovo-N Cleaning SolutionWater Treatment0.7 gallonsLabChemical Clean up KitsIUPAC pH Std. 7.413Water Treatment0.7 gallonsLabChemical Clean up KitsAmmonia CyanurateWater Treatment25 packagesLabChemical Clean up KitsAmmonia SalicylateWater Treatment25 packagesLabChemical Clean up KitsMonochlor FTM ReagentWater Treatment50 packagesLabChemical Clean up KitsFree Ammonia Chlorinating SolutionWater Treatment0.0005 gallonsLabChemical Clean up KitsFormazin Standards (Stablcal)Water Treatment0.8 gallonsLabChemical Clean up KitsSilicone OilWater Treatment0.002 gallonsLabChemical Clean up KitsColilertWater Treatment0.002 gallonsLabChemical Clean up Kits	Buffer Powder Pillows pH10.01	Water Treatment	125 packages	Lab	Chemical Clean up Kits
Renovo-N Cleaning SolutionWater Treatment0.7 gallonsLabChemical Clean up KitsIUPAC pH Std. 7.413Water Treatment0.7 gallonsLabChemical Clean up KitsAmmonia CyanurateWater Treatment25 packagesLabChemical Clean up KitsAmmonia SalicylateWater Treatment25 packagesLabChemical Clean up KitsMonochlor FTM ReagentWater Treatment50 packagesLabChemical Clean up KitsFree Ammonia Chlorinating SolutionWater Treatment0.0005 gallonsLabChemical Clean up KitsFormazin Standards (Stablcal)Water Treatment0.8 gallonsLabChemical Clean up KitsPhenol RedWater Treatment0.002 gallonsLabChemical Clean up KitsSilicone OilWater Treatment0.002 gallonsLabChemical Clean up KitsColilertWater Treatment0.002 gallonsLabChemical Clean up Kits	pH Storage Solution	Water Treatment	0.7 gallons	Lab	Chemical Clean up Kits
IUPAC pH Std. 7.413Water Treatment0.7 gallonsLabChemical Clean up KitsAmmonia CyanurateWater Treatment25 packagesLabChemical Clean up KitsAmmonia SalicylateWater Treatment25 packagesLabChemical Clean up KitsMonochlor FTM ReagentWater Treatment50 packagesLabChemical Clean up KitsFree Ammonia Chlorinating SolutionWater Treatment0.0005 gallonsLabChemical Clean up KitsFormazin Standards (Stablcal)Water Treatment0.8 gallonsLabChemical Clean up KitsPhenol RedWater Treatment0.002 gallonsLabChemical Clean up KitsSilicone OilWater Treatment0.002 gallonsLabChemical Clean up KitsColilertWater Treatment0.002 gallonsLabChemical Clean up Kits	Renovo-N Cleaning Solution	Water Treatment	0.7 gallons	Lab	Chemical Clean up Kits
Ammonia CyanurateWater Treatment25 packagesLabChemical Clean up KitsAmmonia SalicylateWater Treatment25 packagesLabChemical Clean up KitsMonochlor FTM ReagentWater Treatment50 packagesLabChemical Clean up KitsFree Ammonia Chlorinating SolutionWater Treatment0.0005 gallonsLabChemical Clean up KitsFormazin Standards (Stablcal)Water Treatment0.8 gallonsLabChemical Clean up KitsPhenol RedWater Treatment0.01 gallonsLabChemical Clean up KitsSilicone OilWater Treatment0.002 gallonsLabChemical Clean up KitsColilertWater Treatment0.002 gallonsLabChemical Clean up Kits	IUPAC pH Std. 7.413	Water Treatment	0.7 gallons	Lab	Chemical Clean up Kits
Ammonia SalicylateWater Treatment25 packagesLabChemical Clean up KitsMonochlor FTM ReagentWater Treatment50 packagesLabChemical Clean up KitsFree Ammonia Chlorinating SolutionWater Treatment0.0005 gallonsLabChemical Clean up KitsFormazin Standards (Stablcal)Water Treatment0.8 gallonsLabChemical Clean up KitsPhenol RedWater Treatment0.01 gallonsLabChemical Clean up KitsSilicone OilWater Treatment0.002 gallonsLabChemical Clean up KitsColilertWater Treatment0.002 gallonsLabChemical Clean up Kits	Ammonia Cyanurate	Water Treatment	25 packages	Lab	Chemical Clean up Kits
Monochlor FTM ReagentWater Treatment50 packagesLabChemical Clean up KitsFree Ammonia Chlorinating SolutionWater Treatment0.0005 gallonsLabChemical Clean up KitsFormazin Standards (Stablcal)Water Treatment0.8 gallonsLabChemical Clean up KitsPhenol RedWater Treatment0.01 gallonsLabChemical Clean up KitsSilicone OilWater Treatment0.002 gallonsLabChemical Clean up KitsColilertWater Treatment0.002 gallonsLabChemical Clean up Kits	Ammonia Salicylate	Water Treatment	25 packages	Lab	Chemical Clean up Kits
Free Ammonia Chlorinating SolutionWater Treatment0.0005 gallonsLabChemical Clean up KitsFormazin Standards (Stablcal)Water Treatment0.8 gallonsLabChemical Clean up KitsPhenol RedWater Treatment0.01 gallonsLabChemical Clean up KitsSilicone OilWater Treatment0.002 gallonsLabChemical Clean up KitsColilertWater Treatment0.002 gallonsLabChemical Clean up Kits	Monochlor FTM Reagent	Water Treatment	50 packages	Lab	Chemical Clean up Kits
SolutionWater Treatment0.0005 gallonsLabChemical Clean up KitsFormazin Standards (Stablcal)Water Treatment0.8 gallonsLabChemical Clean up KitsPhenol RedWater Treatment0.01 gallonsLabChemical Clean up KitsSilicone OilWater Treatment0.002 gallonsLabChemical Clean up KitsColilertWater Treatment600 testsLabChemical Clean up Kits	Free Ammonia Chlorinating				
Formazin Standards (Stablcal)Water Treatment0.8 gallonsLabChemical Clean up KitsPhenol RedWater Treatment0.01 gallonsLabChemical Clean up KitsSilicone OilWater Treatment0.002 gallonsLabChemical Clean up KitsColilertWater Treatment600 testsLabChemical Clean up Kits	Solution	Water Treatment	0.0005 gallons	Lab	Chemical Clean up Kits
Phenol Red         Water Treatment         0.01 gallons         Lab         Chemical Clean up Kits           Silicone Oil         Water Treatment         0.002 gallons         Lab         Chemical Clean up Kits           Colilert         Water Treatment         600 tests         Lab         Chemical Clean up Kits	Formazin Standards (Stablcal)	Water Treatment	0.8 gallons	Lab	Chemical Clean up Kits
Silicone Oil     Water Treatment     0.002 gallons     Lab     Chemical Clean up Kits       Colilert     Water Treatment     600 tests     Lab     Chemical Clean up Kits	Phenol Red	Water Treatment	0.01 gallons	Lab	Chemical Clean up Kits
Colilert         Water Treatment         600 tests         Lab         Chemical Clean up Kits	Silicone Oil	Water Treatment	0.002 gallons	Lab	Chemical Clean up Kits
	Colilert	Water Treatment	600 tests	Lab	Chemical Clean up Kits
Quanti-Cult         Water Treatment         1 Kit         Lab         Chemical Clean up Kits	Quanti-Cult	Water Treatment	1 Kit	Lab	Chemical Clean up Kits
CWWTP	СWWTP				
Belt Dressing         Operation         0.5 gallons         Office Closet         Floor Dry	Belt Dressing	Operation	0.5 gallons	Office Closet	Floor Dry
Mineral Oil         Operation         0.75 gallons         Office Closet         Floor Dry	Mineral Oil	Operation	0.75 gallons	Office Closet	Floor Dry
Penetrant Oil Operation 0.4 gallons Office Closet Floor Dry	Penetrant Oil	Operation	0.4 gallons	Office Closet	Floor Dry
Degreaser Operation 0.4 gallons Office Closet Floor Dry	Degreaser	Operation	0.4 gallons	Office Closet	Floor Dry
RTV Silicone Operation 0.4 gallons Office Closet Floor Dry	RTV Silicone	Operation	0.4 gallons	Office Closet	Floor Dry
Workroom Cupboard	Demetrating Oil	Oreneties		Workroom Cupboard	Flager Dr.
Venetrating OII Operation 3.3 gallons Middle Floor Dry Workroom Cupboard		Operation	3.3 gallons	Widdle Workroom Cupboard	Floor Dry
Enamel Spray Operation 1.6 gallons Middle Floor Dry	Enamel Spray	Operation	1.6 gallons	Middle	Floor Dry
Workroom Cupboard	Carls and Chalve Cleaner	Onenetien		Workroom Cupboard	Flags Dr.
Carb and Choke Cleaner         Operation         0.4 gallons         Middle         Floor Dry           Workroom Cupboard         Vorkroom Cupboard         Vorkroom Cupboard         Vorkroom Cupboard         Vorkroom Cupboard		Operation	0.4 galions	Workroom Cupboard	
Ether Operation 0.08 gallons Middle Floor Dry	Ether	Operation	0.08 gallons	Middle	Floor Dry
Workroom Cupboard	Anti Corrocion	Operation		Workroom Cupboard	Floor Dry
Workroom Cupboard		Operation		Workroom Cupboard	
Ice Melt Ice Control 0.09 gallons Middle Floor Dry	Ice Melt	Ice Control	0.09 gallons	Middle	Floor Dry
Cutting Oil         Operation         0.2 gallons         Middle         Floor Dry	Cutting Oil	Operation	0.2 gallons	Workroom Cupboard Middle	Floor Dry
15W50 Oil Operation 1.25 gallons Workroom Cupboard Right Floor Dry	15W50 Oil	Operation	1.25 gallons	Workroom Cupboard Right	Floor Dry
Transmission Fluid Operation 1 gallon Workroom Cupboard Right Floor Dry	Transmission Fluid	Operation	1 gallon	Workroom Cupboard Right	Floor Dry
2 Cycle Motor Oil Operation 0.1 gallons Workroom Cupboard Right Floor Dry	2 Cycle Motor Oil	Operation	0.1 gallons	Workroom Cupboard Right	, Floor Dry
Industrial Lubricant Operation 1.3 gallons Workroom Cupboard Right Floor Dry	Industrial Lubricant	Operation	1.3 gallons	Workroom Cunhoard Right	Floor Dry
Compressor Operation 0.25 gallons Workroom Cupboard Right Floor Dry	Compressor	Operation	0.25 gallons	Workroom Cunhoard Right	Floor Dry
Bust Treatment         Operation         1 gallon         Workroom Cupboard Right         Floor Dry	Rust Treatment	Operation	1 gallon	Workroom Cunhoard Right	Floor Dry

		1		
703 Oil	Operation	5 gallons	Workroom Bench Area	Floor Dry
9460 Oil	Operation	5 gallons	Workroom Bench Area	Floor Dry
6520 Oil	Operation	5 gallons	Workroom Bench Area	Floor Dry
6403 Oil	Operation	5 gallons	Workroom Bench Area	Floor Dry
Napsol Cleaner	Operation	3 gallons	Workroom Bench Area	Floor Dry
Sewer Solvent	Operation	5 gallons	Workroom Bench Area	Floor Dry
Hydro Chlorite	Operation	5 gallons	Workroom Bench Area	Floor Dry
Weed Killer	Weed Control	1 gallon	Workroom Bench Area	Floor Dry
Chlorine Tablets	Operation	45 pounds	Press Room	Secondary Containment Method
Paint	Operation	11 gallons	Press Room	Secondary Containment Method
10W40 Oil	Operation	0.25 gallons	Press Room	Secondary Containment Method
30W Oil	Operation	1 gallon	Press Room	Secondary Containment Method
Power Steering Fluid	Operation	0.25 gallons	Press Room	Secondary Containment Method
Hydraulic Fluid	Operation	0.25 gallons	Press Room	Secondary Containment Method
Polymer	Operation	165 gallons	Press Room	Secondary Containment Method
Diesel Fuel	Operation	2 gallons	Press Room	Secondary Containment Method
Used Oil	Recycle	5 gallons	Press Room	Secondary Containment Method
NWWTP				1
703 Oil	Operation	10 gallons	Oil Tray by Bay Door	Floor Dry
6404 Oil	Operation	20 gallons	Oil Tray by Bay Door	Floor Dry
6405 Oil	Operation	5 gallons	Oil Tray by Bay Door	Floor Dry
Belt Dressing	Operation	0.09 gallons	Shop Supply Cabinet	Floor Dry
Super 77	Operation	0.2 gallons	Shop Supply Cabinet	Floor Dry
Ice Go	Ice Control	0.2 gallons	Shop Supply Cabinet	Floor Dry
7-77 Plus	Operation	0.1 gallons	Shop Supply Cabinet	Floor Dry
Battery Cleaner	Operation	0.1 gallons	Shop Supply Cabinet	Floor Dry
Chain and Cable Lube	Operation	0.2 gallons	Shop Supply Cabinet	Floor Dry
Quick-Eas	Operation	0.1 gallons	Shop Supply Cabinet	Floor Dry
Red Grease	Operation	0.1 gallons	Shop Supply Cabinet	Floor Dry
Drummond Core	Operation	0.1 gallons	Shop Supply Cabinet	Floor Dry
Pipe Paste Sealant	Operation	0.03 gallons	Shop Supply Cabinet	Floor Dry
Herman Survivors	Operation	0.09 gallons	Shop Supply Cabinet	Floor Dry
Electra-x	Operation	0.09 gallons	Shop Supply Cabinet	Floor Dry
Parts Cleaner	Operation	0.03 gallons	Shop Supply Cabinet	Floor Dry
Lubricant and Penetrant	Operation	0.2 gallons	Shop Supply Cabinet	Floor Dry
SD 20 Degreaser	Operation	0.1 gallons	Shop Supply Cabinet	Floor Dry
Carb Cleaner	Operation	0.7 gallons	Shop Supply Cabinet	Floor Dry
WD-40	Operation	0.06 gallons	Shop Supply Cabinet	Floor Dry
Champion	Operation	0.5 gallons	Shop Supply Cabinet	Floor Dry
Polymer	Operation	110 gallons	Press Room	Secondary Containment Method
SEWWTP				

Paint	Operation	12.5 gallons	Flammable Locker	Floor Dry
Rust Inhibitive Paint	Operation	0.25 gallons	Flammable Locker	Floor Dry
Rust Converter	Operation	1 gallon	Flammable Locker	Floor Dry
Sewer Joint Compound	Operation	1 gallon	Flammable Locker	Floor Dry
Spray Paint	Operation	0.1 gallons	Flammable Locker	Floor Dry
Green Marker Paint	Operation	0.1 gallons	Flammable Locker	Floor Dry
Paint Thinner	Operation	0.25 gallons	Flammable Locker	Floor Dry
Battery Cleaner	Operation	0.3 gallons	Flammable Locker	Floor Dry
Cutting Oil	Operation	0.2 gallons	Flammable Locker	Floor Dry
Belt Dressing	Operation	0.2 gallons	Flammable Locker	Floor Dry
Lubricant	Operation	0.4 gallons	Flammable Locker	Floor Dry
Gear Lube	Operation	0.2 gallons	Flammable Locker	Floor Dry
Chain and Cable Lube	Operation	0.2 gallons	Flammable Locker	Floor Dry
Degreaser	Operation	0.4 gallons	Flammable Locker	Floor Dry
Starting Fluid	Operation	0.1 gallons	Flammable Locker	Floor Dry
PVC Cement	Operation	0.03 gallons	Flammable Locker	Floor Dry
PVC Primer	Operation	0.1 gallons	Flammable Locker	Floor Dry
Propane Tank	Operation	0.3 gallons	Flammable Locker	Floor Dry
Red Grease	Operation	0.4 gallons	Flammable Locker	Floor Dry
De-icer	Ice Control	0.09 gallons	Flammable Locker	Floor Dry
LE 703 Oil	Operation	0.5 gallons	Press Room	Floor Dry
LE 6406 Oil	Operation	6 gallons	Press Room	Floor Dry
Mobile 629	Operation	7 gallons	Press Room	Floor Dry
LE 6401 Oil	Operation	1 gallon	Press Room	Floor Dry
LE 6406 Oil	Operation	2 gallons	Press Room	Floor Dry
LE 1275 Grease	Operation	0.75 gallons	Press Room	Floor Dry
Used Oil	Recycle	5 gallons	Press Room	Floor Dry
LE 64 Oil	Operation	5 gallons	Press Room	Floor Dry
30W Oil	Operation	0.25 gallons	Press Room	Floor Dry
ADCO 400 Degreaser	Operation	5 gallons	Press Room	Floor Dry
Rotella Oil	Operation	0.5 gallons	Garage	Floor Dry
Hydraulic Fluid	Operation	0.5 gallons	Garage	Floor Dry
JD 80-90	Operation	0.25 gallons	Garage	Floor Dry
30W Oil	Operation	0.75 gallons	Garage	Floor Dry
Dextron III	Operation	0.75 gallons	Garage	Floor Dry
Antifreeze	Operation	0.25 gallons	Garage	Floor Dry
Praematol	Operation	1 gallon	Garage	Floor Dry
Amine	Operation	1 gallon	Garage	Floor Dry
Crossbow	Weed Control	1 gallon	Garage	Floor Dry
Gasoline	Operation	5 gallons	Garage	Floor Dry
Mixed Gas	Operation	2.5 gallons	Garage	Floor Dry

Diesel Fuel	Operation	55 gallon drum	Garage	Floor Dry
Used Oil	Operation	10 gallons	Garage	Floor Dry
Polymer	Operation	165 gallons	Chemical Room	Secondary Containment Method
Compost				
All Purpose Grease	Operation	0.5 gallons	Shed Area	Secondary Containment Method
Diesel Treatment	Operation	1 gallon	Shed Area	Secondary Containment Method
10W40 Oil	Operation	1 gallon	Shed Area	Secondary Containment Method
Hydraulic Oil	Operation	10 gallons	Shed Area	Secondary Containment Method
Diesel Fuel	Operation	50 gallons	Fuel Truck	Secondary Containment Method

### 5. Pre-Existing Contamination

No pre-existing contamination or spills are known or documented at the 12 City Facilities.

### 6. Spill Prevention and Response Training

All City staff is trained in spill prevention and containment, Illicit Discharge Detection and Elimination, spill kit use and this spill plan. The annual training includes a summary of spills or IDDE during the last 12 months, lessons learned, questions and answers. The Pretreatment and Stormwater Coordinator tracks and documents all training.

### 7. Spill Prevention

The following sections summarize spill prevention activities at the City for the Airport, Animal Shelter, Building Maintenance, Cemetery, Parks, Public Works Complex, Vehicle Maintenance, Water Treatment Plant/Water Department, CWWTP, NWWTP, SEWWTP and Compost Facility.

A. Spill response kit contents and location(s) are summarized in Table 4.

Type of Spill Kit	Contents	Location(s)
Airport		
vehicle kits		Fuel Trucks (4)
Fuel Station Spill Kit (2)	spill pads, absorbent, bags	Under covered area adjacent to fuel storage tanks
large spill kit (1)	spill pads, absorbent, bags	Fuel barn
Animal Shelter		
large spill kit (1)	Floor Dry	Back area in shelter
Building Maintenance		
large spill kit (1)	spill pads, absorbent, bags	Shop area
Cemetery		
large spill kit (2)	spill pads, absorbent, bags	One in each shop building
Parks		
Centennial Park Shop		
large spill kit (1)	spill pads, absorbent, bags	Shop area
Clover Dell Park Shop		

#### **Table 4: Spill Response Kit Contents and Locations**

large spill kit (1)	spill pads, absorbent, bags	Shop area
Liberty Park Shop		
large spill kit (1)	spill pads, absorbent, bags	Shop area
Public Works Complex		
Fuel Station Spill Kit (1)	spill pads, absorbent, bags	next to fueling station
large spill kit (2)	spill pads, absorbent, bags	Streets shop area
large spill kit (2)	spill pads, absorbent, bags	WPC shop area
large spill kit (1)	spill pads, absorbent, bags	Sanitation shop area
Vehicle Maintenance		
large spill kit (4)	spill pads, absorbent, bags	placed around shop area
Water Treatment Plant / Water Department Shop		
CWWTP		
large spill kit (1)	spill pads, absorbent, bags	Press Room
NWWTP		
large spill kit (1)	spill pads, absorbent, bags	Press Room
SEWWTP		
large spill kit (1)	spill pads, absorbent, bags	Press Room
Compost Facility		
large spill kit (1)	spill pads, absorbent, bags	In corner next to sludge storage area

- B. Security measures for potential spill sources include locked storage containers, fenced and locked gates around the site perimeters, where practical.
- C. Secondary containment practices for hazardous materials are summarized in Table 3.
- D. Methods used to prevent stormwater from contacting hazardous materials include:
  - a. Airport: Keeping all materials under cover and away from stormwater except for non-pollution generating materials. Maintaining tank and dispenser equipment, keeping containment pad clean and keeping a spill kit nearby.
  - b. Animal Shelter: Keeping all materials under cover and away from stormwater.
  - c. Building Maintenance: Keeping all materials under cover and away from stormwater.
  - d. Cemetery: Keeping all materials under cover and away from stormwater.
  - e. Parks: Keeping all materials under cover and away from stormwater except for non-pollution generating materials.
  - f. Public Works Building Complex: Keeping all materials under cover and away from stormwater except for non-pollution generating materials. Maintaining fuel tanks and dispenser equipment and keeping spill kit nearby.
  - g. Vehicle Maintenance: Keeping all materials under cover and away from stormwater.
  - h. Water Treatment Plant/Water Department: Keeping all materials under cover and away from stormwater.
  - i. CWWTP: Keeping all materials under cover and away from stormwater except for non-pollution generating materials.
  - j. NWWTP: Keeping all materials under cover and away from stormwater except for nonpollution generating materials.
  - k. SEWWTP: Keeping all materials under cover and away from stormwater except for non-

pollution generating materials.

- I. Compost Facility: Keeping all material away from contaminating the stormwater. Maintaining dispensing equipment and keeping spill kit nearby.
- E. Site inspection is completed and documented weekly as part of the weekly facilities check completed by the site crews. The weekly facilities check includes visual inspection of the 12 site areas and documentation of spills (if present) and spill cleanup completed (if required).
- F. Equipment and structure maintenance practices include inspection of vehicles and equipment for leaks at the beginning of each shift.

### 8. Spill Response

Typical spill response scenario procedures are listed below. The typical scenarios include a description of the actions that will be taken and the specific on-site, spill response equipment that will be used to assess the spill, secure the area, contain and eliminate the spill source and clean up and dispose of spilled and contaminated material.

- A. A spill of each type of hazardous material at each location identified in Section 4 Potential Spill Sources. <u>Note</u>: It is acceptable to combine materials covered by the same response procedures, as long as each material is clearly identified.
  - a. Liquid spills including diesel fuel, gasoline, hydraulic fluid, waste oil, paint and finishes, deicier, other vehicle/maintenance fluids:
    - i. Contain spill and spill source.
    - ii. Report to site supervisor immediately. They will make appropriate contacts as summarized in Table 1 if spill is reportable as required in Section 2 of this spill plan.
    - iii. Evaluate downstream storm drains (pipes, ditches, streams) by visual inspections, sheen and testing by utilizing the storm system maps (GIS). Contain any spilled liquid. Remove all contaminated water/sediment using absorbent pads or Vac-Truck as instructed by Public Works Director. Jet clean conveyance and collect all effluent and dispose of at an approved disposal facility.
    - iv. Evaluate spill surfaces by visual inspections, sheen and testing. Remove or clean contaminated material as instructed by the Public Works Director. Jet clean (if required) and collect all contaminated material and effluent and dispose of at an approved disposal facility.
    - v. Document spill on Spill Reporting forms (See SWPPP Appendix B) and on the spill tracking spreadsheet.
  - b. Solid spills including granular de-icier, fertilizers, pesticides, street sweepings:
    - i. Contain spill and spill source.
    - ii. Report to site supervisor immediately. They will make appropriate contacts as summarized in Table 1 if spill is reportable as required in Section 2 of this spill plan.
    - iii. Evaluate downstream storm drains (pipes, ditches, streams) by visual inspections, sheen and testing by utilizing the storm system maps (GIS). Contain any spilled liquid. Remove all contaminated water/sediment using absorbent pads or Vac-Truck as instructed by Public Works Director. Jet clean conveyance and collect all effluent and dispose of at an approved disposal facility.
    - iv. Sweep up spilled material. If spill occurred on wet surfaces or during precipitation evaluate spill surfaces by visual inspections, sheen, testing and remove or clean contaminated material. Jet clean (if required) and collect all contaminated material and effluent and dispose of at an approved disposal facility.
    - v. Document spill on Spill Reporting forms (See SWPPP Appendix B) and on the spill tracking
spreadsheet.

- B. Stormwater that has come into contact with hazardous materials follow the procedures in #8.
- C. A release or spill of any KNOWN pre-existing contamination and contaminant source described in Section 5.
- D. A release or spill of any UNKNOWN pre-existing contamination and contaminant sources (such as buried pipes or tanks) that may be unexpectedly encountered during project work. When soil contamination is encountered, follow the procedures in 8 A (above). In addition, excavated soil will require stockpiling and sampling to characterize the soil and determine disposal requirements. Soils will be screened prior to stockpiling and contaminated soil will be stockpiled separately from soils showing no indications of contamination. The stockpiles will be in the vicinity of the excavation and will be set up to allow for ease of sampling and load-out once characterization is complete. Stockpiles will be placed on an impervious surface and covered with plastic sheeting when not being worked. Water will be diverted from the stockpile area.

## 9. Project Site Maps

See SWPPPP Appendix A for a Vicinity Map (Appendix A-1 and A-2) and site maps for all the City Facilities (Appendix A-3 to A-20). The site plans include:

- A. Site access roads
- B. Drainage pathways from the site

## 10. Spill Report Form(s)

Spill report forms are contained within SWPPP Appendix B and shall be updated with spill history and response information.