City of Weldon Spring



Municipal Separate Storm Sewer System (MS4)

Stormwater Management Plan (SWMP)

MOR04C070

2021-2026

Last Revision 12/27/2021

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Acronyms

BMP - Best Management Practice

CWA – Clean Water Act

EPA – Environmental Protection Agency

GIS – Geographic Information System

GPS – Global Positioning System

IDDE – Illicit Discharge Detection and Elimination

MCM – Minimum Control Measure

MEP – Maximum Extent Practicable

MS4 – Municipal Separate Storm Sewer System

NPDES - National Pollutant Discharge Elimination System

NOV – Notice of Violation

SIC – Standard Industrial Classification

SWMP – Stormwater Management Plan

SWPPP – Stormwater Pollution Prevention Plan

The City – The City of Weldon Spring

Definitions

OUTFALL(s)

The paragraph below is an excerpt from EPA's Stormwater Phase II Final Rule (USEPA, 1999): The term "outfall" is defined in 40 CFR 122.26(b)(9) as "a point source at the point where a municipal separate storm sewer discharges to waters of the United States."

An **outfall** is the point where **stormwater** from pipes and ditches, also known as the MS4, empties into a river, lake, or stream. This point is where the water is sampled for pollutants and illicit discharges.

The City of Weldon Spring has taken this definition one step further to include all points where the stormwater leaves our MS4 jurisdiction and is deposited on to another MS4 jurisdiction be it a pipe, concrete ditch, detention/retention basin or open natural ditch line. The term "Municipal Separate Storm Sewer" is defined at 40 CFR 122.26(b)(8) as "a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains)." Following the logic of these definitions, a "ditch" may be part of the municipal separate storm sewer system, and at the point where the ditch discharges to waters of the United States (State), it is an outfall. As with any determination about jurisdictional provisions of the CWA, however, final decisions require case specific evaluations of fact.

MS4 Documentation Log

The City of Weldon Spring documents inspections in a 3-ring binder at the City Engineer's desk labeled 'MS4 Documentation Log' followed by the year.

Category of MS4

During the 2020 US Census, the City of Weldon Spring had a total population of 5,326. **This puts the City of Weldon Spring in Group A, a traditional small MS4 that serves a population of 10,000.**

MOR04C Part 4. Minimum Control Measures

The City of Weldon Spring falls under the coverage of MOR04C general permit and has implemented a Stormwater Program that included the following six (6) Minimum Control Measures. (MCMs).

4.1 MCM 1. Public Education and Outreach on 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 that 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.

The City of Weldon Spring has a public education program that distributes educational materials to the community and has outreach activities about the impacts of stormwater discharges on water bodies. The city provides steps the public can take to reduce pollutants in stormwater runoff.

A. Target Audiences

The City of Weldon Spring targets the <u>residents</u> and homeowners being served by the MS4 is the target audience. As a small MS4 in Group A, no additional audiences are required. (4.1.A)

- B. Specific Pollutant(s) in the City's education program. (4.1.B)
 - a. Pet waste.
 - b. Swimming pool discharge, including salt water pools.
 - c. Sediment from construction, land disturbance.
 - d. Fertilizers and pesticides.
- C. The City of Weldon Spring utilizes several methods to distribute and communicate educational material targeting the audience (residents and homeowner) with information focused on specific pollutants. (4.1.C)

Table I

ВМР	Target Pollutant(s)	Target Audience	Permit Year
Fall 2021	Oil, Solid Waste	Residents/Homeowners	2021
Newsletter			
Winter 2022	Pool and Spa	Property Owners /	2021-2022
Newsletter	Discharges	Country Clubs	

a. The City will implement a minimum of the following, including tracking and adaptive management processes: For each permit cycle; two (2) education and outreach BMPs from Table II.

Table II Outreach and Education BMPs

ВМР	Measurable Goal	Tracking and Adaptive Management	
Publish MS4 Information	Develop topics that are group	To the extent possible, track the	
articles in the Quarterly	specific and address activities	pollutant before and after to	
City Newsletter.	and or pollutants of concern at	see if there are changes.	
	seasonally appropriate time. A		
	minimum of two (2) articles		
	annually shall be published.		
Targeted MS4 Education	Provide Erosion Control	The City will distribute a	
utilizing pamphlets and door	brochure to all small	targeted brochure to all new	
hangers.	construction sites and Pool	permits that involve small	
	Brochure to all new pool	grading and to all new pool	
	permits.	construction permits.	
Optional / Additional when possible			
Information on the City Website	Maintain a webpage with up-to-	The number of hits shall be	
	date information and working	tracked. The city will use this to	
	links. All links shall be checked,	see which messages get	
	and the page shall be updated	reactions, and if certain	
	at minimum annually. Must be	messaged may need more	
	maintained for the entire year.	education.	

- D. The City of Weldon Spring will create opportunities, or support activities that are coordinated by citizen groups, for residents and others to become involved with the Stormwater Management Program. The activities (BMPs) will have an effort to impact stormwater runoff by improving water quality.
- E. The City of Weldon Spring will support the involvement BMPs in Section 4.1.D

Table III

ВМР	Measurable Goal	Adaptive	Permit Year	City of Weldon
		Management		Spring Support
Weldon Spring	18.14 Acres	Track the amount	Annual	Advertise, supply
Park Cleanup		of waste	2021	bags, dispose of
		removed, etc.	2022	waste.

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One (1) BMP will be implemented each permit cycle as required for Group A cities.

Table IV Involvement BMPs

ВМР	Measurable Goals	Tracking and Adaptive
		Management
Habitat Improvement: Tree	Must be a minimum of 0.5	Track the location along with
Planting, invasive vegetation	acres.	the amount planted or
removal.		removed. Analyze the areas
		improved. Look for
		opportunities to partner or join
		improvement areas.
Displays that work to improve	Provide Stormwater MS4	Record the number of
public understanding of issues	information table at to the	interactions, topics covered.
related to water quality.	public at the outdoor kiosk	Use the numbers and
	located by City Hall.	interactions to determine of the
		project or training coved ia
		topic of interest that could be
		brought to a different or
		broader audience.
Extra / Additional if Time Allows		
Missouri Stream Team cleanup	Must be at least 2 acres or 400	Track by area or distance
event.	yards of stream, 2 miles of road.	cleaned. (By acre, yard, lane
		miles), the amount of waste
		removed (by tonnage, cy, bags,
		etc.) Use the waste
		measurements to determine if
		there are priority areas for litter
		entering stormwater or areas
		for illegal dumping.

Public Education and Outreach Results Log

Date	Description	Summary / Results
1/5/2021	City Newsletter Article –	Bush Honeysuckle Removal Information to
	Winter 2021	all residents and property owners in Weldon
		Spring. (See documentation Log 1/5/2021)
4/6/2021	City Newsletter Article- Spring	Article about MS4 Program and the six parts
	2021	of an MS4 Plan. (See documentation Log
		4/6/2021)
4/24/2021	Weldon Spring Earth Day	The City advertised with Social Media and
	Cleanup	Website a Park Cleanup. The result was 20
		volunteers picking up 10 bags of trash /
		debris on the 18.14 acres of City Park.
		Volunteers also helped to clear 0.25 acre of

		invasive bush honeysuckle to help the environment. (See documentation log 4/22//2021)
C /1 /2021	City Noveletton Anticle	
6/1/2021	City Newsletter Article –	Information on erosion control
	Summer 2021	requirements on construction sites in the
		City sent to all residents and property
		owners. (See documentation log 6/1/2021)
9/27/2021	City Newsletter Article – Fall	Information on volunteer opportunities for
	2021	MS4 (Cleanups, Stream Team, No More
		Trash, Weldon Spring Cleanups) sent to all
		residents and property owners.
12/9/2021	City Newsletter Article –	Information on pool and spa discharge
	Winter 2021 - 2022	requirements.

F. Using adaptive management as required in this section, the City of Weldon Spring shall review the Public Education and Outreach on Stormwater Impacts Program, at minimum, annually and update implementation procedures and/or BMPS as necessary within the requirements of this permit. This may be done when preparing the annual MS4 Stormwater Management Program Report submitted to the Department.

Table V Annual Review of MCM1

Year Reviewed	Date of Review	Reviewer(s)	What changes were made and notes.
2021	10/26/2021	Bill Schnell	With expansion of the City Park and
			invasive honeysuckle, concentrating on
			the City Park will be goal. Lots of great
			newsletter articles.
2022			
2023			
2024			
2025			

4.2 MCM 2. Public Participation

The permittee shall implement a public involvement/participation program that reaches out and engages the public in the development and implementation of the permittee's Stormwater Management Program.

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

The City of Weldon Spring has a comprehensive participation program that provides opportunities for public participation in the development and oversight of the city's Stormwater Program.

- A. The City held a public notice period for a minimum of thirty (30) days to allow the public to review the draft permit, and description of the MS4 Stormwater Management Program.
- B. As part of the public notice, the City posted the required items on the City website, including a dialog box to submit comments. The city also utilized standard public notice methods for the MS4.
 - 1. The city responded to all comments received during the comment period.
 - 2. The city will retain copies of any public comments and records of information submitted by the public received as part of the public notice process. These comments and responses shall be made available to the public or MoDNR upon request.
- C. The city held a public information meeting to provide information on, or describe the contents f, the proposed Stormwater Management Program. This meeting was advertised at least thirty (30) days prior to the public meeting.
 - 1. As part of the notice for public meeting, the City of Weldon Spring posted all information on the city website along with normal public notice methods.
 - 2. The meeting was held at the City Hall at 5401 Independence Road, which is within the service area of the City's permit.

Dates of Public Notice	1/28/2021 – 3/4/2021
Dates of Notice of Meeting	1/28/2021 – 3/4/2021
Date of Meeting	3/4/2021

Location	City of Weldon Spring
	City Hall
	5401 Independence Road
	Weldon Spring, MO 63304

- D. The City Hall utilizes in-person concerns expressed to staff, elected officials, phone and email for the majority of inquiries, or concerns, and to take information provided by the public about stormwater and stormwater topics. The City Hall is open 8 AM 4 PM M-F.
- E. N/A The City of Weldon Spring does not utilize a stormwater management panel or committee.
- F. The City of Weldon Spring has a City Council. The City Engineer / Storm Water manager makes an annual update to the governing board. The City Engineer provides the status of the Storm Water Management Program and compliance.
- G. N/A
- H. N/A
- I. Using Adaptive management, the City of Weldon Spring review the Public Participation Program, at minimum, annually and updates implementation procedures as necessary within the requirements of this permit. This shall be used to review how to best reach the public, the effectiveness of the mechanisms, the effectiveness of reaching the public. The City and the community are both working together for water quality. Any additional BMP's shall be acknowledged in the Storm Water Management Report.

Table I Annual Review of MCM2

Year Being Reviewed	Date of Review	Reviewer(s)	Were changes made and noted?
2021	10/26/2021	Bill Schnell	The City advertised on the
			website and with social media
			the public meeting – but no one
			attended. No comments were
			submitted. Covid-19 has
			impacted attendance at public
			events in the last two years.
2022			
2023			
2024			
2025			

4.3 MCM 3. Illicit Discharge Detection and Elimination (IDDE)

The City of Weldon Spring 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 regulated MS4.

Illicit Discharge – General Information

The following information can help assist with understanding the types and potential sources of illicit discharges.

- 1. Illicit discharges may be discovered during field inspections or after being reported by others.
- 2. The term "illicit discharge" is defined in the MDNR Phase II Stormwater regulations as "any discharge to a municipal separate storm sewer system (MS4) that is not composed entirely of stormwater, except discharges resulting from fire-fighting activities."
- 3. Each illicit discharge has a unique frequency, composition, and mode of entry in the storm drain system. Illicit discharges are frequently caused when the sanitary sewage system interacts with the storm drain system. A variety of monitoring techniques may be used to locate and eliminate illegal sewage connections. These techniques are intended to trace sewage flows from the stream or outfall, back up the pipes or conveyances to reach the problem connection, discharge or dumping.
- 4. Illicit discharges of other pollutants are produced from specific source areas and operations known as "generating sites." Knowledge about these generating sites can be helpful to locate and prevent non-sewage illicit discharges. Depending on the regulatory status of specific generating sites, education, enforcement, and other pollution prevention techniques can be used to manage this class of illicit discharges.
- 5. **Discharge Flow Types**: Dry weather discharges are composed of one or more possible flow types.
 - a. **Sewage and septic flows** are produced from sewer pipes and septic systems.
 - b. **Wash water** flows are generated from a wide variety of activities and operations. Examples include discharges of gray water (laundry) from homes, commercial carwash wastewater, fleet washing, commercial laundry wastewater, and floor washing to shop drains.
 - c. **Liquid wastes** refer to a wide variety of flows, such as oil, paint, and process water (radiator flushing water, plating bath wastewater, etc.) that enter the storm drain system.
 - d. **Tap water** flows are derived from leaks and losses that occur during the distribution of drinking water in the water supply system.
 - e. Landscape irrigation flows occur when excess potable water used for residential or commercial irrigation ends up in the storm drain system.
 - f. **Groundwater and spring water** flows occur when the local water table rises above the bottom elevation of the storm drain (known as the invert) and enters the storm drain either through cracks and joints, or where open channels or pipes associated with the MS4 may intercept seeps and springs.

- 6. Discharge Categories: Illicit Discharges can be separated into three (3) categories based on frequency of discharge:
 - a. **Transitory Illicit Discharge**: These are typically a one-time event. They can result from spills, dumping, and line breaks. These types of discharges are often the most difficult to investigate and trace back to the source. Methods for reducing this type of discharge are to educate the public on stormwater regulations and illicit discharges; establishment of a "hotline" telephone number for the public to call if any discharges are observed; and education of the community's investigative responses to sources of illicit discharge.
 - b. **Intermittent Illicit Discharge**: These are typically discharges that occur occasionally. They can occur several hours per day, week or over the course of a year. They can happen as the result of line breaks or cross connections.
 - c. **Continuous Illicit Discharge**: These direct connections into the MS4 can be from sanitary sewers, cross connections, infrastructure problems with a sanitary sewer system, or malfunctioning household sewage treatment systems. This type of discharge is the easiest to find, investigate, trace and eliminate from the MS4. These types of discharges also tend to have the greatest impact because of the constant pollutant loading into a water body.
- 7. Mode of Entry: Illicit discharges can be further classified based on how they enter the storm drain system. The mode of entry can either be direct or indirect.
 - a. "Direct entry" means that the discharge is directly connected to the storm drainpipe through a sewage pipe, shop drain, or other kind of pipe. Direct entry usually produces discharges that are continuous or intermittent. Direct entry usually occurs when two different kinds of "plumbing" are improperly connected.
 - i. Sewage cross-connections: A sewer pipe that is improperly connected to the storm drain system produces a continuous discharge of raw sewage to the storm drainpipe. Sewage cross connections can occur in catchments where combined sewers or septic systems are converted to a separate sewer system, and a few pipes get "crossed."
 - ii. **Straight pipe**: This term refers to relatively small diameter pipes that intentionally bypass the sanitary connection or septic drain fields, producing a direct discharge into open channels or streams.
 - iii. Industrial and commercial cross-connections: These occur when a drain pipe is improperly connected to the storm drain system producing a discharge of wash water, process water or other inappropriate flows into the storm drain pipe, i.e. a floor shop drain that is illicitly connected to the storm drain system. Older industrial areas tend to have a high potential for illicit cross-connections. 2. "Indirect entry" means that flows generated outside the storm drain system enter through storm drain inlets or by infiltrating through the joints of the pipe. Generally, indirect modes of entry produce intermittent or transitory discharges, except for groundwater seepage.

- b. The five main modes of indirect entry for discharges include:
 - i. Groundwater seepage into the storm drainpipe: Seepage frequently occurs in storm drains after long periods of above average rainfall. Seepage discharges can be either continuous or intermittent, depending on the depth of the water table and the season. Groundwater seepage usually consists of relatively clean water that is not an illicit discharge by itself but can mask other illicit discharges. If storm drains are located close to sanitary sewers, groundwater seepage may intermingle with diluted sewage.
 - ii. Spills that enter the storm drain system at an inlet: These transitory discharges occur when a spill travels across an impervious surface and enters a storm drain inlet. Spills can occur at many industrial, commercial, and transport-related sites. A very common example is an oil or gas spill from an accident that then travels across the road into the storm drain system.
 - iii. **Dumping** a liquid into a storm drain inlet: This type of transitory discharge is created when liquid wastes such as oil, grease, paint, solvents, and various automotive fluids are dumped into the storm drain. Liquid dumping occurs intermittently at sites that improperly dispose of rinse water and wash water during maintenance and cleanup operations. A common example is cleaning deep fryers in the parking lot of fast-food operations.
 - iv. **Outdoor washing** activities that create flow to a storm drain inlet: Outdoor washing may or may not be an illicit discharge, depending on the nature of the generating site that that produces the wash water. For example, hosing off individual sidewalks and driveways may not generate significant flows or pollutant loads. On the other hand, routine washing of fueling areas, outdoor storage areas, and parking lots (power washing), and construction equipment cleanouts may result in unacceptable pollutant loads.
 - v. **Non-target irrigation** from landscaping or lawns that reaches the storm drain system: Irrigation can produce intermittent discharges from over-watering or misdirected sprinklers that send tap water over impervious areas.
 - vi. In some instances, non-target irrigation can produce unacceptable loads of nutrients, organic matter or pesticides. The most common example is a discharge from commercial landscaping areas adjacent to parking lots connected to the storm drain system.
- c. LAND USE AND POTENTIAL GENERATING SITES Land use can predict the potential for indirect discharges, which are often intermittent or transitory. Many indirect discharges can be identified and prevented using the concept of "generating sites," which are sites where common operations can generate indirect discharges in a community. Both research and program experience indicate that a small subset of generating sites within a broader land use category can produce most of the indirect discharges. Consequently,

the density of potential generating sites within a sub-watershed may be a good indicator of the severity of local illicit discharge problems.

Some common generating sites within major land use categories are listed in Table 2.2 and described below.

- i. Residential Generating Sites: Failing septic systems have historically been the most common residential discharge reported. In addition, residential discharges frequently contained oil, irrigation overflows, swimming pool discharges, and car washing. Many indirect discharges are caused by common residential behaviors and may not be classified as "illicit" even though they can contribute to water quality problems.
- ii. Commercial Generating Sites: Illicit discharges from commercial sites typical include operations such as outdoor washing; disposal of food wastes; car fueling, repair, and washing; parking lot power washing; and poor dumpster management. It is important to note that not all businesses within a generating category actually produce illicit discharges; generally, only a relatively small fraction do. City of Nixa, Missouri IDDE Plan 2017 16 Consequently, on-site inspections of individual businesses are needed to confirm whether a property is actually a generating site.
- iii. Industrial Generating Sites: Industrial sites produce a wide range of flows that can cause illicit discharges. The most common continuous discharges are operations involving the disposal of rinse water, process water, wash water and contaminated, noncontact cooling water. Spills and leaks, ruptured pipes, and leaking underground storage tanks are also a source of indirect discharges. Industries are classified according to hundreds of different Standard Industrial Classification (SIC) codes. The SIC coding system also includes commercial, institutional, and municipal operations. Many industries are required to have storm water pollution prevention and spill response plans under EPA's Industrial Storm Water NPDES Permit Program. See Figures 2.2 and 2.2.1 copy of list of the industries covered by the NPDES MS4 Stormwater Permit Program within the City.
- iv. Institutional Generating Sites: Institutions such as hospitals, corporate campuses, colleges, churches, and cemeteries can be generating sites if routine maintenance practices/operations create discharges from parking lots and other areas. Many large institutional sites have their own areas for fleet maintenance, fueling, outdoor storage, and loading/unloading that can produce indirect discharges.
- v. **Municipal Generating Sites**: Municipal generating sites include operations that handle solid waste, water, wastewater, street, and storm drain maintenance, fleet washing, and yard waste disposal. Transport-related areas such as streets and highways, and parking lots can also generate indirect discharges from spills, accidents and dumping.

Land Uses - Generating Sites — Activities that Produce Indirect Discharges

Land Use	Weldon	Generating Sites	Potential Activities
	Spring	(Weldon Spring Site)	that Produce
	Outfalls		Discharge
Residential	B, D, E, F, G	Apartments, Multi-Family, Single Family	Car / Equipment
			Washing
		(B-Granada Hills, Chapter One, D-Wrenwyck, E-	Driveway Cleaning
		Camelot, Williamsburg on the Green,	Lawn Watering
		Highlands, Ehlmann Farms, Manors of Lucerne,	Septic System
		Renaissance Place, F: Whitmoor, G- Camelot)	Maintenance
			Swimming Pool
			Discharges
			Improper Plumbing
Commercial	A, B, E, F	Car Dealerships, Dry Cleaning, Gas Stations,	Power washing
		Auto Repairs, Restaurants, Golf Courses and	Dumps / Spills
		Country Club Pool(s)	Landscaping
		(A-Persimmon Woods, B – Persimmon Woods,	Fueling
		Ameren Substation, MSHP, Centerpointe	Vehicle Maintenance
		Hospital, Huber Park, Dairy Queen, E- Wolfrum	Cleaning greasy
		Crossing, F-Whitmoor Country Club)	equipment
Industrial	B, C, D	Construction vehicle washing, Trash dumpster,	All outdoor activities
		Petroleum and Chemical Storage	Processing or rinse
			water
		(B-Westwood Industrial Park, C-Kolb, D-	Loading and unloading
		Westwood Industrial)	Outdoor Storage
			(liquids)
Institutional	B, G	Cemeteries, Churches, Corporate Campuses,	Pressure washing
		Medical Facilities, Schools	Dumping, spilling
		(B-Emmanuel United Church, Enterprise	Landscaping
		Campus, Centerpointe Hospital, G-Francis	Parking lot
	_	Howell Schools, Worldcom, Bender)	maintenance
Municipal	Е	City Hall, Park Building, Streets, Storm Sewers	Pressure washing
			Dumps, spills
		Weldon Spring City Hall and Park	Landscaping
			Outdoor storage -
			liquids
			Parking lot
			maintenance
			Road maintenance

The illicit discharge detection and elimination program shall at minimum, include the following:

4.3.A A current storm sewer system map that shall be updated as needed to include features which are added, removed, or changed. This map may be paper or electronic.

This storm sewer map, must at a minimum:

1. The location of all MS4 outfalls. Completed:

☑Yes- The City of Weldon Spring has a plan sheet showing all outfalls.

□No; Explain your schedule to complete (Only newly regulated MS4s or enforcement agreement):

Note: The City of Weldon Spring contracted with St. Charles Engineering to map of all the City outfalls. This was produced and plan sheet dated June 19, 2021. This will be referred to as the WS Discharge Map.

2. The names and locations of all receiving waters of the state that receive discharges from the MS4 outfalls. Completed:

⊠Yes

□No; Explain your schedule to complete (Only newly regulated MS4s or enforcement agreement):

Note: The Weldon Spring Storm Water Discharge locations are show below. Each discharge location is mapped with a letter A-L on the *WS Discharge Map*. The receiving waters from each discharge location is shown below. The City also utilizes Google Earth to help locate outfall locations and has .kmz file showing outfalls. This can be accessed on the City Engineer's computer. A .kmz file can also be sent to anyone upon request by the City Engineer showing discharge locations on Google Earth.

Discharge Location - Receiving Waters - Nearby Reference Point

- A. Crooked Creek (Persimmon Woods Golf Course)
- B. Crooked Creek (Persimmon Woods Golf Course)
- C. Crooked Creek (Kolb)
- D. Crooked Creek (Wrenwyck Place)
- E. Baltic Creek a Tributary to Dardenne Creek (Pitnam Hill Road)
- F. Baltic Creek a Tributary to Dardenne Creek (Pitnam Hill Road)
- G. Missouri River (Katy Trail State Park Wooded/Old Wolfrum Road)
- H. Missouri River (Katy Trail State Park Wooded/Old Wolfrum Road)
- I. Missouri River (Katy Trail State Park Wooded)
- J. Missouri River (Katy Trail State Park Wooded)
- K. Missouri River (Katy Trail State Park Austin Ridge)
- L. Missouri River (Katy Trail State Park Austin Ridge)
- 3. The boundary of the regulated MS4 area. Completed:

⊠Yes

□No; Explain your schedule	to complete (Only newly regulated	l MS4s or enforcement
agreement):		

Note: The City boundary limits are clearly shown as a dash line - - - on the WS Discharge Map.

4. The map shall be readily available & used by field staff as needed.

⊠Yes

□No; Explain your schedule to complete (Only newly regulated MS4s or enforcement agreement):

Note: The *WS Discharge Map* showing all of the City discharge location has been reproduced to a 8".5 x 11" and appears on the reverse side of field inspection forms. This greatly assists learning the locations in the field and more accurately labeling inspection location.

- **4.3.B** The City of Weldon Spring must record the sources of information used for the map and track, at minimum:
 - ☑ A numbering or naming system of all outfalls. YES
 - ☑ Dates that the outfall locations were verified/ or last field survey. YES
 - ☑ For newly added outfalls, the date that it was added to the storm sewer system. N/A

Note: NUMBERING: Weldon Spring Outfall Coding - The discharge locations A-L creates the first part of the labeling system, then the outfalls are numbers 1-99, depending on how many outfalls. A1, A2, A3... This is useful as the outfalls can then be quickly tied to the City discharge location. The last survey date on the WS Discharge Map was 6/19/2019. NEW OUTFALLS – No new outfalls have been added to the system since 6/19/2019.

4.3.C The MS4 – City of Weldon Spring, shall effectively prohibit non-stormwater discharges into the permittee's storm sewer system and implement appropriate enforcement procedures and actions.

Weldon Spring Storm Water Ordinances (Enforcement Procedures and Actions)

The City of Weldon Spring strictly prohibits non-stormwater discharges into the permittee's storm sewer system and has progressive actions to assure compliance.

Action 1 Verbal Warning	Documented in MS4 Documentation Log
Action 2 Written Warning	Documented in MS4 Documentation Log
Action 3 Stop Work Order	Documented in MS4 Documentation Log
Action 3 Code Violation – Issue Summons	Documented in MS4 Documentation Log

The City has a Code Enforcer position and a Stormwater Manager / City Engineer that work together to ensure compliance. Serious violations may skip progressive enforcement and go directly to a Code Violation with a summons to appear to the municipal judge. The City Engineer is authorized to issue Stop Work Orders if compliance is not immediately obtained with verbal and written warnings. The City Ordinances provide for fins up to five hundred dollars (\$500.00) in Municipal Court for each day of violation.

Weldon Spring Ordinances are found in the Appendix Section of this document. These Ordinances are available to the public on https://ecode360.com/WE3474.

Section 240.070 Non-Stormwater Discharge Controls.

Section 240.080 Enforcement.

4.3.D The City of Weldon Spring has developed a dry weather field screening strategy.

The Checklist includes the following minimums:

- Date and time; YES
- Weather conditions and temperature (air & water); YES
- Color of discharge; YES
- Estimate of flow rate (this may be noted qualitatively); YES
- Odor; YES
- Surface scum, algal bloom, floatable or oil sheen present; YES
- Deposits or stains (note the color); YES
- Turbidity (may be noted qualitatively); YES
- Stream impact including vegetation, fish, wildlife; YES
- Length of impacted stream; YES
- Notes of an obvious source of flow (such as lawn irrigation, etc.) YES
- Other _____

1. The MS4 – City of Weldon Spring shall conduct outfall field assessments. The screening shall be conducted during dry weather conditions (a minimum of 72 hours after the last precipitation event) to check for the presence of a discharge. The outfalls have all been mapped in the City borders. A large number of outfalls are on privately owned land and privately maintained. The City will inspect the City owned outfalls with the required frequency with a goal to exceed the minimum. The City will also try to inspect privately owned outfalls when possible.

Total % of all outfalls to be screened during the permit cycle (minimum of 60% for existing permittees):

Minimum 60% but 75% Goal Desired DURING PERMIT CYCLE

Outfall Inspections / Priority Areas

	Approximate (% or #) per year of permit cycle	General Plan – Where to focus Inspections
Permit year 1:	15%	G, H, I, J, K, L Missouri River
Permit year 2:	15%	A, B Crooked Creek
Permit year 3:	15%	C, D Crooked Creek
Permit year 4:	15%	E Baltic Creek
Permit year 5:	15%	F Baltic Creek

4.3.F The MS4 – City of Weldon Spring shall maintain procedures for tracing the source of an illicit discharge.

If initial screening indicates that a dry weather discharge contains pollutants, or if an illicit discharge is suspected from another reporting method, the source shall be traced.

Attach a copy of, or explain procedures for tracing the source of an illicit discharge, and mechanisms to locate and follow stormwater infrastructure. A variety of investigative tools may be used as appropriate for each situation, such as, but not limited to:

- Visually following the flow.
- Storm sewer system sampling.
- Full storm sewer map.
- Closed circuit television; (on-call list)
- Smoke or dye tracing; and (on-call list)
- 4.3.G The MS4 Operator shall maintain procedures for removing the source of the discharge. After locating the source, the pollutant and source must be removed. The exact procedure will depend on the source and the circumstances.

The City of Weldon Spring will utilize the following testing services if an illicit discharge is detected and additional technical, testing or cleanup services are needed.

Water Testing Contacts

The City of Weldon Spring will have basic water testing equipment available at the City Hall. This will include sampling bottles, temperature, and pH. If additional testing is needed, the City may utilize the following services if additional testing is needed:

St. Louis Testing Laboratories, Inc.

2810 Clark Avenue Saint Louis, MO 63103 Phone: <u>(314) 531-8080</u> Fax: (314) 531-8085

Email: testlab@stltestlab.com

Home Depot

Free Water Test Laboratory Testing PO Box 1693 Cape Girardeau, Missouri 63702-9800

Home Depot provide free water testing in the community. This may be utilized for non-emergency situations.

Missouri 24/7 Environmental Emergency Response (EER) Spill Line

Under the Missouri Spill Bill, responsible parties or spillers are required to report hazardous substances releases to the department's 24-hour Environmental Emergency Response Spill Line at 573-634-2436, or the National Response Center at 800-424-8802. Duty officers staff the department's spill line 24 hours per day, seven days per week. The departments spill line provides a single answering point for local and state agencies to request state-level assistance for emergencies, serious accidents, or incidents, or for reporting hazardous materials and petroleum spills.

Local Water, Sanitary Sewer and Pipeline Contacts

Missouri American Water

1290 Motherhead Rd, Cottleville, MO 63304 1-866-430-0820 Emergency 24/7 www.amwater.com/moaw/ Missouri American Water tests to determine if water leaks are from their lines (with chlorine or if the water is from another source.) They provide 24/7 emergency response in the city limits.

Duckett Creek Sanitary District

3550 Hwy K O'Fallon, MO 6336 636-441-1244 636-447-4944 for 24-hour emergency service duckettcreek.com/about/

Duckett Creek Sanitary will provide smoke testing of their sanitary lines to detect illicit connections cross connections to their system.

The district will respond to all calls to determine the cause of the problem and take corrective action.

Pipeline Contacts

Enable Midstream Partners – Pipeline

1-800-474-1954 Emergency 24/7

Pipeline Association of Missouri

www.showmepipeline.com 877-477-1162

The City of Weldon Spring has an active (crude oil, petroleum products, natural gas) pipeline that runs thru the City Limits. These contacts shall be used for any damage to pipelines, leaks, or emergency situations.

On-Call Environmental Consulting Engineers Contacts

The following consulting engineer companies have gone thru a quality-based selection (QBS) by the City of Weldon Spring as required by Missouri Statues and are on the City's On-Call list for professional services. If technical environmental

Cochran Engineering

8 E Main Wentzville, Missouri 63385 Phone (636)33 www.cochraneng.com

Terracon

11600 Lilburn Park Rd.

St. Louis, MO 63146

Phone: (314) 692 8811 Fax: (314) 692 8810 www.terracon.com

SCI Engineering, INC

130 Point West Blvd. St. Charles, MO 63301 Phone: 636-949-8200 Fax: 636-949-8269

www.sciengineering.com

Environmental Emergency Cleanup Contractor Contacts

SET Environmental, Inc

St Louis, MO 63132 Tel +1 (314) 890-8600 Tel +1 (877) 437-7455 Fax +1 (314) 890-8666 www.setenv.com/

ERI Environmental Restoration, LLC

1666 Fabick Drive St. Louis, MO 63026 (636) 227-7477 (636) 227-6447 Fax 24 Hour Emergency Response (888)814-7477 www.erllc.com/

Genesis Environmental Services

8422 SW State Route 7 Blue Springs, MO 64014 www.genesisenviro.com

4.3.H In order to prevent further illicit discharge, the City of Weldon Spring shall identify priority areas

Example such as, but not limited to:

- Areas with evidence of ongoing illicit discharges;
- Areas with a past history of illicit discharges;
- Certain land use influencing stormsewer/ proximity of potential pollutant sources;

- Areas of higher population density;
- Neighborhoods with onsite sewage systems;
- Areas with known litter or dumping issues;
- Areas with large or increased number of citizen complaints; and
- Industrial areas

The City of Weldon Spring has developed an Outfall Tracing Spreadsheet (See Appendix) that shows contributors to each outfall (Residential, Industrial, Commercial, Institutional, Agricultural/Wooded). This helps not only to trace any future potential illicit discharge – but is also a tool to help determine priority inspection areas.

Annually, the MS4 Operators shall evaluate this priority area list and/or map and update as necessary to reflect changing priorities. The

Priority Area(s)

	Priority area(s)
Permit year 1:	Outfall Area B - Construction Site in Industrial Area – Fab Tech
2021	
Permit year 2:	Outfall Area B - Centerpointe Hospital / Persimmon Woods
2022	
Permit year 3:	Outfall Area E – Residential
2023	
Permit year 4:	Municipal Operations
2024	Weldon Spring Municipal Park / Veteran's Tribute Park
Permit year 5:	Focus on any Problem Areas in Previous Years
2025	

- 4.3.I The City of Weldon Spring MS4 Operator maintain written procedures for implementing the IDDE Program, including those components described within this section, to ensure program continuity and consistency. See Standard Operating Procedures FINDING, FIXING, AND PREVENTING ILLICIT DISCHARGES
- 4.3.J The City of Weldon Spring MS4 Operator will conduct investigations in response to field screening discoveries, spills, or in response to complaints from the public, municipal staff, or adjacent MS4s.
 - 1. <u>Immediately respond</u> to all illicit discharges, including spills, which are determined to constitute a threat to human health, welfare, or the environment.
 - 2. Investigate within five (5) business days, on average, any complaints, reports or monitoring information that indicates a potential illicit discharge which does not constitute a threat to human health, welfare, or the environment.
 - 3. If illicit connections or illicit discharges are observed related to, discharging to, or discharging from, an adjacent MS4 Operator's municipal storm sewer system, the City of Weldon Spring will <u>notify the other MS4's Operator (St. Charles County, City of St. Peters or City of O'Fallon)</u> within 24 hours of discovery or as soon as practicable.

Investigation Log

Date	Incident Location	Summary of Incident
8/5/2021	Fish Kill /Baltic Creek	Resident called about fish kill on Baltic Creek along Pitman Hill at Veteran's Tribute Park. Immediately called St. Charles County and the MoDNR Spill Hotline with SCCO. After investigation – cause was stagnant back water where fish ran out of oxygen – not illicit discharge. See documentation log 8/5/2021. Immediate Response Taken.
9/2/2021	Fuel Spill at pump/ QT	On 9/2/2021 a resident reported seeing fuel overtop tank at QT at 5905 S94. After investigating – vehicle had leak in their line. Spill contained to pad around car. QT and Kolb Grading responded with spill kit absorbent material. Upon site visit – no flow near stormwater system. QT and neighboring Kolb contractor cleaned up the fuel spilled by pump. Immediate Response Taken.

Attach a copy of or explain any details on the timeline for investigations.

Adjacent MS4	Contact person(s)	Phone number/ email
City of O'Fallon	Michele Gremminger 636-379-7632	
		mgremminger@ofallon.mo.us
City of St. Peters	Bill Malache, P.E.	636-477-6600
	Jay Bergeron	jbergeron@stpetersmo.net
St. Charles County	Paul Mueller	636-949-7900 ext. 7147
		pmueller@sccmo.org

4.3.K The City of Weldon Spring has procedures for appropriate enforcement, this may include fines, the ability to collect cleanup and abatement costs, and actions to ensure that the permittee's illicit discharge ordinance (or other regulatory mechanism) is being implemented.

Section 240.080Enforcement.

[R.O. 2004 § 216.080; Ord. No. 07-30 § 1, 12-11-2007]

<u>A.</u>

Authority To Enter. City personnel shall be permitted to enter upon public or private property for the purposes of observation, inspection, sampling, monitoring, testing, surveying and measuring compliance. Should the owner or occupant of any property refuse to permit such reasonable access, the City Administrator or his/her designee shall proceed to obtain an administrative search warrant pursuant to Missouri Statutes. No person shall obstruct, hamper or interfere with any such representative while carrying out his/her official duties.

В.

Civil Penalties.

1.

Illicit Discharges Or Spills. Any designer, engineer, contractor, agent or any other person who allows, acts in concert, participates, directs or assists directly or indirectly in the creation of a violation of this Chapter shall be subject to penalties as follows:

a.

For first-time offenders, if the quantity of the discharge is equal to or less than five (5) gallons and consists of domestic or household products in quantities considered ordinary for household purposes, said person shall be subject to a penalty not to exceed one hundred dollars (\$100.00) per violation or per day for any continuing violation and if the quantity of the discharge is greater than five (5) gallons or contains non-domestic substances, including, but not limited to, processed wastewater, or if said person cannot provide clear and convincing evidence of the volume and nature of the substance discharged, said person may be assessed a fine in Municipal Court not to exceed five hundred dollars (\$500.00) per violation or per day for any continuing violation.

<u>2.</u>

Illicit Connections. Any person found with an illicit connection in violation of this Chapter and any designer, engineer, contractor, agent or any other person who allows, acts in concert, participates, directs or assists directly or indirectly in the establishment of an illicit connection in violation of this Chapter may be subject to fines up to five hundred dollars (\$500.00) in Municipal Court for each day of violation.

<u>C.</u>

Injunctive Relief.

<u>1.</u>

Whenever the City Board of Aldermen has a reasonable cause to believe that any person is violating or threatening to violate this Chapter, rule, regulation, order duly adopted or issued pursuant to this Chapter or making a connection to a stormwater conveyance or stormwater conveyance system other than in accordance with the terms, conditions and provisions of approval, the City may, either before or after the institution of any other action or proceeding authorized by the Code, institute a civil action in the name of the City for injunctive relief to restrain and abate the violation or threatened violation.

<u>2.</u>

The institution of an action for injunctive relief under Subsection (C) shall not relieve any party to such proceeding from any further civil or criminal penalty prescribed for violations of this Code.

4.3.L The City of Weldon Spring shall maintain a database, or other centralized system, to track dry weather field screenings, spills, incidents, and investigations.

The City of Weldon Spring records inspections manually on handwritten inspection forms. These forms have been continually improved over the years to include updated information (temperature, etc.). Once the reports are written, they are added annually to a spreadsheet summary showing the annual outfalls inspected. The City plan is to inspect 15% of our outfalls annually. A copy of the inspection form and the annual inspection log is in the appendix of this document. Documentation is kept in hard copy form in the MS4 Documentation Log. This is maintained by the City Engineer and kept at his desk.

4.3.M The City of Weldon Spring shall inform public employees, businesses, and the public of hazards associated with illegal discharges and improper disposal of waste, this may work with part 4.1 and part 4.6 of this permit (MCM #1 and MCM #6).

The City of Weldon Spring informs the staff, businesses and public by pamphlets, door hangers, quarterly newsletter articles targeting the impacted audience. In the City of Weldon Spring, the residents and property owners are the primary audience. The City is mainly residential with a very small industrial area.

The quarterly newsletter is the main communication tool of the City since it is distributed to all property owners and residents. Pamphlets and door hangers are targeted to specific topics and groups.

For example, when a new pool permit comes into the city – the City provides a Pool Pamphlet to the owner, specifying MS4 requirements of the pool owner.

During Covid-19 when many more residents were out enjoying our trails and parks, an MS4 Scavenger Hunt was created with copies along the trail to learn more about the hazards of illicit discharges.

Sample Weldon Spring MS4 Pamphlets have been included in the appendix of this document.

4.3.Q The MS4 Operator must develop and implement or maintain a training program for all municipal field staff, who, as part of their normal job responsibilities, may come into contact with or otherwise observe an illicit discharge or illicit connection to the storm sewer system.

MS4 Municipal Field Staff Training

STAFF & DEPARTMENT	DATE	TOPIC(S)	TRAINING PROVIDER/ METHOD
Elected Officials	January 28,	MS4 Permit General	Schnell / via Zoom,
	2021	Information and	Handout at at January 28,
		Permit Renewal	2021BOA Meeting

Parks / Admin/ Community	November,	General M4 Info.	Schnell / PowerPoint
Development Staff	2021		
_	_		

Reviews of the training effectiveness shall be considered after municipal site inspections or after an illicit discharge incident occurs. If a certain department or facility did not perform the way they were trained, or if an issue arises that was not handled properly, the MS4 Operator should consider if the training is enough or is ineffective. The MS4 Operator shall consider ways to survey or test staff to see if the training is effective.

The City of Weldon Spring reviews all incidents and improves training utilizing an MS4 Training Effectiveness Documentation form. Incidents are included in annual staff training to improve future response and learn from events. These completed forms are in the annual MS4 Documentation Log.

4.3.R Using adaptive management the MS4 Operator shall review their IDDE Program, at minimum, annually and update implementation procedures as necessary. This data shall be used to continuously evaluate the effectiveness of each BMP and the implementation of each BMP. Any additional BMPs shall be acknowledged in the Stormwater Management Program report.

Annual Review of MCM 3

Year being reviewed	Date of review	Reviewer(s)	Were changes made and noted?
2021	11/1/2021	Bill Schnell	To improve training – summary of 2021 incidents have been included in training PowerPoint.
2022			
2023			
2024			
2025			

4.4 MCM 4. Construction Site Stormwater Runoff Control

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

4.4.A The City of Weldon Spring shall have a law, ordinance and/or other regulatory mechanism to require construction site runoff control BMPs at construction/land disturbance sites greater than or equal to one (1) acre or less than one acre if the construction activity is part of a larger common plan or development or sale that would disturb one acre or more. The mechanism shall include sanctions which are designed to ensure compliance, to the extent allowable under State, or local law.

City of Weldon Spring Sediment and Erosion Control Ordinance

See Appendix – City Ordinance - Section 410.660Sediment And Erosion Control.

- 4.4.E The City of Weldon Spring requires the construction site operator to conduct inspections at minimum:
 - 1. Every fourteen (14) days, when construction is active.
 - 2. Within 72 hours of any storm event, and within 48 hours after any storm event equal to or greater than a 2-year, 24-hour storm has ceased.

The City of Weldon Spring utilizes an inspection form (in Appendix) and requires permit holders to submit these weekly by email. The City Engineer gets these reports and reviews them for general compliance. The City Engineer files these in a binder with other current land disturbance permits. If the permit holder is not submitting them weekly as requested, the City Engineer will call or email the permit holder to remind them to comply with the requirement.

4.4.F The MS4 Operator shall maintain an inventory of active public and private land disturbance sites, as defined in Section 4.4 of this permit. This may be supplemented with records such as a plan review checklist and email correspondence.

The City Engineer maintains a binder with all of the active land disturbance permits. Permit holders on active sites email the City Engineer weekly their inspection forms. Due to the small size of the City – these reports fit in one large binder. If a permit holder fails to send a report – the City Engineer will call or send an email. An email is typically used to document the notice. Permit holders have been good sending in their reports with prompting at times.

The inventory must contain:	
☐ Relevant contact information for each p	project (e.g., tracking number, name, address, phone, etc.)

☐ Size of the project/ area of disturbance;
☐ If the site is a priority site/ how high of priority

Weldon Spring Inventory of Land Disturbance Permits > 1 Acre

Site	Contact(s)	Disturbed	Priority	Notes / Status
NI. II	T	Acres		NA/111 C
New House	Tim Quinn - Owner	4.25	Low	Waiting for
30 Dutchman	Chris Pedigo - Contractor			Acceptable
Weldon Spring, MO,	chris@hibbshomes.com			Growth –
63304	314-392-9631			Project
				Complete
Fab- Tech – New	Roger Roderick – Owner	4.25	Medium	MORA16657
Building	Mike Lawlor - Contractor			Waiting for
820 O'Fallon Road	mgljr@lawlorcorp.com			Acceptable
Weldon Spring, MO	314-412-4223			Growth –
63304				Project
				Complete
Weldon Spring Trail	Michael Padella, City	1.77	Low	MORA15927
Project	Administrator			Submitted
5401 Independence Rd.	Bill Schnell – City Engineer			termination
Weldon Spring, MO	cityengineer@weldonspring.org			of permit
63304	636-441-2110 ext. 110			form on
				11/18/2021.
Ehlmann Farms	Kevin Mahlke	11.23	Low	MORA09944
Sammelman Road	KMahlke@fandfhomes.com			Project
Weldon Spring, MO	Fischer & Frichtel Homes			Complete –
63304				Waiting to
				close permit.
The Enclave at	ARBOR LAND INVESTMENT CORP	1.97	Low	MORA11159
Blueridge Terrace	158 CHARDONNAY CT			Inactive
J	FLORISSANT, MO 63031			Project with
	,			Acceptable
				Growth
BENDER-LANDERS	Unified Credit Trust	17.29	Low	MORA12852
BDRY ADJ LOT 1	5132 Butler Bend Drive		-	Inactive
	St. Louis, MO 63128			Project with
	Dave Bender - Owner			Acceptable
	Office 314-525-7125			Growth
	Cell 314-420-2842			
	31. 120 20 12			

4.4.G The MS4 Operator shall track their oversite inspections. This may be done by retaining copies of records such as inspection checklists and email correspondence. The MS4 Operator must make these inventories available to the Department upon request.

The City Engineer does regular reviews of the active sites. Inspections occur monthly on active projects to assure the permit sites appear to be well maintained and BMPs working. The City Engineer documents inspections with a review form and photos of the site. These forms and photos are kept in the MS4 Documentation Log.

4.4.H Existing permittees: Review the Stormwater Management Program including ordinances, permitting procedures, review procedures, inspection procedures and enforcement procedures to ensure compliance with these requirements. Any changes necessary to be in compliance with this permit shall be completed within the first year of this permit issuance.

The inventory of active sites must be updated as new projects are reviewed and projects are completed. If the MS4 Operator needs to develop this inventory, it shall be completed within one (1) year of this permit issuance. (Completed and Included in Plan)

4.4.J The Stormwater Management Program must include procedures for the MS4 Operator to receive and consider information submitted by the public about land disturbance sites. This may be in combination with 4.2.D of this permit.

The City of Weldon Spring receives information in person, by phone and email and responds to all inquiries about storm water and land disturbances. Most inquiries are by phone and directed to the Community Development Staff (City Planner, Code Enforcer and City Engineer). This staff all works on a part-time basis and responds to inquiries by phone, person or email generally on the next workday. Due to the small size of the City and limited new developments – response is generally within hours on the next working day.

4.4.K The MS4 Operator shall provide, or support access to, construction site runoff control training for MS4 inspectors and plan reviewers at minimum once during this permit cycle. This education shall be tracked or documented.

MS4 Staff Training

STAFF & DEPARTMENT	DATE	TOPIC(S)	TRAINING PROVIDER/ METHOD
City Engineer	1/6/2021	Permit Renewal Comprehensive and 2-Step Requirements	Sarah Wright-Aholt MoDNR Virtural
City Engineer	2/17/2021	MS4 Updates and Roundtable with other Cities	St. Charles County Paul Mueller - Host 201 N. Second Street St. Charles, MO 63301
City Engineer	5/18/2021	SPRING STORMWATER VIRTUAL SEMINAR Post Construction Stormwater BMPs	EnviroCert International
City Staff	November 16, 2021	MCMs in the new MS4 Permit	Bill Schnell via PowerPoint.

4.L The MS4 Operator must provide written procedures outlining the local inspection and enforcement procedures to their inspectors to ensure consistency among the inspections.

Due to the small size of the City of Weldon Spring, the City Engineer works part-time and serves as the Storm Water Manager. The City Engineer inspects land disturbance sites monthly when active and requires the permit holders to send in weekly and post 1" rain event reports. These records are kept in the MS4 Documentation log at the City Hall. See Weldon Spring Standard Operating Procedures - Construction Site Stormwater Runoff Control.

4.4.M Using adaptive management, all MS4 Operators shall review, at minimum annually, their Construction Site Stormwater Runoff Control Program and evaluate the ordinances, review procedures, inspection procedures, enforcement procedures, receipt of public information procedures, and effectiveness of training procedures to ensure compliance with these requirements and determine if changes are needed.

Annual Review of MCM 4*

Year Being Reviewed	Date of Review	Reviewer(s)	Were changes made and noted?
2021	11/2/2021	Bill Schnell	Plan has been updated to the new permit renewal requirements. The City only had a few land disturbance permits and good compliance. No public complaints received in 2021. Will continue to make adaptive management changes to improve.
2022			·
2023			
2024			
2025			

*This an	nual review may include but is not limited to the follow.
	\square Evaluating the most common violations, how the violations are handled, how many are escalated.
	\square If the education program can assist in reducing violations.
	\Box Determining if the site plans match the sites when violations arise or if additional items need to be evaluated at plan review.
	☐ Any public complaints?

4.5 MCM 5. Post-Construction Stormwater Management in New Development and Redevelopment

The MS4 Operator shall continue or develop, implement, and enforce a program to address the quality of long-term stormwater runoff from new development and redevelopment projects that disturb equal to and greater than one acre, including projects less than one acre that are part of a larger common plan of development or sale that would disturb one acre or more and that discharge into the regulated MS4.

The MS4's program shall ensure that controls are in place that have been designed and implemented to prevent or minimize water quality impacts

4.5.A The MS4 Operator shall maintain and utilize an ordinance(s) or other regulatory mechanism(s) to address post-construction runoff from new development and redevelopment projects to the extent allowable under state or local law for sites equal to or greater than one acre including projects less than one acre that are part of a larger common plan of development or sale.

The City has Ord. No. 18-12, 12-11-2018 which addresses **Sediment and Erosion Control**. This ordinance contains the required controls for land disturbances.

See Appendix – Ordinances

The City of Weldon Spring requires all property owners to maintain the property in accordance with the approved site plan(s) for the property. The site plan contains post-construction stormwater management features such as green construction features to improve water quality and detention areas to reduce peak runoff.

The City has adopted St. Charles County standards for property maintenance which requires property owners to keep areas clean and well maintained.

The City also has specific ordinances for pet waste, aimed at improving water quality and assuring only storm water enters the system.

These are some of the post construction ordinances that improve water quality in the City of Weldon Spring.

SEE APPENDIX - ORDINANCES

- 4.5.B The MS4 Operator shall continue or develop a strategy to minimize water quality impacts. This shall include a combination of structural and/or non-structural controls (BMPs) appropriate for the permittee's community.
- 1. Structural controls include but are not limited to; extended detention basins, grass swales, bioretention, permeable surfaces, sand filter basins, stormwater planters, proprietary BMPs.

During the plan review stage of all area, site and construction plans a checklist is utilized by the City Engineer and City Planner to assure focus on all of the critical stormwater design elements. The City community development staff encourages the use of *Missouri Guide to Green Infrastructure*. This is

available on the Missouri Department of Natural Resources Website. By encouraging developments to utilize this guide, the City has several noteworthy developments in the use of Green infrastructure. (Novus and Vanguard Apartments)

2. Non-structural controls include but are not limited to; stream buffers, no mow zones, preservation of open spaces, tree preservation, impervious cover reduction, land use planning, and low impact development.

The City of Weldon Spring has also discouraged development near the Missouri River through zoning and restricting development. This has created a large riparian buffer which helps to improve water quality. Greenways have been maintained in the City to retain and enhance the natural environment. The City of Weldon Spring came into existence, to restrict development and retain the original rural features the area is known for.

The City of Weldon Spring has numerous ordinances that protect the environment and require minimum green space in each of the zoning districts.

In the City Code, Section 410.350 General Standards To Minimize Adverse Impacts. [Ord. No. 18-12, 12-11-2018] and Section 410.360Prioritized List Of Resources To Be Conserved. [Ord. No. 18-12, 12-11-2018] stream channels, floodplains, etc. are prioritized as #1 to preserve and to protect with buffer areas.

In Planned Commercial District (PC), 35% green space is required. Section 405.110, "PC" Planned Commercial District.[Ord. No. 18-12, 12-11-2018]

See APPENDIX - ORDINANCES

The ordinance(s) or regulatory mechanism(s) for non-structural post-Construction controls, shall include:

The City of Weldon Spring has specific ordinance(s) to preserve trees and maintain the natural features of the land. See Chapter 235 Tree Conservation and Protection.

See APPENDIX – City Ordinances

4.5.C Pre-construction plan review shall be conducted by the MS4 Operator to assess site characteristics at the beginning of the construction site design phase to ensure adequate planning for stormwater program compliance.

The structural or non-structural controls chosen shall; protect sensitive areas, minimize the creation of stormwater pollution, and effectively reduce stormwater pollution. This can be achieved by reasonably mimicking preconstruction runoff conditions on all affected new development projects, or the permittee may achieve this goal through a method more appropriate for its community.

The City of Weldon Spring utilizes a plan review checklist (see Appendix).

4.5.D The MS4 Operator shall have ordinances or similar enforcement mechanisms to ensure adequate long-term operation and maintenance (O&M) of the selected BMPs, including, as appropriate, agreements between the MS4 Operator and other parties such as post-development landowners or regional authorities.

The City of Weldon Spring has numerous subdivisions and commercial properties that have dry or wet detention areas. With most of the development in the City occurring prior (1970-1990's) to more typical designs of that era, the majority of BMPs are dry detention basins. A few more recent developments (2000-2021) have bio-detention area to improve water quality. The City of Weldon Spring requires the design and maintenance of storm water BMP's to be shown on the site plans and construction plans. When these are approved, the owner is required to maintain the property according to these approved plans.

If not maintained separately, include a copy of or link to the ordinance or regulatory mechanism to ensure long-term O&M.

Section 405.245 Maintenance Of Constructed Improvements. [Ord. No. 18-12, 12-11-2018]

Buildings, structures, landscaping and other improvements shall be constructed, installed and maintained in accordance with the site plan approved by the City. It shall be the duty of the owner of the property to maintain such improvements. The City maintains copies of all approved site plans

 \square Long term O&M shall be addressed during the plan review and approval process.

☐ Copies of O&M manuals shall be retained by the party responsible for the post-construction BMP, and with the MS4 Operator. This may be done electronically.

4.5. E	The MS4 Operator sr	hall inspect, or require	e inspection of,	each water	quality struct	tural and no	n-structural
water po	st-construction BMP	according to the follo	wing at minimu	um:			

\square A minimum of one (1) inspection shall be conducted during construction, and one (1) inspection before
the site is finalized, to verify water quality facilities are built as designed and any applicable boundaries or
practices for non-structural BMPs are being observed. This may be conducted in combination with MCM 4
inspections.

☐ A minimum of once in the first three	vears after the installation by	v. the MS4 Operator
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\square Annually by the owner or operator of the post-construction BMP, or by the MS4 Operator. If completed
by the BMP owner or operator, this inspection report shall be submitted to the MS4 Operator for evaluation and review.
☐ The MS4 Operator shall inspect a minimum of 60% of all water quality post-construction BMPs within
the five year permit cycle. This must include installations with ongoing or open enforcement issues.

The City of Weldon Spring will inspect new BMP's installed on construction sites at the following schedule:

- 1. A minimum of one (1) inspection shall be conducted during construction
- 2. One (1) inspection before the site is finalized, to verify water quality facilities are built as designed
- 3. A minimum of once in the first three years after the installation
- 4. Annually by the owner or operator of the post-construction BMP, or by the City. If completed by the BMP owner or operator, this inspection report shall be submitted to the MS4 Operator for evaluation and review.
- 5. The City shall inspect a minimum of 60% of all water quality post-construction BMPs within the five year permit cycle. This must include installations with ongoing or open enforcement issues.
- 4.5.F The MS4 Operator must maintain a plan designed to ensure compliance with the MS4's post-construction water quality regulatory mechanism. This plan shall include escalating enforcement mechanisms the MS4 Operator will use to ensure compliance.

The MS4 Operator must have the authority to initiate a range of enforcement actions to address the variability and severity of noncompliance.

The City of Weldon Spring has a Code Enforcer, City Planner and City Engineer that work closely with the City Manager together to resolve issues in the City. The standard practice to obtain enforcement:

- 1. Education Provide owners violating any policy the correct information first to be compliant.
- 2. Verbal A discussion with the property owner what needs to occur and how quickly (time may depend on seriousness of offense and impact on environment from immediate to two (2) weeks for minor.)
- 3. Written If a verbal warning does not work the City will issue a written warning with a specific deadline(s).
- 4. Summons If an owner fails to comply with verbal and written warning, then the City will issue a summons to appear to a municipal judge. The Judge would decide on any fine based on the City ordinances.
- 4.5.G Enforcement actions shall be timely in order to ensure the actions are effective. The MS4 Operator shall begin enforcement actions within thirty (30) days of discovering a violation.

The City of Weldon Spring requires property owners to maintain constructed improvements in accordance with the site plans approved by the City.

Section 405.245

Maintenance Of Constructed Improvements.
[Ord. No. 18-12, 12-11-2018]

Buildings, structures, landscaping, and other improvements shall be constructed, installed and maintained in accordance with the site plan approved by the City. It shall be the duty of the owner of the property to maintain such improvements.

The City of Weldon Spring has adopted the property maintenance codes of St. Charles County. These codes provide specific requirements and progressive discipline to assure compliance. Property must be maintained according to the approved plans.

Section 500.080

Adoption Of Property Maintenance Code Of St. Charles County.

[R.O. 2004 § 500.080; Ord. No. 14-10 § 2, 3-27-2014; Ord. No. 18-09, 10-9-2018; Ord. No. 19-08, 5-23-2019]

The City of Weldon Spring does hereby adopt the Property Maintenance Code of St. Charles County, as adopted in Sections 500.500, 500.510, 500.520, 500.530, 500.540, and 500.550, OSCCMo., as currently adopted, or replaced hereafter. One (1) copy of said Property Maintenance Code is on file in the City offices.

Section 500.085

Violations And Penalties.

Any violation of the code adopted by this Article shall be deemed an ordinance violation, and the violator, upon conviction, shall be punished by a fine not exceeding five hundred dollars (\$500.00) or by imprisonment in the City or County Jail not exceeding ninety (90) days, or by both such fine and imprisonment. Every day that any violation of this code shall continue shall constitute a separate offense.

4.5.H The MS4 Operator shall maintain an inventory tracking the water quality post-construction BMPs.

The City of Weldon Spring maintains a spreadsheet inventory of the post-construction BMPs. This spreadsheet will continue to be updated as new developments are approved. This inventory is included in the Appendix of this document under Post-Construction BMP Inventory.

See Appendix – Post-Construction BMP Inventory

Explain how the inventory is maintained:

The inventory must contain:
☐ Relevant contact information for each project (e.g., tracking number, name, address, phone,
etc.);
☐ The type of post-construction BMP;
☐ Applicable operations and maintenance documents;
☐ Date the MS4 Operator approved the construction site plan; and,
\Box If the water quality facility is owned or operated by the MS4, the tracking shall also include any
maintenance, such as sediment clean-out or replanting.

4.5.I The MS4 Operator shall also track the post-construction BMP inspections. This may be done by retaining copies of records such as inspection checklists and email correspondence. The MS4 Operator must make these inventories available to the Department upon request.

The City of Weldon Spring will maintain the inspection records in the MS4 Documentation Logbook. An updated copy of forms, spreadsheets will be maintained on the G:/ drive under Forms or MS4 Permit. The City Engineer / Storm Water Manager will update these files after inspections, when new development occurs or when continual adaptive management makes improvements.

·	<u> </u>			
	The tracking must contain	at a minimum:		
	☐ Inspection dates and tire☐ Inspector name;☐ Inspection findings; and☐ Follow up actions and defended	,	rective actions and enforc	ement actions.
	inspection sheets used by the endix for copy of Inspection Fo		ring contain all the requir	ed information. See
are n	Existing permittees: Evaluate edures and enforcement procedu eeded. Any changes necessary to of permit issuance.	res to ensure compli	ance with these requiremer	ts and determine if changes
	nventory of water quality facilitie IS4 Operator needs to develop th			
The N	The MS4 Operator shall prov . This may include Green Infrastro MS4 shall provide overall training r quality BMPs.	ucture training, or sp	ecific operation of proprieta	ry post-construction BMPs.
	STAFF & DEPARTMENT	DATE	TOPIC(S)	TRAINING PROVIDER/ METHOD
	City Staff	November 2021	MS4 General Information, New Permit, BMPs	Bill Schnell - PowerPoint

4.5.M Using adaptive management, all MS4 Operators shall review, at minimum annually, their Post-Construction Site Stormwater Management in New Development and Redevelopment Program and evaluate effectiveness of the overall program and determine if changes are needed.

Explain how the tracking is maintained:

Annual Review of MCM 5

Year Being Reviewed	Date of Review	Reviewer(s)	Were changes made and noted?
2021	11/8/2021	Bill Schnell & Michael Padella	Updating the previous plan to new requirements in the Comprehensive. This has been large undertaking for a small City with part-time staff.
2022			
2023			
2024			
2025			

This annual review may include but is not limited to the following.	
☐ Reviewing the number and types of developments;	
☐ How many BMPs were installed/inspected;	
☐ The amount of watershed area being treated;	
☐ The types of violations found and how frequently; and	
\square Evaluating how education could improve the effectiveness of the program.	

Any additional programmatic BMPs shall be acknowledged in the Stormwater Management Program Report. (Examples of programmatic BMPs include educational meetings with HOAs, onsite educational visits, adopting a standard operating procedure for enforcement measures.)

4.6. 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 goal of preventing or reducing pollutant runoff from municipal operations.

4.6.A The MS4 Operator shall maintain and utilize an employee training program for MS4 municipal operations staff. The training shall be given at minimum annually to all MS4 staff who work with material handling, at MS4 owned or operated vehicle/equipment maintenance areas, storage yards, and material storage facilities. This may be broken up into staff units, or by applicable topics.

The City Engineer provides staff training on MS4 topics in the City. The City only has one Park Manager, one part-time City Planner, one part-time Code Enforcer, one part-time City Engineer / Stormwater Manager. The City Administrator and Community Relations Coordinator are full time positions.

STAFF & DEPARTMENT	DATE	TOPIC(S)	TRAINING PROVIDER/ METHOD
City Staff	November 2021	General MS4 Topics	Bill Schnell / PowerPoint

4.6.B The training shall be used to prevent and reduce stormwater pollution. The training shall cover a minimum of the following topics/ activities (if applicable to the MS4):

Topic	Years covered in training	Departments trained	Number of staff trained
Vehicle and equipment washing	2021	Park, Community Development, Admin	
2. Fluid disposal and spills	2021	Park, Community Development, Admin	
3. Fleet, equipment, and building maintenance	2021	Park, Community Development, Admin	

4. Park and open space maintenance procedures (including fertilizer, herbicide, pesticide application)	2021	Park, Community Development, Admin
5. New construction, road maintenance, and land disturbances	2021	Park, Community Development, Admin
6. Stormwater system maintenance	n/a	St. Charles County Provides Road Services
7. MS4 operated salt and de-icing operations	n/a	St. Charles County Provides Road Services
8. Fueling		
9. Solid waste disposal	2021	Park, Community Development, Admin
10. Street sweeper operations	n/a	St. Charles County Provides Road Services
11. Illicit Discharges	2021	Park, Community Development, Admin
12. Past Incidents	2021	Park, Community Development, Admin
other		

1.00	The MC4 O	norator	المما
4. 6.C	The MS4 O	perator	snaii

\square Maintain material to use in the training program, such as those available from the EPA, the
state, or other organizations.
☐ Unless maintained separately, include a written procedures for the training program. Include description of how this training will coordinate with all other minimum control measures (such a Illicit Discharge), monitoring and TMDL implementations where applicable.
☐ Unless maintained separately, include a written schedule to offer topic specific training when is appropriate. Such as, swimming pool discharges in the summer, leaf disposal in the fall, proper salt clean-up and usage in the winter.

4.6.D The MS4 Operator shall maintain a list of all municipal operations/facilities that are impacted by this operation and maintenance program.

FACILITY	ADDRESS
City Hall and Park	5401 Independence, Weldon Spring, MO 63304

The City of Weldon Spring only has one municipal complex located at 5401 Independence. Since the City contracts the road repair work out to St. Charles County and other private firms, the City has limited equipment and resources at the City complex. The Park Manager only has two mowers and the entire City staff shares one vehicle. There are two battery operated golf carts and one diesel powered 4x4 utility vehicle. Washing of equipment takes place off-site at commercial locations.

The City has developed a Stormwater Pollution Prevention Plan (SWPPP) for good measure and normally does monthly or bi-monthly inspections of the facilities. The City Park Manager does the inspections and supplies the reports to the City Engineer. A copy of the SWPPP can be found in the Appendix of this document.

4.6.E The MS4 Operator shall maintain a list of industrial facilities the MS4 Operator owns or operates which are subject to NPDES permits for discharges of stormwater associated with industrial activity. The list shall include the permit number or a copy of the No Exposure Exemption Certification (if applicable) for each facility.

This includes Municipal projects with a land disturbance permit, wastewater facilities, airports, etc.

NPDES permitted facilities not owned or operated by the permittee are not required to be part of the list, however the MS4 Operator should be familiar with all such facilities in their MS4 service area as they may signify a priority area for the IDDE program.

FACILITY	PERMIT NUMBER/ NO EXPOSURE
n/a	n/a

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4.6.F floata	The MS4 Operator shall develop or maintain controls for reducing or eliminating the discharge of ables and pollutants from municipal facilities listed in Section 4.6.D and 4.6.E.
These	e controls shall include at a minimum, where applicable:
	☐ A list of potential pollutant sources at each facility, such as materials used and stored on site. ☐ A minimum of annual inspections of all municipally owned or operated facilities for stormwater issues.
	 Records shall be kept for inspections and follow up. This may be a checklist, and may be electronic.
	\square Use of structural controls/BMPs to reduce or prevent pollutants from entering waters of the state or into another MS4 where needed.
	 A map with descriptions of these BMPs shall be maintained for each facility. All paints, solvents, petroleum products, and petroleum waste products (except fuels) under the control of the permittee shall be stored so these materials are not exposed to stormwater. Sufficient practices of spill prevention, control, and/or management shall be provided to prevent any spill of these pollutants from entering waters of the state; This shall include spill kits when liquid product is stored at a facility; and 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. Tracking of rock salt/brine or other deicer usage. – n/a Maintaining municipal salt storage area(s) after use of rock salt, at minimum: n/a Sweep and/or shovel spillage in loading area and storage area, and Unload salt hoppers or keep under cover when salt is in the hopper.
Park	City of Weldon Spring has a Storm Water Pollution Prevention Plan (SWPPP) for the City Hall and buildings. A copy of this has been included in the Appendix of this document. The Park Manager hally does and inspection every other month. A copy of the inspections are with the SWPPP.
4.6.G struc	The MS4 Operator shall have procedures for proper disposal of waste removed from the MS4 tures and areas of jurisdiction.
This v	waste, shall include at minimum, if applicable to the permittee:
	☐ Street sweeper spoils and washout; ☐ Accumulated sediment; ☐ Dredged materials; ☐ Floatables, trash and litter;

☐ Leaves, other organic matter; and ☐ Other debris.
The City of Weldon Spring does not perform maintenance on the Storm Water System. The City has an agreement with St. Charles County to perform maintenance on the City's storm water system as a smal city. St. Charles County has procedures for their crews addressing these issues.
4.6.H The MS4 Operator shall maintain and utilize the following procedures, at minimum, for the washing of all municipal vehicles and equipment (if applicable to the MS4):
☐ Use of any soap or detergent shall only be where there is connection to sanitary sewer or equivalent treatment; and ☐ Any wash or rinse 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. ☐ Any washing or rinsing activities shall be conducted in an appropriate area so the water is treated. This area(s) shall be marked on the map of the facility. Explain how washing of vehicles and equipment is conducted: The City of Weldon Spring only has one pickup truck, two mowers, two electric golf carts and one gator type 4x4 off road utility vehicle. Equipment is taken to commercial power washing vendors due to the small size of the City and fleet.
4.6.I The MS4 Operator shall maintain written explanation of the controls, procedures, inspection schedules, and explanation of tracking of these controls. Tracking may be done by retaining inspection reports or checklists.
Individual Stormwater Pollution Prevention Plans (SWPPP) or one overarching Operations and Maintenance Manual (O&M Manual) for all applicable MS4 facilities may be used to comply with this requirement.
 □ Individual SWPPPs □ One O&M Manual □ Other written explanation of controls, procedures, inspection schedules, and explanation of tracking (inspection reports or checklists).
The City of Weldon Spring has a Storm Water Pollution Prevention Plan (SWPPP) for the City Hall and Park Complex. A copy of this has been included in the Appendix of this document.

1.

Annually, the MS4 Operator shall evaluate the results, controls, and inspection procedures to ensure compliance with these requirements and determine if changes are needed. This evaluation may also aid in finding priority areas or pollutants in relation to MCM 3 or adding more education in relation to MCM

Date(s) of review	Location(s) inspected	Were issues found?	Were changes made?	Is follow-up needed?
2/5/2021,	City Facilities	No	No	No
3/31/2021,				
5/17/2021,				
7/9/2021,				
9/7/2021,				
10/29/2021				

4.6.J The MS4 Operator shall maintain procedures to determine if there are impacts to water quality for new flood management projects, if applicable. Any flood management projects shall require the protection of water quality in the standards that are used to plan, design, build, and maintain stormwater infrastructure.

Flood management projects are those projects developed or designed to reduce flooding.

Attach a copy of, or include a written description of the procedures to determine if there are impacts to water quality for new flood management projects here.

Have there been any such flood management projects to review?		
Year	Yes/no	If yes, the location(s)
2021	No	N/A – The City did forward a concern about work bordering the City in St. Charles County that was proceeding without permits. The County took appropriate actions since the work required a development permit.
2022		
2023		
2024		
2025		

- **4.6.K Existing permittees:** Shall evaluate the current Stormwater Management Program including training, inspection procedures, and other municipal operation procedures to ensure compliance with these requirements. Any changes necessary to be in compliance with this permit shall be completed within one (1) year of this permit issuance.
- **4.6.M** Using adaptive management, all MS4 Operators shall review their Municipal Operations Program, at minimum, annually and update implementation procedures as necessary within the permit requirement.

Year being reviewed	Date of review	Reviewer(s)	Were changes made and noted above?
2021	11/18/2021	Bill Schnell	The main change was updating the old permit to the new Comprehensive permit requirements. Training was also in person since last year Covid had impacted in person training.
2022			
2023			
2024			
2025			

List any additional <u>programmatic</u> BMPs and when they were added to the Stormwater Management Program. (Examples of programmatic BMPs include; New training program, adopting a standard operating procedure for equipment cleaning.)

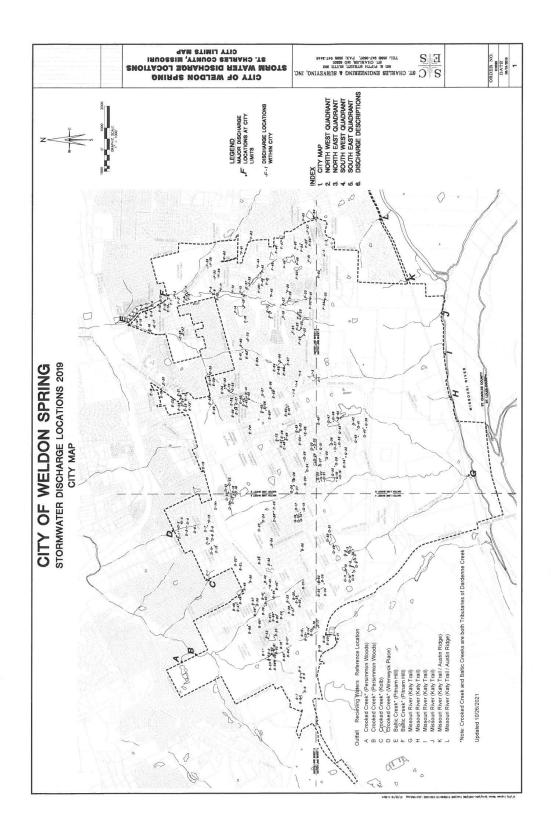
- 5.3 MS4 Stormwater Management Program Report
- 5.3.A A report to the Department on the status of the MS4's program is due annually on or before February 28th. This report shall cover the previous year from January 1st to December 31st. The report

shall be submitted on the Department approved, MS4 Stormwater Management Program Report form. If approved by the Department, permittees may submit the MS4 Stormwater Management Program Report using an alternative report format. The MS4 Operator shall submit the MS4 Stormwater Management Program

The annual reports must be submitted through the eDMR system. This is accessible through the Missouri Gateway for Environmental Management (MoGEM): https://dnr.mo.gov/mogem/

Who has access to the eDMR system?		
NAME	Role in the eDMR system	
Bill Schnell – PENDING – WILL SIGN UP	ENTER INFORMATION	

Appendix
Map of Weldon Spring



City Ordinances

Section 240.070Non-Stormwater Discharge Controls.

[R.O. 2004 § 216.070; Ord. No. 07-30 § 1, 12-11-2007; Ord. No. 08-18 § 1, 9-16-2008] A.

Illicit Discharges.

- 1. No person shall cause or allow the discharge, emission, disposal, pouring or pumping directly or indirectly to any stormwater conveyance, the waters of the City or State or upon the land in such proximity to the same (such that the substance is likely to reach a stormwater conveyance or the waters of the State), any fluid, solid, gas or other substance, other than stormwater; provided that non-stormwater discharges associated with the following activities are allowed so long as that they do not significantly impact water quality:
- a. Filter backwash [three hundred (300) gallons or less] and draining of dechlorinated water associated with residential or commercial swimming pools. This shall apply to pools larger than three thousand (3,000) gallons.
- b. Filter backwash and draining associated with raw water intake screening and filtering devices;
- c. Condensate from residential or commercial air conditioning;
- d. Residential vehicle washing;
- e. Flushing and hydrostatic testing water associated with utility distribution systems;
- f. Discharges associated with emergency removal and treatment activities for hazardous materials authorized by the Federal, State or local government on-scene coordinator;
- g. Uncontaminated groundwater (including the collection or pumping of springs, wells or rising groundwater and groundwater generated by well construction or other construction activities);
- h. Collected infiltrated stormwater from foundation or footing drains;
- i. Collected groundwater and infiltrated stormwater from basement or crawl space sump pumps;
- j. Irrigation water, provided that the discharge does not pose an environmental or health threat;
- k. Street wash water;
- I. Flows from firefighting;
- m. Discharges from the pumping or draining of natural watercourses or water bodies as permitted by the Federal, State or local government;
- n. Flushing and cleaning of stormwater conveyances with unmodified potable water;
- o. Wash water from the cleaning of the exterior of buildings, including gutters, provided that the discharge does not pose an environmental or health threat; and

- p. Other non-stormwater discharges for which a valid NPDES discharge permit has been approved and issued by Federal, State or local government, and provided that any such discharges to the municipal separate storm sewer system shall be authorized by the City.
- 2. Prohibited substances include, but are not limited to: oil, antifreeze, chemicals, cut grass or vegetation, animal waste, paints, construction debris, garbage and litter.
- B. Illicit Connections.
- 1. Connections to a stormwater conveyance or stormwater conveyance system which allow the discharge of non-stormwater, other than the exclusions described in Subsection (A) above, are unlawful. Prohibited connections include, but are not limited to: floor drains, wastewater from washing machines or sanitary sewers, wash water from commercial vehicle washing or steam cleaning and wastewater from septic systems.
- 2. Where such connections exist in violation and said connections were made prior to the adoption of this provision or any other ordinance prohibiting such connections, the property owner or the person using said connection shall remove the connection within one (1) year following application of this regulation; provided that, this grace period shall not apply to connections which may result in the discharge of hazardous materials or other discharges which pose an immediate threat to health and safety or are likely to result in immediate injury and harm to real or personal property, natural resources, wildlife or habitat.
- 3. Where it is determined that said connection:
- a. May result in the discharge of hazardous materials or may pose an immediate threat to health and safety or is likely to result in immediate injury and harm to real or personal property, natural resources, wildlife or habitat, or
- b. Was made in violation of any applicable regulation or ordinance, the City Administrator or his/her designee shall designate the time within which the connection shall be removed. In setting the time limit for compliance, the City shall take into consideration:
- (1) The quantity and complexity of the work,
- (2) The consequences of delay,
- (3) The potential harm to the environment, to the public health and to public and private property, and
- (4) The cost of remedying the damage.
- C. Spills. Spills or leaks of polluting substances discharged to or having the potential to be indirectly transported to the stormwater conveyance system shall be contained, controlled, collected and removed promptly. All affected areas shall be restored to their preexisting condition. Persons associated with the spill or leak shall immediately notify the City of Weldon Spring City Administrator or his/her designee of all spills or leaks of polluting substances. Notification shall not relieve any person of any expenses related to the restoration, loss, damage or any other liability which may be incurred as a result of said spill or leak, nor shall such notification relieve any person from other liability which may be imposed by Federal, State or other law.

Section 240.080Enforcement.

[R.O. 2004 § 216.080; Ord. No. 07-30 § 1, 12-11-2007]

A. Authority To Enter. City personnel shall be permitted to enter upon public or private property for the purposes of observation, inspection, sampling, monitoring, testing, surveying and measuring compliance. Should the owner or occupant of any property refuse to permit such reasonable access, the City Administrator or his/her designee shall proceed to obtain an administrative search warrant pursuant to Missouri Statutes. No person shall obstruct, hamper or interfere with any such representative while carrying out his/her official duties.

B. Civil Penalties.

- 1. Illicit Discharges Or Spills. Any designer, engineer, contractor, agent or any other person who allows, acts in concert, participates, directs or assists directly or indirectly in the creation of a violation of this Chapter shall be subject to penalties as follows:
- a. For first-time offenders, if the quantity of the discharge is equal to or less than five (5) gallons and consists of domestic or household products in quantities considered ordinary for household purposes, said person shall be subject to a penalty not to exceed one hundred dollars (\$100.00) per violation or per day for any continuing violation and if the quantity of the discharge is greater than five (5) gallons or contains non-domestic substances, including, but not limited to, processed wastewater, or if said person cannot provide clear and convincing evidence of the volume and nature of the substance discharged, said person may be assessed a fine in Municipal Court not to exceed five hundred dollars (\$500.00) per violation or per day for any continuing violation.
- 2. Illicit Connections. Any person found with an illicit connection in violation of this Chapter and any designer, engineer, contractor, agent or any other person who allows, acts in concert, participates, directs or assists directly or indirectly in the establishment of an illicit connection in violation of this Chapter may be subject to fines up to five hundred dollars (\$500.00) in Municipal Court for each day of violation.

C. Injunctive Relief.

- 1. Whenever the City Board of Aldermen has a reasonable cause to believe that any person is violating or threatening to violate this Chapter, rule, regulation, order duly adopted or issued pursuant to this Chapter or making a connection to a stormwater conveyance or stormwater conveyance system other than in accordance with the terms, conditions and provisions of approval, the City may, either before or after the institution of any other action or proceeding authorized by the Code, institute a civil action in the name of the City for injunctive relief to restrain and abate the violation or threatened violation.
- 2. The institution of an action for injunctive relief under Subsection (C) shall not relieve any party to such proceeding from any further civil or criminal penalty prescribed for violations of this Code.

Chapter 235 Tree Conservation and Protection

Section 235.010
General Provisions.
[R.O. 2004 § 215.010; Ord. No. 01-14 § 1 (Art. I §§ 1.1 — 1.2), 6-12-2001]
A.

Purpose And Intent. The purpose of this Chapter is to conserve relatively large trees and to protect trees from unnecessary damage and destruction. It is the intent of this Chapter to minimize the removal of protected trees, to ensure that reasonable measures are taken to minimize such removal and to ensure that protected trees that are removed are adequately replaced. It is the further intent of this Chapter to be consistent with and supplement the regulations contained in the landscaping requirements found in the City's Zoning Ordinance.

B. Applicability. A predevelopment tree plan shall be prepared, submitted to the City and approved by the appropriate board or commission prior to removal of any protected tree except as specifically exempted by this Chapter. This Chapter shall apply to every site development plan, grading plan, minor site plan, preliminary subdivision plat, area plan, final plan and section plan filed after the effective date of this Chapter and shall apply to every individual proposing to remove a monarch tree after the effective date of this Section except as exempted by Section 235.030(A). No "monarch tree," as defined herein, shall be removed without a tree removal permit except as allowed by Section 235.030(A). The procedures and requirements contained in this Chapter are in addition to the procedures and requirements contained in other City ordinances which shall remain applicable to the parcel for which the application is filed. In case of conflict between the provisions of any other City ordinance with provisions of this Chapter, the more restrictive requirement shall control unless the context clearly shows otherwise.

[Ord. No. 16-13 § 5, 7-28-2016]

Section 235.020 Language And Definitions.

[R.O. 2004 § 215.020; Ord. No. 01-14 § 1 (Art. II §§ 2.1 - 2.2), 6-12-2001]

A. This Section provides the general rules for interpreting language and the definition of terms, words and phrases within this Chapter.

B. Rules For Interpreting Language. For the purposes of this Chapter, certain terms, words or phrases used herein shall be interpreted as follows: the words "shall" and "must" are mandatory, the word "may" is permissive; the word "person" includes a firm, association, organization, partnership, trust, company or corporation as well as an individual; the present tense includes the future tense, the singular number includes the plural and the plural number includes the singular unless the context clearly indicates otherwise; the word "lot" includes the words "plot," "parcel," "tract," "site" and "space."

C. Definitions Of Words, Terms And Phrases. For the purpose of the administration and enforcement of this Chapter and unless otherwise stated in this Chapter, the following words and phrases shall have a meaning as indicated herein. All words not specifically defined herein shall have a meaning as found in a recent English language dictionary.

CALIPER

The diameter of a tree measured one (1) foot above ground level.

CROWN

The main mass of branching of a tree above the ground.

DRIP LINE

The outmost perimeter of the crown of a tree as projected vertically to the ground.

MASS OF TREES

A group of trees located in such close proximity that no one tree is more than thirty (30) feet from any other tree and which contains:

- 1. Five (5) or more deciduous trees of at least three-inch caliper size,
- 2. Five (5) or more coniferous trees at least six (6) feet in height, or
- 3. A combination of five (5) or more such deciduous and coniferous trees.

MONARCH TREE

A tree which has a life expectancy of greater than fifteen (15) years, has a relatively sound and solid trunk with no extensive decay, no more than one (1) major and several minor dead limbs (if deciduous), no major insect or disease problems and has a diameter of at least twenty-four (24) inches if deciduous or twenty (20) inches if coniferous.

PROTECTED TREE

Any deciduous tree that has a caliper of six (6) inches or more and any coniferous tree exceeding ten (10) feet in height unless any such tree is specifically defined by this Section as an unprotected tree or is otherwise exempted by this Chapter.

REMOVE

To relocate, cut down, damage, poison or in any other manner destroy or cause a tree to be destroyed.

STREET TREE, APPROVED

A deciduous hardwood tree with a minimum caliper of three (3) inches and with a clear trunk of at least six (6) feet which is suitable for urban environments, is tolerant of disease and salt and is included in the following list:

- 1. Thornless Honey Locust (Gleditsia triacanthos "inermis")
- 2. Red Maple (Acer rubrum)
- 3. Sugar Maple (Acer saccharum)
- 4. Hedge Maple (Acer campestre)
- 5. Seedless Green Ash (Fraxinus pennsylvanica "Marshall Seedless")
- 6. White Ash (Fraxinus americana)
- 7. Ironwood (Ostrya virginiana)
- 8. Pin Oak (Quercus palustris)
- 9. Willow Oak (Quercus phellos)
- 10. Red Oak (Quercus rubra)

- 11. Little Leaf Linden (Tilia cordata)
- 12. Silver Linden (Tilia tomentosum)

TREEA woody perennial plant with a single main stem having a caliper of at least two and one-half (2.5) inches.

[Ord. No. 16-13 § 6, 7-28-2016]

TREE-PROTECTION ZONE

A circular zone around a monarch tree or protected tree which shall encompass the entire drip line of the tree but in no case shall be less than a radius of six (6) feet around the tree.

UNDISTURBED TREE AREA

A portion of a site which is identified on a predevelopment tree plan as an area containing a mass of trees in which no tree will be removed or adversely affected during development.

UNPROTECTED TREE

A tree that is not a monarch tree, not an approved street tree, does not meet the minimum caliper or height requirements to be a protected tree or regardless of its caliper size or height is not a species protected by this Chapter because it is a nuisance tree, is an undesirable softwood variety or may be intolerant of disease. Such trees include, but are not limited to, the following species:

- 1. Black Locust (Robinia pseudoacacia)
- 2. Lombardy Black Poplar (Populus nigra "Italica")
- 3. Mulberry (Morus alba)
- 4. Slippery Elm (Ulmus rubra)
- 5. Tree of Heaven (Ailanthus glandulosa)
- 6. Common Crab Apple (Malus spp.)
- 7. Black Willow (Salix nigra)
- 8. Ginkgo (Ginkgo biloba) (female varieties only)
- 9. All species and varieties of elm, Zelkova and planera affected with the fungus Creatosomella ulmi.

Section 235.030

Tree Removal Regulations.

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[R.O. 2004 § 215.030; Ord. No. 01-14 § 1 (Art. III §§ 3.1 — 3.7), 6-12-2001] A.
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Exemptions. The following are exempt from the provisions of this Section and will not require a tree removal permit:

1.

Single-Family Lots Of Five (5) Acres Or Less. Any lot or parcel of land of five (5) acres or less in size which existed or received final plat approval prior to the effective date of this Section and that is within a single-family zoning district and used for a single-family residence shall be exempt from the requirements of this Chapter.

- 2. Unprotected Trees. Unprotected trees as defined in Section 235.020(C) shall be exempt from the requirements of this Chapter.
- 3. Tree Farms. Any land used as part of a tree farm is exempt from the requirements of this Chapter in regard to trees grown specifically to be harvested.
- 4. Logging Operations. Any logging operations existing prior to the effective date of this Chapter may continue and shall be exempt from the requirements of this Chapter. Any logging operations established on or after the effective date of this Chapter shall be subject to all requirements of this Chapter.
- 5. Utility Operations. Tree removals by duly constituted communication, water, sewer, electrical, gas or other utility companies or Federal, State or County agencies, or engineers or surveyors working under contract with such utility companies or agencies shall be exempt, provided that any removal is limited to those areas necessary for maintenance of existing lines or facilities or for the construction of major new lines or facilities, such as interceptor and force main sewers and major transmission lines in furtherance of providing utility service to its customers and, provided, further, that the activity is conducted so as to avoid any unnecessary removal. In addition, in the case of aerial electrical utility lines, removal of protected trees shall not be greater than the requirements specified by the National Electrical Safety Codes as necessary to achieve safe electrical clearances. The installation of minor utility lines for new subdivisions and similar developments, including, but not limited to, laterals, distribution and collection mains and lines serving individual lots are not included in this exemption.
- 6. Surveyors. A Missouri licensed land surveyor in the performance of his/her duties, provided such tree removal is limited to a swath three (3) feet or less in width and every effort is made to work around protected trees and remove limbs rather than entire trees and that no monarch tree is removed.
- 7. Emergencies. In case of a tornado, severe wind storm, ice storm or other similar emergency, the Board of Aldermen may suspend these three (3) protection regulations to facilitate clearing of damaged trees in furtherance of protecting the public health, safety and convenience.
- 8. Dead Or Dying Trees. Dead trees or trees that are dying may be removed without a permit.
- B. Predevelopment Tree Plan. The applicant for any site development plan, minor site plan, preliminary subdivision plat or area plan shall cause a tree plan to be prepared for the site proposed for development. For minor site plan applications, the tree plan need only show the area affected by new impervious surfaces and any monarch trees or protected trees to be removed. The tree plan shall be submitted with the site development plan, minor site plan, preliminary subdivision plat or area plan application. The tree plan shall include a survey of the entire site covered by the application with the site divided into grids of approximately two hundred (200) feet square [forty thousand (40,000) square feet]. The tree plan shall indicate the following within each grid:
- 1. A clear indication of any undisturbed tree areas and the square footage of such undisturbed tree areas.

- 2. The location of every monarch tree and every protected tree, the species, and the caliper size if deciduous or a monarch tree, or the height if coniferous unless the monarch tree or protected tree is within an undisturbed tree area. Any dead or dying monarch tree shall also be noted if not located within an undisturbed tree area.
- 3. The location of every unprotected tree which is proposed for removal, including the species or caliper size or height sufficient to determine that it is an unprotected tree.
- 4. A notation of all monarch trees and all protected trees to remain (except those within an undisturbed tree area) and all monarch trees and all protected trees to be removed. In the case of a monarch tree, the reason for removal shall also be provided.
- 5. A tally of the total number of monarch trees and the total number of protected trees to be removed. The tally shall also include the total number of protected trees to remain and the total number of protected trees to be removed within each two-hundred-square-foot grid.
- C. Conditions For Removal Of Monarch Trees. Monarch trees may be removed after the acquisition of a tree removal permit which will include a determination by the Zoning Commissioner or his/her designee that one (1) of the following reasons has been met for each monarch tree to be removed and that replacement trees will be added to the site based on the replacement schedule in Subsection (D). The reason for removal shall be indicated on the predevelopment tree plan.
- 1. Trees Within A Roadway. Monarch trees within the paved area of a proposed road may be removed after preliminary subdivision plat approval, provided that efforts were made to the satisfaction of the Planning and Zoning Commission to route roads around the monarch trees during the layout of the subdivision.
- 2. Trees Within The Building Footprint. Monarch trees within the proposed building footprint may be removed after approval of a site development plan, final plan or section plan, provided that efforts were made to the satisfaction of the Board of Aldermen to position the building in an effort to save the monarch tree.
- 3. Proximity To Structures. Monarch trees may be removed when the Board of Aldermen determine that they are located in such proximity to an existing structure that the safety, utility or structural integrity of the structure is materially impaired and that such safety, utility or structural integrity cannot be maintained through the removal of one (1) or more offending limbs of the tree.
- 4. Compliance With City Ordinances. Monarch trees located on steep slopes [slopes having a grade exceeding one (1) foot vertical to three (3) feet horizontal (3:1 slope)] or in close proximity to watercourses or that pose a significant detriment to compliance with other City ordinances may be removed. The applicant shall work with the City staff to try to preserve such trees and shall document the reasons why any such tree needs to be removed.
- 5. Traffic Hazard. Monarch trees which create a hazard to motor, bicycle or pedestrian traffic by virtue of physical proximity to traffic or impairment of vision may be removed.
- 6. Diseased Trees. Any monarch tree which is diseased or weakened by age, storm or fire and is likely to cause injury to people or damage to buildings or other improvements may be removed.

- D. Replacement Of Removed Trees. Monarch trees removed pursuant to Subsection (C), and protected trees removed pursuant to the tree plan required by Subsection (B), shall be replaced at the developer's expense based on the following schedule:
- 1. For every monarch tree removed based on the conditions enumerated in Subsection (C), one (1) replacement tree shall be installed for every three (3) inches of diameter of the monarch tree [for example, a twenty-four-inch-diameter monarch tree will be replaced by eight (8) three-inch-diameter trees]. Where fractional trees result, the number of replacement trees required shall be the next greater whole number.
- 2. Within each grid, as described in Subsection (B), fifty percent (50%) of the protected trees should be retained. For every protected tree removed over this fifty percent (50%) figure, two (2) replacement trees shall be installed.
- 3. A replacement tree may consist of a deciduous tree which is not a species identified as an unprotected tree and is a minimum of three-inch caliper size.
- 4. Replacement trees shall be installed on the site of the removed tree or, at the discretion of the Board of Aldermen, may be installed on a City park site.
- E. Tree Removal Credits. For every one thousand (1,000) square feet of undisturbed tree area on a site, a credit of one (1) replacement tree shall be earned.
- F. Tree Removal Permit. A tree removal permit shall be required prior to the removal of any monarch tree or any protected tree except as exempted by Subsection (A). An application shall be filed with the Zoning Commissioner indicating the reason for removing the protected tree and indicating how and when the removed tree will be replaced. Such permit may be filed for more than one (1) tree, provided that all trees proposed for removal are on the same site.
- 1. Contents Of An Application. The application for a tree removal permit shall provide the following information:
- a. Name of the applicant.
- b. Address of the property from which tree(s) is to be removed.
- c. Name of the approved site development plan, minor site plan or preliminary subdivision plat for the property (if applicable).
- d. Size of the site in acres.
- e. Number of monarch and protected trees to be removed including the reason for removal of each tree.
- f. A copy of the tree plan if the application is for a site which received site development plan, minor site plan or preliminary subdivision plat approval subsequent to the effective date of this Section.
- g. For single-family lots larger than five (5) acres, a sketch of the property indicating the approximate location of all trees to be removed.

- h. The location where all replacement trees will be planted, with a schedule indicating the number, species and size.
- 2. Review And Approval Of The Application. The application, along with all necessary supporting information, shall be submitted to the Zoning Commissioner. The Zoning Commissioner or designee shall have thirty (30) working days to review the application. At the end of that period, the Zoning Commissioner or designee shall approve the permit application, request additional information necessary to meet the requirements of Subsection (A) above, or shall deny the permit enumerating in writing the reasons for denial.
- G. Protection Of Trees During Development Activities. To assure the health and survival of monarch trees and protected trees that are not to be removed, the developer shall avoid the following kinds of tree injuries during all development activities.
- 1. Mechanical Injuries To Roots, Trunk And Branches.
- a. Prior to any land preparation or other development activities, a protective barrier easily visible to equipment operators shall be placed around all monarch trees and protected trees so as to encompass the entire tree-protection zone.
- b. No attachment, wires (other than supporting wires), signs or permits may be fastened to any monarch tree or protected tree.
- c. No equipment, construction materials or debris of any kind shall be driven or placed within the protective barrier.
- d. In lieu of constructing the barriers around individual trees as required above, the developer may physically designate large areas as undisturbed tree areas where no land preparation or other development activities of any kind will occur. The area shall be designated by placing stakes a maximum of twenty-five (25) feet apart and tying ribbon, plastic tape, rope or some other suitable material from stake to stake along the outside perimeter of the area. This perimeter line shall be beyond the tree-protection zone of any monarch trees and protected trees growing within the area.
- e. Required protective barriers and perimeter lines shall remain in place until all construction activity, except landscaping within the protected area, is completed.
- 2. Injuries By Chemical Poisoning.
- a. No fuel, paint, solvent, oil, thinner, asphalt, cement, grout or any other construction chemical or other material or tools of any kind shall be stored or allowed in any manner to enter within a required protective barrier or perimeter line.
- b. No equipment shall be cleaned within a required protective barrier or perimeter line.
- 3. Injuries By Grade Changes. Grade changes shall not be made within the tree-protection zone unless special protective measures are taken. The specific plan for protecting trees due to any grade changes within the tree-protection zone shall be submitted with the site development plan, minor site plan or preliminary subdivision plat application and shall be approved by the Zoning Commissioner or designee prior to commencement of development.

- 4. Injuries By Excavations.
- a. Water, sewer, gas and other similar utility lines should be routed around the tree-protection zones of monarch trees and protected trees.
- b. If a line cannot reasonably be routed around the tree-protection zone, the line shall be tunneled instead of trenched beneath the area within the zone. The tunnel shall be offset to one (1) side of the trunk to prevent damage to the main taproots.
- 5. Injuries By Paving. Porous paving may be placed within the tree-protection zone of a protected tree, so long as no damage is inflicted to the tree by grade change, compaction of the soil, or any other cause.

Section 235.040

Maintenance, Escrows, Enforcement And Violations And Penalties.

[R.O. 2004 § 215.040; Ord. No. 01-14 § 1 (Art. IV §§ 4.1 — 4.5), 6-12-2001]

- A. Maintenance. All trees installed to comply with the provisions of this Section shall be properly maintained, and any such tree that dies or becomes diseased within two (2) years of the issuance of final plat approval for a subdivision or the issuance of a land use permit for a building approved through a site development plan or minor site plan shall be replaced by the person who installed the trees.
- B. Escrow. For any site for which replacement trees are required, the owner of the site shall be responsible to provide an escrow fund to ensure installation and maintenance of such replacement trees. The escrow amount shall be an amount equal to the installed cost of one (1) three-inch caliper Red Maple tree for each replacement tree required. The escrow funds shall not be totally released by the City until twelve (12) months after all replacement trees have been installed, but the Zoning Commissioner or his/her designee may authorize partial release from time to time.
- C. Tree Protection Enforcement. The City, through the Code Enforcement Officer, may initiate injunction or abatement proceedings or other appropriate action in the courts against any person who violates or fails to comply with any provisions of this Chapter, or against the owner or agent of the owner of any property on which a tree protection violation occurs. Any person who violates or fails to comply with any provisions of this Chapter or the owner of property on which a violation occurs shall be subject to the penalties set forth in Subsection (D).
- D. Violations And Penalties. Every monarch tree and protected tree that is removed from a site or injured during site development without a tree removal permit and every monarch tree and protected tree that is removed from a site subsequent to site development without a tree removal permit (except those specifically exempted by this Chapter) shall be a violation of this Chapter and the owner shall replace the trees based on the schedule in Section 235.030(D) and shall pay upon conviction to the City a fine of up to five hundred dollars (\$500.00) per tree, but at least two hundred fifty dollars (\$250.00) per tree.
- E. Variances. The Board of Aldermen shall retain the discretion to waive certain provisions of this Chapter in order to allow for reasonable development of tracts of ground, so long as the developer's plan is consistent with the need for conservation and protection of trees.

Section 405.245

Maintenance Of Constructed Improvements.

[Ord. No. 18-12, 12-11-2018]

Buildings, structures, landscaping and other improvements shall be constructed, installed and maintained in accordance with the site plan approved by the City. It shall be the duty of the owner of the property to maintain such improvements.

Section 410.420

Permanent Greenway Protection Through Conservation Easements.

[Ord. No. 18-12, 12-11-2018]

The minimum required greenway land that is created and reserved through the City's subdivision process shall be protected through a permanent conservation easement, which shall prohibit future development on the greenway and define the range of permitted activities. A list of greenway land permitted and conditional uses can be found in Section 410.440 of these regulations and all uses must first be determined to be necessary and appropriate by the Board of Aldermen. (For example, the clearing of woodland habitat shall generally be prohibited, except as necessary to create trails and active recreation facilities or to install subsurface septic disposal systems.) This conservation easement shall be granted to a recognized land trust approved by the City for a minimum of ninety-nine (99) years and shall be subject to the approval of the Board of Aldermen.

Section 410.430

Greenway Land Design Standards.

[Ord. No. 18-12, 12-11-2018]

A. Design Standards For All Greenway Land.

- 1. Greenway lands shall be initially identified by referencing the City's map of potential conservation lands (Figure 3 in the City's Comprehensive Plan) and the property's context map (prepared during the major subdivision process) in order to ensure that an interconnected network of open space will be provided. The required greenway land consists of a mixture of primary conservation areas (see Chapter 402 for definition), all of which must be included and secondary conservation areas (see Chapter 402 for definition), as well as any waterway or creek and its appropriate setbacks as defined in Section 410.590 of these Subdivision Regulations. A complete listing of primary conservation areas and secondary conservation areas, in order of priority, can be found in Section 410.360 of these regulations.
- 2. The minimum amount of required greenway land is based on the zoning district where the property is located (see Article III of the Zoning Regulations.)
- 3. No portion of any building lot may be used for meeting the minimum required greenway land.
- 4. Active agricultural land with farm buildings, excluding areas used for residences, may be used to meet the minimum required greenway land.
- 5. Greenway land shall generally remain undivided and wherever possible shall be contiguous and shall be owned by the homeowners' association or shall be owned by a land trust or other conservation organization recognized by the City and approved by the Board of Aldermen. A portion of the land may be owned by a private individual as a conservancy lot (see Chapter 402 for definition) when the land in question contains an historic dwelling or farmhouse as determined by the Board of Aldermen.

Ownership options may be combined so that different parts of the greenway land are owned by different entities.

- 6. At least twenty percent (20%) of the tract acreage shall be available for the common use and passive recreation of the subdivision residents.
- 7. Up to five percent (5%) of the total tract acreage may be subject to the City's recreation requirements (see Section 410.630 of the Subdivision Regulations).
- 8. When the proposed development abuts a public park, a natural greenway buffer of a minimum of one hundred fifty (150) feet in width shall be provided along development boundary that abuts the park. No structures shall be constructed within the buffer and no trees or understory shall be cleared, except as necessary for street or trail construction. If the buffer is not vegetated, the Board of Aldermen may require that vegetative screening be planted or that the buffer be managed to encourage natural forest succession through "no-mow" policies and the periodic removal of invasive alien plant and tree species.
- 9. Greenway land shall be free of all structures except historic buildings, stone walls and structures related to greenway uses. The Board of Aldermen may grant approval of structures and improvements required for storm drainage, sewage treatment and water supply within the greenway, provided that such facilities would not be detrimental to the greenway (and that the acreage of lands required for such uses is not credited toward minimum greenway acreage requirements for the tract, unless the above ground area that they occupy is appropriate for passive recreational use).
- 10. Greenway land shall generally not include parcels smaller than three (3) acres and not have a length-to-width ratio of less than 4:1 or be less than seventy-five (75) feet in width, except for such lands specifically designed as neighborhood greens, playing fields or trail links.
- 11. Greenway land shall be interconnected wherever possible to provide a continuous network of greenway lands within and adjoining the subdivision.
- 12. Greenway land shall provide buffers to adjoining parks, preserves or other protected lands.
- 13. Except in those cases where part of the greenway is located within private dwelling lots, greenway land shall provide for pedestrian pathways for use by the residents of the subdivision. Public access to trails within the greenway land should be considered and when possible, greenway trails should be linked to other public trail within the City.
- 14. Provisions should be made for access to the greenway lands, as required for land management and emergency purposes.
- 15. Greenway land shall be undivided by public or private streets, except where necessary for proper traffic circulation.
- 16. Greenway land shall be suitably landscaped by retaining existing natural cover and wooded areas and/or be in accord with a landscaping plan in order to protect greenway resources.
- 17. Greenway land shall be consistent with the City's Comprehensive Plan.
- B. Pedestrian Access Trails. The City may require, in order to facilitate pedestrian access from the streets to schools, parks, playgrounds or other nearby streets, perpetual unobstructed easements at least

twenty (20) feet in width. Easements shall be indicated on the plat. An appropriate paved area/trail may be required within the easement area at the discretion of the City Planning and Zoning Commission of the Board of Aldermen. Said paved areas/trails shall be a minimum of eight (8) feet wide and shall be constructed of the same materials and to the same thickness as sidewalks as described in Section 410.570. Alternatively, pedestrian access trails may be constructed of five (5) inches of hot-mix asphalt over four (4) inches of compacted aggregate on properly compacted subgrade.

Section 410.440

Uses Permitted On Greenway Lands.

[Ord. No. 18-12, 12-11-2018]

A. The following uses are permitted on greenway land areas:

- 1. Conservation of open land in its natural state (for example, woodland, fallow field or meadow).
- 2. Agricultural and horticultural uses, including the cultivation of forest trees and the raising of crops and livestock, shall be permitted only after approval by the Board of Aldermen. If approved, specific language allowing the specific use(s) shall be included in the conservation easement language. Specifically excluded are commercial livestock operations involving swine, poultry, mink and other animals likely to produce highly offensive odors as well as any type of residential dwelling.
- 3. Pastureland for horses used solely for recreational purposes. Equestrian facilities shall be permitted but may not consume more than three-quarters (3/4) of the minimum required greenway land.
- 4. Passive non-commercial neighborhood open space uses such as village greens, commons, picnic areas, community gardens and similar low impact recreational uses.
- 5. Active non-commercial recreation uses such as playgrounds, playing fields, courts, trails and bikeways as long as they conform to the following standards:
- a. Areas shall not consume more than one-half (1/2) of the minimum required greenway land or five (5) acres, whichever is less.
- b. Playing fields, playgrounds and tennis or basketball courts shall not be located within one hundred (100) feet of abutting properties.
- c. Parking facilities for said areas are permitted and they shall generally be gravel-surfaced, unlighted and properly drained; provide safe ingress and egress; and contain no more than ten (10) parking spaces.
- d. Specifically excluded active uses such as motorized off-road vehicles, rifle ranges and other uses similar in character and potential impact as determined by the Board of Aldermen.
- 6. Water supply, underground sewage disposal systems and stormwater detention areas designed, landscaped and available for use as an integral part of the greenway.
- 7. Easements for drainage, access, sewer or water lines or other public purposes.
- 8. Above ground street rights-of-way may traverse conservation areas but shall not count toward the minimum required greenway land.

Section 410.450

Ownership And Maintenance Of Greenway Land And Common Facilities.

[Ord. No. 18-12, 12-11-2018]

A.

General Restrictions. All greenway land shall be permanently restricted from future development or subdivision through a conservation easement and such restrictions shall be part of the conservation easement.

- B. Dedication Of Easement To Grantee. The owner shall transfer dedicated conservation easements on the greenway land to a grantee acceptable to the City. The following criteria shall be met:
- 1. Grantee Requirements. The grantee shall be a tax-exempt, non-profit organization which is a qualified organization as defined in 170(h) of the Internal Revenue Code of 1986, as amended, among whose purposes is to preserve, protect and enhance natural, open space, scenic and water areas.
- 2. Grantor To Convey Conservation Easement. Grantor shall absolutely and unconditionally convey to the grantee, its successors and assigns, in perpetuity, a conservation easement as well as a declaration of restrictive covenants with respect to all of the claimed common ground (greenway land). The foregoing shall be done for the exclusive purpose of preserving and protecting the scenic, historic, scientific, educational, natural open space and water resources values of said property.
- 3. Inclusion Of Governing Language. The conservation easement shall include specific language governing the agreement regarding the creation or modification of any improvements, construction or development present on the property or created or modified at any time in the future. Such language shall be binding on the grantor, the grantee and any subsequent owners.
- 4. Taxes And Maintenance. The grantor and its successors and assigns shall pay all real estate taxes or assessments levied by the proper authorities on the property and agrees to hold the grantee harmless from any responsibility for maintaining the property except for damage caused by the grantee or grantees.
- 5. Transfer of Grantee's Interest. The grantee may assign or transfer its interest in this conservation easement, including its rights and obligations, only if the following three (3) requirements are met:
- a. The approval of the grantor and the approval of all other grantees,
- b. The transferor, as a condition to the subsequent transfer, requires that the conservation purposes set forth in the governing language are carried out completely and that the transferee will comply with the terms of the conservation easement, and
- c. The transferee organization is a qualified organization (see Section 410.450(B)(1) above).
- 6. Transfer Of Grantee's Interest. A grantee may assign or transfer its interest in this conservation easement, including its rights and obligations, only if the following three (3) requirements are met:
- a. The approval of the grantor and the approval of all other grantees,

- b. The transferor, as a condition to the subsequent transfer, requires that the conservation purposes set forth in the governing language be carried out and that the transferee will comply with all of the terms of the conservation easement, and
- c. The transferee is a qualified organization (see Section 410.450(B)(1) above).
- 7. No Merger. The grantee agrees and covenants that should it or any of its successors or assigns acquire the fee simple interest in and to the property, it shall not cause or permit the merger of such fee simple interest and the easement.
- 8. Condemnation. In the event that all or any part of the property shall be taken by condemnation, the easement shall terminate automatically as to property so taken and the grantee shall be entitled to a portion of the proceeds of any condemnation award in an amount equal to the proportionate value of the conservation easement in accordance with United States Treasury regulations of the Internal Revenue Service. All proceeds shall be used in a manner consistent with conservation purposes set forth in the conservation easement language. The conservation easement shall remain in full force and effect with respect to any portion of the property not taken by such condemnation proceedings.
- 9. Extinguishment Of Easement And Distribution Of Proceeds. The parties shall agree that the donation of the conservation easement shall constitute a real property interest, immediately vested in the grantee, with a fair market value that is equal to the proportionate value of the conservation easement at the time of the grant. If, because of a change in conditions, the easement is extinguished, the grantee (or any other holder of said easement), upon a subsequent sale, exchange or involuntary conversion of the property, shall be entitled to a portion of the proceeds equal to that proportionate value of the easement in accordance with United States Treasury regulations of the Internal Revenue Service and such proceeds shall be used in a manner consistent with the conservation purposes set forth in the easement language. For purposes of this paragraph (and the immediately preceding paragraph), proceeds shall not include an amount equal to the fair market value of any improvements on the conservation easement areas affected by a condemnation or judicial action, which were not included in the calculations by which the proportionate fair market value of the easement was established.
- 10. Easement In Perpetuity. The easement shall be a burden upon and shall run with the title to the property as a binding servitude in perpetuity and cannot be abrogated.
- 11. Maintenance Agreement. A written maintenance agreement acceptable to all parties and approved by the Missouri Department of Conservation and the City shall be adopted.
- C. Dedication Of Easements To The City. The City may, but shall not be required to, accept easements within the greenway that are designated for public use. If there is a facility involved, the facility shall remain in the ownership of the homeowners' association or land trust, while the underlying easement is held by the City. In addition, the following regulations shall apply:
- 1. There shall be no cost for acquisition by the City.
- 2. Any such easements for public use shall be accessible to the residents of the City and must include appropriate infrastructure such as parking.
- 3. A maintenance agreement for the easement between the owner and the City shall be adopted.

- D. Non-Common Private Ownership. Up to fifty percent (50%) of the required greenway land may be included within one (1) or more large "conservancy lots" of at least ten (10) acres provided the open space is permanently restricted from future development through a conservation easement, except for those uses listed in Section 405.170 of the Zoning Regulations and that the grantee of the conservation easement is given the power to enforce these restrictions.
- E. Homeowners' Association (For Single- And Multi-Family Residential Uses). Common grounds and facilities such as village greens, playing fields, trails and community gardens may be held in common ownership by a homeowners' association. Conservancy lots (see Chapter 402 for definition), however, shall not be held in common ownership by a homeowners' association. The land within a subdivision that is located within an individual house lot shall not be held in common ownership by a homeowners' association either. In addition, the following regulations shall be met:
- 1. The applicant shall provide the City with a description of the organization of the proposed homeowners' association, including its bylaws and all documents governing ownership, maintenance and use restrictions for common grounds and facilities.
- 2. The proposed homeowners' association shall be established by the owner or applicant and shall be operating (with financial subsidization by the owner or applicant, if necessary) before the sale of any dwelling units in the development.
- 3. Membership in the homeowners' association shall be automatic and mandatory for all purchasers of dwelling units therein as well as their successors in title.
- 4. The homeowners' association shall be responsible for maintenance and insurance of common grounds and facilities.
- 5. The homeowners' association bylaws and covenants shall contain language allowing the homeowners' association to levy such fees, dues and assessments as shall be required to pay for all taxes, maintenance and other costs as may be borne by the homeowners' association for the maintenance and upkeep of all greenway land or other commonly owned property. The homeowners' association covenants shall further stipulate a requirement for filing appropriate liens on the property of any homeowner for non-payment of any fees, dues or assessments. Such dues shall be paid in full, including the accrued interest, before the lien may be released.
- 6. Written notice of any proposed transfer of common grounds or facilities by the association or the assumption of maintenance for common grounds and facilities must be given to all members of the homeowners' association and to the municipality no less than thirty (30) days prior to such event.
- 7. The homeowners' association shall have adequate staff to administer, maintain and operate such common grounds and facilities.
- F. Endowment For Greenway Maintenance.
- 1. The applicant shall establish an endowment for the sole purpose of providing permanent funding to pay for greenway land maintenance (which could include activities such as mowing, removing invasive plants and paying insurance premiums and City taxes).

- 2. The applicant shall establish a "Greenway Maintenance Endowment Fund" for the greenway land within the subdivision. This fund shall be transferred by the developer to the designated entity that will have the maintenance responsibilities at the time this entity is created.
- 3. Spending from this endowment fund should be restricted to expenditure of interest so that the principal may be preserved. Assuming an annual average interest rate of five percent (5%), the amount designated for the endowment fund shall be at least twenty (20) times the estimated annual maintenance costs. Such estimate shall be prepared by an agency, firm or organization acceptable to the City and with experience in managing conservation land and recreational facilities.
- G. Greenway Maintenance Plan.
- 1. Unless otherwise agreed to by the Board of Aldermen, the cost and responsibility of maintaining greenway land and common ground and facilities shall be the responsibility of the homeowners' association or the private landowner.
- 2. The applicant, at the time of preliminary plat/Area Plan submission, shall provide a plan for maintenance of greenway land and operation of common ground and facilities in accordance with the following requirements:
- a. The plan shall define ownership;
- b. The plan shall establish necessary regular and periodic operation and maintenance responsibilities for the various kinds of open space (i.e., lawns, playing fields, meadows, pastures, croplands, woodlands, etc.);
- c. The plan shall estimate staffing needs, insurance requirements and associated costs and define the means for funding the maintenance of the greenway land and operation of any common ground and facilities on an ongoing basis. Such funding plan shall include the means for funding long-term capital improvements as well as regular yearly operating and maintenance costs;
- d. At the City's discretion, the applicant may be required to escrow sufficient funds for the maintenance and operation costs of common grounds and facilities for up to one (1) year; and
- e. Any changes to the maintenance plan shall be approved by the owner of the conservation easement.
- 3. The greenway maintenance plan shall be prepared by a licensed landscape architect and approved by the City, the Missouri Department of Conservation and the land trust or holder of the conservation easement. City approval shall be by the Board of Aldermen upon favorable recommendation by the Planning and Zoning Commission.
- 4. In the event that the organization established to maintain the greenway land and the common ground and facilities, or any successor organization thereto, fails to maintain all or any portion of the greenway land in reasonable order and condition, the City may assume responsibility for maintenance, in which case any escrow funds may be forfeited and any permits may be revoked or suspended; and the City may also seek to recover any costs along with any legal fees from the homeowners' association and/or the property owners. The City may enter the property and take corrective action, including extended maintenance. The costs of such corrective action may be charged to the development owner, land trust, homeowners' association or individual property owners who make up a condominium or homeowners'

association and may include administrative and legal costs and penalties. Such costs shall become a lien on said properties. Notice of such lien shall be filed by the City.

5. Landscaping shall be required for all proposed conservation developments as provided in Sections 405.250 of the Zoning Regulations. Additionally, landscaping should incorporate the use of native plant species that provide deep root systems and promote water detention for all types of plant species, including turf grass. The incorporation of rain gardens is strongly encouraged.

Section 215.010

Property Maintenance Code.

[R.O. 2004 § 210.010; Ord. No. 94-17 § 1, 3-29-1994; Ord. No. 16-13 § 1, 7-28-2016]

By ordinance, the City has adopted the Property Maintenance Code of Saint Charles County. Nuisances related to vegetation and refuse are defined in that code.[1]

[1]

Editor's Note: See Ch. 500, Building Codes and Regulations, Art. VIII, Property Maintenance Code.

Section 410.350

General Standards To Minimize Adverse Impacts.

[Ord. No. 18-12, 12-11-2018]

A. All subdivisions within the City shall avoid or minimize adverse impacts on the City's natural, cultural and historic resources as defined below.

- 1. Ground Water Resources.
- a. The City's limited ground water resources shall be protected in order to ensure the provision of an adequate water supply to City residents and businesses as well as to protect the flow of the City's surface waters.
- b. All subdivisions shall be designed to cause the least amount of disturbance to natural infiltration and percolation of precipitation to the ground water table.
- c. This shall be accomplished through carefully planning land disturbance activities, through the use of vegetation and by not placing streets, buildings and other impervious surfaces in locations that have been identified on the site's existing resources and site analysis map that have been identified as areas having the greatest permeability where precipitation is most likely to infiltrate and recharge the ground water.
- 2. Stream Valleys, Swales, Springs And Other Lowland Areas. Stream valleys (which include stream channels and floodplains), swales, springs and other lowland areas are resources that warrant restrictive land use controls because of flooding hazards to human life and property, their ground water recharge functions, their importance to water quality and the health of aquatic communities and their wildlife habitats. They are generally poorly suited for on-site subsurface sewage disposal systems.
- a. The following activities shall be minimized:

- (1) Disturbance to streams and drainage swales.
- (2) Disturbance to year-round wetlands, areas with seasonally high water tables and areas of surface water concentration.
- (3) Because of their extreme limitations, stream valleys, swales and other lowland areas warrant designation as open space or greenway lands. They may also require adjoining buffer lands to be included in the opens space/greenway as determined by an analysis of the protection requirements of such areas on a case-by-case basis. In certain instances, seasonal high water table soils may be excluded from the open space/greenway where it can be demonstrated that they are suitable for low density residential uses and conventional on-site sewage systems.
- 3. Woodlands. Woodlands occur throughout the City, often in association with stream valleys and wet areas, poor and erodible agricultural soils and moderate to steep slopes.
- a. Woodland conditions within the City vary with respect to species composition, age, size and health. They range from relatively recent post-agricultural young stands to mature mixed-age forests. Most woodlands in the City represent one (1) or more of the following resource values:
- (1) As soil stabilizers, particularly on moderate to steep slopes, thereby controlling erosion into nearby streams, ponds, lakes, retention ponds and roads. A closely related function is their enhancement of recharging the water table.
- (2) As habitats for woodland birds, mammals and other wildlife.
- (3) As a means of improving harsh microclimatic conditions in both summer and winter.
- (4) As recreation resources for walkers, equestrians, hikers and other related outdoor activities.
- (5) As visual buffers between areas of development and adjacent roads and properties.
- b. Because of their resource values, all woodlands on any tract proposed for subdivision or land development shall be evaluated by the applicant to determine the extent to which such woodlands should be designated partly or entirely as open space or greenway lands. Evaluation criteria shall include:
- (1) Configuration and size.
- (2) Present conditions (i.e., size, health and species composition).
- (3) Site potential (i.e., the site's capabilities to support woodlands based on its topographic, soil and hydrologic characteristics).
- (4) Ecological functions (i.e., in protecting steep slopes and erodible soils, maintaining stream quality and providing for wildlife habitats).
- (5) Relationship to woodlands on adjoining and nearby properties and the potential for maintaining continuous woodland areas.
- c. The evaluation of the tract's woodlands shall be undertaken by a forester, landscape architect, horticulturist or other qualified professional.

- d. In designing a subdivision and land development plan for any tract, the applicant shall be guided by the following standards:
- (1) Healthy woodlands exceeding one (1) acre should be preserved and designated as open space or greenway lands to the maximum extent possible.
- (2) Proposed site improvements shall be located, designed and constructed to minimize the loss or degradation of woodland areas.
- (3) Subdivisions shall be designed to preserve woodlands along roadways, property lines and linear features occurring within a site such as streams, swales, stone fences and hedgerows. Such linear features and the native vegetation associated with them should be preserved as buffers between adjacent properties and between areas being subdivided within a property. Preservation shall include ground, shrub, understory and canopy vegetation. Disturbance or removal of woodlands occupying environmentally sensitive areas shall be undertaken only when approved by the Board of Aldermen and on a limited, selective basis to minimize the adverse impacts of such actions. This shall, include, but not necessarily be limited to, vegetation performing important soil stabilizing functions on wet soils, stream banks and sloping lands.
- (4) No clearing or earth disturbance (except for soil analysis for proposed sewage disposal systems) shall be permitted on a site before the completion of subdivision and land development agreements. The determination of sight distance clearances along roadways shall be presented graphically.
- 4. Upland Rural Areas. These areas comprise fields, pastures, meadows and former agricultural areas in early stages of woodlands succession. These constitute the City's historic working landscape which may be dotted with historic houses, barns and other structures. They contribute to the City's rural character and because of their openness and potential high visibility and development in these areas is likely to be. These areas can provide habitat for wildlife in conjunction with nearby woodlands and stream valleys. The preferred location of development in the areas, if any, is the non-prime agricultural soils and lower topographic settings where development will be visually less obtrusive. Compact clustered residential designs, with coordinated architectural and landscape architectural themes, are encouraged in highly visible locations where future development cannot be avoided (such as at the far edge of open fields).
- 5. Slopes. Moderately sloping lands (fifteen percent (15%) to twenty-five percent (25%)) and steeply sloping lands (over twenty-five percent (25%)) are prone to severe erosion if disturbed. Erosion and the resulting overland flow of soil sediments into streams, ponds and public roads are detrimental to water quality and aquatic life and constitute a potential hazard to public safety. Areas of steep slope shall be preserved as required below.
- a. All grading and earthmoving on slopes exceeding fifteen percent (15%) from surrounding ground shall be minimized.
- b. No site disturbance shall be allowed on slopes exceeding twenty-five percent (25%), except grading for a portion of a driveway accessing a single-family dwelling when it can be demonstrated that no other routing that avoids slopes exceeding twenty-five percent (25%) is feasible.

- c. On slopes of fifteen percent (15%) to twenty-five percent (25%), the only permitted grading beyond that described above shall be in conjunction with a single-family dwelling, its driveway and the septic system, if any (which should typically be designed with a long, narrow drainage field following the land contours).
- d. Grading or earthmoving on all sloping lands of fifteen percent (15%) or greater shall not result in earth cuts or fills whose highest vertical dimension exceeds six (6) feet, except in the event that the City Engineer determines that no reasonable alternatives exist for construction of roads, drainage structures and other public improvements. If such a determination is made, vertical dimensions shall not exceed twelve (12) feet. Roads and driveways shall follow the line of existing topography to minimize the required cut and fill. Finished slopes of all cuts and fills shall minimize disturbance of natural grades.
- 6. Significant Natural Areas And Features. Natural areas containing rare, threatened or endangered plants and animals, as well as other features of natural significance, exist throughout the City. Some of these areas have been carefully documented by the Missouri Department of Conservation (MDC) in their natural heritage data. The applicant shall contact the MDC to determine what data they have for the site. Subdivision applicants shall take all reasonable measures to protect significant natural areas and features either identified by the City's map of potential conservation areas (Figure 3 in the Comprehensive Plan) or by the applicant's existing resources and site analysis map (as required in Section 410.230(B)(2) of these regulations) by incorporating them into proposed greenway areas or avoiding their disturbance in areas proposed for development.
- 7. Historic Structures And Sites. All subdivisions shall be designed to protect existing historic resources. The protection of an existing historic resource shall include the conservation of the landscape immediately around and associated with and significant to that resource to preserve its historic context. Where, in the opinion of the Board of Aldermen, a plat will have an impact on a historic resource, the developer shall mitigate that impact to the satisfaction of the Board of Aldermen by modifying the design, relocating proposed lot lines, providing landscape buffers or using other approved means.
- 8. Scenic Rural Road Corridors And Scenic Views. All subdivisions shall attempt to preserve scenic visual corridors along City roads and scenic views in the City by incorporating them into open space or greenway areas or providing building setbacks and/or architectural designs that minimize the subdivision's impact on said corridors and views. In instances when setbacks and/or design fail to satisfactorily protect corridors or views, the applicant shall be required to provide naturalistic landscape buffers to minimize their adverse visual impact. The species designated for said buffer shall be selected on the basis of tree and shrub species found in existing vegetated and wooded roadside edges in the vicinity of the proposed development.
- 9. Trails.
- a. Trails shall be protected by permanent conservation easements. The width of the protected area in which the trail is located should be a minimum of ten (10) feet. The language of the conservation easement shall be to the satisfaction of the Board of Aldermen upon recommendation from the Planning and Zoning Commission.

- b. The land area permanently designated for trails for public use may be credited toward the parks, playgrounds and recreation areas requirement described in Section 410.630 of the Subdivision Regulations.
- c. Trail improvements shall demonstrate adherence to principles of quality trail design.
- d. Trails shall have a vertical clearance of no less than ten (10) feet.
- e. Width of the trail surface may vary depending upon type of use to be accommodated but in no case shall be less than three (3) feet or greater than six (6) feet.
- f. No trail shall be designed with the intent to accommodate motorized vehicles.
- g. When a proposed subdivision will traverse or abut an existing trail (either pedestrian, bike or equestrians), the Board of Aldermen may allow the applicant to alter the course of the trail within the proposed subdivision as long as the points at which the trail enters and exits the tract remain unchanged.
- h. The proposed alteration does not coincide with a paved road intended for use by motorized vehicles.

Section 410.360

Prioritized List Of Resources To Be Conserved.

[Ord. No. 18-12, 12-11-2018]

- A. The following is a list of greenway land resources prioritized in order of significance.
- 1. Stream channels, floodplains, wet soils, swales, springs and other lowland areas, including adjacent buffer areas that may be required to ensure their protection.
- 2. Significant natural areas of species listed as endangered, threatened or of special concern, such as those listed in the Missouri Department of Conservation's natural heritage data.
- 3. Moderate to steep slopes, particularly those adjoining watercourses and ponds, where disturbance and resulting soil erosion and sedimentation could be detrimental to water quality.
- 4. Healthy woodlands, particularly those performing important ecological functions such as soil stabilization and protection of streams, wetlands and wildlife habitats.
- 5. Areas where precipitation is most likely to recharge local ground water resources because of topographic and soil conditions affording high rates of infiltration and percolation.
- 6. Hedgerows, groups of large majestic trees, large individual trees of botanic significance and other plant features representing the site's rural past.
- 7. Class I, II and III agricultural soils as defined by the United States Department of Agriculture (U.S.D.A.) Natural Resource Conservation Service.
- 8. Historic structures and sites.
- 9. Visually prominent topographic features such as hilltops, ridges and scenic views as seen from public roads.

10. Existing trails connecting the tract to other trail locations in the City.

Section 410.660Sediment And Erosion Control.

[Ord. No. 18-12, 12-11-2018]

A. General Provisions.

- 1. Purpose. The purpose of this Section is to control soil erosion on land that is undergoing development for non-agricultural uses and to preserve the natural terrain and waterways of land. Soil erosion scars the land and creates sediment that clogs storm sewers and street ditches, chokes streams and creates silt lakes, all of which pose a threat to public health and safety. The provisions in this regulation are intended to provide a natural community environment and to prevent soil erosion and reduce costly repairs to gullies, washed-out fills, water conveyance systems, streets and embankments. Application of regulations in this document will effectively control soil erosion and sedimentation.
- 2. Scope Of Authority. Any applicant proposing to develop land within Weldon Spring shall apply to the City Engineer for approval of required erosion control and interim grading plans as specified in this regulation.
- 3. Performance Guarantee. In order to obtain approval of the required erosion control plan, the City Engineer shall require the applicant to post an escrow agreement, lender's agreement or certified check for an amount to be approved by the City Engineer in an amount of all work to be completed under the erosion control plan. Ninety percent (90%) of the funds will be released after all grading and erosion control measures are in place and vegetation has been established as verified and approved by the City Engineer. Ten percent (10%) will be held until the public improvements are accepted by the City or all disturbed areas have been properly stabilized to ensure that the erosion control measures are maintained. Once there is no further land disturbance and all disturbed area have at least seventy percent (70%) of vegetation re-established, the City Engineer will recommend that the Board of Aldermen release the final ten percent (10%).

B. Regulations.

- 1. Sediment And Erosion Control Plan Content. Sediment and erosion control and interim grading plans for grading land areas of one (1) acre or more shall include the following information. For grading of areas less than one (1) acre, but more than five thousand (5,000) square feet, an erosion control plan need not be submitted, but best practices shall include the placing of sufficient straw bales and/or silt fences to filter the stormwater run-off as it leaves the property. No ground shall remain bare for more than fourteen (14) days after secession of grading on site. After the grading is complete any disturbed areas on the site shall be seeded and covered with straw to reestablish vegetation within thirty (30) days of completing the grading.
- a. Sediment and erosion control plans submitted to the City Engineer shall include three (3) sets of maps and plans with specifications showing proposed excavation, grading or filling and will include the following:
- (1) Full name and address of property owner.

- (2) Designation of property address and a location map.
- (3) Portion of the property that is to be excavated, graded or filled with excavated material.
- (4) Location of any sewage disposal system or underground utility line, any part of which is within fifty (50) feet of the proposed excavation, grading or filling area and the location of any pipeline operated at a maximum service pressure in excess of two hundred (200) p.s.i.g., any part of which is within one hundred (100) feet of the proposed excavation, grading or filling area.
- (5) Existing grade and topography of the premises and the proposed finished grade and final contour elevation at a contour interval of not more than two (2) feet on United States Geological Survey datum.
- (6) Location and present status of any previous permitted grading operations on the property.
- (7) Details of any temporary drainage system proposed to be installed and maintained by the applicant and a comprehensive interim drainage plan designed to safely handle surface water, streams or other natural drains following heavy rains during grading operations.
- (8) Details of proposed water impoundment structures, embankments, sediment or debris basins, grass or lined waterways and diversions with details, locations of proposed stable outlets, and the location of any downstream impoundments which could be affected by the proposed grading.
- (9) Details of soil, preparation and revegetation of the finished grade and of other methods of soil erosion control.
- (10) Proposed truck and equipment access ways to the work site.
- (11) A ten (10) by twenty (20) foot equipment wash-off pad consisting of four (4) inch aggregate on geofabric that is serviced by water to wash off trucks and equipment.
- (12) Delineation of the 100-year floodplain and floodway.
- (13) A statement from the applicant assuming full responsibility for the performance of the operation as stated in the application. This statement shall also contain assurance that all City property, private property and streets will be adequately protected.
- b. A construction schedule for the proposed phasing of development of the site, including clearing, rough grading, improvement construction and final grading and landscaping. Phasing should identify the expected date on which clearing will begin, the estimated duration of exposure of cleared areas and the sequence of clearing, installation of temporary sediment control measures, installation of storm drainage and underground utilities, paving streets and parking areas and establishment of temporary and permanent vegetative cover. The City Engineer may waive specific requirements for the content of submissions upon finding that the information submitted is sufficient to show that the work will comply with the objectives and principles of these regulations.
- 2. Sediment And Erosion Control Plan Approval.
- a. To gain approval, the sediment and erosion control plan must define the measures to be taken to meet erosion control principles and standards as defined in Subsection (B)(3) of this Section. The plan must also assure that sediment is not transported from the site by a storm event of 15-year (frequency), 20-minute (inlet time) or less.

- b. Conservation District Comments. When a plat or plan is submitted to the Soil and Water Conservation District, the district may make comments and recommendations. Such comments may pertain, but need to be limited, to:
- (1) Sedimentation and erosion control.
- (2) Soil use limitations.
- (3) Environmental considerations.
- 3. Principals And Standards.
- a. All excavations, grading or filling shall have a finished grade not to exceed a three (3) to one (1) slope or thirty-three percent (33%). Steeper grades may be approved by the City Engineer if the excavation is through rock or the excavation or the fill is adequately protected (a designed head wall or tow wall may be required). If retaining walls are proposed, see the requirements in Section 405.160.
- b. Sediment and erosion control plans for sites that exceed one (1) acre of grading shall provide for sediment or debris basins, silt traps or filters, staked straw bales or other approved measures to remove sediment from runoff waters. The design is to be approved by the City Engineer. Temporary siltation control measures (structural) shall be maintained until vegetative cover is established at a sufficient density to provide erosion control on the site. (Refer to Appendix A of the Unified Development Ordinance for St. Charles County.)
- c. Where natural vegetation is removed during grading, vegetation shall be re-established in such a density as to prevent erosion. Permanent-type grasses shall be established as soon as possible or during the next seeding period after grading has been completed. (Refer to Appendix A of the Unified Development Ordinance for St. Charles County.)
- d. Mechanized land clearing activities, which cause a disturbance to the existing soil layer, shall not commence until an interim grading/sediment and erosion control plan has been approved by the City Engineer. When mechanized land clearing activities are completed or suspended for more than thirty (30) days, either temporary vegetation must be established or temporary siltation control measures must be put in place with the review and approval of the City Engineer.
- e. When grading operations are completed or suspended for more than thirty (30) days, permanent grass must be established at sufficient density to provide erosion control on the site. Between permanent grass seeding periods, temporary cover shall be provided according to the City Engineer's recommendation. (Refer to Appendix A of the Unified Development Ordinance for St. Charles County.) All finished grades (areas not to be disturbed by future improvement) in excess of twenty percent (20%) slopes (5:1) shall be mulched and tacked at the rate of one hundred (100) pounds per one thousand (1,000) square feet when seeded.
- f. Provisions shall be made to accommodate the increased runoff caused by changed soil and surface conditions during and after grading. Non-vegetation open channels shall be designed so that gradients result in velocities of two (2) f.p.s. and shall be established in permanent vegetation by use of commercial erosion control blankets, sod or lined with rock riprap or concrete or other suitable materials as approved by the City Engineer. Detention basins, diversions or other appropriate structures

shall be constructed to prevent velocities above five (5) f.p.s. (Refer to Appendices B, C, D, E and F of the Unified Development Ordinance for St. Charles County.)

g. All lots shall be seeded and mulched at the rates defined in Appendix A of the Unified Development Ordinance for St. Charles County or sodded before occupancy of a structure on any parcel or plat of land created by subdivision is permitted, except for cases of undue hardship because of unfavorable ground conditions, as determined by the City Engineer.

C. Inspection And Violation.

- 1. Inspections. By submitting a sediment and erosion control and interim grading plan for approval, the applicant consents to the City inspecting the proposed development site and all work in progress and to the payment of an hourly inspection fee established by the Board of Aldermen and listed on the official "Weldon Spring Fee Schedule," copies of which are available at City Hall and on the City's web page (www.weldonspring.org).
- 2. Corrections. All violations shall be corrected within the time limit set forth by the City Engineer specified in the issuance of a written notice to correct. All persons failing to comply with such notice shall be deemed in violation of this regulation. The City Engineer shall also have the right to stop all or any part of the construction activities and development until all violations have been satisfactorily corrected. To that end, the City Engineer shall issue a written order directing that such construction activities and development be stopped immediately and shall serve that written order upon any person, firm, corporation or business engaged in such construction activities and development at the site that is the subject of the violation.
- 3. Violations. In the event of a violation, the performance guarantee proceeds shall be used by the City to complete the planned sediment and erosion control practices.
- 4. Penalties. Any person, firm, corporation or business that violates any provision of these regulations or order issued under this Section shall be **guilty of a misdemeanor and liable for a fine not to exceed five hundred dollars (\$500.00) a day**. Every day that such violation continues shall constitute a separate violation.
- 5. Appeals. Any person denied approval of a sediment and erosion control and interim grading plan as herein stated shall have the right to appeal such denial to the Planning and Zoning Commission according to the variance procedure as described in this Chapter within thirty (30) days of the date of such denial.
- 4.4.B The City of Weldon Spring shall review pre-construction plans. The City will review construction plan using a checklist to evaluate threats to water quality. The existing drainage and proposed drainage shall be shown on plans, along with contours and drainage flow arrows. The size of the disturbed area shall be shown on the plans and anything equal or exceeding one acre will require a Land Disturbance Permit from MoDNR. The location of the discharge point in relation to a receiving body of water will be shown on the plans.

The Checklist utilized by Weldon Spring is attached in the Appendix of this document. The Checklist will be utilized by the City Engineer / Storm Water manager and provided to the City Planner to communicate with the owners.

The city will encourage green development utilizing the Missouri Guide to Green Infrastructure as a guide.

- 4.4.C The City of Weldon Spring shall establish authority for site inspections and enforcement of control measures. To the extent allowable by state, federal, and local law, all MS4 Operators shall implement procedures for inspecting construction/land disturbance projects.
- 4.4.D The construction site runoff control program shall include and established, escalating enforcement policy that clearly describes the action to be taken for violations. The program shall have written procedures to ensure compliance with the MS4 Operator's construction site control runoff control regulatory mechanism.

The City of Weldon Spring's Sediment and Erosion Control Ordinance follows below. The ordinance has two (2) enforcement actions.

- Action 1. The City Engineer shall also have the right to stop all or any part of the construction activities and development until all violations have been satisfactorily corrected
- Action 2. Penalties. Any person, firm, corporation or business that violates any provision of these regulations or order issued under this Section shall be guilty of a **misdemeanor and liable for a fine not to exceed five hundred dollars (\$500.00) a day**. Every day that such violation continues shall constitute a separate violation.

Section 410.660 Sediment And Erosion Control.

[Ord. No. 18-12, 12-11-2018]

A. General Provisions.

- 1. Purpose. The purpose of this Section is to control soil erosion on land that is undergoing development for non-agricultural uses and to preserve the natural terrain and waterways of land. Soil erosion scars the land and creates sediment that clogs storm sewers and street ditches, chokes streams and creates silt lakes, all of which pose a threat to public health and safety. The provisions in this regulation are intended to provide a natural community environment and to prevent soil erosion and reduce costly repairs to gullies, washed-out fills, water conveyance systems, streets and embankments. Application of regulations in this document will effectively control soil erosion and sedimentation.
- 2. Scope Of Authority. Any applicant proposing to develop land within Weldon Spring shall apply to the City Engineer for approval of required erosion control and interim grading plans as specified in this regulation.

3. Performance Guarantee. In order to obtain approval of the required erosion control plan, the City Engineer shall require the applicant to post an escrow agreement, lender's agreement or certified check for an amount to be approved by the City Engineer in an amount of all work to be completed under the erosion control plan. Ninety percent (90%) of the funds will be released after all grading and erosion control measures are in place and vegetation has been established as verified and approved by the City Engineer. Ten percent (10%) will be held until the public improvements are accepted by the City or all disturbed areas have been properly stabilized to ensure that the erosion control measures are maintained. Once there is no further land disturbance and all disturbed area have at least seventy percent (70%) of vegetation re-established, the City Engineer will recommend that the Board of Aldermen release the final ten percent (10%).

B. Regulations.

- 1. Sediment And Erosion Control Plan Content. Sediment and erosion control and interim grading plans for grading land areas of one (1) acre or more shall include the following information. For grading of areas less than one (1) acre, but more than five thousand (5,000) square feet, an erosion control plan need not be submitted, but best practices shall include the placing of sufficient straw bales and/or silt fences to filter the stormwater run-off as it leaves the property. No ground shall remain bare for more than fourteen (14) days after secession of grading on site. After the grading is complete any disturbed areas on the site shall be seeded and covered with straw to reestablish vegetation within thirty (30) days of completing the grading.
- a. Sediment and erosion control plans submitted to the City Engineer shall include three (3) sets of maps and plans with specifications showing proposed excavation, grading or filling and will include the following:
- (1) Full name and address of property owner.
- (2) Designation of property address and a location map.
- (3) Portion of the property that is to be excavated, graded or filled with excavated material.
- (4) Location of any sewage disposal system or underground utility line, any part of which is within fifty (50) feet of the proposed excavation, grading or filling area and the location of any pipeline operated at a maximum service pressure in excess of two hundred (200) p.s.i.g., any part of which is within one hundred (100) feet of the proposed excavation, grading or filling area.
- (5) Existing grade and topography of the premises and the proposed finished grade and final contour elevation at a contour interval of not more than two (2) feet on United States Geological Survey datum.
- (6) Location and present status of any previous permitted grading operations on the property.
- (7) Details of any temporary drainage system proposed to be installed and maintained by the applicant and a comprehensive interim drainage plan designed to safely handle surface water, streams or other natural drains following heavy rains during grading operations.
- (8) Details of proposed water impoundment structures, embankments, sediment or debris basins, grass or lined waterways and diversions with details, locations of proposed stable outlets, and the location of any downstream impoundments which could be affected by the proposed grading.

- (9) Details of soil, preparation and revegetation of the finished grade and of other methods of soil erosion control.
- (10) Proposed truck and equipment access ways to the work site.
- (11) A ten (10) by twenty (20) foot equipment wash-off pad consisting of four (4) inch aggregate on geofabric that is serviced by water to wash off trucks and equipment.
- (12) Delineation of the 100-year floodplain and floodway.
- (13) A statement from the applicant assuming full responsibility for the performance of the operation as stated in the application. This statement shall also contain assurance that all City property, private property and streets will be adequately protected.
- b. A construction schedule for the proposed phasing of development of the site, including clearing, rough grading, improvement construction and final grading and landscaping. Phasing should identify the expected date on which clearing will begin, the estimated duration of exposure of cleared areas and the sequence of clearing, installation of temporary sediment control measures, installation of storm drainage and underground utilities, paving streets and parking areas and establishment of temporary and permanent vegetative cover. The City Engineer may waive specific requirements for the content of submissions upon finding that the information submitted is sufficient to show that the work will comply with the objectives and principles of these regulations.
- 2. Sediment And Erosion Control Plan Approval.
- a. To gain approval, the sediment and erosion control plan must define the measures to be taken to meet erosion control principles and standards as defined in Subsection (B)(3) of this Section. The plan must also assure that sediment is not transported from the site by a storm event of 15-year (frequency), 20-minute (inlet time) or less.
- b. Conservation District Comments. When a plat or plan is submitted to the Soil and Water Conservation District, the district may make comments and recommendations. Such comments may pertain, but need to be limited, to:
- (1) Sedimentation and erosion control.
- (2) Soil use limitations.
- (3) Environmental considerations.
- 3. Principals And Standards.
- a. All excavations, grading or filling shall have a finished grade not to exceed a three (3) to one (1) slope or thirty-three percent (33%). Steeper grades may be approved by the City Engineer if the excavation is through rock or the excavation or the fill is adequately protected (a designed head wall or tow wall may be required). If retaining walls are proposed, see the requirements in Section 405.160.
- b. Sediment and erosion control plans for sites that exceed one (1) acre of grading shall provide for sediment or debris basins, silt traps or filters, staked straw bales or other approved measures to remove sediment from runoff waters. The design is to be approved by the City Engineer. Temporary siltation control measures (structural) shall be maintained until vegetative cover is established at a sufficient

density to provide erosion control on the site. (Refer to Appendix A of the Unified Development Ordinance for St. Charles County.)

- c. Where natural vegetation is removed during grading, vegetation shall be re-established in such a density as to prevent erosion. Permanent-type grasses shall be established as soon as possible or during the next seeding period after grading has been completed. (Refer to Appendix A of the Unified Development Ordinance for St. Charles County.)
- d. Mechanized land clearing activities, which cause a disturbance to the existing soil layer, shall not commence until an interim grading/sediment and erosion control plan has been approved by the City Engineer. When mechanized land clearing activities are completed or suspended for more than thirty (30) days, either temporary vegetation must be established, or temporary siltation control measures must be put in place with the review and approval of the City Engineer.
- e. When grading operations are completed or suspended for more than thirty (30) days, permanent grass must be established at sufficient density to provide erosion control on the site. Between permanent grass seeding periods, temporary cover shall be provided according to the City Engineer's recommendation. (Refer to Appendix A of the Unified Development Ordinance for St. Charles County.) All finished grades (areas not to be disturbed by future improvement) in excess of twenty percent (20%) slopes (5:1) shall be mulched and tacked at the rate of one hundred (100) pounds per one thousand (1,000) square feet when seeded.
- f. Provisions shall be made to accommodate the increased runoff caused by changed soil and surface conditions during and after grading. Non-vegetation open channels shall be designed so that gradients result in velocities of two (2) f.p.s. and shall be established in permanent vegetation by use of commercial erosion control blankets, sod or lined with rock riprap or concrete or other suitable materials as approved by the City Engineer. Detention basins, diversions or other appropriate structures shall be constructed to prevent velocities above five (5) f.p.s. (Refer to Appendices B, C, D, E and F of the Unified Development Ordinance for St. Charles County.)
- g. All lots shall be seeded and mulched at the rates defined in Appendix A of the Unified Development Ordinance for St. Charles County or sodded before occupancy of a structure on any parcel or plat of land created by subdivision is permitted, except for cases of undue hardship because of unfavorable ground conditions, as determined by the City Engineer.

C. Inspection and Violation.

- 1. Inspections. By submitting a sediment and erosion control and interim grading plan for approval, the applicant consents to the City inspecting the proposed development site and all work in progress and to the payment of an hourly inspection fee established by the Board of Aldermen and listed on the official "Weldon Spring Fee Schedule," copies of which are available at City Hall and on the City's web page (www.weldonspring.org).
- 2. Corrections. All violations shall be corrected within the time limit set forth by the City Engineer specified in the issuance of a written notice to correct. All persons failing to comply with such notice shall be deemed in violation of this regulation. The City Engineer shall also have the right to stop all or any part of the construction activities and development until all violations have been satisfactorily corrected. To that end, the City Engineer shall issue a written order directing that such construction

activities and development be stopped immediately and shall serve that written order upon any person, firm, corporation or business engaged in such construction activities and development at the site that is the subject of the violation.

- 3. Violations. In the event of a violation, the performance guarantee proceeds shall be used by the City to complete the planned sediment and erosion control practices.
- 4. Penalties. Any person, firm, corporation, or business that violates any provision of these regulations or order issued under this Section shall be guilty of a misdemeanor and liable for a fine not to exceed five hundred dollars (\$500.00) a day. Every day that such violation continues shall constitute a separate violation.
- 5. Appeals. Any person denied approval of a sediment and erosion control and interim grading plan as herein stated shall have the right to appeal such denial to the Planning and Zoning Commission according to the variance procedure as described in this Chapter within thirty (30) days of the date of such denial.

Outfall Tracing Spreadsheet

		predas					1			1	1	1
Outfall	Α	В	С	D	E	F	G	Н	1	J	K	L
River	Mississippi	Mississippi	Mississippi	Mississippi	Mississippi		Missouri River	Missouri Rive				
	Dardenee	Dardenee	Dardenee	Dardenee	Dardenee	Dardenee						
Tributary	Creek	Creek	Creek	Creek	Creek	Creek						
	Crooked	Crooked	Crooked	Crooked								
Tributary	Creek	Creek	Creek	Creek	Baltic Creek	Baltic Creek						
							Old Wolfrum	Old Wolfrum				
							Tracts	Tracts	Old Wolfrum	Old Wolfrum		
	Persimmon	Persimmon			Pitnam Hill	Veteran's	(Walsh/Hawth		Tracts	Tracts (Walsh	Upper	(SCCO-Austin
	Wood Golf	Woods Golf	Kolb	Wrenwyck	Road	Tribute Park	orn/Moore)	56/Tavalo)	(Kolb/Walsh)	/ Kolb)	Whitmoor	Ridge)
				Lutheran	Manors of				STRATHALBY		(SCCO-Austin	
		Faith Church		Senior	Lucerne	Whitmoor	Bender		N CLUB		Ridge)	
		Trace		Westchester	Renasiaince	Roseberry						
		Apartments		Farms	Place	Topping	FHSD		Whitmoor			
					Ehlmann		Wycliff /					
		Chapter One		Westerfield	Farms	Crosshaven	Dutchman					
		Osage Park		El Caballos	The Highlands		Camelot					
		FHSD		Butterfly Lane	Whitmoor							
				Independenc	St. John's							
		Fab Tech		е	Church							
		Walmar			Williamsburg							
		Industrial			on the Green							
		Christrian Life			City Hall and							
		Center			Park							
					Rodelle							
		Plaza Motors			Woods							
		Ameren			Camelot							
		Fire										
		Department			Grey Oaks							
		Heartland										
		Bank			Willow Lakes							
		Route 94										
		Centerpointe										
		Hospital										
		Southbrook										
		Forest										
		QT										
		Hunters										
		Green										
		Green	1					1	1			
Residential												
Commercial												
Industrial												
Institutional												
Municipal / Parks												
Agricutlural / Wooded												

Post-Construction BMP Inventory

BMP (Best Management Practices)

Detention Inventory Storm Water

City of Weldon Spring, MO

Property	Owner	Site Address	Type of BMP	# Basins	O&M Manua
	WORLDCOM TECHNOLOGIES INC			ii baaiiis	Odin mana
	PO BOX 521807				
Verizon	LONGWOOD, FL 37252	500 TECHNOLOGY DR	Dry	2	
	LUTHERAN SENIOR SERVICES				
LUTUEDAN STAUOD SED USES	1150 HANLEY INDUSTRIAL CT		998677.5		
LUTHERAN SENIOR SERVICES	ST LOUIS, MO 63144 CAMELOT HOMEOWNERS	600 BREEZE PARK DR	Wet	1	
	ASSOCIATION				
	236 CORNWALL DR	Multiple Dev Basins and Labor			
Camelot	WELDON SPRING, MO 63304	Multiple Dry Basins and Lakes in Subdivision	1000	-	
Carrietoc	BLANCHETTE REAL ESTATE LLC	III SUDUIVISIOII	Dry Yes wet basin/lake new	6	
	763 S NEW BALLAS RD #300		basin under construction		
Center Pointe Hospital	CREVE COEUR, MO 63141	4801 WELDON SPRING PKWY	2011- finished 2012	1	
	CHAPTER ONE RESIDENTS	1002 11 22 011 31 1111 0 1 1111	Yes, wet basin/lake off	1	_
	ASSOCIATION THE		main drive, looks in good		
	242 OLD SULPHUR SPRING RD		repair. 2/2012 checked		
Chapter One	MANCHESTER, MO 63021	500 HEMINGWAY LN	again.	1	
	CROSSHAVEN ESTATES HOMEOWNERS				
	ASSOCIATION				
	4633 CROSSHAVEN CT			1	
Crosshaven Estates	WELDON SPRING, MO 63304	4600 CROSSHAVEN CT	Dry	1	
	HERITAGE LEASING LLC				
	7148 SCOTLAND DR				
Dairy Queen	DARDENNE PRAIRIE, MO 63368	777 INDEPENDENCE RD	Dry	1	
	2008 KOLB FAMILY TRUST THE		24000 4000400 2000 00000000000000000000		
Dava Kalla Gradina	300 WOLFRUM RD WELDON SPRING, MO 63304-7854	5700 HUSST HOOD OO	Yes Basin, Dry with outfall		
Dave Kolb Grading	EHLMANN FARMS HOMEOWNERS	5733 WESTWOOD DR	to creek	1	
	ASSOCIATION				
	695 TRADE CENTER BLVD STE 200				
Ehlmann Farms	CHESTERFIELD, MO 63005	112 EHLMANN FARMS DR	Yes Basin-Bio Basin	1	
Z. M. Carrier	ENTERPRISE RENT A CAR COMPANY	112 ETEMANN TARING DR	Yes Basin but is	1	
	600 CORPORATE PARK DR	¥3	underground. Appears to		
Enterprise Data Center	ST LOUIS, MO 63105	600 TECHNOLOGY DR 63304	be functioning ok.	1	
	FOREST AT WHITMOOR				
	HOMEOWNERS ASSOCIATION THE		Yes Basins in Whitmoor		
	3333 RUE ROYALE APT 4		golf course, maintained by		1
Forest at Whitmoor 1	ST CHARLES, MO 63301-8237	190	golf course.		
	FRANCIS HOWELL R III SCHOOL				
	DISTRICT				
	4545 CENTRAL SCHOOL RD				
Francis Howell Elem	ST CHARLES, MO 63304-7113 FRANCIS HOWELL R III SCHOOL	4800 MEADOWS PKWY	Dry	1	
	DISTRICT				
	4545 CENTRAL SCHOOL RD			- 1	
Francis Howell Middle	ST CHARLES, MO 63304-7113	605 INDEPENDENCE	Wet		
Trancis flowell Wilddle	31 CHARLES, NO 03304-7113	003 INDEPENDENCE	Wet	1	
	GREY OAKS HOMEOWNERS			- 1	
	ASSOCIATION			- 1	
	203 CHESTERFIELD INDUSTRL BLVD				
Grey Oaks	CHESTERFIELD, MO 63005-1201	670 GREY OAKS DR	Dry	1	
	HUNTERS GREENS ESTATES				
	HOMEOWNERS ASSOCIATION			- 1	
	501 FIRST CAPITOL DR STE 2	SCHOOLS DECEMBER AND SOURCE COMMAND			
Hunters Green Estates	ST CHARLES, MO 63301 FRANCIS HOWELL R III SCHOOL	5982 MERGENTHAL CT	Dry	1	
	DISTRICT				
	4545 CENTRAL SCHOOL RD		1	- 1	
Mary Emily Bryan School	ST CHARLES, MO 63304-7113	605 Independence Rd	Dry	1	
, Erriny Dryan School	MESSIAH LUTHERAN CHURCH OF	505 macpendence no	UIY	1	
	WELDON SPRING				
	5911 S HWY 94				
Messiah Luthern	WELDON SPRING, MO 63304-5611	5911 S HWY 94	Dry	1	
	FAITH CHURCH ST LOUIS.COM INC	05.55.50200.50		-	
	13001 GRAVOIS RD				

11/30/2021

Property	Owner	Site Address	Type of BMP	# Basins	O&M Manua
	REALTY INCOME PROPERTIES 7 LLC				
	20 RESEARCH PARK DR				
Novus @ Research Park -	WELDON SPRING, MO 63304	20 RESEARCH PARK DR	Wet	1	
	HAENSSLER FAMILY LP				
	1224 ALLEN AVE				
Persimmon Woods Golf Club	ST CHARLES, MO 63301	6401 Weldon Spring Pkwy	Wet	2	
	QUIKTRIP CORPORATION				
	4705 S 129TH EAST AVE	1		1	1
QuickTrip	TULSA, OK 74134-7008	5905 S HWY 94	Underground Basin	1	
	RODERICK REAL ESTATE LLC				
	900 STONECASTLE DR	1		ŀ	1
FabTech - Roderick Real Estate	OFALLON, MO 63366	820 O'Fallon	Dry - Bio	2	2021 - Yes
	RENAISSANCE PLACE HOMEOWNERS				
	ASSOCIATION	1			
	47 WINDING CT	1 1			
Renaissance Place	ST CHARLES, MO 63303	Behind 1345 RENAISSANCE PL	Dry	1	
	SUMMIT AT WHITMOOR				
	HOMEOWNERS ASSOC &	1			1
	CITY OF WELDON SPRING	1			
	18824 WILD HORSE CREEK RD	1			
Summit at Whitmoor	CHESTERFIELD, MO 63005	Behind 229 SUMMIT RIDGE PL	Dry	1	
	MANORS OF LUCERNE TRUSTEES				
	12400 OLIVE BLVD STE 402				
The Manors of Lucerne	ST LOUIS, MO 63141	Behind 1418 LUCERNE PL	Dry	1	
	JSR 94 LLC				
	1000 WOLFRUM RD	1			
Triad Crossing	WELDON SPRING, MO 63304	1000 WOLFRUM RD 63304	Dry	1	
	TRACE APARTMENTS LLC				
	7701 FORSYTH BLVD STE 900				
Trace Apartments	ST LOUIS, MO 63105	1100 VOGT DR	Dry - Bio	6	2021 - Yes
Trade riparements			017 010		
	ASBURY ST LOUIS M LLC				
	2905 PREMIERE PKWY STE 300		TANKS I		
Weldon Pointe Mercedes	DULUTH, GA 30097	951 TECHNOLOGY DR 63304	Wet	1	
	CITY OF WELDON SPRING MISSOURI				
	5401 INDEPENDENCE RD	5401 INDEPENDENCE RD			
Weldon Spring City Hall	WELDON SPRING, MO 63304-7845	63304	Wet	1	
		1			İ
	ESTATES AT WESTCHESTER FARM				
	HOMEOWNERS ASSOC	CANTERFIELD CT			
	5772 WESTCHESTER FARM DR	WESTCHESTER FARM DR			l
Westchester Farms Addition	WELDON SPRING, MO 63304	WESTCHESTER MEADOW DR	Dry	6	
	WESTERFIELD HOMEOWNERS				
	ASSOCIATION INC	1			
Westerfield-Basin in Breeze Park	900 ROOSEVELT PKWY	1			
basin	CHESTERFIELD, MO 63017	S BREEZE LN	Dry ???	1	
bushi	CHESTERN IEES, MIC 03017	3 Brieffe Err	017	-	
	WESTWOOD INDUSTRIAL PARK				
	HOMEOWNERS ASSOCIATION				
	13789 LE SABRE DR	WESTWOOD INDUSTRIAL			
Westwood Industrial Park	FLORISSANT, MO 63034	PARK DR	Dry	1	
	WALMAR INVESTMENT CO				
	14151 CLAYTON RD				
Walmar Industrial Park	CHESTERFIELD, MO 63017-8355	5749 WESTWOOD DR	Dry	1	
	WHITTAKER GOLF INC	ST45 WESTWOOD DA			
	1100 WHITMOOR DR				
Whitmoor Country Club	WELDON SPRING, MO 63304	Multiple in Subdivision	Multiple Lakes		
	WHITMOOR PROPERTY UNIT OWNERS		arcipic canco		
	MASTER ASSOCIATION				
	PO BOX 365				
Whitmoor Villas	COTTLEVILLE, MO 63338-0365	Multiple in Subdivision	Multiple Lakes	11	
vvincinoor vinas	BRICKHAUS DAVID J &	Multiple III Subulvision	iviuitipie Lakes	11	
	BRICKHAUS LISA A				
	27 LEESBURG CT				
Williamsburg Green 1	WELDON SPRING, MO 63304-7851	27 FEEDLING OF 62204	Dev	1	14
vviiiiailisbuig Green I	WELDON SPRING, WIO 05304-7851	27 LEESBURG CT 63304	Dry	1	

Detention Inventory

Storm Water

11/30/2021

BMP (Best Management Practices)

Detention Inventory Storm Water

City of Weldon Spring, MO

Property	Owner	Site Address	Type of BMP	# Basins	O&M Manual
	HIGH JOHN E &				
	HIGH ELAINE A REVOCABLE TRUSTS	1			
	54 WAYNESBORO CT				
Williamsburg Green 2	WELDON SPRING, MO 63304-7882	54 WAYNESBORO CT	Dry	1	
	WILLOW LAKE HOMEOWNERS				
	ASSOCIATION				
	623 WOLFRUM RD	1			
Willow Lake	WELDON SPRING, MO 63304-7850	630 WILLOW LAKE CT	Dry	1	
	WOLFRUM CROSSING LLC				†
	2 COUNTRY LIFE ACRES			1	
Wolfrum Crossing	ST LOUIS, MO 63131-1403	1003 WOLFRUM RD 63304	Dry	1	
	WRENWYCK PLACE TRUSTEES				<u> </u>
	13100 MANCHESTER RD STE G55				
Wrenwyck Place	ST LOUIS, MO 63131	5505 HENNSLEY CIR	Dry	2	
				67	

Inspection Requirements 60% of Basins in 5 Years

60% of Basins in 5 Ye Annual by City 41

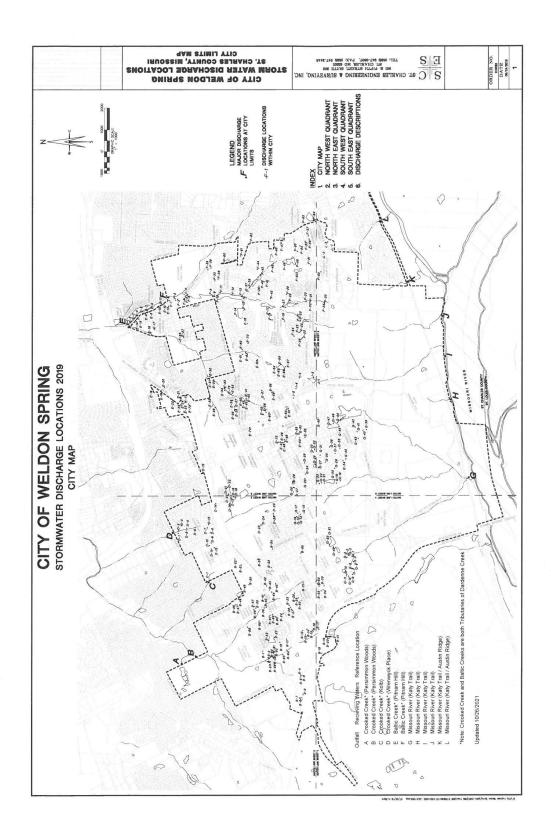
41

11/30/2021

Outfall Inspection Checklist

Location:			heet Date	:	Time:	AM/PM			
	A B	C D	E F	G H					
Crooked Creek □ A Persimmon Woods □ B Persimmon Woods, Vanguard, Chapter 1, Cedar Glen, Huber, Enterprise Leasing, Hunters Green, Center Point Hospital, QT, Francis Howell, Messiah Lutheran, Plaza Motors, Ozark Way, MSHP Baltic Creek / Tributary 7 □ E Manors of Lucerne, Ehlmann Farms, Highlands, Williamsburg, City Park, Nancy Lane □ F Veterans Tribute Park, Whitmoor CC, Crosshaven Missouri River □ G Katy, Independence Elementary, Bryan Middle Dutchman, Camelot - Patriotic, Gallahad, Perceval □ H Katy Old Wolfrum □ I Katy, Wolfrum, Whitmoor – Grey Fox, Gun Club □ J Katy, Gun Club, □ K Katy, ½ Upper Whitmoor (Austin Ridge) □ L Katy Weather: □ Clear □ Cloudy Air Temp									
Last Rain / Precip									
Flow? Y / N Sour	ce: Ground V	Vater Spri	nklers 🗆 O	ther					
Conveyance: Natural Creek	Concrete Cha	nnel Manho	la DCulvert/I	Pine Outall D	arthan Chann	ol.			
Observations:	Deonerete end	inici Divianne	ne 🗀 culverty	ipe Outaii 🗖 🗓	arthen Chann	eı			
Odor	None	Sewage	Sulfides	Petroleum	Manure				
Color	None	Yellow	Brown	White	Other				
Turbidity	Clear	Cloudy	Murky	Dry					
Floatables	None	Trash	Bubble	Foam	Oil Sheen	Scum / Algae			
Condition	Normal	Blockage	Damage						
Impact?	□No Len	gth of Stream In	npact:	Other:		•			
Photos? No Yes Storage Location: G:Bill'sPhotos/OutfallInspections/ No Yes Storage Location									
Notes:									
Signature		·		Date					

FORM WSMS4OutfallMonitor2021



City Engineer Plan Review Checklist



City Engineer Plan Review Checklist ☐ Area Plan ☐ Site Plan ☐ Construction Plans ☐								
Loc	cation: Date of Plans:	Sheets:to	_					
Ge	eneral							
	Property Information shown on plans? Owner, Parcel Number? Existing and Proposed Utilities and Easements shown? Existing and Proposed Public Right-of-Ways / Easements shown? Existing and Proposed Drainage Easements Shown?							
Sto	orm Water / MS4 / Drainage							
000000000	Topography of site showing existing and proposed contours 1' max Drainage culverts shown under driveways, ditch line maintained? Floodplain Limits Shown? Are there known Drainage Issues downstream of this development? Buffer Areas Maintained according to Ordinances?? Drain Patterns with flow arrows shown? Hydrology Calculations of pre-developed and post-developed conditions? Environmentally sensitive areas shown? Wetlands, riparian buffers? Disturbed area > 1 Acre?	Yes No N/A Yes No N/A						
	Industrial Site / Commercial Car Wash / Potential Pollutant Concern? Detention / Retention Basin Design? Green Infrastructure Included? Maintenance Plan for Detention / Retention/ Green Infrastructure Included Industrial – Stormwater ordinances and requirements to owner? Pool – Stormwater ordinances and requirements to owner? Erosion and Sediment Control Provided for < 1 Acre Disturbance? Discharge Location shown on plans? (pipe/sheet flow/etc.)	☐ Yes ☐ No ☐ N/A ☐ Yes ☐ No ☐ N/A ☐ Yes ☐ No ☐ N/A						

SWPPP Checklist for Disturbance(s) > 1 Acre () $N/A < 1$ Acr	re
□ SWPPP Included on plans for disturbances >1 Acre? □ 24 Hour Emergency Contacts provided? □ Engineer Certification of Design/Specs.? □ Copy of the SWPPP will be kept onsite? □ Rock construction entrances/exits, □ Vehicle wash area to prevent tracking? □ Copy of the SWPPP will be kept onsite? □ Note weekly/post event inspections to be emailed to Video Inspection of any future City maintained Culver □ Operating Manual for Structural Improvements? □ Agreement for Future Maintenance?	
Roadway	
 □ New Driveway Connection? □ Any Dedicated Land needed for future R/W? □ Driveway meets St. Charles County Highway Standards □ New Driveway Culvert needed? □ Any sight distance / traffic concerns? □ Traffic Study Needed? 	Yes No N/A Yes No N/A
NOTES:	
Signature	 Date

LAND DISTURBANCE WEEKLY INSPECTION

CITY OF WELDON SPRING 5401 Independence Road, Weldon Spring, MO 63304 636-441-2110



This form is to be filled out weekly, and after a 1" rain event within 24 hours. This form is to be emailed To cityengineer@weldonspring.org on a weekly basis on Monday morning of every week.

Permit No.:	Week Ending:				
Project Address:		V I I			_
Contractor:					
Inspected By:					
□ Weekly Inspectio	n	□ Post Event			
Site Observations: Perimeter Protection Stock Piles Stabilized Sediment Control for Disturbed Areas Ditch Checks Inlet Protection Sediment Basins/Traps Erosion at Discharge Points Vegetative Cover	Satisfactory	Deficient	Replace		N/A
Wash-Off Operation Attach additional sheets if necessary			_ _ _		
Areas where land disturbance activities st	tarted:				
List problem areas and corrective steps to	ıken:				
Inspector's Signature		Date	a·		

WELDON SPRING MS4 FACILITY & PARK INSPECTION CHECKLIST MS4 Measure #6 Prevention and Good Housekeeping

Facility Name:	Date of Inspection:				
Signature of Inspector	☐ Additional	Additional comments on back of page			
Park Building and Vehicle Storage Areas	OK YES	Needs work NO	N/A	Location	Comments
City Pickup Truck clean and not leaking fluids					
City mowers clean and not leaking fluids					a .
City tractor / loader clean and not leaking fluids					
City battery operated golf carts working and not leaking battery fluid					
All vehicles washed at private off-site car washes					
Fuel / Oil / Chemicals stored safely					
Exterior water spigots not dripping or leaking					
Absorbent spill bags/kit available for any leaks					
Secondary containment for any stored liquids > 50 gallons					
Buildings free from mold/mildew					
Adequate water drainage near foundation (no standing water)					
Building swept and kept clean					
Dumpster and trash collection areas	ОК	Needs work	N/A	Location	Comments
Dumpster doors close properly					
Dumpster drains plugged or screened					
No leaking fluid from Dumpsters					
Exterior trash cans have plastic liners and tight-fitting lids					
Pet Waste Disposal Stations with plenty of bags					
No loose trach around dumpsters					

FLIP PAPER FOR MORE INSPECTION AREAS TO BE COMPLETED WITH THIS REVIEW



WELDON SPRING MS4 FACILITY & PARK INSPECTION CHECKLIST MS4 Measure #6 Prevention and Good Housekeeping

Park Grounds and Building Exterior	OK YES	Needs work NO	N/A	Location	Comments
Park grounds free of eroded area					
City pond aquatic life healthy					
City pond banks free of erosion					
City pond overflow structure / pipes fee of obstructions and maintained					
Bio detention area maintained and functioning					
Parking lots free of debris, silt, tracked materials					

[] photos attached	storage location _	
No	tes:		

City of Weldon S	pring Storm Water Mana	gement Documentation				
Date	Time					
□Public Education and Outreach`	□Construction Site Erosion Control	□Public Participation & Involvement				
□Post Construction Stormwater Management	□Illicit Discharge Detection and Elimination-	☐Pollution Prevention and Good Housekeeping-				
L		1				
CONTACT INFORMATION						
SUMMARY						
□ Photos Taken □ Attache	ed ☐ Computer Drive Stored					
Type of Inspection / Review / Do □ N/A □ Routine □	During Storm Event	m Event ☐ Citizen Concern				

☐ Slopes / Field

Focus / Inspection Area

□ Construction Site

□ Detention

□ Creek / Stream

☐ Inlets / Pipes

☐ Building/Home Site ☐ Vehicles / Equipment ☐ Education / Involvement

Observations / Findings	
Corrective Actions or	Follow-Up Needed? Y/N
follow Up Notes	□ Corrective Actions Completed □ N/A □ See Attached Notes
gnature	Date

Attachments - Separate Documents

City of Weldon (SWPPP) City Hall and City Park – Attached Weldon Spring Standard Operation Procedures – Attached Weldon Spring MS4 Permit MOR04C070 - Attached