## STORM WATER POLLUTION PREVENTION PLAN

**Casey's General Store** 

## 1620 SW M 150 Highway Lee's Summit, MO 64082

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## **SECTION 1: PROJECT NARRATIVE**

### 1. Introduction

The U.S. Environmental Protection Agency (EPA) requires a National Pollutant Discharge Elimination System (NPDES) General Permit for stormwater discharges from construction sites that disturb more than one acre of land or from smaller sites that are part of a large, common plan of development.

Missouri State Operating General Permit number MORA19681was issued on 02/02/2022 based on information entered into the Missouri Department of Natural Resources' electronic Permitting (ePermitting) system. Missouri Regulation 10 CSR 20-6.010(2)(B) requires that all applications for construction and operating permits be signed.

### 2. Project and Site Description

The project site is at the northwest corner of Missouri State Highway 150 and Arboridge Drive in Lee's Summit, MO 64082. The project is in Sec. 25, T 47N, R 32W, in Jackson County Missouri. The receiving stream is Middle Big Creek. The project will disturb approximately 1.9 acres.

Construction activities are anticipated to commence on February 2024 with an estimated completion date of February 2025.

Existing site conditions include vacant ground.

Below are the major phases of construction for the project:

The major phases of the construction work include the flowing:

- 1) Site clearing and site grading.
- 2) Utility installation.
- 3) Construction of building and pavement areas.
- 4) Landscaping, seeding/sodding disturbed areas.

The estimated total area to be disturbed is 1.9 acres. Soil disturbing activities will primarily include site clearing and site grading, installation of storm sewers, utilities, and pavement areas. The primary potential sources of stormwater contamination for this project include soil disturbing activities and construction material spillage.

#### 3. Best Management Practices

The purpose of this section is to identify the types of erosion and sediment controls used during construction activities. The locations and details of these Best Management Practices (BMPs) are included in Section 3 (see Erosion and Sediment Control Plans). This section also addresses the control of other potential storm water pollutant sources.

**3.1 Coordination with Construction Activities.** The Contractor will be responsible for implementing and maintaining the Best Management Practices (BMPs) through the course of construction. All BMPs shall be sequenced according to activities in the field as follows:

- a) Through each phase of construction, natural areas and features will be protected from disturbance by placement of silt fences.
- b) Clearing and grading will not occur in an area until it is necessary for construction to proceed (see Project Phasing).
- c) Temporary perimeter sediment controls will be installed before any clearing and grading begins.
- d) The stabilized construction site entrance will be constructed before clearing and grading begins.
- e) Stabilization must be initiated immediately and completed within seven (7) calendar days where soil disturbing activities have temporary ceased on any portion of the site and will not resume for a period exceeding fourteen (14) days the permittee shall construct BMPs to establish interim stabilization. Interim stabilization shall consist of well established and maintained BMPs that area reasonably certain to protect waters of the state from sediment pollution over an extended period of time.

**3.2 Erosion Control Measures.** The following BMPs will be used to stabilize onsite soils and prevent erosion during construction:

- a) Permanent seeding and sodding, temporary seeding, and mulch cover of disturbed areas when construction activities have temporarily or permanently ceased.
- b) Mulch Cover of disturbed areas when ground cover is required and temporary or permanent seeding is not feasible.
- c) Erosion Control blankets to provide temporary or permanent cover and/or stability to disturbed slopes or channels subject to overland or concentrated surface flow.
- d) Surface Roughening by means of grooving, tracking, disking or ripping of any rough graded slopes not yet ready for seeding or other treatment and which will not be disturbed for a period of 7 days.
- e) Effective dust control measures such as adequate moisture content or approved dust suppressants shall be taken.

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**3.3** Sediment Control Measures. The following structural BMPs will be utilized to detain, filter or cause settlement of sediment from runoff, as well as measures used to temporarily direct or divert runoff onsite or at the site perimeter.

- a) Silt fence, straw wattles, berms, dikes, gravel bags, filter socks etc. will be used as temporary perimeter sediment controls to divert or detain flows from exposed soils and limit runoff and discharge of pollutants from exposed areas of the site.
- b) Temporary slope drains, berms, etc. shall be used to convey concentrated water from the top of a slope to the toe and thereby preventing erosion over the slope face.
- c) Rock barriers, gravel bags, ditch checks, etc. will be used in ditches with large or concentrated flows.
- d) Wattles, foam dike, rock ditch checks, gravel bags, etc. will be placed to protect all storm sewer inlets and outlets on or near the site by filtering or temporarily impeding the flow sufficiently to reduce the quantity of sediment carried.
- e) Accumulated sediment behind barriers, traps, etc., shall be removed when it exceeds the volumes specified for any particular measure.

**3.4 Chemical and Waste Control Measures.** The following material or substances with known hazardous properties are expected to be present onsite during construction:

Concrete	Cleaning Solvents	Soil stabilization additives
Detergents	Petroleum based products	Concrete additives
Paints	Pesticides	Fertilizers
Paint Solvents	Acids	

Management of materials and practices, outside of soil disturbing activities, shall be the responsibility of the Contractor. Such activities shall include, but not be limited to, the items shown below:

- a) Waste Disposal All waste materials will be collected and stored in securely lidded metal dumpsters. The dumpster will meet all local and state solid waste management regulations. All waste and construction debris from the site will be deposited in the dumpsters. The dumpster will be emptied on a periodical basis. No construction waste materials will be buried onsite.
- b) Sanitary Waste All sanitary waste will be collected from the portable units on a frequent, periodical basis by a licensed sanitary waste management contractor.
- c) Concrete Waste From Concrete Trucks Excess concrete and concrete wash water shall be returned to the concrete plant or deposited at a designated containment area on site, constructed in a manner to prevent run-off from entering the street, storm water drainage systems or waterways. Wash water may not be deposited in streets, curbs, gutters, storm drains, or waterways.

- d) Hazardous Substances and Hazardous Waste All hazardous waste materials will be disposed of in the manner specified by local or state regulation or by the manufacturer.
- **3.5** Control of allowable non-stormwater discharges. Certain types of discharges are allowable under the U.S. Environmental Protection Agency General Permit for Construction Activity, and it is the intent of this SWPPP to allow such discharges. These types of discharges will be allowed under the conditions that no pollutants will be allowed to come in contact with the water prior to or after its discharge. The control measures, which have been outlined previously in this SWPPP, will be strictly followed to ensure that no contamination of these non-storm water discharges takes place. The following allowable non-storm water discharges that may occur from the job site include:
  - a) Discharges from fire fighting activities.
  - b) Fire hydrant flushing (see note below).

c) Waters used to wash vehicles or control dust in order to minimize offsite sediment tracking.

d) Potable water sources such as waterline flushing (see note below), irrigation drainage from watering vegetation, routine exterior building washdown (without detergents present). (See Note below)

e) Pavement wash waters where spills or leaks of hazardous materials have not occurred or detergents have not been used.

f) Springs and other uncontaminated groundwater, including dewatering ground water infiltration.

g) Foundation or footing drains where no contamination with process materials such as solvents is present

## **SECTION 2**

a) Notice of Intent (NOI) (See enclosed NOI as separate pdf document)

## **SECTION 3**

a) Erosion and Sediment Control Plan Sheets and Detail Sheets









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## **SECTION 4**

• Initial Inspection Report

• Regular Inspection Report Forms – The Contractor is responsible for conducting weekly and after rain inspections and correcting deficiencies.

• BMP Checklist – The BMP checklist should be used when conducting regular inspections.

• Final Inspection Form

# **Initial Inspection of Erosion and Sediment Control**

Project N	Number:         Date:			
Contract	or/Representative:			
Evaluate	d by Construction Inspector:			
A. Proje	ct Overview			
• ]	How Many Acres Total Does the Project Disturb?			
• ]	Project Start Date: Project End Date:			
B. Paper	rwork			
• •	<sup>k</sup> Does the project have a Land Disturbance Permit (If required			
(	(by City)?	Yes	No	N/A
• *	*Is the SWPPP Notebook onsite?	Yes	No	N/A
C. Site F	Preparation			
• *	<sup>k</sup> Has the contractor installed temporary construction			
e	entrance(s) and are the vehicles using it?	Yes	No	N/A
• ;	*Is there a place for concrete wash-out, is it clearly marked			
	and do concrete trucks appear to be using it?	Yes	No	N/A
• *	*Is the site largely free of construction trash?	Yes	No	N/A
(	cups, lunch sacks, material packaging, etc.)	- • •		
• *	*Have perimeter sediment controls been installed?	Yes	No	N/A
-	nuve permeter seament controls ocen instance:	105	110	1 1/21
• ,	*Have pre-construction controls been installed per the plan	Yes	No	N/A
ł	been installed?			
• •	*Have easily recognizable indications of the construction limits	Yes	No	N/A
ł	been installed? (fencing, staking, physical barriers)			

## **Erosion and Sediment Control Inspection Report Form**

			inspection report I orm			
Project Name and	Location					
Weather:		I	Pollution Control Measures (BMP) Checklist:			
Rain in last 24 hrs (inches):			Inlet Barrier (ie: gravel bags)			
Owner / Permittee:			Sediment Barriers (ie: ditch checks) Erosion Blankets, Hydromulch / Seed, etc			
<u>A. Current Construction / Active Areas:</u>		- - - - -	<ul> <li>Stabilized Construction Entrance</li> <li>Stream Crossings</li> <li>Seed / Sod Areas</li> <li>Sediment Basins &amp; Discharge Locations</li> <li>Borrow Areas</li> <li>General Site Condition (trash, etc)</li> </ul>			
B. Problem Areas / Special Observations(*Note problem areas ONLY below*):						
BMP	Location	Observat	ions, Effectiveness, & Corrective Actions Ordered			
<u>C. Listing of Area</u> <u>measures initiated</u>	<u>s where construction operation</u>	ons have pe	rmanently or temporarily stopped; stabilization			
<b>D.</b> Have items noted on last inspection been corrected? Yes No (if No, Explain:)						

*Note: Inspection comments above indicate deficiencies only. Deficiencies must be corrected within 7 days, unless otherwise noted. All other BMP's on site are considered to be in good working condition.* 

Date of Inspection

**Inspector Signature** 

6 Goals • No Sediment Leaves the Site • Lines of Defense Everywhere & Always • Cover Quickly

• Protect the Swale, Ditch ,and Channel • Keep Clean Water Clean • Inspect, Clean & Fix

## **BMP INSPECTION CHECKLIST**

General notes about Inspections:

1) Site inspected weekly

2) Within 24 hours of the end of a storm with rain >0.5"3) Deficiencies corrected within 7 calendar days of inspection

Inlet Barriers (ie:sand bags, gutter buddies, straw wattles)

- $\sqrt{}$  Is the structure deteriorating
- $\sqrt{1}$  Is sediment >1/2 the height of structure?
- $\sqrt{}$  Evidence of water/sediment getting **around or under** barrier?
- $\sqrt{}$  Are there other structures that require inlet barriers?

Sediment Barriers (ie:ditch checks)

- $\sqrt{}$  Are they trenched in or falling down?
- $\sqrt{}$  Evidence of sediment/water getting **around** or **under** barrier?
- $\sqrt{1}$  Is sediment more than 1/2 height of structure?
- $\sqrt{}$  Are there areas where more sediment barriers are required or need <u>extended</u>?

Perimeter Control (ie: silt fence, straw wattles)

- $\sqrt{}$  Is all the off-site water being diverted where applicable?
- $\sqrt{}$  Evidence of water/sediment getting **around** or **under** barrier?
- $\sqrt{}$  Are there areas that need extended or additions to other locations?

Stabilized Construction Entrance

- $\sqrt{}$  Is gravel clean or getting filled with mud?
- $\sqrt{}$  Evidence of sediment being tracked off site onto public streets?

#### Stream Crossing

- $\sqrt{}$  Is crushed stone in place?
- $\sqrt{}$  Wash outs?

#### Final or temporary Stabilization area

- $\sqrt{}$  Mulches/Grasses-are areas thinning or have been disturbed? Re-application req'd?
- $\sqrt{}$  Straw Blankets-are they deteriorating and need replaced?

#### Borrow Areas

 $\sqrt{}$  When on site or offsite borrow areas, which include contractor furnished, are to be excavated below ground elevations, an earth berm must be constructed around the borrow area to prevent runoff from entering excavation area

#### Sediment Basin

- $\sqrt{100}$  Note the basin depth. Is the basin more than  $\frac{1}{2}$  full of sediment from original design?
- $\sqrt{}$  Condition of basin side slopes
- $\sqrt{}$  Evidence of overtopping embankment
- $\sqrt{}$  Condition of outfall

#### General Site Conditions

- $\sqrt{}$  Trash barrels-any evidence of trash lying around site
- $\sqrt{}$  Location of porta potties
- $\sqrt{}$  Leaking vehicles
- $\sqrt{}$  Concrete Washouts Designated

#### Key elements to look at during inspection

- 1) Proper installation
- 2) Operation
- 3) Maintenance

# **Final Inspection of Erosion and Sediment Control**

Project:	Date:			
Contractor/Representative:				
Evaluated by Construction Insp	ector:			
Project Overview				
How Many Acres Total	Does the Project Disturb?			
Project Start Date	Project End Date	-		
Paperwork				
• Is the SWPPP Notebool	k onsite?	Yes	No	N/A
Final Site Preparation*				
• Has the concrete wash-	out area been cleaned?	Yes	No	N/A
• Is the site free of constr	uction trash?	Yes	No	N/A
(cups, lunch sacks, mate	erial packaging, wood debris, etc.)			
• Have perimeter sedime	nt controls been taken down?	Yes	No	N/A
	, , <b></b>		NT	
• Have indications of the been taken down? (fence	construction limits sing, staking, physical barriers)	Yes	No	N/A
• Has all the dirt on the s	ita baan aavarad?	Vac	No	NI/A
• Thas all the dift on the si		1 05	INU	1N/PA
• Have appropriate grasse	es/sod/trees been planted?	Yes	No	N/A
• Have the plants accepte	d?	Yes	No	N/A
• Ileve auttain and streats	hoor close of coil/teach?	Vac	Na	NT/A
• Have gutters and streets	s been creaned of son/trasn?	res	10	IN/A
• Have all erosion contro	ls been removed?	Yes	No	N/A