

CITY OF SEDALIA PUBLIC WORKS STORMWATER MANAGEMENT NEWSLETTER SPRING/SUMMER 2022

Developing A Stormwater Pollution Prevention Plan A Guide For Construction Sites

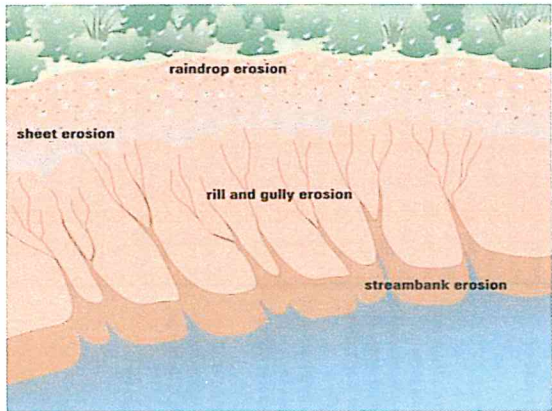
What is a Stormwater Pollution Prevention Plan (SWPPP)?

A SWMPPP is a site specific document that:

- Identifies potential sources of stormwater pollution at a construction site
- Describes practices to reduce pollutants in stormwater discharges from the site. Reduction of pollutants is often achieved by controlling the volume of stormwater runoff.
- Identifies procedures the operator will implement to comply with the terms and conditions of a construction general permit.

Common Stormwater Pollution Prevention Plan Objectives

- Stabilize the site as soon as possible
- Protect slopes and channels
- Reduce impervious surfaces and promote infiltration
- Control the perimeter of your site
- Protect receiving waters adjacent to your site
- Follow pollution prevention measures
- Minimize the area and duration of exposed soils



SWPPP Development

- Assess the site and proposed project
- Identify approaches to protect natural resources
- Develop site maps
- Select erosion and sediment control best management practices (BMPs)
- Select good housekeeping BMPs
- Inspections, maintenance and recordkeeping
- Implementation
- Final stabilization

Ten Keys To Effective Erosion Control and Sediment Control

1. Minimize disturbed area and protect natural features and soil
2. Phase construction activity
3. Control stormwater flowing onto and through the project
4. Stabilize soils promptly
5. Protect slopes
6. Protect storm drain inlets
7. Establish perimeter controls promptly
8. Retain sediment on-site and control dewatering practices
9. Establish stabilized construction exits
10. Inspect and maintain controls



Contractor/Developer Stormwater Regulation

This flyer is a summary of regulations set by the City of Sedalia to inform contractors and developers by guiding, regulating, and controlling the design, construction, use, and maintenance of any earth moving related to construction or development in the City of Sedalia.

While regulating stormwater and non-stormwater discharges into the City of Sedalia's Municipal Separate Storm Sewer System (MS4) the city has adopted two sets of regulatory controls:

- (1) Minimize discharge of pollutants from construction sites.
- (2) Eliminate practicable non-storm water discharges into the MS4.

Stormwater treatment facilities and requirements set by the city can help minimize those impacts by:

- reducing pollutant levels in stormwater runoff
- removing or reducing the concentrations of those pollutants
- reducing stream bank erosion
- restoring runoff rates and volumes to levels closer to the pre-development state.

In order to comply with requirements of the National Pollutant Discharge

Elimination System (NPDES) we must:

- regulate the contribution of pollutants to the MS4 by stormwater discharges
- prohibit illicit connections and discharges to the MS4
- establish legal authority to carry out all inspection, surveillance, and monitoring to ensure city code is followed.

Stream Buffers-Section 22-102

Natural streams shall be buffered by a riparian zone which shall include the stream and all lands adjacent to the stream on both sides for the minimum distance from the ordinary high water mark (OHWM). The table for these distances can be found on the cities website.

Riparian buffer zones shall remain undisturbed as much as possible. This zone prohibits any land disturbance, clearing, grubbing or any other construction activities except as necessary for utility construction and road access. Naturally occurring vegetation within the riparian buffer zone shall not be removed, diminished, inhibited, moved, or substantially altered from its natural state or growth.

Post Construction-Section 22-103

Stormwater treatment standards: The latest edition of Mid-America Regional Council and American Public Works Association Manual of Best Management Practices for Stormwater Quality (MARC BMP Manual) and all appendices shall be the basis of these standards. The city has adopted additional technical guidance or exceptions to the MARC BMP Manual, which includes, modified best management practices, design criteria, construction specifications, or standard details.

Preliminary stormwater management plan requirements: No application for development shall be accepted unless it includes a preliminary stormwater management plan showing whether stormwater will be managed on-site or off-site, and show the general location and type of practices.

Final stormwater management plan requirements: The applicant shall obtain city approval for the final stormwater management plan prior to obtaining a permit. The final stormwater management plan shall include all of the information required in the Standards and any other submittal requirements.

Landscaping and stabilization requirements: The landscape plan for

permitting purposes shall include all of the following:

1. Vegetative stabilization and management techniques
2. An explanation of how the site will be stabilized after construction.

3. Identify the responsible party for the maintenance of vegetation at the site.
4. Identify the practices that will be employed to ensure adequate vegetative cover is preserved.
5. The design is prepared by a registered landscape architect in the State of Missouri.
6. The design is approved prior to receiving a permit to construct the stormwater treatment facility.

Permit required: No person shall receive any permits for building, grading, or other land development without meeting the requirements of this article. Generally, permits for stormwater treatment facility construction will be completed under the authorization of a building, site development, or land disturbance permit.

Timing of stormwater treatment facility construction: Stormwater treatment facilities shall be constructed as early as feasible during the development process.

Inspections: Regular inspections of the stormwater management system construction shall be the responsibility of the project designer or other owner's representative and inspection results forwarded to the city.

As-built plans: All applicants are required to submit actual "as-built" plans for any stormwater treatment construction. The plan must show the final design specifications for all stormwater treatment facilities and must be certified by the project designer. A final inspection by the city is required.

Required maintenance agreement: Prior to issuance of any permit that includes construction of a stormwater treatment facility, the applicant or owner of the site shall submit a maintenance agreement for approval.

Right of entry inspection: When any stormwater treatment facility is installed on private property, or when any new connection is made between private property and a public storm sewer system, the property owner shall grant to the city the right to enter the property at reasonable times and in a reasonable manner for the purpose of inspection.

Records of installation and maintenance activities: Parties responsible for the operation and maintenance of a stormwater management facility shall make records of the installation and of all maintenance and repairs, and shall retain the records for at least five years. These records shall be made available during inspection of the facility and at other reasonable times upon request.

Construction-Section 22-104

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

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

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

Review and approval: The City of Sedalia will review each application for a site development permit and then either approve the permit, approve the permit subject to certain conditions, or disapprove the permit.

Erosion and sediment control plan: The erosion and sediment control plan

shall meet all the requirements set forth in the most recent version of the Missouri Department of Natural Resources Land Disturbance Permit and shall be located at the land disturbance site at all times and available for inspection.

Erosion control requirements shall include the following:

1. Soil stabilization within 14 days of clearing or inactivity
2. If seeding, it shall become established within two weeks
3. Steep slopes or drainage ways shall be designed per KC - APWA 5100.
4. Stockpiles must be stabilized or covered at the end of each work day.
5. The entire site must be stabilized at the close of the construction season.
6. Techniques that divert runoff past disturbed slopes may be employed.

Sediment controls requirements shall include:

1. Settling basins, sediment traps, or tanks and perimeter controls.
2. Protection for adjacent properties by use of a vegetative buffer strip
- Waterway and watercourse protection requirements shall include:**
 1. Temporary stream crossings installed and approved by (404 permit—Army Corps of Engineers and/or 401 water certification permit—Missouri Department of Natural Resources) if a wet watercourse will be crossed regularly during construction.
 2. Stabilization of the watercourse before, during, and after any in-channel work.
 3. All on-site stormwater conveyance channels designed according to criteria outlined in KC - APWA 5600 and/or 5100.
 4. Stabilization adequate to prevent erosion located at the outlets of all pipes and paved channels.

Construction site access requirements shall be include:

1. A temporary access road provided at all sites.
2. Other measures required by KC - APWA 5100 in order to ensure that sediment is not tracked onto public streets by construction vehicles or washed into storm drains.

Inspections: To obtain inspections, the permittee shall notify the City of Sedalia at least two working days before the following:

- Start of construction.
- Installation of sediment and erosion controls.
- Completion of site clearing.
- Completion of rough grading.
- Completion of final grading.
- Close of the construction season.
- Completion of final landscaping.

Discharge detection and elimination-Section 22-105

Illegal discharges: It is illegal to discharge the following into the MS4 or any water course, but is not limited to:

1. Wasteline flushing or other potable sources.
2. Landscape irrigation or lawn watering.
3. Diverted stream flows.
4. Rising groundwater.
5. Groundwater infiltration.
6. Uncontaminated pumped groundwater.
7. Foundation or footing drains.
8. Crawlspace pumps, air conditioning, condensation.
9. Non-commercial washing of vehicles.
10. Natural riparian habitat or wetland flows.

Illicit connection: It is illegal for anyone to construct, use, maintain or have an illicit connection.

Waste disposal prohibitions: It is illegal for anyone to dispose of trash or yard waste containing pollutants into the municipal separate storm sewer system or into any waterway.

Connection of sanitary sewer prohibited: It is illegal for anyone to connect a sewage line to the municipal separate storm system or to allow such connection to continue.

More information regarding stormwater codes, regulations, and permit requirements can be found online at

<http://ci.sedalia.mo.us/> (City of Sedalia)

<http://marc.org> (Mid-America Regional Council)

<https://dnr.mo.gov/> (Missouri Department of Natural Resources)

You may also contact Project Managers, Jeremy Stone and Dru Bloess, Public Works Department at 660-827-3000 or via e-mail at

jstone@cityofsedalia.com and dbloess@cityofsedalia.com