

Stormwater Pollution Prevention Plan

For Construction Activities At:

SWPPP Prepared For:

SWPPP Prepared By:

SWPPP Preparation Date:

Estimated Project Dates:

Project Start Date:

Project Completion Date:

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Section 1: Stormwater Team and Project/Site Information

1.1 Stormwater Team

The stormwater team is responsible for overseeing development of the SWPPP, making any modifications to it, implementing and maintaining control measures, taking corrective actions when required, performing site inspection and monitoring, supervising pollution prevention and waste management activities, providing staff training, and communicating changes in the SWPPP to the people working on the site. The following personnel, along with their role and responsibility, will be part of the **stormwater team** for this construction site:

Team Leader (Name/Title Telephone)	Roles & Responsibilities

Team Member #1 (Name/Title Telephone)	Roles & Responsibilities

Team Member #2 (Name/Title Telephone)	Roles & Responsibilities

Team Member #3 (Name/Title Telephone)	Roles & Responsibilities

Team Member #4 (Name/Title Telephone)	Roles & Responsibilities

[Repeat as necessary]

1.2 Nature of Construction Activity and Project Information

Project/Site Name and Address	
Project/Site Name:	
Project/Site Street/Location:	
City:	County:
State:	ZIP Code:

General Description of the Project/Site:

Estimated project start date:	
Estimated project end date:	
Total area of the construction site:	(acres)
Estimated area to be disturbed:	(acres)
Estimated percent current impervious area at the site:	(%)
Estimated percent impervious area after construction:	(%)
Pre-construction runoff coefficient of the site:	
Post-construction runoff coefficient of the site:	
Purpose of the Construction Project/Site:	
☐ Residential Planned Development	☐ Commercial/Industrial
☐ Fill Site	☐ Linear/Utility
☐ Other(s), please specify:	

Project Latitude/Longitude (for linear project, include latitude/longitude of start and end points)	
Latitude:	Longitude:
1. ____° ____' ____" N (degrees, minutes, seconds)	1. ____° ____' ____" W (degrees, minutes, seconds)
2. ____° N (decimal)	2. ____° W (decimal)
Latitude:	Longitude:
1. ____° ____' ____" N (degrees, minutes, seconds)	1. ____° ____' ____" W (degrees, minutes, seconds)
2. ____° N (decimal)	2. ____° W (decimal)

Description of soil type(s) and fill materials:
Description of slopes (describe existing slopes and note any changes due to grading or fill activities):
Description of drainage patterns (describe existing drainage patterns and note any changes due to grading or fill activities):
Description of existing or baseline vegetation on or immediately surrounding the project area:
Climate/Rainfall Patterns - check the box that applies:
☐ (0-20" annual rainfall) ☐ (20 -30" annual rainfall) ☐ (30-40" annual rainfall) ☐ (40 -50" annual rainfall)
(Note: Annual rainfall data can be found at the following link: https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html)

1.3 Outfall Information

No.	Describe Outfall Locations
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	

1.4 Owner's and Contactor's Contact Information

Owner(s) Information:		
Name:		
Address:		
City:	State:	Zip Code:
Operator's Point of Contact:		
Telephone Number:		
Email address:	Fax number:	

(Repeat for multiple operators by copying and pasting the above rows)

Contractor's Information:		
Name:		
Address:		
City:	State:	Zip Code:
Telephone Number:		
Email address:	Fax number:	

(If owner is a separate entity)

Sub-Contractor's Information:		
Name:		
Address:		
City:	State:	Zip Code:
Telephone Number:		
Email address:	Fax number:	

(If owner is a separate entity)

SWPPP Contact(s):	
SWPPP Contact Name (Primary):	
Telephone number:	
Email address:	Fax number:
SWPPP Contact Name (Backup):	
Telephone number:	
Email address:	Fax number:

1.5 Construction Support Activities (if applicable)

List of construction support activities that will be available at the construction project/site:

Type of Construction Support Activities ¹	Will be Present at the Construction Site?
Equipment Staging Yards	☐ Yes ☐ No
Material Storage Areas	☐ Yes ☐ No
Excavated Material Disposal Areas	☐ Yes ☐ No
Borrow Areas	☐ Yes ☐ No
Concrete Batch Plant ²	☐ Yes ☐ No
Asphalt Plant ²	☐ Yes ☐ No

*(Note-1: **Locate** all the construction support activities on the site map. **Appropriate/additional** controls & measures are required for construction support activities.)*

***Note-2:** Include Section 8 if you have Concrete Batch Plant and/or Asphalt Plant as construction support activities at your construction site. Exclude/delete Section 8 if you don't have Concrete Batch Plant and/or Asphalt Plant at your construction site.)*

1.6 Sequence of Construction Activities

(Note: You may edit sequence of construction activities in the following table to reflect your project's sequences along with estimated start date and duration)

	Sequence of Construction Activities	Estimated Start Date	Duration (in Days)
1.	Construction access/entrance to site, construction routes, areas designated for equipment parking/staging area		
2.	Silt fences, berm or similar control measures as perimeter control		
3.	Land clearing and grading, site preparation (cutting, filling, and grading, sediment traps, barriers, diversions, drains, surface roughening)		
4.	Runoff control diversions, perimeter dikes, water bars, outlet protection		
5.	Inlet/outlet protection, sediment traps and/or sediment basin		
6.	Runoff conveyance system, stabilize stream banks, storm drains, channels, inlet and outlet protection, slope drains		
7.	Surface stabilization - temporary and permanent hydraulic mulching, hydroseeding, straw mulch, sodding, riprap		
8.	Building construction - buildings, utilities, paving etc.		
9.	Landscaping and final stabilization, top-soiling, trees and shrubs, permanent seeding, mulching, sodding, riprap		
10.	Removal of all structural controls where applicable		

1.7 Allowable Non-Stormwater Discharges

List of allowable non-stormwater discharges that will be present at the construction site. Identify the likely locations of these allowable non-stormwater discharges on your site map(s).

No.	Type of Allowable Non-Stormwater Discharge	Likely to be Present at Construction Site?
1.	Discharges from emergency fire-fighting activities	☐ Yes ☐ No
2.	De-chlorinated fire hydrant flushing	☐ Yes ☐ No
3.	Uncontaminated water line flushing	☐ Yes ☐ No
4.	Uncontaminated air conditioning or compressor condensate	☐ Yes ☐ No
5.	Landscape watering	☐ Yes ☐ No
6.	Uncontaminated, non-turbid discharges of ground water or spring water	☐ Yes ☐ No
7.	Foundation or footing drains where flows are not contaminated with process materials	☐ Yes ☐ No
8.	Water used to control dust	☐ Yes ☐ No
9.	Pavement wash waters, provided spills or leaks of toxic or hazardous substances have not occurred (unless all spill material has been removed) and where soaps, solvents, and detergents are not used.	☐ Yes ☐ No
10.	Water used to rinse vehicles and equipment, provided there is no discharge of soaps, solvents, or detergents used for such purposes.	☐ Yes ☐ No
11.	External building washdown, provided soaps, solvents, and detergents are not used, and external surfaces do not contain hazardous substances.	☐ Yes ☐ No
12.	Uncontaminated dewatering water discharged in accordance with requirements found in the Missouri State Operating Permit for specific dewatering activities.	☐ Yes ☐ No

Section 2: Site Description and Site Map

2.1 Receiving Waters/Discharge Information

Receiving Water body's Information: Stormwater discharges from this construction project will flow to the following receiving water body(s).

No.	Name of the Receiving Waters	Is this surface water listed as impaired?	Cause of Impairment ¹	Has a TMDL ² been completed?	TMDL Pollutant(s)
1.		☐ Yes ☐ No		☐ Yes ☐ No	
2.		☐ Yes ☐ No		☐ Yes ☐ No	
3.		☐ Yes ☐ No		☐ Yes ☐ No	
4.		☐ Yes ☐ No		☐ Yes ☐ No	
5.		☐ Yes ☐ No		☐ Yes ☐ No	

(Note: Name of the receiving waters can be found at the MoDNR website using the following link: <https://modnr.maps.Environmentally Sensitive Areaaqis.com/apps/webappviewer/index.html?id=1d81212e0854478ca0dae87c33c8c5ce>. Cause of impairment and TMDL information can be found at the MoDNR website using the following link: <https://dnr.mo.gov/water/what-were-doing/water-planning/quality-standards-impaired-waters-total-maximum-daily-loads/impaired-waters>. If site discharges to a sinkhole, list groundwater as the receiving water)

¹ If your facility is located within a watershed of an impaired water that is impaired for **sediment**, you are required to comply with the additional requirements in Part B.3(a)(b)(c) of the MoDNR MORA permit.

² Total Maximum Daily Load (TMDL)

Does the project/site discharge stormwater to an **Outstanding State Resource Water (OUTSTANDING STATE RESOURCE WATER)**?

☐ Yes ☐ No If yes, you must comply with Part B.3(a)(b)(c) of the MoDNR MORA permit.

Does the project/site discharge stormwater into a Municipal Separate Storm Sewer System (MS4)?

☐ Yes ☐ No

If yes, what is the name of the MS4 operator? _____

Is a 404-permit required for this project? ☐ Yes ☐ No

2.2 Site Map

SWPPP includes a legible site map or series of site maps showing all the features (see also Section IV.7 of MORA permit) listed below:

- Boundaries of property and identify the location(s) of:
 - ✓ Site boundaries of the property,
 - ✓ All waters of the state (including wetlands) within the site and half a mile downstream of the site's outfalls,
 - ✓ Location of all outfalls,
 - ✓ Direction(s) of stormwater flow (use arrows) and approximate slopes before and after grading activities,
 - ✓ Areas of soil disturbance and areas that will not be disturbed (or a statement that all areas of the site will be disturbed unless otherwise noted),
 - ✓ Areas of steep slopes, surface water crossings, structures and other impervious surfaces upon completion of construction,
 - ✓ Environmentally Sensitive Areas, and
 - ✓ Stream Buffers,
 - Locations of all structural and nonstructural BMPs, including natural buffer areas, identified in the plan including showing the location of:
 - ✓ Construction entrance/exit,
 - ✓ Construction support activity areas such as locations of off-site materials, waste, borrow area, or equipment storage areas,
 - ✓ Locations where stabilization practices are expected to occur,
 - ✓ Stockpiled materials (sediment, topsoil, etc.),
 - ✓ Locations of all potential pollutant-generating activities (i.e. concrete wash out area(s), portable toilets, material storage, fueling and maintenance areas, dumpsters, etc.),
 - ✓ Areas where final stabilization has been achieved,
 - Locations where stormwater and allowable non-stormwater will be discharged off-site (should be continuously updated),
 - Sampling locations if project is subject to numeric limitations due to presence of an asphalt batch plant, and
 - Location of stormwater inlets and conveyances including ditches, pipes, man-made conduits, and swales.
- ☐ The **site map or series of maps** for this facility can be found in **Attachment A** of this SWPPP showing all the above-mentioned features in Part 2.3 of this SWPPP.

Section 3: Construction Site Pollutants

3.1 Pollutant-Generating Activities

Potential sources of sediment to stormwater runoff:

Clearing and grubbing operations, grading and site excavation operations, vehicle tracking, topsoil stripping and stockpiling, landscaping operations

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

- Combined Staging Area - small fueling activities, minor equipment maintenance, sanitary facilities, and hazardous waste storage.
- Materials Storage Area - general building materials, solvents, adhesives, paving materials, paints, aggregates, trash, etc.
- Construction Activity - paving, curb/gutter installation, concrete pouring/mortar/stucco, and building construction
- Concrete Washout Area

3.2 List of Potential Pollutants

List of Pollutants that can be present at the construction site:

(Note: Check all the boxes applicable to your project site; include additional pollutants, if necessary, in the space below)

Check	Materials/ Chemicals	Stormwater Pollutants	Location at the Site
☐	Dirt from land disturbed area	Sediment	
☐	Pesticides (insecticides, fungicides, herbicides, rodenticides)	Chlorinated hydrocarbons, organophosphates, carbonates, arsenic	
☐	Fertilizer and dirt/soil	Nitrogen, phosphorous	
☐	Plaster	Calcium sulphate, calcium carbonate, sulfuric acid	
☐	Cleaning solvents	Perchloroethylene, methylene chloride, trichloroethylene, petroleum distillates	
☐	Asphalt	Oil, petroleum distillates	
☐	Concrete	Limestone, sand, pH, chromium	
☐	Glue, adhesives	Polymers, epoxies	
☐	Paints	Metal oxides, Stoddard solvent, talc, calcium carbonate, arsenic	
☐	Curing compounds	Naphtha	

☐	Wood preservatives	Stoddard solvent, petroleum distillates, arsenic, copper, chromium	
☐	Hydraulic oil/fluids	Mineral oil	
☐	Gasoline	Benzene, ethyl benzene, toluene, xylene, MTBE	
☐	Diesel Fuel	Petroleum distillate, oil & grease, naphthalene, xylenes	
☐	Antifreeze/coolant	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)	
☐	Sanitary toilets	Bacteria, parasites, and viruses	
☐			
☐			
☐			
☐			

Section 4: Compliance with Federal and State Requirements

4.1 Endangered or Threatened Species Protection

Will stormwater discharges or stormwater discharge-related activities (e.g., catch basin, pond, culvert, etc.) affect a property that is protected by Federal, State, or local endangered or threatened species/critical habitat laws? ☐ Yes ☐ No

If yes, describe any actions taken to mitigate those effects:

Describe how this determination was made:

4.2 Federal, State, or Local Historic Preservation Laws

Will stormwater discharges or stormwater discharge-related activities (e.g., catch basin, pond, culvert, etc.) affect a property that is protected by Federal, State, or local historic preservation laws? ☐ Yes ☐ No

If yes, describe any actions taken to mitigate those effects:

Describe how this determination was made:

4.3 TMDL Requirements

If a TMDL has been approved for the waterbody, SWPPP must include all the applicable requirements in consistent with the TMDL that are applicable to the stormwater discharges from the construction site.

Does the construction project/site discharge stormwater into a receiving stream that has an approved TMDL?

☐ Yes ☐ No

If yes, are there any waste load allocations (WLAs) and/or the TMDL's associated implementation plan requirements applicable to stormwater discharges from the construction activity?

☐ Yes ☐ No

If yes, SWPPP must incorporate any limitations, conditions, or requirements applicable to permittee's discharges to ensure that the waste load allocations (WLAs) and/or the TMDL's associated implementation plan will be met within any timeframe established in the TMDL report. Monitoring and reporting of the discharges may also be required as appropriate to ensure compliance with the TMDL.

Section 5: Stormwater Control Measures

The purpose of the implementation of different stormwater pollution controls is to reduce pollutants in the stormwater and the volume of stormwater leaving the construction site. All pollution control measures will be selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices.

5.1 Stabilization Practices

Type of Site Stabilization Practice(s) that will be implementing at the construction project/site (select all that apply):

☐ Temporary ☐ Permanent ☐ Vegetative ☐ Non-Vegetative

Deadline to Initiate Stabilization: I shall initiate stabilization measures **immediately** whenever earth-disturbing activities have permanently or temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days.

Deadline for Complete Stabilization:

- ☐ I shall complete stabilization measures **as soon as practicable** but no later than 14 calendar days after the initiation of soil stabilization.
- ☐ My project/site has slopes greater than 3:1 (Horizontal: Vertical), or slope is greater than 3% and greater than 150 ft in length; I shall complete stabilization measures **as soon as practicable** but no later than 7 calendar days after the initiation of soil stabilization.

Temporary Non-Vegetative Stabilization: The following **non-vegetative** controls/BMPs will be used to temporarily stabilize exposed portions of the construction site (*select all that apply*):

☐ Rolled erosion control products such as geotextiles, blankets or plastic cover ☐ Soil binders

☐ Straw mulch ☐ Wood mulch ☐ Compost Blanket ☐ Other, _____

If any of the above-referenced controls are used to temporarily protect areas that are being vegetatively stabilized, one of the effective non-vegetative cover will be used to stabilize any such exposed portions of our site.

Temporary Vegetative Stabilization: The following **vegetative** controls will be used to temporarily stabilize the exposed portions of the construction site (*select all that apply*):

☐ Hydroseeding with mulch ☐ Sod ☐ Other, _____

Permanent Vegetative Stabilization: The following **vegetative** controls will be used to permanently stabilize the exposed portions of the construction site (*select all that apply*):

☐ Hydroseeding with mulch ☐ Sod ☐ Planted vegetation ☐ Other, _____

One of the following criteria will be used for vegetative cover:

- Provide a vegetative cover which covers 70% or more of the vegetation prior to commencing earth-disturbing activities. Vegetation must be evenly distributed.
- Immediately after seeding, you must select, design, and install non-vegetative erosion controls that provide cover (such as **straw mulch, jute matting, and straw blankets**) to the area while vegetation is being established.

Stabilization Practices Record: A record of the dates when grading activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated shall be included with the plan. ☐ Yes ☐ No

If No, explain: _____

A record of the dates when grading activities occur will be documented using the Grading & Stabilization Activity logs in **Attachment-I** of this SWPPP.

5.2 Natural Buffers and/or Equivalent Sediment Controls

Buffer Compliance Alternatives

Are there any **Waters of the State** that are located within 50 feet of your construction disturbances as measured from the Ordinary High-Water Mark to the disturbed portions of your site? ☐ Yes ☐ No

(Note: Waters of the State means all waters within the jurisdiction of the state of Missouri including all rivers, streams, lakes and other bodies of surface and subsurface water lying within or forming a part of the boundaries of the state which are not entirely confined and located completely upon lands owned, leased or otherwise controlled by a single person or by two or more persons jointly or as tenants in common.)

(Note: Ordinary High-Water Mark means the line on the shore established by fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, and/or the presence of litter and debris.)

Construction Project/Site Location (check all that apply):

- ☐ My construction project/site **is not** located within 1,000 feet of an Outstanding State Resource Water or a water impaired for sediment.
- ☐ My construction project/site **is** located within 1,000 feet of an Outstanding State Resource Water or a water impaired for sediment.
- ☐ My construction project/site **is** located a watershed with an established TMDL that has a Waste Load Allocation (WLA) for Construction Project.

Check the compliance alternative that you have chosen:

- ☐ I will provide and maintain a 50-foot undisturbed natural buffer for all surface Waters of the State located on or adjacent to the site.

(Note (1): You must show the boundary line of the natural buffer on your site map.)

(Note (2): You must show on your site map how all discharges from your construction disturbances through the natural buffer area will first be treated by the site's erosion and sediment controls.)

-
-
- ☐ I will provide and maintain an undisturbed natural buffer that is less than 50 feet and is supplemented by erosion and sediment controls that achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer.

(Note (1): You must show the boundary line of the natural buffer on your site map.)

(Note (2): You must show on your site map how all discharges from your construction disturbances through the natural buffer area will first be treated by the site's erosion and sediment controls.)

(Note (3): For additional information on design controls; https://www.epa.gov/sites/default/files/2017-02/documents/2017_cgp_final_appendix_a_-_buffer_reqs_508.pdf)

- i. Width of natural buffer to be retained: _____
- ii. Site-specific calculations:
- a. Model or other tool used to estimate sediment load reductions:
- _____
- b. Results of calculations: _____
- _____
- _____
- c. Description of additional erosion and sediment controls used:
- _____
- _____
- _____

- ☐ It is infeasible to provide and maintain an undisturbed natural buffer of any size; therefore, I will implement erosion and sediment controls that will achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer.

- i. Rationale for concluding that it is infeasible to provide and maintain a natural buffer of any size:
- _____
- _____
- iii. Site-specific calculations:
- a. Model or other tool used to estimate sediment load reductions:
- _____
- b. Results of calculations: _____
- _____
- _____
- c. Description of additional erosion and sediment controls used:
- _____
- _____
- _____

-
-
- ☐ I qualify for one of the following exceptions (*select one that applies to your project/site*):
- ☐ There is no discharge of stormwater to the surface water that is located 50 feet from my construction disturbances.
- ☐ No natural buffer exists due to preexisting development disturbances that occurred prior to the initiation of planning for this project.
- ☐ Buffer disturbances are authorized under a CWA Section 404 permit.
- ☐ Buffer disturbances will occur for the construction of a water-dependent structure or water access area (e.g., pier, boat ramp, and trail).

Stream Buffer Information:

Are there any Boone County stream buffer delineations onsite? ☐ Yes ☐ No

Type I ☐

0-14% Slope ☐

Type II ☐

15-25% Slope ☐

Type III ☐

>25% Slope ☐

Will there be any stream buffer averaging taking place on this property? ☐ Yes ☐ No

If yes, describe.

Environmentally Sensitive Area Information: Stormwater discharges from this construction project will flow to onsite or offsite sinkholes, caves, wetlands or other point recharge features.

Are there environmentally sensitive areas on or near the project? ☐ Yes ☐ No

If yes, describe the environmentally sensitive area.

Steps taken to address the impact of construction:

5.3 Structural Controls/Best Management Practices (BMPs)

The table below lists Structural and Non-Structural Stormwater Controls/Best Management Practices (BMPs) that should be considered for every construction project/site to meet the non-numeric technology-based effluent limitations, water-based effluent limitations and applicable numeric technology-based effluent limitations.

The following BMPs will be used or implemented at the construction project/site (*select all that apply*):

Erosion Controls		Sediment Controls	
☐	Preservation of Existing Vegetation	☐	Silt Fence
☐	Vegetative Swales	☐	Silt Dikes
☐	Hydroseeding with Mulch	☐	Compost Sock
☐	Hydraulic Mulch	☐	Check Dam
☐	Wood Mulching	☐	Fiber Rolls
☐	Straw Mulching	☐	Storm Drain Inlet Protection
☐	Compost Blankets	☐	Outlet Protection/Velocity Dissipation Devices
☐	Soil Binders	☐	Earth Berms and Drainage Swales
☐	Geotextiles and Mats	☐	Sandbag Barrier
☐	Soil Preparation/Roughening	☐	Gravel Bag Berm/Barrier
☐	Sod	☐	Sediment Basin
☐	Streambank Stabilization	☐	Sediment Trap
Tracking Controls		☐	Rip-rap
☐	Stabilized Construction Entrance/Exit	☐	Gabions
☐	Stabilized Construction Roadway	Non-Structural Controls	
☐	Entrance/Exit Tire Wash	☐	Phasing and Scheduling
☐	Street Sweeping and Vacuuming	☐	Dust Suppression
Other Structural Controls		☐	Dust Suppression
☐	Vegetative Buffers	☐	Good Housekeeping
☐	Non-Vegetative Stabilization	☐	Preventive Maintenance
☐	Concrete Waste Management	☐	Preservation of Topsoil
☐	Dewatering Controls	☐	Minimizing Soil Compaction
☐		☐	Fertilizer Application Management
☐		☐	

Did you **include specifications** of all the selected structural BMPs with the SWPPP? (*Note: specifications should provide the physical description of the BMP, site conditions that must be met for effective use of*

the BMP, BMP installation/construction procedures including typical drawings, and maintenance procedures. See Chapter 8 of the Boone County Stormwater Design Manual for approved BMPs.)

☐ Yes ☐ No, if no, explain the reason:

5.3.1 Perimeter Control

Permit requirement: *Perimeter control BMPs for runoff from disturbed areas shall be installed before general site clearing is started. (Examples of perimeter controls include, but are not limited to, silt fence, fiber rolls, filter berms, filter strips, and temporary diversion dikes.)*

To comply with Part 5.5.a. of the MoDNR MORA permit and Section 28.5.6 of the Boone County Zoning Regulations, I shall use the following type of perimeter control(s) at my construction site:

Perimeter Control Description: _____

Installation Date(s): _____

Maintenance Requirements:

5.3.2 Sediment Track-Out

Permit requirement: *Minimize sediment track-out from the site and sediment transport onto roadways.*

To comply with Part 3.9 of the MoDNR MORA permit and Chapter 28.5.8 of the Boone County Zoning Regulations, I shall use the following type of sediment track-out control at my construction site:

Track-Out Control/Construction Entrance/Exit Description: _____

Installation Date(s): _____

Maintenance Requirements:

- ☐ I shall remove the track-out by sweeping, shoveling, or vacuuming these surfaces, or by using other similarly effective means of sediment removal.
- ☐ I shall remove the deposited sediment by the **end of the same workday** in which the track-out occurs. Any sediment or debris that is tracked out or deposited on a roadway after a precipitation event shall be removed the shorter of either **daily or before a rain event**.
- ☐ I am prohibited from hosing or sweeping tracked-out sediment into any stormwater conveyance (unless it is connected to a sediment basin, sediment trap, or similarly effective control).

5.3.3 Stockpiled Sediment or Soil

Permit requirement: *Manage stockpiles or land clearing debris piles composed, in whole or in part, of sediment and/or soil.*

To comply with Part 5.9 of the MoDNR MORA permit and Chapter 28.5.5(2) of the Boone County Zoning Regulations, I shall locate the piles outside of any natural buffer zones and away from any stormwater conveyances, drain inlets, and areas where stormwater flow is concentrated.

I shall use a temporary perimeter sediment barrier such as *berms, dikes, fiber rolls, silt fences, sandbags, or gravel bags* along all downgradient perimeter areas.

I shall prevent stormwater flows from causing erosion of stockpiles.

I shall use appropriate cover or temporary stabilization such as *mulching or hydro-mulching* to avoid direct contact with precipitation or to minimize sediment discharge for piles that will be unused for 14 days or more.

Installation Date(s): _____

Maintenance Requirements: I shall not hose down or sweep soil or sediment accumulated on pavement or other impervious surfaces into any stormwater conveyance (unless connected to a sediment basin, sediment trap, or similarly effective control), storm drain inlet, and/or surface water.

5.3.4 Minimize Dust

You must employ techniques to prevent the blowing of dust or sediment from the site to avoid pollutant discharges to the maximum extent practicable (Chapter 28.5.5 Boone County Zoning Regulations).

Dust Control Description:

5.3.5 Minimize the Disturbance of Steep Slopes

Permit requirement: *You must minimize the disturbance of steep slopes.*

Steep Slope Control Description: _____

Installation Date(s): _____

Maintenance Requirements:

5.3.6 Preserve Topsoil

Permit requirement: *You must preserve native topsoil on your site, unless infeasible; you must stockpile and reuse it in areas that will be stabilized with vegetation.*

Topsoil Control Description: I shall preserve native topsoil on our site as much as possible and practicable.

Maintenance Requirements: I shall stockpile, and reuse preserved topsoil in areas that will be stabilized with vegetation.

5.3.7 Minimize Soil Compaction

Permit requirement: *In areas of your site where final vegetative stabilization will occur or where infiltration practices will be installed, you must minimize soil compaction.*

Soil Compaction Control Description: In areas of your site where final vegetative stabilization will occur or where infiltration practices will be installed, I shall restrict vehicle and/or equipment use in these areas to avoid or minimize soil compaction.

5.3.8 Protection of Storm Drain Inlets

Permit requirement: *If you discharge to a storm drain inlet that you have access to, you must install protection measures that remove sediment from your stormwater discharge. (Examples of inlet protection measures include **fabric filters, sandbags, or gravel barriers** -- Install inlet protection measures that remove sediment from your discharge prior to entry into the storm drain inlet.)*

Storm Drain Inlet Control Description:

Installation Date(s): _____

Maintenance Requirements: I shall clean or remove and replace the protection measures as sediment accumulates, the filter becomes clogged, and/or performance is compromised. Where there is evidence of sediment accumulation adjacent to the inlet protection measure, I shall remove the deposited sediment by **the end of the same workday** in which it is found or by the end of the following workday if removal by the same workday is not feasible.

5.3.9 Constructed Stormwater Conveyance Channels

*(Note: Examples of velocity dissipation devices include **check dams, sediment traps, riprap, or grouted riprap at outlets.** Include design specifications)*

Stormwater Conveyance Channel Control Description:

- ☐ If Silt dikes/Check dams are **used in series**, I shall space them at appropriate intervals so that ***the base of the upstream dike is at the same elevation as the top of the next downstream dike.*** Spacing of silt dikes/check dams is indicated on the site plans of SWPPP.

Installation Date(s): _____

Maintenance Requirements: All conveyance channel controls will be inspected during facility inspection for erosion, undermining or breeches. Any damage will be repaired within 7 calendar days of facility inspection.

5.3.10 Sediment Basins

Permit requirement: *For common drainage locations that serve an area of 10 or more acres disturbed at one time a temporary (or permanent) sediment basin shall be provided where attainable until final stabilization of the site.*

Are 10 or more acres draining to a common point? ☐ Yes ☐ No

Is a sediment basin included in the project? ☐ Yes ☐ No

If yes, what is the designed capacity for the storage?

☐ 2-year, 24-hour storm: _____

OR

☐ Other criteria were used to design basin: _____

If no, explain why no sedimentation basin was included and describe required natural buffer areas and other controls implemented instead: _____

Maintenance Requirements: I shall keep the sediment basin in effective operating condition and remove accumulated sediment to always maintain at least 50% of the design capacity of the sediment basin.

5.3.11 Dewatering Practices

Permit requirement: *You are prohibited from discharging stormwater that is removed from excavations, trenches, foundations, vaults, or other similar points of accumulation associated with a construction activity, unless such waters are effectively managed by appropriate controls.*

Dewatering Practice Description:

Installation Date(s): _____

Maintenance Requirements:

5.3.12 Other Stormwater Controls

Stormwater Control Practice # 1

Description:

Installation Date(s): _____

Maintenance Requirements:

Stormwater Control Practice # 2

Description:

Installation Date(s): _____

Maintenance Requirements:

Section 6: Pollution Prevention Controls

6.1 Spill Prevention and Responses

Spill Prevention

Is there an existing Spill Prevention Control and Countermeasure (SPCC) plan developed for the site?

☐ Yes ☐ No

If yes, keep a copy of the SPCC plan onsite with this SWPPP.

If No, describe procedures for quickly stopping, containing, and cleaning up spills, leaks, and other releases:

Emergency Spill Notification

Project Manager/Team Leader	
Emergency – Fire, Police	911
Boone County	573-886-4330
MoDNR Spill Reporting Hotline (24-hr)	573-634-2436
NRC (National Response Center)	800-424-8802

6.2 Waste Management Procedures

All waste generated at the construction site, including, but not limited to, clearing and demolition debris, sediment removed from the site, construction and domestic waste, hazardous or toxic waste, and sanitary waste, shall be prevented from being discharged to Waters of the State. The following BMP measures will be used to handle trash disposal, hazardous or toxic waste, sanitary waste, recycling, and proper material handling:

- ☐ **Construction Waste:** All construction waste material shall be collected, deposited, and stored in a manner to prevent contact with stormwaters discharging from the site and shall be disposed of by a licensed solid waste management contractor. No waste shall be buried on the site.
- ☐ **Hazardous Materials:** Storage areas for hazardous materials such as oils, greases, paints, fuels, and chemicals shall be provided with secondary containment to ensure that spills in these areas do not reach Waters of the State. All hazardous waste materials shall be disposed of according to state regulation or the manufacture's recommendations.
- ☐ **Sanitary Waste:** A state licensed sanitary waste management contractor shall collect all sanitary waste from portable units that will be maintained on a regular basis for any site that cannot provide other means of sanitary waste disposal.
- ☐ **Concrete Truck Washout:** Concrete truck washout shall not discharge surplus concrete or drum wash water on the site in such a manner that promotes contact with stormwaters or natural streams. I shall direct the wash water into leak-proof containers or pits designed so that no overflows can occur. Washout facilities will be placed at a minimum of 50 feet from Waters of the State, stormwater inlets and/or stormwater conveyances. I will clean out, or construct a new facility, once the washout is 75% full.
- ☐ **Petroleum Products:** All construction equipment and vehicles shall be monitored for leaks and receive regular preventative maintenance to ensure proper operation and reduce the risk for leaks or spills. Petroleum products shall be stored in clearly labeled and tightly sealed containers or tanks. Fuel or oil contaminated soil shall be removed and disposed of properly. I will at all times adhere to applicable federal and state regulations concerning underground storage, above ground storage, and dispensers.
- ☐ **Fertilizers:** Fertilizers shall be applied following manufacturer's recommendations. Fertilizers shall be stored in a covered area or in watertight containers. Partially used products shall be properly sealed and stored to avoid spills or leaks.
- ☐ **Material Storage:** Construction products, materials, chemicals, and wastes will be stored in such a way that they are prevented from coming into contact with stormwater (e.g., plastic sheeting or temporary roofs).
- ☐ **Other:**

6.3 Prohibited Discharges

The following discharges from the construction project/site are prohibited under the permit and are considered a violation should any occur.

- Wastewater from the washout of concrete, unless managed by an appropriate control as described in Part I.A.3 of MORA permit;
- Wastewater from the washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials, unless managed by an appropriate control as described in Part I.A.3 of MORA permit;
- Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance;
- Soaps, detergents or solvents used in vehicle and equipment washing; and
- Toxic or hazardous substances from a spill or other release.

☐ In the event that one of these above-mentioned discharges occurs, I will take corrective action consistent with Part 7.4 of this SWPPP.

Section 7: Procedures and Documentations

7.1 Maintenance and Repair

I shall ensure that all pollution prevention controls are installed in accordance with the requirements of Boone County and the MoDNR General Operating Permit MORA and remain in effective operating condition and are protected from activities that would reduce their effectiveness. All structural BMPs (i.e. all the Erosion & Sediment Controls) that require repair of any kind (due to normal wear and tear, or as a result of damage) or require maintenance in order for the control to continue operating effectively shall be required/maintained in accordance with the General Operating Permit MORA requirements. At a minimum, maintenance will be performed in the following specific instances:

- ☐ Perimeter controls: whenever sediment has accumulated to $\frac{1}{2}$ or more the above-ground height of the control;
- ☐ Track-out: where sediment has been tracked-out onto the surface of off-site streets or other paved areas (Section 28.5.8 Boone County Zoning Regulations, Part 3.3. of MORA permit);
- ☐ Inlet Protection: when sediment accumulates, the filter becomes clogged, and/or performance is compromised; and
- ☐ Sediment Basin: maintain at least 75% of the design capacity of the basin (Part 5.11. of MORA permit).
- ☐ Structural BMPs: repair of any kind (due to normal wear and tear, or as a result of damage) or maintenance will be performed in order for the BMPs to continue operating effectively.

7.2 Approval from Local Office

- ☐ I shall [check/already checked](#) local offices (city and county offices) to ensure SWPPP for my construction activities is consistent with requirements of the City and/or County Offices.
- ☐ I shall update the SWPPP, if necessary, to make consistent with any changes applicable to protecting surface water resources in sediment erosion site plans or site permits, or stormwater management site plans or site permits approved by local officials for which I received written notice.
- ☐ Either an electronic copy or a paper copy of the SWPPP and any required reports will be accessible and readily available upon request.

7.3 Inspections

(Note: An inspector must be knowledgeable in the principles and practices of erosion and sediment controls and pollution prevention to assess conditions at the construction site that could impact stormwater quality, and the effectiveness of any stormwater controls.)

Person Responsible for Inspections:

General Procedures: During each inspection, the following areas of the construction site will be inspected:

- Cleared, graded, or excavated areas of the site;
- Stormwater controls (e.g., perimeter controls, silt dykes, check dams, sediment basins, inlets, exit points etc.) and pollution prevention practices (e.g., pollution prevention practices for vehicle fueling/maintenance and washing, construction product storage, handling, and disposal, etc.) at the site;
- Material, waste, or borrow areas covered by the permit, and equipment storage and maintenance areas;
- Evidence of a spill, leak, or other type of pollutant discharge, or failure to have properly cleaned up a previous spill, leak, or other type of pollutant discharge;
- Areas where stormwater flows within the site, stormwater outfalls;
- When practicable, the receiving stream for a minimum of 50 feet downstream of the outfall; and
- Areas where stabilization has been implemented.

Inspection Frequency:

- ☐ **Once every 7 calendar days** and within 48 hours of the end of a storm event of 3.5 inches or greater during a normal workday, or within 72 hours if the rain event ceases on a non-workday such as a weekend or holiday; or
- ☐ **Once every 14 calendar days** and within 24 hours of the end of a storm event of 0.5 inches or greater during a normal workday, or within 72 hours if the rain event ceases on a non-workday such as a weekend or holiday. A rain gauge will be kept and maintained on site, or storm event information will be obtained from a weather station near the site.
- ☐ **Sites discharging to an Outstanding State Resource Water or a water impaired for sediment** will be inspected **once every 7 calendar days** and within 24 hours of the end of a storm event of 0.25 inches or greater, or when the occurrence of runoff flow from frozen or snowmelt is sufficient to cause a discharge.

Reductions in Inspection Frequency (if applicable):

- For the reduction in inspections resulting from final stabilization: **Once per month** for the portion of the site that achieved final stabilization per Part 4.11.d of MORA permit.
- During frozen conditions: **Once per month** for the portion of the site that was stabilized per Part 4.11.e of MORA permit.

Rain Gauge to Measure Qualified Storm Event of 0.5 inches or greater:

Location of the Rain Gauge:

Inspection Report Forms:

Inspection Report Form has been prepared in accordance with the requirements of Part 4.12 of MORA permit. A copy of the Inspection Report Form that will be used during construction of this project included in [Attachment D](#) of this SWPPP.

7.4 Corrective Action

General: Corrective actions are actions taken to modify, replace, or reinstall any stormwater control used at the site; clean up and dispose of spills, releases, or other deposits; or remedy a permit violation.

Corrective actions are triggered only for specific, more serious conditions. For any of the following conditions, a new or modified control shall be installed **no later than 7 calendar days** from the discovery:

- A required stormwater control was never installed or was installed incorrectly, or not in accordance with the corresponding MORA permit requirement;
- A stormwater control needs to be repaired or replaced (beyond routine maintenance required in Part 2.3 of MORA permit);
- A stormwater control is not effective enough for the discharge to meet applicable water quality standards;
- A prohibited discharge (Part I.A.3 of MORA permit) is occurring or has occurred; or
- MDNR or MS4 Operator requires corrective action as a result of permit violations found during an inspection.

- ☐ I shall immediately take all reasonable steps to minimize or prevent the discharge of pollutants until a permanent solution is installed and made operational, including cleaning up any contaminated surfaces so that the material will not be discharged in subsequent storm events. I shall conduct corrective action(s) for each of the above-mentioned triggering conditions should they occur at my construction site.

Person Responsible for Corrective Actions:

Corrective Action Schedule/Specific Action Frequency:

- ☐ I shall perform all Corrective Actions (modify, replace, or reinstall), if identified, **no later than 7 calendar days from** the time of discovery.

Corrective Action Documentation:

Corrective action documentation has been prepared in accordance with the requirements of Part IV.13 of MORA permit. Corrective action documentation will be stored with the associated site inspection report.

7.5 Employee Training

Person Responsible for Staff Training

Name: _____ Title: _____

Staff Training Requirements:

Prior to the start of earth-disturbing activities, personnel with the following responsibilities shall be trained to understand all the requirements of this SWPPP:

- Proper design, installation, and maintenance/repair of stormwater controls.
- The proper application and storage of chemicals.
- Proper inspection and corrective actions.

At minimum, all Personnel must be trained to understand:

- The location of all stormwater controls and the maintenance requirements for each of the controls.
- The pollution prevention requirements outlined in this SWPPP.
- When and how to conduct inspections, record applicable findings and take necessary corrective actions.

Frequency/Schedule of Employee Training: _____

(Note: Employee training should be conducted at least annually or more often if employee turnover is high).

Employee training records and documentations shall be maintained using the **Employee Training Report** located in **Attachment E** of this SWPPP.

7.6 Notification of Change of Ownership (NCO) for Individual Lots

- ☐ SWPPP will include documents if lots are sold and transferred to other new operator(s), (see Part VIII.2(b) of MORA permit). Documents will be included under **Attachment I** of this SWPPP.
- ☐ NCO is not applicable to my project/site.

7.7 Record Keeping and Record Retention

- ☐ I shall retain copies of the SWPPP, and all reports required by the MORA permit for a **period of at least 3 years** from the date that the site is finally stabilized.

7.8 Posting a Notice

☐ I shall post a notice near the main entrance of the construction site with the following information:

- The MORA permit number for the project

A **sample copy of the Notice** is included in [Attachment I](#) of this SWPPP.

Section 8: SWPPP Certification

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

Name: _____ **Title:** _____

Signature: _____ **Date:** _____

Section 9: SWPPP Modifications

I shall maintain records of modifications that will be made per Part IV.9 of MORA permit, and other reasons in [Attachment F](#) of this SWPPP:

Section 10: SWPPP Attachments & Additional Documentation

The following documentations are attached to the SWPPP:

Attachment A – General Location Map

A copy of general location map is included in Attachment A.

Attachment B – Site Map(s)

Copy of the site map(s) is/are included in Attachment B.

Attachment C – MDNR Land Disturbance (MORA) Permit

Note: it is helpful to keep a printed copy of the MORA permit so that it is accessible to you for easy reference. However, you do not need to formally incorporate the entire MORA into your SWPPP. As an alternative, you can include a reference for the permit and where it is kept at the site.

Attachment D – Inspection Report

A copy of the Routine Facility Inspection Report Form is included in Attachment D.

Attachment E – Employee Training Report

A copy of Employee Training Log is included in Attachment E.

Attachment F – SWPPP Modifications Log

A copy of Report on SWPPP Modifications/Amendments Log is included in Attachment F.

Attachment G – Site Stabilization Log

A copy of Site Stabilization Log is included in Attachment G.

Attachment H – Spill, Overflow, and Unauthorized Discharge Record

A copy of Spill, Overflow, and Unauthorized Discharge Record is included in Attachment H.

Attachment I – NCOs and Other Documentations

Any other Documentation required by this Permit is included in Attachment I.

Attachment A: General Location Map

Attachment B: Site Map

Attachment C: MDNR Land Disturbance (MORA) Permit

Attachment D: Inspection Report

Attachment E: Employee Training Log

Training Log

[illegible]

Attachment F: SWPPP Modification Log

SWPPP Modification Log

Update

Signature/Date

[illegible]

Attachment G: Site Stabilization Log

Site Stabilization Log

[illegible]

Attachment H: Spill, Overflow, and Unauthorized Discharge Record

Attachment I: NCOs and Other Documentations